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FINAL

PROJECT CLOSEOUT REPORT

Revision 0

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NON-TIME-CRITICAL REMOVAL ACTION INSTALLATION RESTORATION PROGRAM SITE 7 (STATION LANDFILL) AND SITE 4 (PERIMETER ROAD AOPCs 1A AND 2A) NAVAL WEAPONS STATION SEAL BEACH SEAL BEACH, CALIFORNIA

DCN: FWSD-RAC-04-2554

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EXECUTIVE SUMMARY

This Project Closeout Report describes the implementation of a Non-Time-Critical Removal Action (NTCRA) at Installation Restoration Program (IRP) Site 7 and Site 4 Areas of Potential Concern (AOPCs) 1A and 2A, also referred to as the Station Landfill and the Perimeter Road, respectively, at Naval Weapons Station (NAVWPNSTA) Seal Beach, Seal Beach, California (Figures 1-1 and 1-2).

The Department of the Navy (DON) previously determined (upon review of the operational histories of these sites and site-specific investigative data) that these sites contained surficial and buried waste, waste debris, and contaminated soil requiring a response action. The DON initiated the NTCRA at IRP Site 7 and IRP Site 4 AOPCs 1A and 2A to minimize potential threats to human health and the surrounding environment (Figures 1-1, 1-2, and 1-3). This decision was documented in the joint IRP Site 7 and IRP Site 4 AOPCs 1A and 2A *Action Memorandum* [AM]/*Non-Time-Critical Remedial Action Plan* [RAP] *at the Naval Weapons Station Seal Beach, California, Site 7 and Site 4 AOPCs 1A and 2A* (CH2M Hill, 2004). The removal action at IRP Site 4 specifically addressed the removal of soil contaminated with lead (hot spots) in AOPCs 1A and 2A at this site. The removal action for IRP Site 4 AOPCs 1A and 2A was conducted because lead "hot spots" were detected in soil with concentrations that were an ecological concern [Bechtel National, Inc. (BNI), 2001]. Due to the proximity to IRP Site 7, IRP Site 4 AOPCs 1A and 2A were considered extensions of IRP Site 7 (CH2M Hill, 2004) and were therefore included in this NTCRA (Figure 1-2).

Under the DON's directive, Tetra Tech FW, Inc. (TtFW), as General Contractor, conducted the removal action at the site under Remedial Action Contract No. N68711-98-D-5713. The removal action was conducted in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and National Oil and Hazardous Substances Pollution Contingency Plan (NCP) requirements.

IRP Site 7 consists of six distinctive areas (designated as Areas 1 through 6) totaling approximately 33 acres located near the southern boundary of NAVWPNSTA Seal Beach and at the eastern boundary of the Seal Beach National Wildlife Refuge (SBNWR) (Figure 1-3). Landfill activities were reportedly conducted at the site from approximately 1955 to 1973. A soil cover consisting of a nonuniform, nonengineered soil of variable thickness overlying IRP Site 7 was present that ranged in thickness from zero to 2 feet, with refuse exposed at the ground surface in some areas.

Areas of debris associated with past landfill operations at IRP Site 7 were identified and designated as Areas 1 to 6, and briefly described below:

- Area 1 lies in the northeast portion of the site. It covers approximately 8 acres. Most of the waste disposal and landfilling activities took place in Area 1 in a series of unlined trenches lying in an east-west orientation [Naval Energy and Environmental Support Activity (NEESA), 1985]. Exploration during a supplemental characterization indicated that the depth of the debris varied between 5.5 and 9 feet below ground surface (bgs), with an average depth of 6.4 feet bgs [Naval Facilities Engineering Command, Southwest Division (NFECSW), 1999c].
- Area 2 lies along the southern boundary of the site adjacent to Perimeter Road. It is probably a single, continuous trench approximately 600 feet long by 40 feet wide (approximately 0.6 acres). The average depth of debris is about 7.5 feet bgs.
- Area 3 is an irregularly shaped area and lies in the northwest portion of IRP Site 7. It is approximately 1 acre. Surficially scattered, rusted, metal debris littered Area 3.
- Area 4 is an irregularly shaped area of approximately 1 acre and lies in the northwest portion of IRP Site 7, southeast of Area 3. It was also littered with surficially scattered, rusted, metal debris.
- Area 5 borders the eastern shoreline of Perimeter Pond and lies between Perimeter Pond and East Pond (Figure 1-3) and consisted of two north-south-oriented trenches, with a portion of the western trench exposed to Perimeter Pond. Area 5 covers approximately 0.7 acres and had an average bottom debris depth of 9 feet (NFECSW, 1999c).
- Area 6 lies to the southeast of Area 5. This area is similar to Areas 3 and 4 in that the debris found in this area appears to be surficial only. This area is irregular in shape and occupies approximately 0.1 acres.

IRP Site 4 AOPCs 1A and 2A consist of a 5,400-feet-long by 100-feet-wide unpaved shoulder adjacent to Perimeter Road, along the southern boundary of NAVWPNSTA Seal Beach, and directly south and adjacent to IRP Site 7 (Figures 2-1 and 2-2). Based on the findings and conclusions for soil at IRP Site 4 AOPCs 1A and 2A, these areas were identified as containing several potential locations where elevated lead was detected due to oiling of Perimeter Road for dust control (NFECSW, 1995). Unknown quantities of waste oil were sprayed over the perimeter roads for dust control. An estimated 40,000 gallons of waste oil was applied over a 1-year period on 12 miles of road (NEESA, 1985; NFECSW, 1990b). Information from previous investigations indicated that elevated lead concentrations were detected to a depth of at least 2.5 feet (NFECSW, 1990b; BNI, 2001).

Four risk assessments have been performed using data collected from IRP Site 7. Based on the Human Health Risk Assessment (HHRA) and Ecological Risk Assessment (ERA), it was concluded that the risk from chemicals of potential concern (COPCs) to human health and ecological receptors are marginal (NFECSW, 1995; 1999a; and 2000b). The most significant possible risk was determined to be to aquatic ecological receptors in Perimeter Pond. Due to the significant threats to ecological receptors at IRP Site 7, a removal action was warranted.

Human exposure to IRP Site 4 AOPCs 1A and 2A is considered very limited due to their proximity to the SBNWR. Department of Toxic Substances Control (DTSC) also stated that the human health risk did not appear to be an issue, particularly due to the low exposure related to intermittent travel on Perimeter Road (BNI, 2001). Therefore, the decision to conduct a removal action for IRP Site 4 AOPCs 1A and 2A was based on potential exposure to ecological receptors only.

The following Removal Action Objectives (RAOs) were developed for IRP Site 7 and IRP Site 4 AOPCs 1A and 2A based on CERCLA, NCP, the risk assessment presented in the Final Engineering Evaluation/Cost Analysis (EE/CA) for IRP Site 7 (CH2M Hill, 2002a), the Final Addendum to the EE/CA for IRP Site 7, and IRP Site 4 AOPCs 1A and 2A (CH2M Hill, 2003a), and applicable or relevant and appropriate requirement (ARARs):

IRP Site 7

- Reduce the potential for exposure of ecological receptors to landfill waste and potentially contaminated soil by increasing separation and/or eliminating exposure pathways (for example, water seeps) of wastes to human and ecological receptors.
- Restore habitat that is compatible with the SBNWR habitat
- Minimize impact to wetlands and improve conditions of remaining wetlands, to the extent practicable.
- Control surface water runoff and reduce the potential for erosion of the landfill surface
- Comply with chemical-specific ARARs where exceedances have occurred due to waste releases.

IRP Site 4 AOPCs 1A and 2A

- Minimize further migration of lead in surface soil.
- Reduce risk to ecological receptors from lead-contaminated soil to acceptable levels.

The recommended removal action for Area 1 at IRP Site 7 presented in the Final EE/CA (CH2M Hill, 2002a) involved repair of the existing soil cover by placing an additional cover layer in areas where waste was exposed or there was cover thickness deficiency. The recommended removal action for Areas 3, 4, and 6 involved removal of the surface debris from the top 1 to 2 feet of soil in Areas 3 and 4, and on the surface in Area 6. The removal action recommended for Area 5 was to excavate and remove the buried debris in two north-south-oriented trenches, disposal of the excavated waste, and backfilling with clean soil. No target cleanup goals (TCGs) were developed for the recommended removal action at IRP Site 7. Since there were no

definitive risk-based cleanup goals for sediment, limits of excavation were to be determined by visual inspection and then backfilling with clean fine-grained soils.

Groundwater at IRP Site 7 is at approximately 3 to 5 feet bgs (CH2M Hill, 2002b). Although, based on previous investigations, groundwater at IRP Site 7 appears to be not impacted, additional groundwater monitoring will be performed at this site by a different DON consultant under a separate contract.

For IRP Site 4 AOPCs 1A and 2A, the soil TCG for lead of 600 milligrams per kilogram (mg/kg) was established based on the risks to representative site-specific ecological receptors, which include harvest mouse, ground squirrel, skunk, and robin (CH2M Hill, 2003a). This is in addition to an area-wide arithmetic average TCG of less than 100 mg/kg for lead in soils remaining at the IRP Site 4 AOPCs 1A and 2A, at the conclusion of the removal action. The arithmetic average of lead concentrations in soil is the total of soil sample lead concentrations results for the pre-excavation characterization samples and the verification samples (only the total of those results that were less than 600 mg/kg), divided by the total number of the results.

TtFW was directed by the DON to implement the recommended removal action at IRP Site 7 and Site 4 AOPCs 1A and 2A. A Final Project Work Plan (Work Plan) was prepared by TtFW on January 23, 2004 (TtFW, 2004a), which included the detailed description of various activities for the implementation and execution of the removal action. The Final Work Plan was subsequently approved by the regulatory agencies.

The objective of removal action in Area 1 was to repair the existing landfill soil cover and to provide a minimum thickness of 2 feet of cover over waste. This will prevent direct contact of wildlife with buried waste and eliminate the potential migration of contamination through windblown dust and surface runoff.

No removal activities were conducted by TtFW in Area 2.

The objectives for the removal activities in Areas 3, 4, and 6 were to remove the surface debris and to perform a geophysical survey in Areas 3 and 4 (Figure 4-3) to assess the potential for any subsurface debris (based on historical data, Area 6 was not suspected to contain subsurface debris).

The objective for the removal activities in Area 5 was to excavate two north-south-oriented disposal trenches (east trench and west trench) containing buried metallic debris and trash, and off-site disposal of the removed waste. There were no chemicals of concern associated with Area 5 of IRP Site 7 and therefore no TCGs to achieve. For this reason, confirmation sampling was not conducted following the removal of debris in Area 5.

The removal alternative selected for IRP Site 4 AOPCs 1A and 2A involved pre-excavation soil sampling to determine the extent of lead-impacted soil, excavation and off-site disposal of the lead-

impacted soil, and confirmation sampling to ensure that soil with lead concentrations exceeding the TCG has been removed. The impacted soil would be disposed at an approved landfill and the excavation backfilled with clean fill.

TtFW conducted a number of preparatory activities at the site prior to excavation of the contaminated soil. A geophysical survey was performed on December 3, 2003, to assist in locating and marking any underground utilities within the limits of excavation at IRP Site 7 and Site 4 AOPCs 1A and 2A. At IRP Site 7, an initial land survey was performed (December 5 through December 10, 2003) to assist in establishing the existing surface elevations of Area 1, to provide data for the design of the post-cover-repair grading plan for Area 1, and to delineate the limits of Areas 1 through 6. At IRP Site 4 AOPCs 1A and 2A, an initial land survey was performed (December 2 through December 9, 2003) to delineate a network of contiguous grid cells across the limits of AOPCs 1A and 2A and to establish pre-excavation soil sample points within each grid cell

At IRP Site 7 Area 1, landfill cover repair activities began on December 8, 2003, and were completed on April 5, 2004. Approximately 15,000 cubic yards or approximately 22,500 tons of clean fill material were placed in Area 1 to construct the landfill cover to the minimum required thickness of 2 feet and to create the topography according to the approved grading plan.

Surficial debris removal from Areas 3, 4, and 6 was performed from December 8 to December 16, 2003. In Area 5, excavation of the two trenches and subsequent backfilling with clean fill began on February 17, 2004, and was completed by February 27, 2004. Removal activities in Areas 3, 4, 5, and 6 produced approximately 1,300 tons of debris. This debris was temporarily stockpiled on site pending sampling and characterization and was subsequently transported off site as non-hazardous waste.

Based on pre-excavation sample results, excavation of lead-impacted soil from IRP Site 4 AOPCs 1A and 2A commenced on January 24, 2004. After excavating the soil, confirmation samples were collected from the floor and sidewalls of each grid cell to ensure that the removal action satisfied the TCG of 600 mg/kg for lead and that the area-wide arithmetic mean for lead in soil remaining at the site at the conclusion of the removal action be less than 100 mg/kg. Soil with concentrations of lead above the TCG was further excavated in 6-inch lifts, followed by additional confirmation sampling, until the TCG was achieved. A total of 245 confirmation samples were collected and analyzed. Laboratory results of lead concentrations in the final confirmation soil samples ranged from 2.9 mg/kg to 590 mg/kg. The final mean concentration for lead in soil remaining in AOPCs 1A and 2A was 63.7 mg/kg. Soil excavation and confirmation sampling activities were completed in IRP Site 4 AOPCs 1A and 2A on March 8, 2004

A total of 7,800 tons of lead-impacted soil was excavated and removed from IRP Site 4 AOPCs 1A and 2A. Excavated material was temporarily stockpiled on site. The stockpiled soil

was sampled for waste classification purposes. Based on the test results, the contaminated soil was classified as non-Resource Conservation and Recovery Act hazardous waste.

From March 15 to March 25, 2004, the lead-impacted soil and non-hazardous soil/debris were loaded onto a total of 406 24-ton capacity end-dump trucks or trailer trucks and transported off site to the Chemical Waste Management, Inc. (CWM) disposal facility located in Kettleman City, California. This CWM disposal facility is a Resource Conservation and Recovery Act (RCRA)-permitted and CERCLA-approved disposal facility. Trucks containing lead-impacted soil were completely covered with a tarp prior to leaving the site.

Approximately 5,200 cubic yards or approximately 7,800 tons of clean fill material were used to backfill the excavated grid cells in IRP Site 4 AOPCs 1A and 2A. Approximately 1,000 cubic yards or 1,500 tons of clean soil were used to backfill the excavated trenches at Area 5. A total of approximately 31,800 tons of clean soil were used for the landfill cover repair, backfill of Area 5 excavated trenches, and backfill of the excavated grid cells at IRP Site 4 AOPCs 1A and 2A. Approximately 23,800 tons of dredged sediment soil stockpiled at the NAVWPNSTA wharf were used as backfill material at IRP Site 4 AOPCs 1A and 2A for the repair of the landfill cover at Area 1 and for backfilling the excavated trenches at Area 5. In addition, approximately 640 tons of clean soil were imported from an off-site borrow source and used as fill material at IRP Site 7 Area 1. Approximately 5,200 tons of clean soil generated from the removal action at IRP Site 5 and stockpiled near IRP Site 7 were used as topsoil, along with approximately 2,200 tons of imported topsoil material obtained from an off-site borrow source.

Revegetation was performed at IRP Site 7 and Site 4 AOPC 1A at the conclusion of the removal action. Various native seed mixes approved by the SBNWR Manager were used to facilitate the regrowth of native vegetation in the disturbed areas. Additional plant plugs will be provided to the United States Fish and Wildlife Service (USFWS) at a later date for additional site restoration at AOPC 2A.

Dust levels were visually monitored during the NTCRA at IRP Site 7 and Site 4 AOPCs 1A and 2A and were controlled using water application. Dust control was implemented on a regular basis for the duration of the project.

Based on the results of the landfill cover repair and surficial and buried debris removal in IRP Site 7 and the confirmation samples collected from IRP Site 4 AOPCs 1A and 2A following the excavation activities, the RAOs developed in the Final EE/CA for IRP Site 7 (CH2M Hill, 2002a) and the Final Addendum to the EE/CA for IRP Site 7 and IRP Site 4 AOPCs 1A and 2A (CH2M Hill, 2003a) were achieved. Therefore, the removal action at IRP Site 7 and Site 4 AOPCs 1A and 2A is deemed complete by the DON. The DON will perform groundwater monitoring at IRP Site 7 for a limited time to confirm that the groundwater is not impacted. In addition, the DON will implement periodic landfill cover inspection and maintenance following the closure of IRP Site 7

Area 1 (landfill). A Post-Closure Inspection and Maintenance Plan will be prepared, which will describe in detail the landfill cover inspection and maintenance activities, procedures, and schedule. The Post-Closure Inspection and Maintenance Plan will be prepared by the DON and implemented upon its approval by the regulatory agencies.

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ABBREVIATIONS AND ACRONYMS

°C	degrees Celsius
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
µg/mg	micrograms per milligram
AM	Action Memorandum
AOPC	Areas of Potential Concern
APCL	Applied Physics and Chemistry Laboratory
ARAR	applicable or relevant and appropriate requirement
ASTM	American Society for Testing and Materials
bgs	below ground surface
BHC	benzene hexachloride
BNI	Bechtel National, Inc
CCR	California Code of Regulations
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COPC	chemical of potential concern
CRZ	contamination reduction zone
CWM	Chemical Waste Management, Inc
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethlene
DDT	dichlorodiphenyltrichloroethane
DMM	discarded military munitions
DoD	Department of Defense
DON	Department of the Navy
DPM	Deputy Program Manager
DTSC	Department of Toxic Substances Control
E	East
EE/CA	Engineering Evaluation/Cost Analysis
EO	Executive Order
EOD	Explosive Ordnance Disposal
EPA	U.S. Environmental Protection Agency

ABBREVIATIONS AND ACRONYMS
(Continued)

ERA	Ecological Risk Assessment
EZ	exclusion zone
FD	field duplicate
FWENC	Foster Wheeler Environmental Corporation
HHRA	Human Health Risk Assessment
IR	Installation Restoration
IRP	Installation Restoration Program
J	estimated value
LOAEL	lowest observed adverse effect level
MEC	munitions and explosives of concern
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
N	North
NA	not analyzed
NAD	North American Datum
NAVWPNSTA	Naval Weapons Station
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NEESA	Naval Energy and Environmental Support Activity
NFA	No Further Action
NFECSW	Naval Facilities Engineering Command, Southwest Division
NISZ	Newport-Inglewood structural zone
NTCRA	Non-Time-Critical Removal Action
OX	over-excavated
PAH	polynuclear aromatic hydrocarbon
PCB	polychlorinated biphenyl
PCDD	polychlorinated dibenzodioxins
PCDF	polychlorinated dibenzofurans
PPE	personal protective equipment
PRG	Preliminary Remediation Goal
PVC	polyvinyl chloride

ABBREVIATIONS AND ACRONYMS
(Continued)

QC	Quality Control
RAB	Restoration Advisory Board
RAO	Removal Action Objective
RAP	Remedial Action Plan
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
ROICC	Resident Officer in Charge of Construction
RPM	Remedial Project Manager
RSE	Removal Site Evaluation
RWQCB	Regional Water Quality Control Board
S	South
SAP	Sampling and Analysis Plan
SBNWR	Seal Beach National Wildlife Refuge
SCAQMD	South Coast Air Quality Management District
SCS	Soil Conservation Service
SHSP	Site-Specific Health and Safety Plan
SHSS	Site Health and Safety Specialist
STLC	Soluble Threshold Limit Concentration
SVOC	semivolatile organic compound
SZ	support zone
TAL	Target Analyte List
TCG	target cleanup goal
TCLP	Toxicity Characteristic Leaching Procedure
TPH	total petroleum hydrocarbons
TPH-extractable	total extractable petroleum hydrocarbons
TRV	Toxicity Reference Value
TSDF	treatment, storage, and disposal facility
TtFW	Tetra Tech FW, Inc.
U	not detected at or above the reporting limit (value indicates the reporting limit)
USACE	United States Army Corps of Engineer

ABBREVIATIONS AND ACRONYMS
(Continued)

USC	United States Code
USFWS	United States Fish and Wildlife Service
UXO	unexploded ordnance
VOC	volatile organic compound
W	West
WET	Waste Extraction Test

1.0 INTRODUCTION

This Project Closeout Report describes the implementation of a Non-Time-Critical Removal Action (NTCRA) at Installation Restoration Program (IRP) Site 7 and Site 4 Areas of Potential Concern (AOPCs) 1A and 2A, also referred to as the Station Landfill and the Perimeter Road, respectively, located at Naval Weapons Station (NAVWPNSTA) Seal Beach, Seal Beach, California (Figures 1-1 and 1-2). This NTRCA was authorized by the Department of the Navy (DON), Naval Facilities Engineering Command, Southwest Division (NFECSW), under Contract Task Order No. 0023 of the Remedial Action Contract Program, Contract No N68711-98-D-5713. The main purpose of the Project Closeout Report is to document the NTCRA at IRP Site 7 and Site 4 AOPCs 1A and 2A, specifically 1) the site conditions prior to the action, 2) the chronology and main phases leading to the removal action, 3) the implementation of various stages of the NTCRA, 4) the costs, and 5) the effectiveness of the NTCRA in achieving the Removal Action Objectives (RAOs) established for IRP Site 7 and Site 4 AOPCs 1A and 2A.

The DON, NFECSW, directed this NTCRA in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The DON, with state regulatory oversight, was the lead agency for the removal action at this site. The California Department of Toxic Substances Control (DTSC) and Regional Water Quality Control Board (RWQCB), Santa Ana Region, have been providing state oversight

This NTCRA was conducted pursuant to the CERCLA and the NCP under the delegated authority of the Office of the President of the United States by Executive Order (EO) 12580. This order provides the DON with the authorization to conduct and finance removal actions. NFECSW is the administering entity for the DON's CERCLA program at NAVWPNSTA Seal Beach and manages the activities specific to development and execution of the recommended removal alternative. Under the DON's directives, Tetra Tech FW, Inc. (TtFW), as General Contractor, conducted the NTCRA at IRP Site 7 and Site 4 AOPCs 1A and 2A.

1.1 PROJECT OBJECTIVE

The DON previously determined (upon review of the operational histories of these sites and site-specific investigative data) that these sites contained surficial and buried waste, waste debris, and contaminated soil requiring a response action. The DON initiated the NTCRA at IRP Site 7 and Site 4 AOPCs 1A and 2A to minimize any potential threats to human health and the surrounding environment (Figures 1-1, 1-2, and 1-3). This decision was documented in the joint IRP Site 7 and IRP Site 4 AOPCs 1A and 2A *Action Memorandum* [AM]/*Non-Time-Critical Remedial Action Plan* [RAP] *at the Naval Weapons Station Seal Beach, California, Site 7 and Site 4 AOPCs 1A and 2A* (CH2M Hill, 2004). The removal action at IRP Site 4 specifically addressed

the removal of soil contaminated with lead (hot spots) in AOPCs 1A and 2A at this site. The removal action for IRP Site 4 AOPCs 1A and 2A was conducted because lead "hot spots" were detected in soil with concentrations that were an ecological concern [Bechtel National, Inc. (BNI), 2001]. Due to the proximity to IRP Site 7, IRP Site 4 AOPCs 1A and 2A were considered extensions of IRP Site 7 (CH2M Hill, 2003a) and were therefore included in this NTCRA (Figure 1-2).

The intent of the NTCRA was to prepare the sites for future consideration for "No Further Action" (NFA) status. The implementation of the NTCRA at IRP Site 7 and Site 4 AOPCs 1A and 2A commenced on December 2, 2003, and was completed on April 8, 2004. This Project Closeout Report documents the field activities.

1.2 REPORT ORGANIZATION

This Project Closeout Report is divided into nine sections. Section 1.0 provides an introduction, as well as an overview of the project objective and report organization. Section 2.0 provides a description of IRP Site 7 and Site 4 AOPCs 1A and 2A, summarizes the sites' histories and background information, summarizes field data from previous investigations, and briefly discusses risks to human health and the environment associated with contaminants at the site. Section 3.0 discusses the previous investigations conducted at the sites, the applicable or relevant and appropriate requirements (ARARs), and the RAOs. Details of each aspect of the project field activities are described in Section 4.0. Section 5.0 provides a summary of the costs associated with this removal action. A brief discussion of public participation and involvement is provided in Section 6.0. Section 7.0 discusses the effectiveness of the NTCRA. Section 8.0 provides a brief summary and recommendations. References are included in Section 9.0. Geotechnical laboratory test reports are included in Appendix A. Appendix B contains ordnance certification and verification logs. Laboratory analytical results for confirmation samples are included as Appendix C. A photographic log is included as Appendix D. Appendix E includes copies of the letters from the DTSC, and the City of Seal Beach, and an e-mail from the RWQCB regarding their review comments on the Draft Project Closeout Report. Tables and figures are also included to supplement information in this report.

2.0 SITE CONDITIONS

This section describes the facility and site locations and provides a description of the past history of operations at IRP Site 7 and Site 4 AOPCs 1A and 2A. This section also summarizes field data from previous investigations and includes a brief description of the nature and extent of the contamination, along with a discussion of the risk to human health and the environment. The information provided in this section has been extracted from various sources, including the Final Engineering Evaluation/Cost Analysis (EE/CA) for IRP Site 7 (CH2M Hill, 2002a), the Final Addendum to the EE/CA for IRP Site 7 and Site 4 AOPCs 1A and 2A (CH2M Hill, 2003a), and the joint Final AM/RAP for IRP Site 7 and IRP Site 4 AOPCs 1A and 2A (CH2M Hill, 2004).

2.1 FACILITY LOCATION AND BACKGROUND

NAVWPNSTA Seal Beach is located about 30 miles south of the Los Angeles urban center. NAVWPNSTA Seal Beach consists of approximately 5,000 acres of land along the Pacific Coast within the city of Seal Beach in Orange County, California (Figure 1-1). NAVWPNSTA Seal Beach is bordered on the southwest by Anaheim Bay, on the north by Interstate 405 (San Diego Freeway), on the east by Bolsa Chica Road, on the west by Seal Beach Boulevard, and on the southeast by a flood control channel. Originally commissioned in 1944, NAVWPNSTA Seal Beach is part of the Navy Region Southwest. This station provides fleet combatants with ready-for-use ordnance. Because of its geographic location, the station serves as a supply point for the operating forces of the DON and United States Marine Corps in the southern California region. Figure 1-2 shows a map of NAVWPNSTA Seal Beach, including the location of IRP Site 7 and Site 4 AOPCs 1A and 2A.

2.1.1 IRP Site 7

IRP Site 7 consists of six distinctive areas (designated as Areas 1 through 6) totaling approximately 33 acres located near the southern boundary of NAVWPNSTA Seal Beach and at the eastern boundary of the Seal Beach National Wildlife Refuge (SBNWR) (Figure 1-3). Landfill activities were reportedly conducted at the site from approximately 1955 to 1973. A soil cover consisting of a nonuniform, nonengineered soil of variable thickness overlying IRP Site 7 was present that ranged in thickness from zero to 2 feet, with refuse exposed at the ground surface in some areas.

A large variety of wastes generated by NAVWPNSTA Seal Beach during the period of active landfilling may have been buried in trenches at IRP Site 7. Almost any type of waste generated on the station may have been disposed of at IRP Site 7. The major types of waste reportedly disposed of in the landfill include small, mostly empty containers that once contained paints, petroleum products, various solvents, used rags, batteries, asbestos, and inert construction debris.

2.1.2 IRP Site 4 AOPCs 1A and 2A

IRP Site 4 consists of Perimeter Road and adjacent areas that extend around NAVWPNSTA Seal Beach for a total length of about 12 miles It encompasses segments of road adjacent to the Orange County flood control channel north of Edinger Avenue and west of Bolsa Chica Street; two segments of road parallel to, and directly north and south of, Westminster Avenue; a segment of road south of U.S. Interstate 405; and a segment of road east of Seal Beach Boulevard (Figure 1-2). The westernmost portion of the segment along Edinger Avenue is located adjacent to the SBNWR and IRP Site 7. Portions of IRP Site 4, including AOPC 1A, are located within the SBNWR.

From the mid-1960s to 1973, the 12 miles of NAVWPNSTA Seal Beach perimeter roads were sprayed with unknown quantities of waste oil for dust control approximately one to three times per year. After application, the oil was then disked into the soil. From 1972 through 1973, an estimated 40,000 gallons of waste oil (generated by off-facility crude oil operations, petroleum refineries, and oil spills) were sprayed by a contractor The oil was applied in dry weather to minimize the possibility of transport in surface runoff (NFECSW, 1990a) Off-site contracting of waste oil was discontinued when elevated lead content and trace amounts of other metals were found in the oils (Kearney, 1989) Since early 1974, the perimeter roads have been sprayed with quality-controlled penetrating oil consisting of 70 percent water and 30 percent emulsified agent [Naval Energy and Environmental Support Activity (NEESA), 1985]

In 2001, a Removal Site Evaluation (RSE) was conducted to evaluate supplemental data obtained during previous site investigations at IRP Sites 4, 5, and 6 (BNI, 2001). It is in this RSE that IRP Site 4 was separated into 12 AOPCs, including AOPCs 1A and 2A. IRP Site 4 AOPCs 1A and 2A consist of a 5,400-foot-long by 100-foot-wide unpaved shoulder adjacent to Perimeter Road, along the southern boundary of NAVWPNSTA Seal Beach, and directly south and adjacent to IRP Site 7 Based on the findings and conclusions for soil at IRP Site 4 AOPCs 1A and 2A, these areas were identified as containing several potential locations where elevated lead was detected.

2.2 GEOLOGIC SETTING

Most of NAVWPNSTA Seal Beach lies on flat, alluvial deposits that slope evenly from approximately 20 feet above mean sea level in the northeastern part of NAVWPNSTA Seal Beach to mean sea level in the tidal flats in the southwestern portion of the facility.

Bedrock in the vicinity of NAVWPNSTA Seal Beach is a thick sequence of Tertiary and Quaternary sedimentary rocks deposited on a basement of pre-Tertiary metamorphic and crystalline rocks. Tertiary rocks range in age from Oligocene to Pliocene and include sandstone, siltstone, shale, and mudstone; they are almost exclusively of marine origin (CH2M Hill, 2002b).

NAVWPNSTA Seal Beach is located adjacent to the Pacific Ocean at the seaward edge of the Orange County Coastal Plain, at the northwest corner of Orange County, California. The northwest-trending, Newport-Inglewood structural zone (NISZ) underlies the southwestern half of NAVWPNSTA Seal Beach. NISZ consists of a complex set of faults and folds that extend from Newport Beach, located approximately 10 miles southeast of NAVWPNSTA Seal Beach, to Beverly Hills at the base of the Santa Monica Mountains, approximately 30 miles northwest of the facility. Uplift along the NISZ has produced a line of low coastal hills and mesas near the southern end, including Landing Hill along the western edge of NAVWPNSTA Seal Beach. Adjacent to Landing Hill on the east is Sunset Gap, a wetlands comprising coastal salt marsh and tidal mudflats (BNI, 2001).

NAVWPNSTA Seal Beach soils typically contain abundant clay and silt and are poorly drained. Six soil types (Alo clay, beaches, Bolsa silt loam, Bolsa silt clay loam, Myford sandy loam, and tidal flats) have been identified at the facility [Soil Conservation Service (SCS), 1978].

IRP Site 7 is underlain by predominantly clay and fine-grained silty clay soil to about 25 to 30 feet below ground surface (bgs). The clay and silty clay are underlain by lenses of silty sand. A 2- to 5-foot-thick bed of fine-grained silt, interbedded in the upper clay interval between 10 to 15 feet bgs, appears across most of the site (NFECSW, 1995). Groundwater at IRP Site 7 is at approximately 3 to 5 feet bgs (CH2M Hill, 2002b).

IRP Site 4 AOPCs 1A and 2A are directly south of, and adjacent to, IRP Site 7. Due to the proximity to IRP Site 7, Site 4 AOPCs 1A and 2A are considered extensions of IRP Site 7. In general, soils at IRP Site 4 AOPCs 1A and 2A consist of varying amounts of road fill overlaying native sediments (CH2M Hill, 2003a). Based on soil borings collected during the RSE, there is indication of possible fill materials beneath portions of IRP Site 4 AOPCs 1A and 2A (CH2M Hill, 2004). At IRP Site 4 AOPCs 1A and 2A shallow groundwater is estimated to range from less than 1 foot to 3 feet bgs (CH2M Hill, 2004).

2.3 WASTE AND CHEMICAL CHARACTERISTICS - IRP SITE 7

The chemicals of potential concern (COPCs) and types and extent of waste at IRP Site 7 are described in Section 2.3.1, based on the results of the following investigations:

- *Initial Assessment Study of Naval Weapons Station, Seal Beach, California* (NEESA, 1985)
- [Resource Conservation and Recovery Act] *RCRA Facility Assessment Report, Seal Beach Naval Weapons Station, Seal Beach, California* (Kearney, 1989)
- *Final Report-Site Inspection, Naval Weapons Station Seal Beach, California* (NFECSW, 1990a)
- *Final Remedial Investigation* [RI] *Report for Operable Units 1, 2, and 3, Naval Weapons Station, Seal Beach, California* (NFECSW, 1995)

- *Site 7 Landfill Closure Plan, Naval Weapons Station, Seal Beach, California* (NFECSW, 1996)
- *Phase II Ecological Risk Assessment* [ERA] *Sampling Results and Reevaluation of Ecological Chemicals of Concern and Ecological Cleanup Levels for Sites 1 and 7, at Naval Weapons Station Seal Beach, Seal Beach, California* (NFECSW, 1999a)
- *Supplemental Groundwater Monitoring Study at Sites 1 and 7, Naval Weapons Station Seal Beach* (NFECSW, 1999b)
- *Supplemental Characterization Report Installation Restoration Site 7, Naval Weapons Station, Seal Beach, California* (NFECSW, 1999c)
- *Screening Aquatic Ecological Risk Assessment of the Perimeter Pond Adjacent to Site 7, Naval Weapons Station Seal Beach* (NFECSW, 2000a)

2.3.1 Chemicals of Potential Concern – IRP Site 7

Chemical analyses for COPCs for soil samples detected remnants of past waste disposal operations, including low levels of volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides, and cyanide with no consistent pattern Metals were detected, but generally within background levels. Also, results of gas sampling indicate that there is no significant migration of landfill gas

Shallow groundwater shows low levels and infrequent detections of COPCs, including VOCs, SVOCs, pesticides, metals, asbestos, and cyanide. Ten quarters of shallow groundwater sampling did not indicate a plume of significant contamination. However, since groundwater at IRP Site 7 is at approximately 3 to 5 feet bgs (CH2M Hill, 2002b), the RWQCB has requested additional groundwater monitoring data, which will be collected by another DON consultant under a separate contract

Previous site investigations and studies indicated that the risk from COPCs to human health and ecological receptors is marginal (NFECSW, 1995; 1999a; 2000a). The studies concluded that the most significant possible risk was to aquatic ecological receptors in Perimeter Pond. Based on the baseline Human Health Risk Assessment (HHRA), only PCBs were detected at high enough concentrations to be considered as COPCs from a human health risk standpoint. PCBs were detected at a maximum concentration of 0.435 milligrams per kilogram (mg/kg) in soils. The Screening Aquatic ERA (NFECSW, 2000a) identified possible low risks to sessile benthic invertebrates caused by concentrations of several chemicals [silver, dichlorodiphenyltrichloroethane (DDT) and metabolites, and Aroclor 1254] in sediments at two locations: the southeast corner of the pond and an area near the exposed debris at the approximate center of the east shoreline of the Perimeter Pond (CH2M Hill, 2002a). These chemicals were detected in sediments along Perimeter Pond at maximum concentrations of 2.2 mg/kg, 43.0 micrograms per kilogram (µg/kg), 57.0 µg/kg, and 160.0 µg/kg, respectively The Screening Aquatic ERA (NFECSW, 2000a) determined that aquatic organisms in the immediate vicinity of a water seep at the southeast corner of Perimeter Pond could be intermittently exposed

to elevated concentrations of copper, lead, nickel, and zinc. Copper, lead, nickel, and zinc were detected in water seep samples at maximum concentrations of 50.0 micrograms per liter (µg/L), 12.0 µg/L, 20.2 µg/L, and 170 µg/L, respectively.

2.3.2 Nature and Extent of Contamination – IRP Site 7

Contamination at IRP Site 7 is associated with landfill operations. Areas of debris associated with past landfill operations were identified and designated as Areas 1 to 6 (Figure 1-3):

- Area 1: This area lies in the northeast portion of the site. It covers approximately 8 acres. Most of the waste disposal and landfilling activities took place in Area 1 in a series of unlined trenches lying in an east-west orientation. Reportedly, the trenches were excavated to a depth of 10 feet bgs and filled with debris (NEESA, 1985). However, exploration during a supplemental characterization indicated that the debris burial depths varied between 5.5 and 9 feet bgs, with an average depth of 6.4 feet bgs (NFECSW, 1999c). Types of debris observed during exploratory drilling included diapers, clothing, wire, and rubber.
- Area 2: This area lies along the southern boundary of the site adjacent to Perimeter Road. It is probably a single, continuous trench approximately 600 feet long by 40 feet wide (approximately 0.6 acres). The depths of debris range from 6 to 10 feet bgs (NFECSW, 1999c), with an average depth of 7.5 feet bgs. During exploratory drilling, building materials such as wood, metal, and concrete were observed.
- Area 3: This area lies in the northwest portion of IRP Site 7. It is an irregularly shaped area of approximately 1 acre. Site visits to Area 3 revealed surficially scattered, rusted metal debris. This surficial metal debris accounted for the geophysical anomalies detected in this area during the pre-sampling activities of the RI (NFECSW, 1995).
- Area 4: This area lies in the northwest portion of IRP Site 7, southeast of Area 3. It is similar to Area 3 in that it was also an irregularly shaped area littered with surficially scattered, rusted metal debris covering approximately 1 acre.
- Area 5: This area forms the eastern shoreline of Perimeter Pond and lies between Perimeter Pond and East Pond (Figure 1-3). Two north-south-oriented trenches existed in this area, with a portion of the western trench exposed to Perimeter Pond. Exposed debris observed included materials such as concrete, metal banding, and lumber. Area 5 covered approximately 0.7 acres and was reported to have an average debris depth of 7 feet (NFECSW, 1999c).
- Area 6: This area lies to the southeast of Area 5. This area is similar to Areas 3 and 4 in that the debris found in this area appeared to be surficial only. It lies along an unpaved access road between Perimeter Road and the eastern shore of Perimeter Pond. The debris, mostly pieces of lumber, appeared to be recently deposited debris that had fallen off vehicles during the removal of portions of the exposed trench at Area 5. This area is irregular in shape and occupies approximately 0.1 acres.

2.4 CHEMICAL CHARACTERISTICS - IRP SITE 4 AOPCS 1A AND 2A

NAVWPNSTA Seal Beach and the DON have been actively engaged in the IRP since 1980. Since 1973, IRP Site 4 has been the subject of various environmental investigations/reports. Not all of the following investigations/reports dealt exclusively with IRP Site 4 AOPCs 1A and 2A. It was not until the RSE that AOPCs 1A and 2A were separately designated within IRP Site 4 (Figure 2-1 and 2-2). The previous reports on AOPCs 1A and 2A include:

- *Environmental Impact Assessment – Weed and Dust Control* (NAVWPNSTA Seal Beach, 1973)
- *Initial Assessment Study of Naval Weapons Station, Seal Beach, California* (NEESA, 1985)
- *RCRA Facility Assessment Report, Seal Beach Naval Weapons Station, Seal Beach, California* (Kearney, 1989)
- *Seal Beach Laboratory Testing* (NFECSW, 1990b)
- *Addendum to the Preliminary Assessment* (NEESA, 1990)
- *Analytical Results for Soil Samples Collected in 1995 from IR Site 4* (AccuTek, Inc., 1995)
- *Final Removal Site Evaluation Report for Installation Restoration Program Sites 4, 5, and 6, Naval Weapons Station, Seal Beach, California* (BNI, 2001)

2.4.1 Chemicals of Potential Concern – IRP Site 4 AOPCs 1A and 2A

As part of the RSE investigation at IRP Site 4, soil samples were collected and analyzed to characterize and delineate the lateral and vertical extent of the COPCs and characterize the physical and geographical properties of IRP Site 4 AOPCs 1A and 2A (BNI, 2001). Eight planned soil borings were hand-augered at each AOPC.

Soil samples were generally collected at depths of zero to 1 foot bgs and 2 to 2.5 feet bgs. Step-out soil samples also were collected, as necessary, to define the lateral and vertical extent of COPCs. Soil samples were analyzed for Target Analyte List (TAL) metals, polynuclear aromatic hydrocarbons (PAHs), PCBs, polychlorinated dibenzodioxins (PCDDs), and polychlorinated dibenzofurans (PCDFs). Three groundwater samples were collected from each AOPC and analyzed for the COPCs.

Based on the RSE findings and conclusions for soil at IRP Site 4 AOPCs 1A and 2A, further evaluation was recommended only for lead in soil. Based on the RSE findings and conclusions for groundwater at IRP Site 4 AOPCs 1A and 2A, groundwater was recommended for further evaluation in the form of confirmatory groundwater monitoring (BNI, 2001). Groundwater monitoring for IRP Site 4 AOPCs 1A and 2A is included in the Groundwater Monitoring Program at IRP Sites 4, 5, 6, and 7 (BNI, 2003).

At IRP Site 4 AOPCs 1A and 2A, shallow groundwater is estimated to range from less than 1 foot to 3 feet bgs. The specific depth to groundwater depends on a number of variable conditions including tidal fluctuations, seasonal changes, and specific location within IRP Site 4 AOPCs 1A and 2A. The underlying shallow groundwater is saline to hypersaline [total dissolved solids ranging from 29,600 to 57,800 milligrams per liter (mg/L)] and cannot reasonably be regarded as a potential drinking water source.

2.4.2 Nature and Extent of Contamination – IRP Site 4 AOPCs 1A and 2A

IRP Site 4 AOPCs 1A and 2A are adjacent to each other and consist of a relatively narrow area, approximately 5,400 feet long by 100 feet wide (Figure 1-2). IRP Site 4 AOPCs 1A and 2A were identified as containing several potential locations where elevated lead was detected due to dust control activities. Unknown quantities of waste oil were sprayed over the perimeter roads for dust control; an estimated 40,000 gallons of waste oil was applied over a 1-year period on 12 miles of road (NEESA, 1985; NFECSW, 1990b). Information from previous investigations indicated that elevated lead concentrations were detected to a depth of up to 2.5 feet (NFECSW, 1990b; BNI, 2001).

2.5 RISK EVALUATION – IRP SITE 7

Four risk assessment studies have been performed using data collected from IRP Site 7. These include a baseline HHRA and a preliminary ERA conducted as part of the RI (NFECSW, 1995), a Phase II ERA Validation Study (NFECSW, 1999a) to assess risks to terrestrial ecological receptors, and a Screening Aquatic ERA (NFECSW, 2000a) to assess risks to aquatic receptors in Perimeter Pond.

Based on the baseline HHRA, only PCBs were detected at concentrations to qualify as COPCs from a human health standpoint. PCBs were detected at a maximum concentration of 0.435 mg/kg in soils. The HHRA determined that these levels correspond to an estimated excess lifetime cancer risk of 6×10^{-6}, which is within the range of concern that can be addressed through risk management decisions (NFECSW, 1995).

The preliminary ERA identified DDT and its metabolites [dichlorodiphenyldichloroethane (DDD) and dichlorodiphenyldichloroethlene (DDE)] as ecological COPCs in sediments. However, the DDT and its metabolites are likely to be regional contaminants dispersed by agricultural activities in the Los Angeles area (NFECSW, 1995). Therefore, no significant ecological risks were identified.

The Phase II ERA Validation Study was a site-specific ERA conducted in conformance with the DTSC 1996 guidance (State of California, 1996). Based on the analytical results collected from soil, plants, invertebrates, and small mammals, site-specific ecological Preliminary Remediation Goals (PRGs) were developed. The developed ecological PRGs were all near or above site

maximum concentrations, so the proposed values did not alter the RI's preliminary ERA conclusion for NFA at the site.

The Screening Aquatic ERA (NFECSW, 2000a) identified possible low risks to sessile benthic invertebrates caused by concentrations of several chemicals (silver, DDT and metabolites, and Aroclor 1254) in sediment at two locations at the eastern shore of the Perimeter Pond that exceeded the screening concentrations (CH2M Hill, 2002a). Based on the 10 locations sampled along Area 5 on the eastern shoreline of Perimeter Pond, those risks would occur at two locations: the southeast corner of the pond and an area near the exposed debris at the approximate center of the east shoreline. Aquatic organisms in the immediate vicinity of a water seep (or other seeps, if they occur) could be intermittently exposed to elevated concentrations of copper, lead, nickel, and zinc. Risks from such exposure would be limited to a small area because the seep would be rapidly diluted upon entering the pond. The Screening Aquatic ERA concluded that concentrations of pesticides in mussels exceeded no-adverse-effects levels for those pesticides in birds and indicated possible risks to birds consuming large amounts of food from the area. However, that risk may be regional as higher concentrations of the same pesticides were found in mussels from Anaheim Bay and Huntington Harbor.

Conditions at the site met the following NCP requirements for a removal action [40 Code of Federal Regulations (CFR), Part 300.415(b)(2)]:

- Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants
- Actual or potential contamination of sensitive ecosystems

2.6 RISK EVALUATION – IRP SITE 4 AOPCS 1A AND 2A

Two risk assessment studies were performed using data collected from IRP Site 4 AOPCs 1A and 2A including:

- HHRA and ERA as part of the RSE (BNI, 2001)
- Proposed site-specific target cleanup goal (TCG) for lead assessment (CH2M Hill, 2003a)

In the RSE for AOPC 1A, several metals were reported at concentrations above the statistical background in soil adjacent to the road. Elevated dioxin/furan concentrations were also reported in soil adjacent to the road. No HHRA was performed for AOPC 1A because it is located within the SBNWR, where no development will occur.

In AOPC 1A, further evaluation was recommended for soil and confirmatory groundwater monitoring for antimony and hexavalent chromium. In AOPC 2A, further evaluation was recommended for soil and confirmatory groundwater monitoring for antimony, arsenic, and

hexavalent chromium. The ERA in the RSE suggested that the concentrations of the COPCs in soil were not ecologically significant when compared to background conditions and the range of Toxicity Reference Values (TRVs). However, DTSC did not concur with NFA for the soil due to the presence of elevated lead concentrations at a few locations. Groundwater chemical concentrations are not expected to adversely affect marine life, so only confirmatory monitoring was recommended.

In the RSE for AOPC 2A, there were metals, dioxin/furan, and Aroclor 1254 concentrations reported in soil adjacent to the road. An HHRA was performed for AOPC 2A. The incremental cancer risk was estimated at 3.7×10^{-5}, which is within the NCP generally acceptable range of 10^{-6} to 10^{-4} for risk management. Systemic toxicity was evaluated to be unlikely due to a hazard index of less than 1.0. There are potential adverse health effects from exposure to lead; however, this is not of concern since residential use of AOPC 2A is unlikely due to its proximity to the SBNWR. Because of its location next to the SBNWR, human presence is usually limited to brief visits by United States Fish and Wildlife Service (USFWS) personnel and DON security personnel.

A specific ecological assessment for lead was performed to determine the site-specific TCG for IRP Site 4 AOPCs 1A and 2A. The range of lowest observed adverse effects level (LOAEL)-equivalent soil concentrations was compared to the full distribution of lead measured in soils in IRP Site 4 AOPCs 1A and 2A. Evaluation of the distribution of lead concentrations in IRP Site 4 AOPCs 1A and 2A indicated that the data gathered during the RSE investigations were highly skewed and dominated by relatively few samples with high concentrations (hot spots). These hot spots were identified in a narrow strip along Perimeter Road with lead concentrations that ranged from about 900 mg/kg to over 7,500 mg/kg in soils. Despite these high concentrations, these values represent only 11 of 64 samples collected from these two AOPCs combined. Moreover, the median lead concentrations were 42 and 61 mg/kg for IRP Site 4 AOPCs 1A and 2A, respectively, indicating that the hot spot concentrations were heavily influencing the mean concentration. Based on a visual evaluation of the observed lead distribution in IRP Site 4 AOPCs 1A and 2A and in light of the calculated LOAEL-equivalent soil concentrations, a site-specific TCG for lead of 600 mg/kg was proposed. The Final AM/RAP (CH2M Hill, 2004) indicates that this level represents a clear break point in the distribution of lead concentrations at the two AOPCs and represents a concentration that would eliminate the majority of risk to wildlife receptors (CH2M Hill, 2004). This is explained in detail in Section 2.5.1.2 of the EE/CA for Site 4 AOPCs 1A and 2A prepared by CH2M Hill.

There are no documented impacts due to exposure to chemicals in soil at IRP Site 4 AOPCs 1A and 2A. The primary receptors most likely to be impacted by IRP Site 4 AOPCs 1A and 2A under conditions prior to the implementation of the removal action were ecological receptors that nested in IRP Site 7, which is located directly north of IRP Site 4 AOPCs 1A and 2A.

IRP Site 4 AOPCs 1A and 2A have vegetative and wildlife receptors. If IRP Site 4 AOPCs 1A and 2A COPCs have migrated to the adjacent habitat, potentially complete pathways are present for exposure of representative organisms to COPCs in the soil in the cropland, non-native grassland, southern willow scrub, and coastal salt marsh (BNI, 2001).

Another possible, though less likely, exposure pathway for chemicals from IRP Site 4 AOPCs 1A and 2A to impact the environment is through groundwater. Groundwater appears to flow predominantly away from the SBNWR and the coast toward the north and northeast (NFECSW, 1995). However, during periods of significant rainfall (wet weather conditions), the groundwater at IRP Site 4 AOPCs 1A and 2A may flow toward the SBNWR. The exact groundwater flow direction is determined by the interaction among hydrologic features at or adjacent to IRP Site 4 AOPCs 1A and 2A, including the SBNWR tidal marsh and the Orange County flood control channel (NFECSW, 1999b).

3.0 REMOVAL ACTION OBJECTIVES AND CLEANUP GOALS

This section provides a brief discussion of the significant ARARs and RAOs, and the selection of the removal action and TCGs.

3.1 SIGNIFICANT APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

The remedial alternative selected for IRP Site 7 and IRP Site 4 AOPCs 1A and 2A was intended to provide protection for human health and the environment. The level of protection was based on potential ARARs. The NCP requires on-site CERCLA removal actions to identify and comply with federal and state ARARs to the extent feasible, considering the urgency of the situation. In accordance with the NCP requirements, the ARARs for the removal action at IRP Site 7 and IRP Site 4 AOPCs 1A and 2A were identified and documented in the Final AM/RAP (CH2M Hill, 2004). A summary of the ARARs for IRP Site 7 and IRP Site 4 AOPCs 1A and 2A is provided in the following subsections.

3.1.1 IRP Site 7

The substantive provisions of the following requirements were identified as ARARs for the development of RAOs for IRP Site 7:

- National Wildlife Refuge System Administration Act of 1996, 16 United States Code (USC), Parts 668dd-668ee, and 50 CFR, Parts 27.11 to 27.97
- Protection of Wetlands, EO 11990
- Floodplain Management, EO 11988
- Endangered Species Act of 1973
- Migratory Bird Treaty Act
- California Fish and Game Code, Sections 2080, 2014, 3005, and 5650(a), (b), and (f)
- South Coast Air Quality Management District (SCAQMD) Rules 401(b)(1)(A), 403, 404, 405, 407, 408, 431.1, 431.2, 431.3 in Regulation IV, and Rule 1150 in Regulation XI
- State Water Resource Control Board Resolutions 68-16, 88-63, and 92-49
- California Code of Regulations (CCR), Title 27, Sections 20210, 20220, 20230, 20390, 20395, 20400, 20410, 20950, 21090, 22207(a), 22212(a), 22222
- California Water Code, Division 7, Sections 13241, 13243, 13263(a), 13269, and 13360
- Comprehensive Water Quality Control Plan for the Santa Ana Region Basin Plan (California Water Code Part 13240), Chapters 3, 4, and 5

- RCRA: CCR, Title 22, Sections 66261.21; 66261 22(a)(1); 66261 23; 66261.24(a)(1); 66261.100; 66261.24(a)(1)(B); 66264.94(a)(1), (a)(3), (c), (d), and (e); 40 CFR, Part 261 24(a)

The ARARs for this NTCRA include the federal and state hazardous waste management regulations.

3.1.2 IRP Site 4 AOPCs 1A and 2A

The DON evaluated and concluded that no ARARs were identified for IRP Site 4 AOPCs 1A and 2A beyond those ARARs already identified in the Final EE/CA for IRP Site 7 (CH2M Hill, 2002a). Since the IRP Site 4 AOPCs 1A and 2A removal action was conducted concurrently with the IRP Site 7 removal action, the same ARARs established for IRP Site 7 were also used for IRP Site 4 AOPCs 1A and 2A (as appropriate) (CH2M Hill, 2003a).

3.2 OBJECTIVES OF THE REMOVAL ACTION AND SOIL TARGET CLEANUP GOALS

The following RAOs were developed for IRP Site 7 and IRP Site 4 AOPCs 1A and 2A based on CERCLA, NCP, the risk assessment in the Final EE/CA for IRP Site 7 (CH2M Hill, 2002a), the Final Addendum to the EE/CA for IRP Site 7 and IRP Site 4 AOPCs 1A and 2A (CH2M Hill, 2003a), and ARARs:

IRP Site 7

- Reduce the potential for exposure of ecological receptors to landfill waste and potentially contaminated soil by increasing separation and/or eliminating exposure pathways (for example, water seeps) of wastes to human and ecological receptors.
- Restore habitat that is compatible with the SBNWR habitat.
- Minimize impact to wetlands and improve conditions of remaining wetlands to the extent practicable.
- Control surface water runoff and reduce the potential for erosion of the landfill surface.
- Comply with chemical-specific ARARs where exceedances have occurred due to waste releases.

IRP Site 4 AOPCs 1A and 2A

- Minimize further migration of lead in surface soil
- Reduce risk to ecological receptors from lead-contaminated soil to acceptable levels.

Primary risk identified at IRP Site 7 involved the risks to aquatic ecological species due to the exposure of debris and tidal water seeps discharging from debris buried along the eastern shoreline of Perimeter Pond (Area 5). These aquatic ecological risks are described in the Screening Aquatic ERA (NFECSW, 2000a). In aggregate, risks from sediment were minimal, but two spatially limited areas had concentrations of some chemicals exceeding sediment screening benchmarks. Removal of the buried waste and shoreline sediments from the two slightly contaminated areas was proposed, but the primary RAO was to eliminate the tidal seeps emanating from the exposed debris in Area 5.

Generally, only the maximum concentrations of chemicals in sediment exceeded regional (anthropogenic) background values (NFECSW, 2000a), and most of the shoreline had concentrations of chemicals below levels of concern.

The Final EE/CA (CH2M Hill, 2002a) developed TCGs for Area 1 based on an alternative that would have involved complete excavation of Area 1 and required confirmation sampling and off-site disposal. However, the recommended removal action for Area 1 at IRP Site 7 only involved placing additional cover in areas where there is cover thickness deficiency and did not involve any excavation requiring confirmation sampling. Therefore, no TCGs were developed for the recommended removal action at IRP Site 7. Since there were no definitive risk-based cleanup goals for sediment, removal of buried waste in the two trenches in Area 5 of IRP Site 7 was to be determined by visual inspection and then backfilling with clean fine-grained soils.

However, the TCGs provided in the Final EE/CA (CH2M Hill, 2002a) for the excavation and off-site disposal alternative were modified to serve as criteria for backfill soil. TCGs that were developed for Area 1 in the Final EE/CA (CH2M Hill, 2002a) were based on ecological risk and were developed following the DTSC ERA guidance (State of California, 1996). The TCGs for Area 1 were developed based on the risks to representative site-specific terrestrial receptors, which include ground squirrel, kestrel, and sandpiper (NFECSW, 1999a).

For IRP Site 4 AOPCs 1A and 2A, a TCG for lead of 600 mg/kg was developed based on the risks to representative site-specific ecological receptors, which include harvest mouse, ground squirrel, skunk, and robin (CH2M Hill, 2003a). This is in addition to an area-wide arithmetic average TCG of less than 100 mg/kg for lead in soils for IRP Site 4 AOPCs 1A and 2A.

3.3 SELECTED REMEDIAL TECHNOLOGY

The removal alternatives selected for IRP Site 7 and IRP Site 4 AOPCs 1A and 2A are detailed in the Final EE/CA for IRP Site 7 (CH2M Hill, 2002a) and Final Addendum to the EE/CA for IRP Site 7 and IRP Site 4 AOPCs 1A and 2A (CH2M Hill, 2003a). The removal alternatives for IRP Site 7 and Site 4 AOPCs 1A and 2A were recommended because they were determined to be the most effective in achieving the RAOs. They were also determined to best meet the NCP criteria of overall protectiveness of human health; compliance with ARARs; long-term

effectiveness; reduction of mobility, toxicity, and volume through treatment; short-term effectiveness; implementability; cost; and state and community acceptance. Implementation of the recommended removal action alternative required that any waste soil and debris classified as RCRA hazardous, non-RCRA (California) hazardous, or non-hazardous waste be transported to a CERCLA-approved, licensed treatment, storage, and disposal facility (TSDF) for disposal. The removal alternatives selected for IRP Site 7 and Site 4 AOPCs 1A and 2A are summarized in the remainder of this subsection.

3.3.1 IRP Site 7

Area 1: Repair of existing landfill soil cover. The Final AM/RAP (CH2M Hill, 2004) recommended a minimum 2-foot-thick soil cover over buried waste. Imported soil was recommended to be placed in locations where the cover is deficient in thickness to prevent direct contact with buried waste and eliminate the potential migration of contamination through windblown dust and surface runoff.

Area 2: The Final EE/CA (CH2M Hill, 2002a) recommended groundwater monitoring for Area 2, due to low risks to terrestial receptors and humans from buried waste. Groundwater monitoring was not to be performed as part of this removal action but will be performed by another DON consultant under a separate contract with DON.

Areas 3, 4, and 6: Removal of surface debris. Removal of debris from the top few feet of soil in Areas 3 and 4 and on the surface of Area 6 was recommended for implementation in the Final AM/RAP (CH2M Hill, 2004). The surface depressions and voids created by removal of the debris were recommended to be backfilled with clean imported soil and compacted.

Area 5: Removal of surface debris, excavation, and off-site disposal. The Final AM/RAP (CH2M Hill, 2004) recommended that the buried debris be removed and disposed of at an approved landfill and the excavation backfilled with clean fill.

3.3.2 IRP Site 4 AOPCs 1A and 2A

The removal alternative selected for IRP Site 4 AOPCs 1A and 2A and documented in the Final AM/RAP (CH2M Hill, 2004) was excavation and off-site disposal. The lead-contaminated soil was recommended to be disposed of at an approved TSDF and the excavation backfilled with clean fill.

4.0 FIELD ACTIVITIES

This section provides a detailed description of the specific field activities that were performed during the removal action. These activities followed the procedures discussed in the Final Project Work Plan (TtFW, 2004a). TtFW began mobilizing equipment and temporary facilities to IRP Site 7 and Site 4 AOPCs 1A and 2A on December 2, 2003, and commenced fieldwork with a geophysical survey of the site. Subsequently, at IRP Site 4 AOPCs 1A and 2A, land surveying, pre-excavation sampling, excavation, confirmation sampling, and backfill/compaction activities were performed, concluding on March 9, 2004. Activities at IRP Site 7, which included geophysical surveying, land surveying, potholing, surficial debris removal, buried debris removal (Area 5), backfill/compaction, landfill cover placement, and revegetation, concluded on April 8, 2004. After evaluation of the soil stockpile analytical data, transportation and disposal of the lead-impacted soil generated from excavation of IRP Site 4 AOPCs 1A and 2A hot spots commenced on March 15, 2004, and concluded on March 25, 2004. Transportation and disposal of the non-hazardous soil and debris commenced on March 25, 2004, and concluded on March 29, 2004. Upon completion of the removal activities, TtFW completed the demobilization of all equipment, temporary facilities, and personnel from the site on April 8, 2004

The following is a list of the activities performed during the IRP Site 7 and IRP Site 4 AOPCs 1A and 2A removal action:

- Preparatory activities including procurement and notifications
- Mobilization and setup of a temporary office trailer and temporary sanitary facilities
- Mobilization of construction equipment and personnel
- Geophysical surveys to identify the location of underground utilities and to delineate Areas 3, 4, and 5
- Land surveys
- Pre-excavation soil sampling at IRP Site 4 AOPCs 1A and 2A and laboratory analysis of soil samples
- Excavation of lead-contaminated soil at IRP Site 4 AOPCs 1A and 2A
- Post-excavation confirmation soil sampling at IRP Site 4 AOPCs 1A and 2A and laboratory analysis of soil samples
- Backfill/compaction of excavated areas at IRP Site 4 AOPCs 1A and 2A
- Repair of landfill cover, including land surveying, potholing to determine existing landfill cover thickness, grading plan preparation, and import of fill material, fill placement, and compaction; and site grading

- Cleanup of surficial metal debris from Areas 3 and 4 and removal of buried waste from two trenches at Area 5
- On-site stockpiling of excavated material
- Screening of excavated material from Area 5 and surficial debris from Areas 3 and 4 for the presence of unexploded ordnance or ordnance-related material
- Demilitarization of non-explosive ordnance scrap
- Sampling, analysis, and waste classification of excavated soil and debris
- Loading, transportation, and disposal of contaminated soil and debris
- Site grading and restoration, including revegetation
- Demobilization of all construction equipment, temporary facilities, and personnel

Further details are described in Sections 4.1 through 4.13.

4.1 SUBCONTRACTING/PROCUREMENT

All field activities were performed under the direct supervision of TtFW with assistance from specialty subcontractors. Several specialty subcontractors were procured to assist in specific aspects of the removal activities. These subcontractors included a geophysical survey contractor, land survey contractor, geotechnical testing contractor, hazardous waste hauler/transporter, TSDF, and an analytical laboratory.

TtFW conducted earthmoving activities including soil excavation, potholing, landfill cover repair, backfilling, temporary stockpiling of the excavated material, and grading of the site. The hazardous waste hauler/transporter was DenBeste Transportation, Inc. (Windsor, California), which was responsible for the transportation of the impacted soils and waste material to the Chemical Waste Management, Inc. (CWM) disposal facility located in Kettleman City, California.

Applied Physics and Chemistry Laboratory (APCL) located in Chino, California, performed all of the required chemical analyses on the soil samples for waste characterization, verification, and disposal classification.

Ron Martin and Associates of San Clemente, California, was responsible for land surveying. ULS Services, Inc. (Pocatello, Idaho) was responsible for performing the geophysical survey for subsurface utility clearance. Smith-Emery Laboratories of Los Angeles, California, was responsible for all soil testing services. Shepherd Machinery Co. provided the main portion of the construction equipment for rental. Union equipment operators and laborers were hired on an as-needed basis. Vendor procurement involved leasing an office trailer, temporary sanitary facilities, and a portable power generator. Other miscellaneous equipment such as sampling and testing equipment, construction tools, polyethylene liners, and sandbags were procured on an as-needed basis.

4.2 NOTIFICATIONS

Prior to the removal activities, the Resident Officer in Charge of Construction (ROICC) and the NAVWPNSTA Seal Beach Installation Restoration (IR) Program Manager were contacted by TtFW to inquire about any NAVWPNSTA permits for the NTCRA at IRP Site 7 and Site 4 AOPCs 1A and 2A, based on the nature of the anticipated work. NAVWPNSTA permits were required. Underground Service Alert was also notified to obtain utility clearance prior to excavation activities.

A grading permit was not required as the federal government is exempt under county ordinance, provided that grading is supervised and inspected by a registered professional engineer. No permits for temporary stockpiling of hazardous waste were necessary, as the excavated soils and waste material were not stored on site for more than 90 days.

4.3 PREPARATORY ACTIVITIES AND MOBILIZATION

A kickoff meeting was held on November 18, 2003. The attendees included NAVWPNSTA Seal Beach IR Program Manager, DON Remedial Project Manager (RPM), ROICC, representatives from NAVWPNSTA Cultural and Natural Resources, Security and Facilities, TtFW Project Manager, TtFW Site Superintendent, TtFW Site Engineer/Quality Control (QC) officer, and TtFW Biologist The meeting included discussion regarding contractor QC details, administration of the on-site work, coordination of the construction management, and submittal of daily production and QC reports

Prior to mobilization, the appropriate DON personnel, including the RPM, NAVWPNSTA IR Program Manager, and the ROICC were notified about the planned schedule for mobilization and soil removal activities. Upon receipt of authorization, field personnel and temporary facilities were mobilized to the site.

Mobilization activities included site preparation, movement of equipment and materials to the site, and training and site orientation of field personnel. Power was provided to the site office trailer via a portable power generator.

In order to minimize storage requirements, equipment and materials were mobilized to the site on an as-needed basis. All construction equipment was delivered to the site in a clean condition.

Mobilization also included the establishment of work zones in the areas to be excavated. The three-zoned approach was used [support zone (SZ), contamination reduction zone (CRZ), and exclusion zone (EZ)] The purpose of the three-zoned approach was to prevent the exposure of site personnel to contaminated materials and to prevent cross-contamination. Personnel entering the EZ were required to wear the appropriate personal protective equipment (PPE) as defined in the Site-Specific Health and Safety Plan (SHSP) [Foster Wheeler Environmental Corporation (FWENC),

2002]. Upon exiting the EZ, personnel and equipment underwent decontamination in the CRZ before exiting to the SZ.

4.4 GEOPHYSICAL SURVEY

On December 3, 2003, ULS Services, Inc., performed a geophysical survey at IRP Site 7 and IRP Site 4 AOPCs 1A and 2A. The geophysical survey was performed to assist in marking the locations of any known or unknown underground utilities at the site. Electromagnetic line location equipment was used during the survey. The results of the geophysical survey were compared with the available as-built drawings obtained from the ROICC's office and the NAVWPNSTA Seal Beach Public Works Center to determine whether any undocumented utilities or other features existed in the surveyed area. No subsurface utilities were identified at either IRP Site 7 or Site 4 AOPCs 1A and 2A.

4.5 LAND SURVEYING

This section describes the land surveys performed at both IRP Site 7 and Site 4 AOPCs 1A and 2A. All land surveys were based on the California State Plane Coordinates system, North American Datum (NAD) 83. Land surveys were performed by Ron Martin and Associates (located in San Clemente, California), a state of California-licensed survey contractor, under the direction of TtFW.

4.5.1 IRP Site 7

An initial land survey was performed (December 5 through December 10, 2003) to assist in establishing the existing surface elevations of Area 1, to provide data for the design of the post-cover-repair grading plan for Area 1, and to delineate the limits of Areas 1 through 6. As part of the survey, Area 1 was partitioned into a network of contiguous grid cells, each 50 feet square, across the planned landfill soil cover repair area. This yielded 162 grid cells across the roughly rectangular-shaped, 8 acres comprising Area 1. Each grid node and the center of each grid cell were surveyed for elevation and NAD 83 coordinates.

An additional land survey was performed in Area 1 on April 5, 2004, after all landfill soil cover repairs were complete. The purpose of the survey was to ensure that the final as-built surface elevations across Area 1 matched the contours of the grading plan.

Several additional land surveys were performed in Area 5 during the project. A land survey was performed on February 12, 2004, to establish the pre-excavation surface elevations across Area 5. The survey was conducted to document the pre-excavation elevations of Area 5 and the eastern side slopes of Perimeter Pond. A final as-built land survey was performed on April 7, 2004, following the backfilling of the excavated trenches at Area 5 and the completion of grading of the Perimeter Pond eastern slopes.

4.5.2 IRP Site 4 AOPCs 1A and 2A

Prior to commencement of removal activities, an initial land survey was performed (December 2 through December 9, 2003) to establish pre-excavation soil sample points within a network of contiguous grid cells, each 50 feet square, across the planned excavation area at IRP Site 4 AOPCs 1A and 2A. The survey delineated 216 grid cells and 216 pre-excavation soil sample locations across the 5,400-foot-long by 100-foot-wide IRP Site 4 AOPCs 1A and 2A area. The grid cells were used as reference points during pre-excavation soil sampling (one sample location per grid cell), excavation, and post-excavation (confirmation) soil sampling activities. The data collected during the initial survey was also used to document the pre-existing grade elevations across the site.

Additional land survey was conducted during the project at IRP Site 4 AOPCs 1A and 2A. This included a post-backfill survey (performed on April 7, 2004) to ensure that the surface elevations across AOPCs 1A and 2A were returned to the original grade.

4.6 REMEDIATION/REMOVAL ACTIVITIES

On December 4, 2003, removal activities at IRP Site 7 commenced with clearing and grubbing of non-native vegetation at Area 1. On December 8, 2003, removal activities at Site 4 AOPCs 1A and 2A commenced with soil sampling along the perimeter road in AOPC 2A.

Dust levels were visually monitored during the NTCRA at IRP Site 7 and Site 4 AOPCs 1A and 2A and were controlled using water application. Dust control was implemented on a regular basis for the duration of the project. Each workday, prior to excavation or earthwork activities and during the course of the day, a 2,000-gallon-capacity water truck was used to spray water over the planned excavation areas and access roads to minimize the amount of dust generated. In addition, all stockpiled material was covered with a 10-mil polyvinyl chloride (PVC) liner in order to control dust emissions.

The remainder of this subsection describes the progression of remediation/removal activities at both IRP Site 7 and Site 4 AOPCs 1A and 2A.

4.6.1 IRP Site 7 Area 1

The objective of work in Area 1 was to repair the existing landfill soil cover by providing a minimum of 2-foot-thick soil cover over the buried waste and to grade the cover to provide adequate sheet flow runoff away from the landfill surface; and to minimize ponding on the landfill surface. The objective of the landfill cover repair was also to prevent direct contact with buried waste and mitigate the potential migration of contamination through windblown dust and surface runoff.

Vegetation Clearing

All invasive and noxious weeds, shrubs, and bushes were removed, and the existing area was scraped to a depth of 3 inches bgs The limits of Area 1 were delineated based on the results of the initial land survey. Measures were taken not to disturb vegetation outside of the landfill cover repair area A site meeting was held with the SBNWR manager and NAVWPNSTA Seal Beach IR Program Manager and Conservation and Natural Resources Managers to address plans for complying with pertinent regulatory requirements (including Migratory Bird Treaty Act of 1918, Federal and State Endangered Species Act, Cleanwater Act, EOs 11990 and 11989 pertaining to wetland and flood plains, Department of Fish and Game Code Sections 3503.5, and so forth). The meeting also addressed the vegetation covering the landfill The vegetation that was present on the landfill, generally, consisted of non-native noxious weeds and invasive plants types and upland salt marsh plant species. Based on the discussions in the meeting, it was decided to remove and haul away the non-native weeds and invasive plants and to preserve the salt marsh plant species for reuse as seed bed during restoration activities for the landfill cover revegetation The general areas covered with native and non-native plant species were delineated. The non-native weeds were cleared and stockpiled and hauled off, along with the contaminated soils excavated from AOPCs 1A and 2A, and disposed of at Kettleman Hills landfill

The native salt marsh plant species were cleared and stockpiled near the south side of the landfill and later reused as part of the topsoil in a 50-foot-wide band along the east and south side of the landfill.

Potholing to Determine Existing Cover Thickness

Test potholing was performed in Area 1 from December 8 through December 11, 2003, in order to determine the thickness of the existing soil cover in each grid cell and to determine which grid cells would require placement of additional soil cover in order to achieve a minimum cover thickness of 2 feet. Each of the 162 50-foot by 50-foot grid cells were potholed at the center with a backhoe equipped with a 12-inch-wide bucket The potholes were excavated to a maximum depth of 2.5 feet bgs. Each pothole location in Area 1 was inspected and logged by a TtFW-registered geologist. Potholing data indicated that 35 out of the 162 grid cells had cover deficiencies requiring placement of up to 2 feet of soil cover in these grids. The actual measured soil cover thickness at each pothole location was then used in conjunction with the initial land survey data to develop a grading plan for Area 1.

The grading plan was submitted on January 8, 2004, to the DON, DTSC, and RWQCB for review and approval. Pending approval of the grading plan, various preparatory activities were performed at Area 1 These activities included backfilling and compacting the excavated test potholes, as well as compacting the overall landfill subgrade in preparation to begin placing the landfill cap.

Landfill Cover Placement and Compaction

Upon approval of the grading plan, import material was transported to the site, and landfill cap construction commenced on February 10, 2004. The source of the imported material was primarily the wharf dredge sediment stockpile located on NAVWPNSTA Seal Beach adjacent to Anaheim Bay (Figure 1-2). This material was previously sampled on February 6, 2004, and analyzed to ensure that it met the requirements of clean material as defined in the Final Project Work Plan (TtFW, 2004a). These samples were collected per the methodology described in the Final Sampling and Analysis Plan (SAP) (TtFW, 2004a). Dredge sediment soil sample results are summarized and presented in Table 4-1.

In grid cells where the soil cover thickness was deficient (less than 2 feet thick), the material imported from the wharf area was placed in 6-inch-thick lifts and compacted to a minimum of 90 percent of the maximum dry density (as measured by the modified Proctor test). Approximately 15,000 tons of dredged sediment from the wharf were reused as cover material in Area 1. An additional 640 tons of fill material were imported from West Coast Sand and Gravel Company quarries located in Corona, California, to complete the landfill cover repair at Area 1. The wharf-dredged sediment material was sampled on January 20, 2004, and samples of the import fill material were obtained and analyzed prior to use to ensure that they met the requirements of clean material established in the Final Project Work Plan (TtFW, 2004a) (Tables 4-1 and 4-2). All fill/soil material used for this project met the clean soil criteria. Results of the chemical analysis for the soil samples are summarized and included in Tables 4-1 and 4-2. These samples were collected per the methodology described in the Final SAP (TtFW, 2004a). Landfill cap construction was completed on April 5, 2004. In addition, a total of six soil samples were also collected from the dredged sediments and tested for geotechnical characteristics. Laboratory tests included grain size analysis based on American Society for Testing and Materials (ASTM) D 422 Test Method, Atterberg Limits (ASTM D 4318), and Moisture Density Relation (ASTM D 1557 Method A). Geotechnical Laboratory Test Reports are included in Appendix A.

Compaction test results completed for Area 1 are shown in Figure 4-1. A total of 44 compaction tests were completed for the finished subgrade (landfill cap) in Area 1. Compaction results ranged from 90 to 99 percent of the maximum dry density as measured by the modified proctor test (ASTM D 1557).

The top 6 inches of the landfill cover consisted of topsoil. Approximately 7,400 tons of soil was imported for use in establishing a 6-inch-thick layer of topsoil to facilitate revegetation. Approximately 5,200 tons of this material consisted of highly organic topsoil removed from IRP Site 5 that had been previously stockpiled north of IRP Site 7. The remaining 2,200 tons of topsoil were imported from an off-base source (West Coast Sand and Gravel Company). Soil from IRP Site 5 and the off-site borrow source was sampled and analyzed (refer to Table 4-3 and 4-4, respectively, for the summary of the chemical analysis results) prior to use to ensure that it met the

requirements of clean material established in the Final Project Work Plan (TtFW, 2004a). These samples were collected per the methodology described in the Final SAP (TtFW, 2004a).

Revegetation

After placement, the topsoil cover was seeded with a mixture of native vegetation species using a seeding tractor (see Section 4.10). A blend of seeds from native vegetation species was formulated by a TtFW biologist for reseeding and revegetating Area 1. The proposed seed mix was submitted to the SBNWR Manager and the DON for approval prior to use. The seeds were introduced over the entire surface area of Area 1 using a seeding machine. The top 1 to 2 inches of the cover were loosened using a small disk attached to the front of the seed application machine prior to seeding. Seeding commenced on April 6, 2004, and was completed on April 7, 2004. The revegetation plan and seeding mixes that were used for restoration of the impacted areas are discussed in further detail in Section 4.10.

As-Built Survey

An as-built land survey of the finished landfill cover grades was performed on April 6, 2004, following the completion of seeding activities. The purpose of the survey was to document the final as-built elevations of the landfill soil cover and to ensure that the site was properly graded to prevent depressions where rainfall could potentially accumulate (Figure 4-2). Final surface elevation data for Area 1 can also be used during any future post-closure maintenance operations to monitor changes, if any, in surface elevations due to settling. Refer to Figure 4-2 for the final as-built grading plan.

4.6.2 IRP Site 7 Area 2

No removal activities were conducted by TtFW at Area 2. Groundwater monitoring is being performed by a DON consultant.

4.6.3 IRP Site 7 Areas 3, 4, and 6 – Surface Debris Clearing

The removal activities in Areas 3, 4, and 6 involved removal of the surface debris and performing a geophysical survey in Areas 3 and 4 to confirm that surface and near-surface debris is removed. Based on historical data, Area 6 was not anticipated to contain subsurface debris. Surface debris clearing activities commenced on December 8, 2003, with the use of hand rakes and hand-held metal detectors. Clearing of surface debris was completed on December 16, 2003. Upon completion of surface debris removal, hand-held Whites metal detectors were used to detect and remove near-surface (approximately zero to 1 foot below grade) metallic debris. On December 16, 2003, a 3-inch-diameter by 12-inch-long item resembling ordnance was encountered during the near-surface soil clearing activities in Area 3. Work was immediately stopped and the DON was notified. On December 18, 2003, two potential munitions and explosives of concern (MEC) or MEC-related items were encountered while clearing near-

surface soil in Area 4. In response to the encounter of these three items, project site work was suspended on December 22, 2003, pending further evaluation and discussion with the DON

Navy Explosive Ordnance Disposal (EOD) technicians from Naval Air Station North Island were notified and responded to both incidents. EOD technicians determined that the first MEC item recovered was inert after attempts to detonate it failed. The EOD was unable to positively identify the remaining two MEC items, so they were considered to be potentially high-explosive projectiles and detonated in the NAVWPNSTA Seal Beach demolition/disposal range (Building 95). There was no documentation of MEC items ever being disposed of at IRP Site 7 or mixed with other types of wastes that were buried there.

The MEC items recovered were specifically characterized as discarded military munitions (DMM). Since the DMM items that were found were isolated and were not found among other debris, this tended to indicate that they were discarded in isolated incidents of munitions abandonment. For these reasons, the potential to encounter further MEC items during removal activities at Areas 3, 4, or 5 was still considered to be low, and the requirement for unexploded ordnance (UXO) support for the remainder of the project was limited to UXO safety support only. An Addendum to the Final Project Work Plan (TtFW, 2004b) was prepared and submitted to the DON on January 13, 2004, and site work resumed on January 14, 2004.

Geophysical Survey

Following the removal of surficial metal debris, a geophysical survey of Areas 3 and 4 (approximately 3.5 acres in size) was conducted by a TtFW geophysicist from January 29 through February 2, 2004. A UXO technician provided oversight during the geophysical survey. The UXO technician cleared Areas 3 and 4 in advance of the geophysical survey for any MEC or MEC-related items using a Whites metal detector. The TtFW UXO technician did not encounter any MEC or MEC-related items, and any debris encountered during the MEC clearance and geophysical survey activities was removed from these areas

The geophysical data for Areas 3 and 4 were plotted on a color-coded figure and presented to representatives of the DON, USFWS, and DTSC during their site visit on February 4, 2004 (Figure 4-3). The geophysical results indicated areas of subsurface and near-surface buried metal. The geophysical survey indicated that approximately 40 percent (or 1.4 acres) of the surveyed areas contain metallic debris. UXO technicians flagged areas showing high concentrations of metal. As part of the site visit on February 4, 2004, TtFW excavated two trenches (approximately 10 feet long by 3 feet wide and 4 feet deep) within two areas where the geophysical survey had indicated significant electromagnetic signals. After removing approximately 2 feet of overburden soil, buried metal debris (that extended into shallow groundwater), including a disintegrated drum, was encountered in one of the excavated trenches.

Areas 3 and 4 are within United States Army Corps of Engineers (USACE) jurisdictional wetlands within the SBNWR and are blanketed with common pickleweed (*Salicornia virginica*) vegetation. Removal of the buried metal debris would have resulted in destroying the already established pickleweed vegetation and salt marsh habitat. Also, previous investigations concluded that the soil at IRP Site 7 does not pose significant human health or ecological concerns. The DON recommended that no excavation should take place at Areas 3 and 4.

The following action items were then implemented for Areas 3 and 4 as a result of the discussions that took place during the site visit on February 4, 2004:

- The removal of the metallic debris at IRP Site 7 Areas 3 and 4 was limited to surface debris that was on the ground to avoid adverse temporary impacts to pickleweed vegetation and salt marsh habitat. No excavation was conducted to remove buried debris. Debris that was exposed fully or partially on the surface was removed.
- TtFW backfilled the two exploratory trenches at Areas 3 and 4 with clean soil and disposed of the waste excavated from these trenches along with other waste generated at the site at an off-site disposal facility. No waste excavated from the exploratory trenches was placed back in the trenches.
- TtFW used rakes to smooth out the traffic areas in Areas 3 and 4 that construction equipment (backhoe, excavator) had frequented.

Approximately 60 tons of surface debris (scrap metal, wood, and so forth) were removed from Areas 3, 4, and 6. This material was stockpiled on site on a 20-mil-thick PVC liner with a sandbag-bermed perimeter and hauled off site for disposal along with other soil and debris that was later removed from Area 5 trenches.

4.6.4 IRP Site 7 Area 5 – Removal of Buried Debris

The removal activities in Area 5 involved excavation of two north-south oriented disposal trenches (east trench and west trench) containing buried metallic debris and trash, and off-site disposal of the excavated waste. There were no chemicals of concern associated with Area 5 of IRP Site 7 and, therefore, no target cleanup goals to achieve. For this reason, confirmation sampling was not conducted following the removal of debris in Area 5.

During a meeting on December 10, 2003, with the representatives of the DON, TtFW requested that the DON allow TtFW to conduct test potholing in the areas around the two disposal trenches in Area 5 to better determine the extent of the trash. The DON concurred with the test potholing under the conditions that no large-scale excavation work be conducted and that the holes were backfilled immediately. On December 11, 2003, TtFW subsequently dug 34 test potholes, each approximately 2 feet wide, 6 to 8 feet long, and to a depth of approximately 10 feet bgs. The test potholing indicated a debris-free layer of overburden soil approximately 2 to 3 feet thick across Area 5, below which, extensive wood debris was present to a depth of approximately 9 feet bgs. Previous geophysical surveys of these areas did not indicate the presence of debris, seemingly,

because the debris was limited to wood and contained no metallic scrap. Since the focus of the removal action in Area 5 was the removal of metallic debris, the DON decided not to excavate the wood debris encountered in the test potholes

Prior to excavation of the two disposal trenches (east trench and west trench) containing buried metallic debris and trash; and based on discussions that took place with the DON during the site visit on February 4, 2004, a geophysical survey was performed to confirm the location and lateral extent of the disposal trenches identified by previous geophysical surveys The geophysical survey was performed in Area 5 on February 5, 2004. The results of the geophysical survey confirmed the locations of the east trench and west trench and indicated that the approximate dimensions of the trenches were 30 feet by 160 feet (eastern trench) and 20 feet by 45 feet (western trench), respectively. Refer to Figure 4-4 for the geophysical survey results

Excavation work commenced in Area 5 on February 17, 2004, starting at the north end of the east trench and proceeding south The trenches were excavated in 40-foot long sections. At first, the 2 to 3 feet of debris-free overburden soil was removed and staged adjacent to the excavation for later re-use in the excavation as topsoil. Excavation was then performed using a CAT 320 excavator to remove and load the soil/debris layer into 10-wheel dump trucks As excavation work proceeded, the soil/debris removed from the two disposal trenches in Area 5 (predominantly scrap metal mixed with soil) was transported via dump trucks and stockpiled in an area at the west side of the landfill (Area 1), over a 20-mil-thick PVC liner with a sandbag-bermed perimeter In addition, all debris scattered over the west slope of Perimeter Pond was removed Where necessary, debris that was buried underneath the slopes was also excavated and removed When it was determined by visual observation that native soil was encountered in the trench bottom and that no further debris was visible, the excavated section of trench was immediately backfilled to 2 to 3 feet bgs using the clean fill material imported from the wharf-dredged sediment stockpile located on NAVWPNSTA Seal Beach. The backfill material was placed in 12-inch-thick lifts and compacted to a minimum of 90 percent of the maximum dry density as measured by the modified Proctor test [ASTM D 1557 test method]. The debris-free overburden soil that was previously staged beside the excavation was then used to backfill the remaining excavation to original grade After backfill and compaction was completed, the excavation and backfill process continued in the next contiguous section of trench. Dredge sediment soil from the wharf was used as fill material to regrade the eastern slope of Perimeter Pond. Fill material was placed to build up the steep slopes and to construct the slopes with a gentle 4 horizontal to 1 vertical (4H:1V) inclination.

Excavation activities in Area 5 concluded on February 25, 2004. The final dimensions of the excavation in the east trench were 30 feet wide by 160 feet long and 9 feet deep In the west trench, excavation proceeded to a total depth of 6 feet bgs, 20 feet in width, and 40 feet in length. In total approximately 1,300 cubic yards (or 1,500 tons) of soil and debris were excavated from the two disposal trenches in Area 5. Backfill and compaction activities in Area 5 were completed

on February 27, 2004. Approximately 1,800 tons of dredge sediment from the wharf were re-used as clean backfill material in Area 5. At the request of the SBNWR Manager, two swales were constructed in Area 5. One swale, which resembles a horseshoe, starts midpoint at the east slope of the Perimeter Pond and after making a half circle turn, terminates approximately 150 feet to the north and is reconnected to Perimeter Pond.

The second swale starts near the southwest slope of Perimeter Pond and terminates near the southeast side of East Pond. The two swales are approximately 10 feet wide and 18 inches deep. A post-backfill land survey of Area 5 was performed on April 6, 2004. Figure 4-5 shows the final as-built surveyed grades of Area 5 and the location and configuration of the swales.

4.6.5 UXO Screening

As required by the Addendum to the Final Project Work Plan (TtFW, 2004b), a two-phase UXO screening process was employed during the project. The first phase involved visual screening by a UXO technician as soil/debris was removed from the ground in Area 5. This phase commenced on February 17, 2004, corresponding to the start of excavation of the two disposal trenches in Area 5. The UXO technicians carefully monitored the materials as they were lifted from the excavation. It was stipulated in the Addendum to the Final Project Work Plan (TtFW, 2004b) that if at any time a suspect MEC item was spotted, all work would cease and non-UXO personnel would be moved to a safe location while the UXO technician positively identified the item(s) as MEC or non-MEC. If the item was then found to be MEC, the procedures outlined in the Addendum to the Final Project Work Plan (TtFW, 2004b) would then be followed to address proper handling and disposition of the item(s). The first phase of UXO screening work concluded on February 25, 2004, corresponding to the completion of excavation in Area 5. No MEC items were encountered during excavation activities in Area 5.

The second phase of the UXO screening process involved the excavated materials from Area 5 that were subsequently stockpiled on site pending characterization and off-site disposal. After being transported to the stockpile area, the soil/debris was subsequently spread with a backhoe in A 6-inch-thick layer on a 20-foot-wide by 50-foot-long lay-down area. Once the load was spread, the second phase of the debris screening was accomplished by UXO technicians examining the debris both visually and with a magnetometer. All debris excavated from Area 5 was examined. All debris that indicated a magnetic signature was dissected to identify the metal source. Once a layer of debris had been screened, it was removed from the lay-down area and kept segregated from the unscreened soil/debris stockpile.

The quantity of soil/debris stockpiled from the two disposal trenches in Area 5 was approximately 1,300 tons. In total, UXO screening of this material produced 56 MEC-related items that required either demilitarization (shredding or otherwise disfiguring the item so that it is no longer recognizable as ordnance) prior to off-site disposal or relinquishment of custody to EOD for disposal. All 56 MEC-related items were demilitarized by TtFW UXO technicians and

certified as inert and disposed as non-hazardous waste along with other excavated soil and debris generated from the removal of buried waste at IRP Site 7 Area 5, at CWM disposal facility located in Kettleman City, California. The demilitarization of the MEC-related items was also verified by a Department of Defense (DoD) representative (see Appendix B).

4.6.6 IRP Site 4 AOPCs 1A and 2A

The objective for the removal activities at IRP Site 4 AOPCs 1A and 2A was to mitigate the risk to site-specific ecological receptors due to the potential for exposure to lead-contaminated soil. Specifically, mitigation of this risk required that soil with lead concentration in excess of 600 mg/kg be excavated and transported off site. Mitigation of this risk further required that the area-wide arithmetic mean for residual lead concentrations in soil at the conclusion of the removal action be less than 100 mg/kg.

Following the initial land survey at IRP Site 4 AOPCs 1A and 2A, pre-excavation soil sampling was performed. In each of the 213 50-foot by 50-foot grid cells, two samples were collected from a single, randomly located hand-auger boring. For the pre-excavation soil samples, each boring location was determined using computer-generated random numbers that corresponded to horizontal distances (x and y coordinates) away from the origin (node) of the grid cell to be sampled. These randomly selected boring locations were surveyed as part of the initial land survey. Soil samples were collected from each boring at depths of 0.5 feet and 1.5 feet bgs. As there were 213 grid cells, this yielded a total of 426 pre-excavation samples (plus QC samples). The samples were submitted to APCL (located in Chino, California), a DON- and California-approved analytical laboratory, for analysis of total lead concentration. Pre-excavation sampling commenced in AOPC 2A on December 8, 2004, and was completed in all of AOPCs 1A and 2A by December 11, 2004. All pre-excavation samples in AOPCs 1A and 2A were collected per the methodology described in the SAP (ItFW, 2004a).

Upon receipt of the pre-excavation soil sampling results, the data was reviewed to determine in which grids, if any, the sample results exceeded the TCG for lead of 600 mg/kg (Table 4-3). Pre-excavation soil sample results indicated that 30 of the 213 grid cells required excavation. In addition, there were seven grid cells with soil samples collected during the RSE investigations that had indicated lead concentrations of greater than 600 mg/kg. These grid cells also required excavation. The grids requiring excavation included 17 of the 138 grid cells in AOPC 1A (Figure 2-1) and 20 of the 78 grid cells in AOPC 2A (Figure 2-2). In AOPC 1A, lead concentrations in the 17 grid cells that required excavation ranged from 524 mg/kg to 6,540 mg/kg. In AOPC 2A, lead concentrations in the 20 grid cells that required excavation ranged from 530 to 4,530 mg/kg.

Soil excavation in AOPCs 1A and 2A commenced on January 24, 2004. All grid cells where pre-excavation sample results indicated elevated lead concentrations were excavated to a depth of 6 inches below the pre-excavation sample depth. For example, if the pre-excavation sample

result from a sample collected at 0 5 feet bgs exceeded the TCG of 600 mg/kg, the entire 50-foot by 50-foot grid cell was subsequently over-excavated to a depth of 1 foot bgs. As the contaminated soil was removed, it was transferred to a stockpile area. The stockpile containment area consisted of a 20-mil-thick PVC liner placed underneath the stockpile with the liner extending over a 1-foot-high berm constructed with sandbags all along the entire perimeter of the containment area.

The majority of the grid cells only required excavation from zero to 1 foot bgs. In AOPC 1A, 12 of the 17 grid cells with elevated lead levels required excavation from zero to 1 foot bgs, four grid cells required excavation from 1 to 2 feet bgs, and only one grid cell required excavation from zero to 2 feet bgs based on the pre-excavation sample results. In AOPC 2A, 17 of the 20 grid cells with elevated lead levels required excavation from zero to 1 foot bgs, two grid cells required excavation from 1 to 2 feet bgs, and only one grid cell required excavation from zero to 2 feet bgs based on the pre-excavation sample results.

In six of the 37 grid cells requiring excavation based on the pre-excavation sample results, lead concentrations were below the TCG of 600 mg/kg in the 0 5-foot bgs sample, but exceeded the TCG in the 1 5-foot bgs sample. In these cases, due to the relatively small quantity of clean overburden soil (1 foot, assuming the soil transitions from clean to contaminated midway between sample intervals), it was not considered to be cost-effective to segregate the overburden soil from the deeper soil interval containing elevated levels of lead, and the two were subsequently comingled in the stockpile area.

After initial excavation of the grid cells based on pre-excavation sampling, confirmation samples were collected. Random sample locations were selected based on the same methodology as the pre-excavation samples. One sample was collected from a random location on the grid cell floor, and one sample was collected from a random location along each of the four sidewalls. These samples were collected per the methodology described in the Final SAP (TtFW, 2004a).

The laboratory analytical results for lead from the confirmation samples were reviewed and compared with the TCG for lead (600 mg/kg) to determine whether additional excavation was required. All grid cells with lead concentrations exceeding 600 mg/kg were further excavated and re-sampled for verification purposes. The entire floor area of the grid cells with lead concentrations exceeding the TCG was excavated an additional 6 inches in depth. All grid cell sidewalls with lead concentrations exceeding the TCG were excavated an additional 5 feet laterally along the entire length of the grid cell wall and to a depth equal in elevation to the existing grid cell floor. This process was repeated until confirmation sample results indicated that lead concentrations in all of the grid cell floors and sidewalls in IRP Site 4 AOPCs 1A and 2A were below the TCG (Figures 4-6 and 4-7).

A running average of the residual lead concentration in soil was also maintained during the work per the requirements that the arithmetic mean for lead in soil remaining at the site at the conclusion of the removal action be less than 100 mg/kg The arithmetic average of lead concentrations in soil is the total of soil sample lead concentrations results for the pre-excavation characterization samples and the verification samples (only the total of those results that were less than 600 mg/kg), divided by the total number of the results Based on the pre-excavation sampling, lead concentrations ranged from 2.9 mg/kg to 517 mg/kg in the 179 grid cells that were below the TCG, with a mean lead concentration of 43.6 mg/kg. As excavation and confirmation sampling progressed, the mean value was continually recalculated as additional confirmation sampling data was obtained The final mean concentration for residual lead in soil in AOPCs 1A and 2A was 63 7 mg/kg.

Soil excavation and confirmation sampling activities were completed in AOPCs 1A and 2A on March 8, 2004. A total of 5,200 cubic yards (or 7,800 tons) of lead-impacted soil was excavated from AOPCs 1A and 2A during the removal action.

Upon receipt of confirmation sample results indicating that the floor and sidewalls of grid cells were clean, the excavated grid cells were backfilled using the clean fill material imported from the wharf-dredge sediment stockpile located on NAVWPNSTA Seal Beach The backfill material was placed in 12-inch-thick lifts and compacted to a minimum of 90 percent of the maximum dry density (as measured by the modified Proctor test). Backfilling of AOPCs 1A and 2A excavated grid cells began on February 2, 2004, and were completed on March 1, 2004 Backfilling took place immediately after receiving confirmation test results for soil samples from the laboratory indicating that the TCG had been achieved.

Compaction test results completed for AOPCs 1A and 2A are shown in Figure 4-8. A total of seven compaction tests were completed for the backfilled grid cells. Compaction results ranged from 93 to 99 percent of the maximum dry density as measured by the modified Proctor test method (ASTM D 1557).

A final grade elevation measurement was conducted using land survey methods. A total of 20 grid cells located within AOPCs 1A and 2A were surveyed on April 7, 2004. The purpose of the survey was to document the as-built surface elevations and to ensure that the backfilled grid cells had been returned to the original grade (Figure 4-8).

4.6.6.1 Confirmation Sample Analysis and Results

All confirmation samples were collected per the methodology described in the Final SAP (TtFW, 2004a). Confirmation samples were collected using 9-ounce, pre-cleaned glass sample jars The soil sample collected from each random location was scooped and transferred directly into the jars. The jars were closed with a Teflon®-coated lid and labeled to identify sample number, date, and time.

A total of 245 confirmation samples were collected and analyzed during the removal activities, which included 19 field duplicates. In AOPC 1A, 23 floor samples and 95 sidewall samples were collected. In AOPC 2A, 26 floor samples and 101 sidewall samples were collected. All confirmation samples that were collected at the site were transferred to APCL and analyzed for lead using U.S. Environmental Protection Agency (EPA) Method 6010B.

Lead concentrations of the final confirmation samples collected in AOPC 1A ranged from 2.9 to 517 mg/kg (Table 4-4). Lead concentrations of the final confirmation samples collected in AOPC 2A ranged from 3.9 to 590 mg/kg (Table 4-4).

4.6.6.2 Data Validation

Data validation was performed in accordance with the DON NFECSW Environmental Work Instruction #1 (3EN2.1) by Laboratory Data Consultants, Inc., an independent subcontractor and reviewer. Ten percent of the data were subjected to Level IV validation; the remaining 90 percent of the data were subjected to Level III validation. The data validation process consisted of a systematic assessment and verification of data quality. The data validation followed the EPA Contract Laboratory Program National Functional Guidelines (EPA, 1994). One hundred percent of the sample analyses were reviewed for all QC data per EPA guidelines to include checks for proper methodology, level of QC effort (frequency of runs), and for conformance of project-defined QC limits. Ten percent of the samples were checked for raw data errors (calculation algorithms, transcription errors, and special identification errors). Raw data checks on 10 percent of the samples did not show any significant errors. The verification data include the results of the evaluation performed by the independent data validator. Validated data have met project quality assurance goals as described in the Final SAP (TtFW, 2004a). Data validation summary reports and laboratory analytical data and the related chain-of-custody records are provided in Appendix C.

4.7 SOIL STOCKPILING, SAMPLING, AND ANALYSIS

The excavated material was stockpiled on site until final waste classification was made for disposal. The area under the stockpile was covered with 20-mil polyethylene liner and bermed with sandbags to prevent surface water runoff from coming into contact with the stockpile. In addition, the stockpile was covered with 10-mil polyethylene liner to prevent windblown dust emissions and rain from coming into contact with the contaminated soil. Prior to sampling, the height, width, and length of the stockpile were measured and used to estimate the stockpile volume and weight. In accordance with the Final Project Work Plan (TtFW, 2004a) requirements, the stockpile was partitioned into approximate 100-cubic-yard segments for sampling. The 100-cubic-yard stockpile segments were marked and identified in the field using paint and surveying stakes. According to the Final Project Work Plan (TtFW, 2004a), one unique stockpile sample identification number was assigned to each estimated 100-cubic-yard batch of stockpiled soil. Based on stockpile sampling results, excavated soil from AOPCs 1A and 2A was

classified as non-RCRA-hazardous waste, and soil and debris removed from Area 5 was classified as non-hazardous waste In addition, portions of the stockpiled soil generated from the removal action at IRP Site 5 that was intended for reuse as topsoil for the landfill cover did not meet the clean fill criteria and was classified as non-hazardous waste and hauled off site for disposal. Approximately 7,800 tons of non-RCRA (California) hazardous waste and 1,700 tons of non-hazardous waste were generated and hauled off site for disposal.

4.7.1 Stockpile Sampling Methods and Procedures

One composite soil sample was collected from each estimated 100-cubic-yard batch of stockpiled soil Composite samples were generated by collecting five soil samples in 9-ounce, pre-cleaned glass jars at random locations and depths from each 100-cubic-yard batch of stockpiled soil and submitting to the analytical laboratory for homogenization and analysis. A total of 51 composite samples were analyzed for total metals. Additional analyses for waste characterization purposes included pesticides, PCBs, VOCs, and SVOCs

4.7.2 Stockpile Sample Analysis and Results

Based on stockpile sample results for total lead using EPA Method 6010B/7000, Toxicity Characteristic Leaching Procedure (TCLP) and Soluble Threshold Limit Concentration (STLC) testing were performed. TCLP is required for samples where the total lead concentration exceeds 100 mg/kg (20 times lead's regulatory TCLP value of 5 mg/L). TCLP results in excess of 5 mg/L indicate that the material associated with the sample is classified as RCRA-hazardous waste. STLC testing is required for any samples where the total lead concentration is greater than or equal to 50 mg/kg (10 times the lead STLC value of 5 mg/L) STLC results in excess of 5 mg/L indicate that the material associated with the sample is classified as non-RCRA-hazardous waste.

Based on the STLC results, the 7,800 tons of soil excavated from IRP Site 4 AOPCs 1A and 2A were classified as non-RCRA-hazardous waste. The 1,700 tons of debris excavated from IRP Site 7 Area 5 and surficial debris collected from Areas 3, 4, and 6 were classified as non-hazardous waste based upon sample results. See Table 4-5 for stockpile sample results

4.8 FIELD SAMPLING METHODS AND PROCEDURES

This section discusses the handling, preservation, packaging and shipment of soil samples collected in the field during the removal activities, and sample documentation

4.8.1 Sample Containers and Preservation

Soil sample containers consisted of 9-ounce, pre-cleaned, unpreserved glass jars. The laboratory performing the analyses was responsible for supplying new sample containers prepared in accordance with EPA or other applicable protocol

Before transportation and storage, each soil sample was labeled, packaged, and preserved in a cooler with ice to 4 ± 2 degrees Celsius (°C). Sample preservation was performed in the field by a qualified sampling technician. Samples were then submitted to the laboratory for analysis.

4.8.2 Sample Packaging and Shipment

Sample containers were placed in double-resealable plastic bags in order to limit the possibility of breakage and placed into a plastic cooler with ice immediately following collection. The sample coolers were picked up at the site by a courier and delivered to the laboratory.

4.8.3 Sample Documentation

The samples were sealed with a tamper-proof seal and clearly identified with a sample label affixed to the sample container. Each sample label contained the sample number, date of sample collection, time of sample collection, and sampler's initials.

4.9 WASTE CLASSIFICATION AND DISPOSAL

There were several waste streams that resulted from IRP Site 7 and Site 4 AOPCs 1A and 2A remedial activities. These waste streams included approximately 9,500 tons of excavated soil and debris, used PPE, and miscellaneous debris.

This subsection describes the disposal methods for the waste streams generated at the site. All waste material generated at IRP Site 7 and Site 4 AOPCs 1A and 2A was disposed of at CWM disposal facility located in Kettleman City, California, which is a CERCLA-approved waste disposal facility. The use of the disposal facility was subject to approval under TtFW Subcontractor Qualification Procedures.

4.9.1 Contaminated Soil Disposal

Following excavation, stockpiling, and classification, the excavated soil from IRP Site 4 AOPCs 1A and 2A was disposed of as California hazardous waste (non-RCRA). The contaminated soil (approximately 7,800 tons) was loaded onto truck trailers and hauled to the disposal facility.

Contaminated soil load out commenced on March 15, 2004, and concluded on March 25, 2004. A total of 331 truck trailers were used for loading and transporting the contaminated soil to the disposal facility. The truck trailers were supplied by DenBeste Transportation, Inc. A CAT 325 excavator was used for loading the truck trailers. A portable scale was mobilized and set up at the site during the loading operations to weigh each truck trailer before leaving the site in order to ensure compliance with Department of Transportation regulations. The scale was fitted with an electronic digital counter that weighed each axle. The scale had an accuracy of ±5 percent. The trailer trucks had an average capacity of 24 tons. Care was taken not to overload the trucks. All trucks hauling waste off site were covered with tarps before departing the site.

A uniform hazardous waste manifest was filled out for each loaded truck trailer and submitted to the DON for signature. Original copies of the manifests were provided to the transporter for shipment

4.9.2 Non-hazardous Soil/Debris Disposal

Following excavation, stockpiling, and classification, the soil/debris (approximately 1,700 tons) excavated from IRP Site 7 Area 5 and the surficial debris removed from IRP Site 7 Areas 3, 4, and 6 and a non-reusable portion of IRP Site 5 stockpile soil was disposed of as non-hazardous waste. The material was loaded onto truck trailers and hauled to the CWM disposal facility in Kettleman City, California.

Non-hazardous waste load out commenced on March 25, 2004, and concluded on March 29, 2004. A total of 73 truck trailers were used for loading and transporting the non-hazardous waste to the disposal facility. The truck trailers were supplied by DenBeste Transportation, Inc. A CAT 325 excavator was used for loading the truck trailers. All trucks were weighed and covered with plastic tarps before departing the site.

A non-hazardous waste manifest was filled out for each loaded truck trailer and submitted to the DON for signature. Original copies of the manifests were provided to the transporter for shipment.

4.9.3 Used Personal Protection Equipment

The on-site excavation activities were performed in Level D or modified Level D PPE. All used PPE materials were placed in drum lines placed inside 55-gallon drums for temporary storage. The drum liners containing waste PPE, along with miscellaneous debris, were later placed in a truck trailer, along with the contaminated soil classified as non-RCRA hazardous waste, and hauled off site for disposal. Two 55-gallon drums filled with PPE waste, including used Tyvek® and rubber nitrile gloves, were generated during the removal activities.

4.10 SITE RESTORATION

Site restoration consisted of reseeding of the sites. Special botanical species seed mix was designed and used for revegetation and restoration of the areas impacted as a result of the remediation activities at IRP Site 4 (AOPCs 1A and 2A) and IRP Site 7 [Areas 1 (landfill) and Area 6]. A revegetation design consisting of application of seeding mix and planting for the upland and wetland areas was prepared by TtFW and provided to the SBNWR Manager and the NAVWPNSTA Seal Beach Conservation Project Manager for review and approval. IRP Site 7 Area 1 (landfill) and IRP Site 4 AOPC 2A are located outside the SBNWR. Refer to Figure 4-9 for the various revegetation areas. The seed mix developed for these areas was applied using mechanical seeding equipment at a rate of approximately 20 pounds of seed mix per acre. IRP Site 4 AOPC 1A is located within the SBNWR and within the wetland areas and will be revegetated by planting 2¼-inch by 2¼-inch and 3-inch-deep plug plants

For the upland areas [the landfill cover which is approximately 9 acres in size (see Figure 4-9)], the following seed mix was developed:

- *Deschampsia cespitosa* (perennial grass) – 4 pounds per acre
- *Koeleria macrantha* (perennial grass) – 2 pounds per acre
- *Melica impefecta* (perennial grass) – 3 pounds per acre
- *Achillea millefolium* (perennial flower/ground cover) – 1.5 pounds per acre
- *Trifolium obtusiflorum* (annual ground cover/clover) – 2 pounds per acre
- *Lasthenia glabrata* (annual flower) – 1 pound per acre
- *Camissonia cheiranthifolia* (annual plant/ground cover) – 2 pounds per acre

For the disturbed areas at IRP Site 4 AOPC 2A and the flat area from the edge of Perimeter Road to Area 6 at IRP Site 4 AOPC 1A, (which is an area of approximately 67,000 square feet), the seed mix was composed of the following ingredients The seed mix was applied over this area using a seeding machine.

- *Frankenia salina* (Alkali heath) – 4 pounds per acre
- *Limonium californicum* (Sea lavender) – 4 pounds per acre
- *Distichlis spicata (Saltgrass)* – 4 pounds per acre

The seeds used for the revegetation were locally collected materials obtained from commercial sources Seeds were collected from plants in the Southwestern South Coast California Floristic Province as defined in Jepson to ensure genetically appropriate stock and from the same general habitat type and elevation as the project sites. Seeds also were collected from large numbers of individuals to increase genetic variability

Two combinations of plant species will be used for the revegetation of AOPC 1A. The plug plants will be provided to the USFWS who would be planting them in 5-foot center clusters. One combination will consist of plug plants, propagated using seeds from the following plant species, and will be planted in the disturbed areas of IRP Site 4 AOPC 1A between the edge of Perimeter Road and 15 feet out to the north. The approximate size of this area is half an acre.

- *Frankenia salina* (Alkali heath) [Propagated from seed]
- *Limonium californicum* (Sea lavender) [Propagated from seed]
- *Distichlis spicata* (Saltgrass) [Propagated from rhizomes]

The disturbed areas within AOPC 1A between 15 feet from Perimeter Road and 100 feet to the north will be revegetated using plug plants propagated with seeds from the following vegetation

species. The plug plants will be planted in 5-foot center clusters. The size of this area is approximately 2 acres.

- *Salicornia virginica* (Pickleweed) [propagated from vegetative fragments]
- *Jaumea carnosa* (Jaumea) [propagated from rhizomes or seed]
- *Batis maritima* (Saltwort) [Propagated from rhizomes]

4.11 DEMOBILIZATION

Demobilization consisted of decontamination and removal of all equipment, cleaning the project site, and initial and final inspections.

4.11.1 Equipment Decontamination

Decontamination was performed on the sampling tools, earthmoving equipment (excavator, loader, and backhoe), and miscellaneous equipment (shovels, picks, and so forth). The decontamination procedures outlined below were supervised and accepted by the Site Health and Safety Specialist (SHSS).

- All equipment that came in contact with contaminated soil was brushed clean before leaving the site.
- Special attention was paid to removal of material on and within the bucket and undercarriage of the excavator.
- All equipment was inspected by the SHSS and the Project Superintendent before leaving the site.

4.12 PHOTOGRAPHIC LOG

Photographs of the site were obtained during the implementation of the removal activities. The photographs illustrate how the work was conducted during excavation, stockpiling, dust control, debris screening for MEC-related items, landfill cover repair, geophysical survey, and loading of contaminated material for off-site shipment and disposal. The photographs are presented in Appendix D.

4.13 PROJECT MANAGEMENT

This section provides an overview of the project management team that is responsible for all technical and administrative aspects of the removal action. Included among the team's responsibilities are the project schedule, staffing, data management, document control, project meetings, and reporting.

The DON RPM for this project is Mr. Si T. Le. Mr. Le was responsible for project management, budget control, schedule maintenance, and contacting regulatory agencies. Mrs Pei-Fen

Tamashiro is the NAVWPNSTA IR Program Manager Mrs. Tamashiro was responsible for community relations and ensuring that the field and remedial activities were in compliance with the applicable rules and regulations Mr David Crawley is the ROICC and responsible for the technical oversight of field activities, coordination of field activities with different NAVWPNSTA Seal Beach departments and personnel, and QC Mr. Chris Leadon is the DON Remedial Technical Manager, responsible for the technical oversight and review of the project documents.

TtFW's Deputy Program Manager (DPM), Dr. Jamshid Sadeghipour, PE, has been responsible for general project administration to ensure the quality of all project activities and deliverables As TtFW's Project Manager, Mr Hamlet Hamparsumian's responsibilities included general project administration, budget and schedule oversight, and document preparation He was also responsible for ensuring the quality of all project activities and deliverables. Mr. Glenn Nardin was the Project Superintendent during the field activities and was responsible for managing the fieldwork, providing oversight to the subcontractors, coordinating efforts among all subcontractors, coordinating the field activities with the senior technical staff, and coordinating the field activities with the SHSS Mr Patrick Tinnes was the Project QC Manager and SHSS. As the Project QC Manager, Mr Tinnes was responsible for coordinating with the QC Program Manager (Ms. Mary Schneider) to ensure that all field activities were in compliance with the project specifications.

The following is a list of the key contacts:

Agency	Contact	Title
Naval Facilities Engineering Command, Southwest Division 1220 Pacific Highway San Diego, CA 92132-5190	Si T. Le (619) 532-1235	DON RPM
Naval Weapons Station Seal Beach 800 Seal Beach Boulevard Building 110 Seal Beach, CA 90740-5000	Pei-Fen Tamashiro (562) 626-7897	NAVWPNSTA IR Program Manager
ROICC Los Angeles Naval Weapons Station Seal Beach Building 230 Seal Beach, CA 90740-5000	David Crawley (562) 626-7964	ROICC
Naval Facilities Engineering Command, Southwest Division 1220 Pacific Highway San Diego, CA 92132-5190	Chris Leadon (619) 532-3878	Remedial Technical Manager

Agency	Contact	Title
Naval Facilities Engineering Command, Southwest Division 1220 Pacific Highway San Diego, CA 92132-5190	Beatrice Appling (619) 532-4261	Contracting Officer
California Environmental Protection Agency Department of Toxic Substances Control Office of Military Facilities 5796 Corporate Way Cypress, CA 90630	Katherine K Leibel (714) 484-5446	DTSC RPM
California Regional Water Quality Control Board, Santa Ana Region 3737 Main Street, Suite 500 Riverside, CA 92501-3348	Patricia Hannon (909) 782-4498	RWQCB-RPM
TtFW 1940 East Deere Avenue, Suite 200 Santa Ana, CA 92705	Jamshid Sadeghipour (949) 756-7519	DPM
TtFW 1940 East Deere Avenue, Suite 200 Santa Ana, CA 92705	Hamlet Hamparsumian (949) 756-7520	Project Manager
TtFW 1940 East Deere Avenue, Suite 200 Santa Ana, CA 92705	Mary Schneider (949) 756-7586	QC Program Manager
TtFW 1940 East Deere Avenue, Suite 200 Santa Ana, CA 92705	Glenn Nardin (714) 822-4691	Project Superintendent
TtFW 1940 East Deere Avenue, Suite 200 Santa Ana, CA 92705	Patrick Tinnes (949) 756-7543	Project QC Manager

5.0 COSTS OF THE REMOVAL ACTION

This section summarizes the estimated costs of the removal action. The estimated costs include the Prime Contractor's direct and indirect costs, subcontractor costs, taxes, bonds, and insurance

Activity	Estimated Cost
Project management (including project administration, project controls, procurement, regulatory interaction, community relations, and so forth)	$ 259,800
Remedial Work Plan/Closure Report	$ 131,500
Construction management (including site supervision, site QC, site health and safety)	$ 277,600
Miscellaneous expenses (including rental of small equipment, field trailer, storage containers, site vehicles, and so forth)	$ 73,400
Computer usage, reproduction, telephone, office supplies, travel	$ 66,700
Mobilization	$ 8,200
Clear and grub	$ 6,500
Land surveying	$ 26,200
Geophysical surveying	$ 11,900
Sampling and analysis	$ 101,900
Excavation of lead-contaminated soil (including labor and equipment)	$ 133,400
Load and haul clean backfill material	$ 136,900
Final grading (including labor, equipment, and testing)	$ 103,700
Revegetation	$ 27,000
Waste transportation and disposal	$ 502,200
Data validation and reduction	$ 40,200
UXO oversight and screening	$ 41,700
Demobilization	$ 5,500
Total Costs:	$ 1,953,500

6.0 PUBLIC INFORMATION/COMMUNITY RELATIONS ACTIVITIES

Community relations activities were conducted by the DON to inform the public about the cleanup activities at IRP Site 7 and Site 4 AOPCs 1A and 2A and to encourage involvement in the review of relevant documents and discussion regarding the cleanup plan These activities are briefly described below.

6.1 PUBLIC INFORMATION

The remediation process was conducted in accordance with the Community Relations Plan prepared by the DON to facilitate public involvement in the decision-making process The DON, as the lead agency, has overall responsibility for public participation activities To gain a more thorough understanding of the activities associated with this removal action, the public was encouraged to review documents contained in the Information Repository This Closeout Report, the Final Project Work Plan (TtFW, 2004a), and the Final AM/RAP (CH2M Hill, 2004), as well as the Final EE/CA (CH2M Hill, 2002a), were made available to the public via the Information Repository located in the Mary Wilson Branch of Seal Beach Public Library. This branch of the library is located at 707 Electric Avenue, Seal Beach, California, 90740, (562) 431-3584 The library is open during the following hours:

Monday and Tuesday	12 noon - 8:00 p m
Wednesday and Thursday	10:00 a m - 6:00 p.m.
Saturday	10:00 a.m. - 5:00 p m
Friday and Sunday	Closed

Documents, reports, newsletters, and Restoration Advisory Board (RAB) meeting agendas, minutes, and presentation materials concerning IRP Site 7 and Site 4 AOPCs 1A and 2A are also included in the repository for public review. The Administrative Record Index is maintained by NFECSW and is available to the public at the NFECSW, 1220 Pacific Highway, San Diego, California, 92132.

6.2 PUBLIC PARTICIPATION

As part of the community outreach effort associated with the DoD IRP, the DON established a RAB to encourage local participation in the hazardous waste cleanup program at NAVWPNSTA Seal Beach. The board is a citizen-based committee representing local community interests. To encourage local participation in the NAVWPNSTA hazardous waste cleanup program, the RAB held several meetings during the investigation and preparation of the Final EE/CA for IRP Site 7 (CH2M Hill, 2002a), Final AM/RAP (CH2M Hill, 2004), and the Final Project Work Plan (TtFW, 2004a), and during the execution of the removal action for IRP Site 7 and Site 4 AOPCs 1A and

2A. The availability of these documents was advertised locally in the *Seal Beach Sun* and the *Orange County Register* newspapers in an effort to encourage public involvement. In addition, the DON has prepared a master mailing list of the local community members. Whenever significant cleanup activities are planned or whenever decisions are made, the community members are notified by mail for information purposes and involvement.

The Draft EE/CA (CH2M Hill, 2001) for IRP Site 7 was issued to the RAB and the regulatory agencies on October 29, 2001, for a 2-month review period. After resolving the RAB and regulatory agencies comments, the Final EE/CA was distributed on May 23, 2002.

In early 2003, the DON decided to combine the IRP Site 4 lead hot spots (AOPCs 1A and 2A) removal action with the removal action for IRP Site 7. A Draft Site 4 Addendum to the IRP Site 7 EE/CA (CH2M Hill, 2003b) to address removal action alternatives for AOPCs 1A and 2A was prepared and submitted to the agencies on May 21, 2003.

A Draft AM/RAP for IRP Site 7 and IRP Site 4 AOPCs 1A and 2A (CH2M Hill, 2003c) was prepared and distributed to the RAB and the agencies on September 12, 2003.

DTSC, the regulatory agency responsible for the California Environmental Quality Act documentation, prepared the Draft Negative Declaration and submitted a notice of the selected remedy to the public for review and comment. A public notice was posted in the *Seal Beach Sun* and *Orange County Register*. The 30-day public comment period began on September 25, 2003, and ended on October 24, 2003.

A Fact Sheet was mailed out by the DON to about 300 recipients on November 18, 2003, describing the removal action recommended in the Draft AM/RAP (CH2M Hill, 2003c)

Afterwards, the DON published a notice in the *Orange County Register* on November 20, 2003, inviting the public and interested community members to attend a public meeting to voice any comments or questions they might have regarding the recommended removal action for IRP Site 7 and Site 4 AOPCs 1A and 2A. The public meeting was held on December 9, 2003, at the Seal Beach City Council Chambers. Once all comments and question were considered, the Final AM/RAP (CH2M Hill, 2004) was distributed to the DTSC and RWQCB on January 13, 2004.

A Draft Project Work Plan (TtFW, 2003) for the implementation of the removal action was submitted to the regulatory agencies and the RAB for review and comment on October 14, 2003. Prior to performing the removal action, TtFW, under the direction of the DON, conducted a presentation for the RAB on September 9, 2003, to discuss the cleanup plan and to solicit RAB comments. Following agency and RAB review of the Draft Project Work Plan, the Final Project Work Plan was issued on January 23, 2004.

Following the completion of the removal activities, TtFW conducted a presentation for the RAB on May 11, 2003, to provide an overview of the work performed at IRP Site 7 and Site 4 AOPCs 1A and 2A.

7.0 EFFECTIVENESS OF THE REMOVAL ACTION

The effectiveness of the removal action implemented at IRP Site 7 and Site 4 AOPCs 1A and 2A are discussed in this section. The recommended removal action for Area 1 at IRP Site 7 presented in the Final EE/CA (CH2M Hill, 2002a) involved repair to the existing soil cover by placing additional cover in areas where waste was exposed or there was cover thickness deficiency. The recommended removal action for Areas 3, 4, and 6 involved removal of the surface debris from the top few feet of soil in Areas 3 and 4 and from the surface in Area 6. The removal action recommended for Area 5 was to excavate and remove the buried debris in two north-south-oriented trenches, dispose of the excavated waste, and backfill.

The results of the confirmation sampling performed at the conclusion of the removal action at IRP Site 4 AOPCs 1A and 2A are summarized and evaluated in this section. The main purpose of this evaluation is to ensure that the results have, in fact, achieved the RAOs for the site. The RAOs for IRP Site 7 and Site 4 AOPCs 1A and 2A were designed to reduce risk to ecological receptors from lead-impacted soil to acceptable levels and to minimize further migration of metals in surface soil at IRP Site 4 AOPCs 1A and 2A. To help meet these RAOs, a site-specific TCG of 600 mg/kg was established for lead. The RAOs also required that the area-wide arithmetic mean for residual lead in soil at the conclusion of the removal action be less than 100 mg/kg.

7.1 CONFIRMATION OF LANDFILL COVER PLACEMENT AND REMOVAL OF SURFICIAL AND BURIED WASTE AT IRP SITE 7

The objective of work in Area 1 was to repair the existing landfill soil cover to a minimum thickness of 2 feet. Prior to cover placement, 162 potholes were excavated to assess the landfill cover thickness. A land survey of the landfill cover prior to fill placement was conducted in order to document the landfill surface elevations. The survey also provided elevation of the top of the waste in grids that had indicated cover deficiency (less than 2 feet of soil cover). A grading plan was prepared based on providing a minimum of 2 feet of cover over the entire landfill and adequate sheet flow drainage away from the landfill surface; and to prevent ponding over the landfill surface. The minimum 2-foot-thick cover over the entire landfill will prevent direct contact with buried waste and will reduce the potential for exposure of ecological receptors to landfill waste and potentially contaminated soil by increasing separation and/or minimizing exposure pathways. This will also eliminate the potential migration of contamination through windblown dust and surface runoff, control surface water runoff, and reduce the potential for erosion of the landfill surface, thus achieving the RAOs developed in the AM/RAP (CH2M Hill, 2004).

The objectives for the removal activities in Areas 3, 4, and 6 were to remove the surface debris and to perform a geophysical survey in Areas 3 and 4 to assess the potential for any subsurface

debris (based on historical data, Area 6 was not suspected of containing subsurface debris). Surface debris scattered over these areas was removed. The entire surface of these areas was monitored using hand held magnetometer/metal detectors to detect any remaining metal objects at or near the surface and to ensure that metal debris was removed. All metals detected by the magnetometer/metal detectors were removed and hauled off site for disposal. Debris that was exposed fully or partially on the surface was removed. Afterwards, a geophysical survey of all of Areas 3 and 4 (Figure 4-3) was conducted. The geophysical survey indicated subsurface buried metal debris in approximately 40 percent of the areas.

As a result of the discussions that took place during the site visit by the DON, DTSC, and USFWS on February 4, 2004, and subsequent discussions with the RWQCB, the DON recommended that no excavation take place at Areas 3 and 4. Areas 3 and 4 are within USACE jurisdictional wetlands within the SBNWR and are blanketed with common pickleweed (*Salicornia virginica*) vegetation. Removal of the buried metal debris would have resulted in destroying the already established pickleweed vegetation and salt marsh habitat. Also, previous investigations had concluded that the soil at IRP Site 7 does not pose significant human health or ecological concerns. Therefore, removal of the metallic debris at IRP Site 7 Areas 3 and 4 was limited to surface debris that was on the ground to avoid adverse temporary impacts to pickleweed vegetation and salt marsh habitat. No excavation was conducted to remove buried debris.

The objective for the removal activities in Area 5 was excavation of two north-south oriented disposal trenches (east trench and west trench) containing buried metallic debris and trash, and off-site disposal of the waste. There were no chemicals of concern associated with Area 5 of IRP Site 7 and, therefore, no TCGs to achieve.

Prior to excavating the two trenches at Area 5, a geophysical survey of the area was conducted to confirm the locations of the trenches determined during previous investigations and to delineate their boundaries. Buried debris, which included mostly metal and wood, was excavated and removed and hauled off site for disposal. The trenches were excavated until native soil was encountered. A visual observation of the excavation was conducted to confirm that the buried waste had been removed. The excavated trenches were subsequently backfilled with clean soil. In addition, all debris from the eastern side slope of Perimeter Pond was removed. Additional clean soil was placed over the slope and graded with a 4H:1V slope.

The removal of surface debris (metal, wood, plastic, and others) from Areas 3, 4, and 6 and buried debris from Area 5 (trenches) has eliminated exposure pathways (for example, water seeps) of wastes to human and ecological receptors. This has reduced the potential for ecological receptors to be exposed to waste and potentially contaminated soil. It has also made it possible to restore habitat that is compatible with the SBNWR habitat, to minimize impact to wetlands, and to improve the conditions of the remaining wetlands, thus achieving the RAOs for IRP Site 7.

7.2 CONFIRMATION SAMPLING RESULTS FOR IRP SITE 4 AOPCS 1A AND 2A AND SUMMARY OF RESIDUAL RISK

The following is a discussion of the confirmation test results for the floors and sidewalls of the excavated grid cells at IRP Site 4 AOPCs 1A and 2A.

The excavation activities at IRP Site 4 AOPCs 1A and 2A started on February 7, 2004. After the initial excavation, confirmation soil samples were collected. The purpose of confirmation sampling was to verify that the site-specific TCG of 600 mg/kg established for lead had been achieved and to document the residual concentrations of lead at the site following the completion of the excavation.

A total of 37 grid cells with lead concentrations ranging from 524 mg/kg to 6,540 mg/kg were excavated. After initial excavation of these grid cells, confirmation soil samples were collected for lead analysis. All grid cell floors or sidewalls with lead concentrations exceeding 600 mg/kg were further excavated and resampled for confirmation purposes. Following additional excavation, the soils in the excavated areas were resampled, and the process continued until the TCG was achieved. A total of 245 confirmation samples were collected from the floor and sidewalls of the excavation areas, which included 19 field duplicate samples. A detailed discussion of the confirmation sampling and analysis is presented in Subsection 4.6.6.1. The laboratory analytical results of the confirmation samples are presented on Figure 4-6 and 4-7 and Table 4-4. The final lead concentration of the confirmation samples collected in AOPC 1A ranged from 2.9 mg/kg to 517 mg/kg and in AOPC 2A ranged from 3.9 mg/kg to 590 mg/kg. The average of residual lead concentrations in all 213 grid cells including the pre-excavation lead concentration results (all results that are less than 600 mg/kg) and post-excavation final confirmation results is 63.7 mg/kg.

Approximately 7,800 tons of lead-impacted soil with concentrations above the TCG of 600 mg/kg were excavated and removed from IRP Site 4 AOPCs 1A and 2A.

The residual lead concentrations in the soil at IRP Site 4 AOPCs 1A and 2A no longer present an ecological risk to the surrounding area. As a result of this removal action, the following RAOs have been achieved:

- Further migration of lead in soil is minimized.
- Risk to ecological receptors from lead-contaminated soil has been reduced to acceptable levels.

8.0 SUMMARY AND RECOMMENDATIONS

Following the excavation of the impacted soils in grid cells at IRP Site 4 AOPCs 1A and 2A, confirmation samples were collected and analyzed for residual concentrations of lead. The confirmation sampling results indicated that lead-impacted soils at IRP Site 4 AOPCs 1A and 2A were removed to concentrations below the established TCG level. Based on the results of the confirmation samples collected from IRP Site 4 AOPCs 1A an 2A following excavation, the RAOs developed in *Final Addendum to the Engineering Evaluation/Cost Analysis (EE/CA) for Non-Time-Critical Removal Action for Site 7, Site 4 Areas of Potential Concern (AOPCs) 1A and 2A, Naval Weapons Station, Seal Beach, Seal Beach, California* (CH2M Hill, 2003a) were achieved. Furthermore, as a result of the RSE findings (BNI, 2001), it was agreed by the DON and the regulatory agencies that no action is required for groundwater at IRP Site 4. As a result, the removal action at IRP Site 4 has been completed, and no further action is recommended for this site.

Furthermore, by placing additional soil cover over the landfill and cleaning up surficial and buried debris at IRP Site 7, the RAOs developed in the Final EE/CA for IRP Site 7 (CH2M Hill, 2002a) and the final addendum to the EE/CA for IRP Site 7 and IRP Site 4 AOPCs 1A and 2A (CH2M Hill, 2003a) were achieved. Therefore, the DON deems the removal action at IRP Site 7 complete and recommends no further action. However, the DON will perform groundwater monitoring at IRP Site 7 for a limited time to confirm that the groundwater is not impacted. In addition, the DON will implement periodic landfill cover inspection and maintenance following the closure of IRP Site 7 Area 1 (landfill). A Post-Closure Inspection and Maintenance Plan will be prepared that will describe in detail the landfill cover inspection and maintenance activities, procedures, and schedule. The Post-Closure Inspection and Maintenance Plan will be prepared by the DON and implemented upon its approval by the regulatory agencies

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TABLES

TABLE 4-1

SUMMARY OF ANALYTICAL RESULTS FROM SOIL OBTAINED FROM THE STATION WHARF

Sample Number Sample Location Sample Date		Backfill Soil Screening Criteria	0023-S4-482 DREDGE STOCKPILE 12 1/6/2004	0023-S4-483 DREDGE STOCKPILE 8 1/6/2004	0023-S4-484 DREDGE STOCKPILE 6 1/6/2004	0023-S4-486 DREDGE STOCKPILE 3 1/6/2004	0023-S4-487 DREDGE STOCKPILE 4 1/6/2004	0023-S4-488 DREDGE STOCKPILE 9 1/6/2004	0023-S4-489 DREDGE STOCKPILE 7 1/6/2004	0023-S4-490 DREDGE STOCKPILE 5 1/6/2004	0023-S4-491 DREDGE STOCKPILE 2 1/6/2004
Analyte	**Units**										
TPH-extractable (EPA 8015B)											
TPH as DIESEL FUEL	mg/kg	--	11 U	11 U	12 U	12 U	11 U	19	12 U	12 U	19
TPH as MOTOR OIL	mg/kg	--	25	12	12 U	12 U	32	150	17	12 U	95
Metals (EPA Method 6010B/7000)											
ANTIMONY	mg/kg	--	5 4 U	5 7 U	6 U	5 8 U	5 3 U	5 3 U	5 8 U	6 1 U	5 2 U
ARSENIC	mg/kg	15 38	4 5	6 8	6 3	7 2	4 5	3 7	8	5 3	4 1
BARIUM	mg/kg	--	74 9	140	143	130	40 5	49 9	136	135	49 4
BERYLLIUM	mg/kg	--	0 21 U	0 23 U	0 24 U	0 23 U	0 21 U	0 21 U	0 23 U	0 24 U	0 21 U
CADMIUM	mg/kg	--	0 21 U	0 048 J	0 13 U	0.024 U	0 21 U	0 21 U	0 23 U	0 24 U	0 21 U
CHROMIUM	mg/kg	46 24	17 2	25 1	20 7	27 3	12	16	26 1	29 6	15 5
COBALT	mg/kg	17 5	8 5	13 1	10 4	16 2	5 5	5 8	14 9	15 4	6
COPPER	mg/kg	39 04	15 4	25 4	21 3	26 4	9 5	12 7	25 8	28 4	11 6
LEAD	mg/kg	35 7	14.7 J	10.2 J	9 8 J	9 6 J	10 4 J	45.9 J	9 8 J	8 9 J	32 8 J
MERCURY	mg/kg	0 3	0 06 J	0 044 J	0 029 J	0 058 J	0 038 J	0 14 J	0 024 J	0 031 J	0 11 J
MOLYBDENUM	mg/kg	--	0 19 J	0 54 U	0 31 U	0 23 U	0 057 U	0 07 U	0 23 U	0 24 U	0 062 U
NICKEL	mg/kg	--	12	17 9	14 6	21 2	8 1	9 2	19 8	20 9	9 6
SELENIUM	mg/kg	0 44	0 43 UJ	0 45 UJ	0 48 UJ	0 47 UJ	0 43 UJ	0 42 UJ	0 46 UJ	0 49 UJ	0 42 UJ
SILVER	mg/kg	--	0 54 UJ	0 056 J	0 076 J	0 58 UJ	0 53 UJ	0 53 UJ	0 58 UJ	0 61 UJ	0 52 UJ
THALLIUM	mg/kg	--	0 54 U	0 57 U	0 6 U	0 58 U	0 53 U	0 53 U	0 58 U	0 61 U	0 52 U
VANADIUM	mg/kg	--	35 2	50 9	42 2	57 2	26 2	26 1	57 5	61 2	26 5
ZINC	mg/kg	177.17	44.2	67.7	53.7	80.1	29	33.5	76.8	79.2	33.3
PESTICIDES (EPA 8081A)											
ALDRIN	µg/kg	--	1 8 U	1 9 U	2 U	2 U	1 8 U	1 8 U	2 U	2 1 U	1 8 U
ALPHA BHC	µg/kg	--	1 8 U	1 9 U	2 U	2 U	1 8 U	1 8 U	2 U	2 1 U	1.8 U
ALPHA ENDOSULFAN	µg/kg	--	1 8 U	1 9 U	2 U	2 U	0 7 J	1 8 U	2 U	2 1 U	1 8 U
ALPHA-CHLORDANE	µg/kg	22,700	0 2 J	1 1 U	1 2 U	1 2 U	0 2 J	0 5 J	1 2 U	1 2 U	0 5 J
BETA BHC	µg/kg	--	1 8 U	1 9 U	2 U	2 U	1 8 U	1 8 U	2 U	2 1 U	1 8 U
BETA ENDOSULFAN	µg/kg	--	3 2 U	3 4 U	3 6 U	3 5 U	3 2 U	3 2 U	3 5 U	3 7 U	3 1 U
DELTA BHC	µg/kg	--	1 8 U	1 9 U	2 U	2 U	1 8 U	1 8 U	2 U	2 1 U	1.8 U
DIELDRIN	µg/kg	511	3 2 U	3 4 U	3 6 U	3 5 U	1 J	3 2 U	3 5 U	3 7 U	0 5 J
ENDOSULFAN SULFATE	µg/kg	2,130	5 4 U	5 7 U	6 U	5 8 U	5 3 U	5 3 U	5 8 U	6 1 U	5 2 U
ENDRIN ALDEHYDE	µg/kg	9 2	3 2 U	3 4 U	3 6 U	3 5 U	3 2 U	3 2 U	3 5 U	3 7 U	3 1 U
ENDRIN KETONE	µg/kg	--	2 1 U	2 3 U	2 4 U	2 3 U	2 1 U	2 1 U	2 3 U	2.4 U	2 1 U
ENDRIN	µg/kg	--	3 2 U	3 4 U	3 6 U	3 5 U	3 2 U	3 2 U	3 5 U	3 7 U	3 1 U
GAMMA BHC (LINDANE)	µg/kg	--	1 8 U	1 9 U	2 U	2 U	1 8 U	1 8 U	2 U	2 1 U	1 8 U
GAMMA-CHLORDANE	µg/kg	--	0 2 J	1 1 U	1 2 U	1 2 U	0 3 J	1 J	1 2 U	1 2 U	1 U
HEPTACHLOR EPOXIDE	µg/kg	--	1 8 U	1 9 U	2 U	2 U	1 8 U	1 8 U	2 U	2 1 U	1 8 U
HEPTACHLOR	µg/kg	--	1 8 U	1 9 U	2 U	2 U	1 8 U	1 8 U	2 U	2 1 U	1 8 U
METHOXYCHLOR	µg/kg	--	11 U	11 U	12 U	12 U	11 U	11 U	12 U	12 U	10 U
P,P'-DDD	µg/kg	806	0 9 J	2 J	1 J	1 J	11	0 7 J	14	2 J	0 7 J
P,P'-DDE	µg/kg	449	4	14	11	12	16	0 7 J	74	20	2 J
P,P'-DDT	µg/kg	2,640	1 J	4	3 J	0 8 J	130	0 7 J	9 1	6	2 J
TOXAPHENE	µg/kg	--	110 U	110 U	120 U	120 U	110 U	110 U	120 U	120 U	100 U
PCBs (EPA Method 8082) Totals	µg/kg	743-1,982									
AROCLOR 1016	µg/kg	--	35 U	37 U	39 U	39 U	35 U	35 U	38 U	40 U	35 U
AROCLOR 1221	µg/kg	--	71 U	75 U	79 U	77 U	70 U	70 U	76 U	81 U	69 U
AROCLOR 1232	µg/kg	--	35 U	37 U	39 U	39 U	35 U	35 U	38 U	40 U	35 U
AROCLOR 1242	µg/kg	--	35 U	37 U	39 U	39 U	35 U	35 U	38 U	40 U	35 U
AROCLOR 1248	µg/kg	--	35 U	37 U	39 U	39 U	35 U	35 U	38 U	40 U	35 U
AROCLOR 1254	µg/kg	--	35 U	37 U	39 U	39 U	35 U	35 U	38 U	40 U	35 U
AROCLOR 1260	µg/kg	--	35 U	37 U	39 U	39 U	35 U	5 J	38 U	40 U	5 J

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Sample Number Sample Location Sample Date		Backfill Soil Screening Criteria	0023-S4-482 DREDGE STOCKPILE 12 1/6/2004	0023-S4-483 DREDGE STOCKPILE 8 1/6/2004	0023-S4-484 DREDGE STOCKPILE 6 1/6/2004	0023-S4-486 DREDGE STOCKPILE 3 1/6/2004	0023-S4-487 DREDGE STOCKPILE 4 1/6/2004	0023-S4-488 DREDGE STOCKPILE 9 1/6/2004	0023-S4-489 DREDGE STOCKPILE 7 1/6/2004	0023-S4-490 DREDGE STOCKPILE 5 1/6/2004	0023-S4-491 DREDGE STOCKPILE 2 1/6/2004
Analyte	**Units**										
VOCs (EPA Method 8260B)											
1,1,1-TRICHLOROETHANE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
1,1,2,2-TETRACHLOROETHANE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
1,1,2-TRICHLOROETHANE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
1,1-DICHLOROETHANE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
1,1-DICHLOROETHENE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
1,2-DICHLOROETHANE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
1,2-DICHLOROPROPANE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
2-HEXANONE	µg/kg	--	51 U	53 UJ	58 UJ	56 UJ	58 U	50 U	56 U	57 U	49 U
ACETONE	µg/kg	--	51 UJ	53 U	58 U	56 U	58 UJ	50 UJ	56 UJ	57 UJ	49 UJ
BENZENE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
BROMODICHLOROMETHANE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
BROMOFORM	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
BROMOMETHANE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
CARBON TETRACHLORIDE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
CHLOROBENZENE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
CHLOROETHANE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
CHLOROFORM	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
CHLOROMETHANE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
CIS-1,2-DICHLOROETHENE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
CIS-1,3-DICHLOROPROPENE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
DIBROMOCHLOROMETHANE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
ETHYLBENZENE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
METHYL ETHYL KETONE(MEK)	µg/kg	--	51 U	53 U	58 U	56 U	58 U	50 U	56 U	57 U	49 U
METHYL ISOBUTYL KETONE (MIBK)	µg/kg	--	51 U	53 U	58 U	56 U	58 U	50 U	56 U	57 U	49 U
METHYL TERT-BUTYL ETHER	µg/kg	--	10 U	11 U	12 U	11 U	12 U	10 U	11 U	11 U	9.8 U
METHYLENE CHLORIDE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
STYRENE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
TETRACHLOROETHENE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
TOLUENE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
TRANS-1,2-DICHLOROETHENE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
TRANS-1,3-DICHLOROPROPENE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
TRICHLOROETHENE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
VINYL ACETATE	µg/kg	--	51 U	53 U	58 U	56 U	58 U	50 U	56 U	57 U	49 U
VINYL CHLORIDE	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
XYLENES (TOTAL)	µg/kg	--	5.1 U	5.3 U	5.8 U	5.6 U	5.8 U	5 U	5.6 U	5.7 U	4.9 U
SVOCs (EPA Method 8270C)											
1,2,4-TRICHLOROBENZENE	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
1,2-DICHLOROBENZENE	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
1,3-DICHLOROBENZENE	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
1,4-DICHLOROBENZENE	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
2,4,5-TRICHLOROPHENOL	µg/kg	--	1700 U	1800 U	1900 U	1900 U	1700 U	1700 U	1800 U	2000 U	1700 U
2,4,6-TRICHLOROPHENOL	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
2,4-DICHLOROPHENOL	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
2,4-DIMETHYLPHENOL	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
2,4-DINITROPHENOL	µg/kg	--	1700 U	1800 U	1900 U	1900 U	1700 U	1700 U	1800 U	2000 U	1700 UJ
2,4-DINITROTOLUENE	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
2,6-DINITROTOLUENE	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
2-CHLORONAPHTHALENE	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
2-CHLOROPHENOL	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
2-METHYLPHENOL	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
2-NITROANILINE	µg/kg	--	1700 U	1800 U	1900 U	1900 U	1700 U	1700 U	1800 U	2000 U	1700 U
2-NITROPHENOL	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
3,3'-DICHLOROBENZIDINE	µg/kg	--	710 U	750 U	790 U	770 U	700 U	700 U	760 U	810 U	690 U

TABLE 4-1

SUMMARY OF ANALYTICAL RESULTS FROM SOIL OBTAINED FROM THE STATION WHARF

Sample Number Sample Location Sample Date		Backfill Soil Screening Criteria	0023-S4-482 DREDGE STOCKPILE 12 1/6/2004	0023-S4-483 DREDGE STOCKPILE 8 1/6/2004	0023-S4-484 DREDGE STOCKPILE 6 1/6/2004	0023-S4-486 DREDGE STOCKPILE 3 1/6/2004	0023-S4-487 DREDGE STOCKPILE 4 1/6/2004	0023-S4-488 DREDGE STOCKPILE 9 1/6/2004	0023-S4-489 DREDGE STOCKPILE 7 1/6/2004	0023-S4-490 DREDGE STOCKPILE 5 1/6/2004	0023-S4-491 DREDGE STOCKPILE 2 1/6/2004
Analyte	Units										
3-NITROANILINE	µg/kg	--	1700 U	1800 U	1900 U	1900 U	1700 U	1700 U	1800 U	2000 U	1700 U
4,6-DINITRO-2-METHYLPHENOL	µg/kg	--	1700 U	1800 U	1900 U	1900 U	1700 U	1700 U	1800 U	2000 U	1700 U
4-BROMOPHENYL-PHENYL ETHER	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
4-CHLORO-3-METHYLPHENOL	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
4-CHLOROANILINE	µg/kg	--	810 U	860 U	910 U	890 U	810 U	800 U	870 U	930 U	800 U
4-CHLOROPHENYL-PHENYL ETHER	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
4-METHYLPHENOL	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
4-NITROANILINE	µg/kg	--	1700 U	1800 U	1900 U	1900 U	1700 U	1700 U	1800 U	2000 U	1700 U
4-NITROPHENOL	µg/kg	--	1700 U	1800 U	1900 U	1900 U	1700 U	1700 U	1800 U	2000 U	1700 U
ACENAPHTHENE	µg/kg	--	5.4 U	5.7 U	6 U	5.8 U	5.3 U	5.3 U	5.8 U	6.1 U	5.2 U
ACENAPHTHYLENE	µg/kg	--	5.4 U	5.7 U	6 U	5.8 U	5.3 U	5.3 U	5.8 U	6.1 U	5.2 U
ANTHRACENE	µg/kg	--	5.4 U	5.7 U	6 U	5.8 U	5.3 U	3 J	5.8 U	6.1 U	3 J
BENZ[A]ANTHRACENE	µg/kg	--	2 J	5.7 U	6 U	5.8 U	5.3 U	5 J	5.8 U	6.1 U	5 J
BENZO[A]PYRENE	µg/kg	140,000	3 J	5.7 U	6 U	5.8 U	8	43	5.8 U	6.1 U	36
BENZO[B]FLUORANTHENE	µg/kg	--	2 J	5.7 U	6 U	5.8 U	2 J	8	5.8 U	6.1 U	7
BENZO[G,H,I]PERYLENE	µg/kg	--	11	5.7 U	6 U	5.8 U	9	47	2 J	6.1 U	32
BENZO[K]FLUORANTHENE	µg/kg	--	2 J	5.7 U	6 U	5.8 U	5.3 U	4 J	5.8 U	6.1 U	5 J
BENZYL BUTYL PHTHALATE (BBP)	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
BIS(2-CHLOROETHOXY) METHANE	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
BIS(2-CHLOROETHYL) ETHER	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
CHRYSENE	µg/kg	--	3 J	5.7 U	6 U	5.8 U	3 J	11	5.8 U	6.1 U	10
DIBENZ[A,H]ANTHRACENE	µg/kg	--	2 J	5.7 U	6 U	5.8 U	5.3 U	6	5.8 U	6.1 U	4 J
DIBENZOFURAN	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
DIETHYL PHTHALATE	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
DIMETHYL PHTHALATE	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
DI-N-BUTYL PHTHALATE	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
DI-N-OCTYLPHTHALATE (DOP)	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
FLUORANTHENE	µg/kg	--	2 J	5.7 U	6 U	5.8 U	5.3 U	4 J	5.8 U	6.1 U	5 J
FLUORENE	µg/kg	--	5.4 U	5.7 U	6 U	5.8 U	5.3 U	5.3 U	5.8 U	6.1 U	5.2 U
HEXACHLOROBENZENE	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
HEXACHLOROBUTADIENE	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
HEXACHLOROCYCLOPENTADIENE	µg/kg	--	1700 U	1800 U	1900 U	1900 U	1700 U	1700 U	1800 U	2000 U	1700 U
HEXACHLOROETHANE	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
INDENO[1,2,3-C,D]PYRENE	µg/kg	--	3 J	5.7 U	6 U	5.8 U	2 J	10	5.8 U	6.1 U	7
NAPHTHALENE	µg/kg	--	5.4 U	5.7 U	6 U	5.8 U	5.3 U	5.3 U	5.8 U	6.1 U	5.2 U
NITROBENZENE	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
N-NITROSODI-N-PROPYLAMINE	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
N-NITROSODIPHENYLAMINE	µg/kg	--	710 U	750 U	790 U	770 U	700 U	700 U	760 U	810 U	690 U
PENTACHLOROPHENOL	µg/kg	--	1700 U	1800 U	1900 U	1900 U	1700 U	1700 U	1800 U	2000 U	1700 U
PHENANTHRENE	µg/kg	41,500	5.4 UJ	5.7 UJ	6 UJ	5.8 UJ	5.3 UJ	3 J	5.8 UJ	6.1 UJ	4 J
PHENOL	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U
PYRENE	µg/kg	606,000	3 J	5.7 U	6 U	5.8 U	2 J	9	5.8 U	6.1 U	10
PYRIDINE	µg/kg	--	350 U	370 U	390 U	390 U	350 U	350 U	380 U	400 U	350 U

TABLE 4-1

SUMMARY OF ANALYTICAL RESULTS FROM SOIL OBTAINED FROM THE STATION WHARF

Sample Number Sample Location Sample Date		Backfill Soil Screening Criteria	0023-S4-492 DREDGE STOCKPILE 1 1/6/2004	0023-S4-493 DREDGE STOCKPILE 11 1/6/2004	0023-S4-494 DREDGE STOCKPILE 10 1/6/2004	0023-S4-495 DREDGE STOCKPILE 16 1/6/2004	0023-S4-496 DREDGE STOCKPILE 13 1/6/2004	0023-S4-497 DREDGE STOCKPILE 14 1/6/2004	0023-S4-498 DREDGE STOCKPILE 17 1/6/2004	0023-S4-499 DREDGE STOCKPILE 15 1/6/2004	0023-S4-743 DREDGE STOCKPILE 18 2/10/2004
Analyte	**Units**										
TPH-extractable (EPA 8015B)											
TPH as DIESEL FUEL	mg/kg	--	12 U	12 U	12 U	12 U	12 U	12 U	13 U	11 U	13 U
TPH as MOTOR OIL	mg/kg	--	21	18	12 U	12 U	12 U	12 U	13 U	28	13 U
Metals (EPA Method 6010B/7000)											
ANTIMONY	mg/kg	--	6 U	6 2 U	6 2 U	6 U	6 2 U	6 U	6 5 U	5 6 U	6.6 U
ARSENIC	mg/kg	15 38	5 5	10 9	9 4	7 9	8 2	6 7	10	12.8	9.1 J
BARIUM	mg/kg	--	188	190	155	142	124	125	102	128	141
BERYLLIUM	mg/kg	--	0 24 U	0 25 U	0 25 U	0 24 U	0.25 U	0 24 U	0 26 U	0 22 U	0 26 U
CADMIUM	mg/kg	--	0 11 U	0.028 U	0 18 U	0 16 U	0.22 U	0 13 U	0 26 U	0.048 U	0 26 U
CHROMIUM	mg/kg	46.24	19 1	30 9	30 6	25 9	27 8	28 8	32 5	22 2	35 7
COBALT	mg/kg	17 5	9 8	17 3	19 1	14 8	16 7	16 2	16 3	13 9	18 2
COPPER	mg/kg	39 04	20 9	32 3	36 2	29 4	28 9	30 5	34 7	22 7	37.5
LEAD	mg/kg	35.7	7 5 J	10 4 J	13 2 J	10 9	11 6	15 1	12 7	12.4	16.7
MERCURY	mg/kg	0 3	0.037 J	0.032 J	0 063 J	0 054 J	0 076 J	0.042 J	0 044 J	0 099 J	0 084 J
MOLYBDENUM	mg/kg	--	0 5 U	0 67 U	0 46 U	0 16 U	0.3 U	0 24 U	0 26 U	0 7 U	0 26 U
NICKEL	mg/kg	--	14.2	24 6	25.7	19 7	21.5	22.8	22 6	17.3	25 8
SELENIUM	mg/kg	0 44	0 48 UJ	0 49 UJ	0 49 UJ	0.48 U	0 49 U	0 48 U	0 52 U	0 45 U	0 53 UJ
SILVER	mg/kg	--	0 28 J	0 62 UJ	0 62 UJ	0 6 U	0 62 U	0 6 U	0 65 U	0 56 U	0 66 U
THALLIUM	mg/kg	--	0 6 U	0 62 U	0 62 U	0 6 U	0 62 U	0 6 U	0 65 U	0 56 U	0 66 U
VANADIUM	mg/kg	--	39	65 1	62 5	54 3	58 4	60 2	51 1	47 1	71 2
ZINC	mg/kg	177.17	51.1	84.7	95.9	82.2	90.2	96.2	97.8	67.4	111
PESTICIDES (EPA 8081A)											
ALDRIN	µg/kg	--	2 U	2 1 U	2 1 U	2 U	2 1 U	2 U	2 2 U	1 9 U	2 2 U
ALPHA BHC	µg/kg	--	2 U	2 1 U	2 1 U	2 U	2 1 U	2 U	2 2 U	1 9 U	2 2 U
ALPHA ENDOSULFAN	µg/kg	--	2 U	2 1 U	2 1 U	2 U	2 1 U	2 U	2 2 U	1 9 U	2 2 U
ALPHA-CHLORDANE	µg/kg	22,700	1 2 U	1 2 U	1 2 U	1 2 U	1 2 U	1.2 U	1 3 U	1.1 U	1 3 U
BETA BHC	µg/kg	--	2 U	2 1 U	2 1 U	2 U	2 1 U	2 U	2 2 U	1 9 U	2 2 U
BETA ENDOSULFAN	µg/kg	--	3 6 U	3 7 U	3 7 U	3 6 U	3 7 U	3 6 U	3 9 U	3 4 U	4 U
DELTA BHC	µg/kg	--	2 U	2 1 U	2 1 U	2 U	2 1 U	2 U	2 2 U	1 9 U	2 2 U
DIELDRIN	µg/kg	511	3 6 U	3 7 U	3 7 U	3 6 U	3 7 U	3 6 U	3 9 U	3 4 U	4 U
ENDOSULFAN SULFATE	µg/kg	2,130	6 U	6.2 U	6 2 U	6 U	6 2 U	6 U	6 5 U	5 6 U	6 6 U
ENDRIN ALDEHYDE	µg/kg	9 2	3 6 U	3 7 U	3 7 U	3 6 U	3 7 U	3 6 U	3 9 U	3 4 U	4 U
ENDRIN KETONE	µg/kg	--	2 4 U	2 5 U	2 5 U	2 4 U	2 5 U	2 4 U	2 6 U	2 2 U	2 6 U
ENDRIN	µg/kg	--	3.6 U	3 7 U	3 7 U	3 6 U	3 7 U	3 6 U	3 9 U	3 4 U	4 U
GAMMA BHC (LINDANE)	µg/kg	--	2 U	2 1 U	2 1 U	2 U	2 1 U	2 U	2 2 U	1 9 U	2 2 U
GAMMA-CHLORDANE	µg/kg	--	1 2 U	1 2 U	1 2 U	1 2 U	1 2 U	1 2 U	1 3 U	1 1 U	1 3 U
HEPTACHLOR EPOXIDE	µg/kg	--	2 U	2 1 U	2 1 U	2 U	2 1 U	2 U	2 2 U	1 9 U	2 2 U
HEPTACHLOR	µg/kg	--	2 U	2.1 U	2 1 U	2 U	2 1 U	2 U	2 2 U	1 9 U	2 2 U
METHOXYCHLOR	µg/kg	--	12 U	12 U	12 U	12 U	12 U	12 U	13 U	11 U	13 U
P,P'-DDD	µg/kg	806	1 J	3 J	2 J	1 J	0 5 J	13	4	2 J	8.1
P,P'-DDE	µg/kg	449	9.7	22	24	12	7	104	41	28	63
P,P'-DDT	µg/kg	2,640	1 J	7	3 J	3 J	0 7 J	2 J	0 8 J	1 J	2 J
TOXAPHENE	µg/kg	--	120 U	120 U	120 U	120 U	120 U	120 U	130 U	110 U	130 U
PCBs (EPA Method 8082) Totals	µg/kg	743-1,982									
AROCLOR 1016	µg/kg	--	40 U	41 U	41 U	40 U	41 U	39 U	43 U	37 U	44 U
AROCLOR 1221	µg/kg	--	79 U	82 U	82 U	80 U	82 U	79 U	86 U	74 U	87 U
AROCLOR 1232	µg/kg	--	40 U	41 U	41 U	40 U	41 U	39 U	43 U	37 U	44 U
AROCLOR 1242	µg/kg	--	40 U	41 U	41 U	40 U	41 U	39 U	43 U	37 U	44 U
AROCLOR 1248	µg/kg	--	40 U	41 U	41 U	40 U	41 U	39 U	43 U	37 U	44 U
AROCLOR 1254	µg/kg	--	40 U	41 U	41 U	40 U	41 U	39 U	43 U	37 U	44 U
AROCLOR 1260	µg/kg	--	40 U	41 U	41 U	3 J	41 U	39 U	43 U	3 J	44 U

TABLE 4-1

SUMMARY OF ANALYTICAL RESULTS FROM SOIL OBTAINED FROM THE STATION WHARF

Sample Number Sample Location Sample Date		Backfill Soil Screening Criteria	0023-S4-492 DREDGE STOCKPILE 1 1/6/2004	0023-S4-493 DREDGE STOCKPILE 11 1/6/2004	0023-S4-494 DREDGE STOCKPILE 10 1/6/2004	0023-S4-495 DREDGE STOCKPILE 16 1/6/2004	0023-S4-496 DREDGE STOCKPILE 13 1/6/2004	0023-S4-497 DREDGE STOCKPILE 14 1/6/2004	0023-S4-498 DREDGE STOCKPILE 17 1/6/2004	0023-S4-499 DREDGE STOCKPILE 15 1/6/2004	0023-S4-743 DREDGE STOCKPILE 18 2/10/2004
Analyte	Units										
VOCs (EPA Method 8260B)											
1,1 1-TRICHLOROETHANE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
1,1 2,2-TETRACHLOROETHANE	µg/kg	--	6 U	6.1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
1,1,2-TRICHLOROETHANE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
1,1-DICHLOROETHANE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
1,1-DICHLOROETHENE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
1,2-DICHLOROETHANE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
1,2-DICHLOROPROPANE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
2-HEXANONE	µg/kg	--	60 U	61 U	56 U	52 U	63 U	57 U	64 U	54 U	69 U
ACETONE	µg/kg	--	60 UJ	61 UJJ	56 UJJ	52 UJJ	63 UJJ	57 UJJ	64 UJJ	54 UJ	69 UJ
BENZENE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
BROMODICHLOROMETHANE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
BROMOFORM	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6.9 U
BROMOMETHANE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
CARBON TETRACHLORIDE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
CHLOROBENZENE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
CHLOROETHANE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
CHLOROFORM	µg/kg	--	6 U	6.1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
CHLOROMETHANE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
CIS-1,2-DICHLOROETHENE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
CIS-1,3-DICHLOROPROPENE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
DIBROMOCHLOROMETHANE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
ETHYLBENZENE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6.4 U	5 4 U	6.9 U
METHYL ETHYL KETONE(MEK)	µg/kg	--	60 U	61 U	56 U	52 U	63 U	57 U	64 U	54 U	69 U
METHYL ISOBUTYL KETONE (MIBK)	µg/kg	--	60 U	61 U	56 U	52 U	63 U	57 U	64 U	54 U	69 U
METHYL TERT-BUTYL ETHER	µg/kg	--	12 U	12 U	11 U	10 U	13 U	11 U	13 U	11 U	14 U
METHYLENE CHLORIDE	µg/kg	--	6 U	6.1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 UJ
STYRENE	µg/kg	--	6 U	6.1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
TETRACHLOROETHENE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
TOLUENE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5.7 U	6.4 U	5 4 U	6 9 U
TRANS-1,2-DICHLOROETHENE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5.4 U	6 9 U
TRANS-1,3-DICHLOROPROPENE	µg/kg	--	6 U	6 1 U	5.6 U	5 2 U	6 3 U	5 7 U	6 4 U	5.4 U	6 9 U
TRICHLOROETHENE	µg/kg	--	6 U	6.1 U	5.6 U	5.2 U	6 3 U	5 7 U	6.4 U	5.4 U	6.9 U
VINYL ACETATE	µg/kg	--	60 U	61 U	56 U	52 U	63 U	57 U	64 U	54 U	69 U
VINYL CHLORIDE	µg/kg	--	6 U	6 1 U	5 6 U	5 2 U	6 3 U	5 7 U	6 4 U	5 4 U	6 9 U
XYLENES (TOTAL)	µg/kg	--	6 U	6.1 U	5.6 U	5.2 U	6.3 U	5.7 U	6.4 U	5.4 U	6.9 U
SVOCs (EPA Method 8270C)											
1,2,4-TRICHLOROBENZENE	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
1,2-DICHLOROBENZENE	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
1,3-DICHLOROBENZENE	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
1,4-DICHLOROBENZENE	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
2,4,5-TRICHLOROPHENOL	µg/kg	--	1900 U	2000 U	2000 U	1900 U	2000 U	1900 U	2100 U	1800 U	2100 U
2,4,6-TRICHLOROPHENOL	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
2,4-DICHLOROPHENOL	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
2,4-DIMETHYLPHENOL	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
2,4-DINITROPHENOL	µg/kg	--	1900 U	2000 U	2000 U	1900 UJ	2000 UJ	1900 UJ	2100 UJ	1800 UJ	2100 U
2,4-DINITROTOLUENE	µg/kg	--	400 U	410 U	410 U	400 UJ	410 UJ	390 UJ	430 UJ	370 UJ	440 U
2,6-DINITROTOLUENE	µg/kg	--	400 U	410 U	410 U	400 UJ	410 UJ	390 UJ	430 UJ	370 UJ	440 U
2-CHLORONAPHTHALENE	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
2-CHLOROPHENOL	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
2-METHYLPHENOL	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
2-NITROANILINE	µg/kg	--	1900 U	2000 U	2000 U	1900 U	2000 U	1900 U	2100 U	1800 U	2100 U
2-NITROPHENOL	µg/kg	--	400 U	410 U	410 U	400 UJ	410 UJ	390 UJ	430 UJ	370 UJ	440 U
3,3'-DICHLOROBENZIDINE	µg/kg	--	790 U	820 U	820 U	800 U	820 U	790 U	860 U	740 U	870 U

TABLE 4-1

SUMMARY OF ANALYTICAL RESULTS FROM SOIL OBTAINED FROM THE STATION WHARF

Sample Number Sample Location Sample Date		Backfill Soil Screening Criteria	0023-S4-492 DREDGE STOCKPILE 1 1/6/2004	0023-S4-493 DREDGE STOCKPILE 11 1/6/2004	0023-S4-494 DREDGE STOCKPILE 10 1/6/2004	0023-S4-495 DREDGE STOCKPILE 16 1/6/2004	0023-S4-496 DREDGE STOCKPILE 13 1/6/2004	0023-S4-497 DREDGE STOCKPILE 14 1/6/2004	0023-S4-498 DREDGE STOCKPILE 17 1/6/2004	0023-S4-499 DREDGE STOCKPILE 15 1/6/2004	0023-S4-743 DREDGE STOCKPILE 18 2/10/2004
Analyte	Units										
3-NITROANILINE	µg/kg	--	1900 U	2000 U	2000 U	1900 U	2000 U	1900 U	2100 U	1800 U	2100 U
4,6-DINITRO-2-METHYLPHENOL	µg/kg	--	1900 U	2000 U	2000 U	1900 U	2000 U	1900 U	2100 U	1800 U	2100 U
4-BROMOPHENYL-PHENYL ETHER	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
4-CHLORO-3-METHYLPHENOL	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
4-CHLOROANILINE	µg/kg	--	910 U	940 U	940 U	920 U	940 U	910 U	990 U	850 U	1000 U
4-CHLOROPHENYL-PHENYL ETHER	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
4-METHYLPHENOL	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
4-NITROANILINE	µg/kg	--	1900 U	2000 U	2000 U	1900 U	2000 U	1900 U	2100 U	1800 U	2100 U
4-NITROPHENOL	µg/kg	--	1900 U	2000 U	2000 U	1900 U	2000 U	1900 U	2100 U	1800 U	2100 U
ACENAPHTHENE	µg/kg	--	6 UJ	6.2 U	6.2 U	6 U	6.2 U	6 U	6.5 U	5.6 U	6.6 U
ACENAPHTHYLENE	µg/kg	--	6 UJ	6.2 U	6.2 U	6 U	6.2 U	6 U	6.5 U	5.6 U	6.6 U
ANTHRACENE	µg/kg	--	6 UJ	6.2 U	6.2 U	6 U	6.2 U	6 U	6.5 U	5.6 U	6.6 U
BENZ[A]ANTHRACENE	µg/kg	--	6 UJ	6.2 U	6.2 U	6 U	6.2 U	6 U	6.5 U	5.6 U	6.6 U
BENZO[A]PYRENE	µg/kg	140,000	6 UJ	6.2 U	6.2 U	6 UJ	6.2 UJ	6 UJ	6.5 UJ	5.6 UJ	6.6 U
BENZO[B]FLUORANTHENE	µg/kg	--	6 UJ	6.2 U	6.2 U	6 U	6.2 U	6 U	6.5 U	5.6 U	6.6 U
BENZO[G,H,I]PERYLENE	µg/kg	--	6 UJ	6.2 U	6.2 U	6 UJ	6.2 UJ	6 UJ	6.5 UJ	3 J	6.6 U
BENZO[K]FLUORANTHENE	µg/kg	--	6 UJ	6.2 U	6.2 U	6 U	6.2 U	6 U	6.5 U	5.6 U	6.6 U
BENZYL BUTYL PHTHALATE (BBP)	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
BIS(2-CHLOROETHOXY) METHANE	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
BIS(2-CHLOROETHYL) ETHER	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	26 J
CHRYSENE	µg/kg	--	6 UJ	6.2 U	6.2 U	6 U	6.2 U	2 J	6.5 U	5.6 U	6.6 U
DIBENZ[A,H]ANTHRACENE	µg/kg	--	6 UJ	6.2 U	6.2 U	6 U	6.2 U	6 U	6.5 U	5.6 U	6.6 U
DIBENZOFURAN	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
DIETHYL PHTHALATE	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
DIMETHYL PHTHALATE	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
DI-N-BUTYL PHTHALATE	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
DI-N-OCTYLPHTHALATE (DOP)	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
FLUORANTHENE	µg/kg	--	6 UJ	6.2 U	6.2 U	6 U	6.2 U	6 U	6.5 U	5.6 U	6.6 U
FLUORENE	µg/kg	--	6 UJ	6.2 U	6.2 U	6 U	6.2 U	6 U	6.5 U	5.6 U	6.6 U
HEXACHLOROBENZENE	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
HEXACHLOROBUTADIENE	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
HEXACHLOROCYCLOPENTADIENE	µg/kg	--	1900 U	2000 U	2000 U	1900 U	2000 U	1900 U	2100 U	1800 U	2100 U
HEXACHLOROETHANE	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
INDENO[1,2,3-C,D]PYRENE	µg/kg	--	6 UJ	6.2 U	6.2 U	6 U	6.2 U	6 U	6.5 U	5.6 U	6.6 U
NAPHTHALENE	µg/kg	--	6 U	6.2 U	6.2 U	6 U	6.2 U	6 U	6.5 U	5.6 U	6.6 U
NITROBENZENE	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
N-NITROSODI-N-PROPYLAMINE	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
N-NITROSODIPHENYLAMINE	µg/kg	--	790 U	820 U	820 U	800 U	820 U	790 U	860 U	740 U	870 U
PENTACHLOROPHENOL	µg/kg	--	1900 U	2000 U	2000 U	1900 U	2000 U	1900 U	2100 U	1800 U	2100 U
PHENANTHRENE	µg/kg	41,500	6 UJ	6.2 U	6.2 U	6 U	6.2 U	6 U	6.5 U	5.6 U	6.6 U
PHENOL	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U
PYRENE	µg/kg	606,000	6 UJ	6.2 U	6.2 U	6 U	6.2 U	6 U	6.5 U	5.6 U	6.6 U
PYRIDINE	µg/kg	--	400 U	410 U	410 U	400 U	410 U	390 U	430 U	370 U	440 U

TABLE 4-1

SUMMARY OF ANALYTICAL RESULTS FROM SOIL OBTAINED FROM THE STATION WHARF

Sample Number Sample Location Sample Date		Backfill Soil Screening Criteria	0023-S4-744 DREDGE STOCKPILE 19 2/10/2004	0023-S4-745 DREDGE STOCKPILE 20 2/10/2004	0023-S4-746 DREDGE STOCKPILE 21 2/10/2004	0023-S4-747 DREDGE STOCKPILE 22 2/10/2004	0023-S4-748 DREDGE STOCKPILE 23 2/10/2004	0023-S4-749 DREDGE STOCKPILE 24 2/10/2004	0023-S4-750 DREDGE STOCKPILE 25 2/10/2004	0023-S4-751 DREDGE STOCKPILE 26 2/10/2004	0023-S4-752 DREDGE STOCKPILE 27 2/10/2004
Analyte	**Units**										
TPH-extractable (EPA 8015B)											
TPH as DIESEL FUEL	mg/kg	--	12 U	12 U	12 U	12 U	12 U	13 U	12 U	12 U	13 U
TPH as MOTOR OIL	mg/kg	--	12 U	12 U	12 U	12 U	40	13 U	12 U	12 U	13 U
Metals (EPA Method 6010B/7000)											
ANTIMONY	mg/kg	--	6 2 U	6 1 U	6 U	6 2 U	5 8 U	6 3 U	6 1 U	6 2 U	6 3 U
ARSENIC	mg/kg	15 38	8 7 J	7 8 J	8 3 J	9 2 J	9 5 J	8.5 J	8 6 J	10 1 J	9 4 J
BARIUM	mg/kg	--	153	134	151	153	129	163	144	193	173
BERYLLIUM	mg/kg	--	0 25 U	0 24 U	0 24 U	0 25 U	0 23 U	0.25 U	0 24 U	0 25 U	0 25 U
CADMIUM	mg/kg	--	0 028 U	0 24 U	0 13 J	0 1 J	0 23 U	0.25 U	0 24 U	0 075 J	0 25 U
CHROMIUM	mg/kg	46 24	33 2	30 9	33 4	33 6	28 7	33 9	31 1	31 7	31 7
COBALT	mg/kg	17.5	16 6	16 8	17 5	17 4	15 2	17	16 5	17 7	18 4
COPPER	mg/kg	39 04	35	31.2	38 2	38 6	28 4	36 3	30 2	29 4	30 9
LEAD	mg/kg	35 7	12 3	12.1	13 3	16 2	13 9	11 9	12.1	12	13.4
MERCURY	mg/kg	0 3	0 069 J	0 065 J	0 17 J	0 069 J	0 21 J	0 065 J	0 078 J	0 057 J	0 072 J
MOLYBDENUM	mg/kg	--	0 21 U	0 24 U	0 24 U	0 21 U	0 88	0 067 U	0 24 U	0 25 U	0 41 U
NICKEL	mg/kg	--	22 4	21.9	24 1	24 8	20 3	23 8	22 1	22 6	23 5
SELENIUM	mg/kg	0 44	0 49 UJ	0 49 UJ	0 86 J	0.5 UJ	0 37 J	0.51 UJ	0 49 UJ	0 49 UJ	0.5 UJ
SILVER	mg/kg	--	0 62 U	0.61 U	0 6 U	0 62 U	0 58 U	0 63 U	0 61 U	0 62 U	0 63 U
THALLIUM	mg/kg	--	0 62 U	0 61 U	0 6 U	0 62 U	0 58 U	0.63 U	0 61 U	0 62 U	0 63 U
VANADIUM	mg/kg	--	69 9	66 5	68 3	69	62 9	72 7	63 5	63	63 7
ZINC	mg/kg	177.17	96	95.9	97.5	104	88.5	102	90.6	88.5	96.5
PESTICIDES (EPA 8081A)											
ALDRIN	µg/kg	--	2 1 U	2 1 U	2 U	2 1 U	2 U	2 2 U	2 1 U	2 1 U	2 1 U
ALPHA BHC	µg/kg	--	2.1 U	2 1 U	2 U	2 1 U	2 U	2 2 U	2 1 U	2.1 U	2 1 U
ALPHA ENDOSULFAN	µg/kg	--	2.1 U	2 1 U	2 U	2.1 U	2 U	2 2 U	2 1 U	2 1 U	2 1 U
ALPHA-CHLORDANE	µg/kg	22,700	1 2 U	1 2 U	1 2 U	0 3 J	0 3 J	1 3 U	1 2 U	1 2 U	1 3 U
BETA BHC	µg/kg	--	2 1 U	2 1 U	2 U	2 1 U	2 U	2 2 U	2 1 U	2 1 U	2.1 U
BETA ENDOSULFAN	µg/kg	--	3 7 U	3 7 U	3 6 U	3 7 U	3 5 U	3 8 U	3 6 U	3 7 U	3 8 U
DELTA BHC	µg/kg	--	2.1 U	2 1 U	2 U	2 1 U	2 U	2 2 U	2 1 U	2.1 U	2.1 U
DIELDRIN	µg/kg	511	3 7 U	3 7 U	3 6 U	3 7 U	3 5 U	3 8 U	3 6 U	3 7 U	3 8 U
ENDOSULFAN SULFATE	µg/kg	2,130	6 2 U	6 1 U	6 U	6 2 U	5.8 U	6 3 U	6 1 U	6 2 U	6 3 U
ENDRIN ALDEHYDE	µg/kg	9 2	3.7 U	3 7 U	3.6 U	3 7 U	3 5 U	3 8 U	3 6 U	3 7 U	3 8 U
ENDRIN KETONE	µg/kg	--	2 5 U	2 4 U	2 4 U	2 5 U	2 3 U	2.5 U	2 4 U	2 5 U	2.5 U
ENDRIN	µg/kg	--	3 7 U	3.7 U	3.6 U	3 7 U	3 5 U	3 8 U	3 6 U	3 7 U	3.8 U
GAMMA BHC (LINDANE)	µg/kg	--	2 1 U	2 1 U	2 U	2 1 U	2 U	2 2 U	2 1 U	2.1 U	2.1 U
GAMMA-CHLORDANE	µg/kg	--	1 2 U	1 2 U	1 2 U	0 7 J	0 6 J	1 3 U	1 2 U	1 2 U	1 3 U
HEPTACHLOR EPOXIDE	µg/kg	--	2 1 U	2 1 U	2 U	2 1 U	2 U	2 2 U	2 1 U	2 1 U	2 1 U
HEPTACHLOR	µg/kg	--	2 1 U	2 1 U	2 U	2 1 U	2 U	2 2 U	2 1 U	2 1 U	2 1 U
METHOXYCHLOR	µg/kg	--	12 U	12 U	12 U	12 U	12 U	13 U	12 U	12 U	13 U
P,P'-DDD	µg/kg	806	1 J	0 3 J	5	2 J	3 J	3 J	4	0 9 J	3 J
P,P'-DDE	µg/kg	449	13	2 J	59	17	21	18	28	7	18
P,P'-DDT	µg/kg	2,640	0 3 J	1 J	11	0 7 J	5	0.7 J	22	0 4 J	0 3 J
TOXAPHENE	µg/kg	--	120 U	120 U	120 U	120 U	120 U	130 U	120 U	120 U	130 U
PCBs (EPA Method 8082) Totals	µg/kg	743-1,982									
AROCLOR 1016	µg/kg	--	41 U	40 U	39 U	41 U	38 U	42 U	40 U	41 U	42 U
AROCLOR 1221	µg/kg	--	81 U	80 U	79 U	82 U	76 U	84 U	80 U	81 U	83 U
AROCLOR 1232	µg/kg	--	41 U	40 U	39 U	41 U	38 U	42 U	40 U	41 U	42 U
AROCLOR 1242	µg/kg	--	41 U	40 U	39 U	41 U	38 U	42 U	40 U	41 U	42 U
AROCLOR 1248	µg/kg	--	41 U	40 U	39 U	41 U	38 U	42 U	40 U	41 U	42 U
AROCLOR 1254	µg/kg	--	41 U	40 U	39 U	41 U	38 U	42 U	40 U	41 U	42 U
AROCLOR 1260	µg/kg	--	41 U	40 U	39 U	41 U	38 U	42 U	40 U	41 U	42 U

TABLE 4-1

SUMMARY OF ANALYTICAL RESULTS FROM SOIL OBTAINED FROM THE STATION WHARF

Sample Number Sample Location Sample Date		Backfill Soil Screening Criteria	0023-S4-744 DREDGE STOCKPILE 19 2/10/2004	0023-S4-745 DREDGE STOCKPILE 20 2/10/2004	0023-S4-746 DREDGE STOCKPILE 21 2/10/2004	0023-S4-747 DREDGE STOCKPILE 22 2/10/2004	0023-S4-748 DREDGE STOCKPILE 23 2/10/2004	0023-S4-749 DREDGE STOCKPILE 24 2/10/2004	0023-S4-750 DREDGE STOCKPILE 25 2/10/2004	0023-S4-751 DREDGE STOCKPILE 26 2/10/2004	0023-S4-752 DREDGE STOCKPILE 27 2/10/2004
Analyte	**Units**										
VOCs (EPA Method 8260B)											
1,1,1-TRICHLOROETHANE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
1,1,2,2-TETRACHLOROETHANE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
1,1,2-TRICHLOROETHANE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
1,1-DICHLOROETHANE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
1,1-DICHLOROETHENE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
1,2-DICHLOROETHANE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
1,2-DICHLOROPROPANE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
2-HEXANONE	µg/kg	--	62 U	55 U	57 U	57 U	56 U	65 U	57 U	55 U	64 U
ACETONE	µg/kg	--	62 UJ	55 UJ	57 UJ	10 J	56 UJ	65 UJ	57 UJ	55 UJ	64 UJ
BENZENE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
BROMODICHLOROMETHANE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
BROMOFORM	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
BROMOMETHANE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
CARBON TETRACHLORIDE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
CHLOROBENZENE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
CHLOROETHANE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
CHLOROFORM	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
CHLOROMETHANE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
CIS-1,2-DICHLOROETHENE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
CIS-1,3-DICHLOROPROPENE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
DIBROMOCHLOROMETHANE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
ETHYLBENZENE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
METHYL ETHYL KETONE(MEK)	µg/kg	--	62 U	55 U	57 U	57 U	56 U	65 U	57 U	55 U	64 U
METHYL ISOBUTYL KETONE (MIBK)	µg/kg	--	62 U	55 U	57 U	57 U	56 U	65 U	57 U	55 U	64 U
METHYL TERT-BUTYL ETHER	µg/kg	--	12 U	11 U	11 U	11 U	11 U	13 U	11 U	11 U	13 U
METHYLENE CHLORIDE	µg/kg	--	6.2 UJ	5.5 UJ	5.7 UJ	5.7 UJ	5.6 UJ	6.5 UJ	5.7 UJ	5.5 UJ	6.4 UJ
STYRENE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
TETRACHLOROETHENE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
TOLUENE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
TRANS-1,2-DICHLOROETHENE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
TRANS-1,3-DICHLOROPROPENE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
TRICHLOROETHENE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
VINYL ACETATE	µg/kg	--	62 U	55 U	57 U	57 U	56 U	65 U	57 U	55 U	64 U
VINYL CHLORIDE	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
XYLENES (TOTAL)	µg/kg	--	6.2 U	5.5 U	5.7 U	5.7 U	5.6 U	6.5 U	5.7 U	5.5 U	6.4 U
SVOCs (EPA Method 8270C)											
1,2,4-TRICHLOROBENZENE	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
1,2-DICHLOROBENZENE	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
1,3-DICHLOROBENZENE	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
1,4-DICHLOROBENZENE	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
2,4,5-TRICHLOROPHENOL	µg/kg	--	2000 U	1900 U	1900 U	2000 U	1800 U	2000 U	1900 U	2000 U	2000 U
2,4,6-TRICHLOROPHENOL	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
2,4-DICHLOROPHENOL	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
2,4-DIMETHYLPHENOL	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
2,4-DINITROPHENOL	µg/kg	--	2000 U	1900 U	1900 U	2000 U	1800 U	2000 U	1900 U	2000 U	2000 U
2,4-DINITROTOLUENE	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
2,6-DINITROTOLUENE	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
2-CHLORONAPHTHALENE	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
2-CHLOROPHENOL	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
2-METHYLPHENOL	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
2-NITROANILINE	µg/kg	--	2000 U	1900 U	1900 U	2000 U	1800 U	2000 U	1900 U	2000 U	2000 U
2-NITROPHENOL	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
3,3'-DICHLOROBENZIDINE	µg/kg	--	810 U	800 U	790 U	820 U	760 U	840 U	800 U	810 U	830 U

TABLE 4-1

SUMMARY OF ANALYTICAL RESULTS FROM SOIL OBTAINED FROM THE STATION WHARF

Sample Number Sample Location Sample Date	Units	Backfill Soil Screening Criteria	0023-S4-744 DREDGE STOCKPILE 19 2/10/2004	0023-S4-745 DREDGE STOCKPILE 20 2/10/2004	0023-S4-746 DREDGE STOCKPILE 21 2/10/2004	0023-S4-747 DREDGE STOCKPILE 22 2/10/2004	0023-S4-748 DREDGE STOCKPILE 23 2/10/2004	0023-S4-749 DREDGE STOCKPILE 24 2/10/2004	0023-S4-750 DREDGE STOCKPILE 25 2/10/2004	0023-S4-751 DREDGE STOCKPILE 26 2/10/2004	0023-S4-752 DREDGE STOCKPILE 27 2/10/2004
Analyte											
3-NITROANILINE	µg/kg	--	2000 U	1900 U	1900 U	2000 U	1800 U	2000 U	1900 U	2000 U	2000 U
4,6-DINITRO-2-METHYLPHENOL	µg/kg	--	2000 U	1900 U	1900 U	2000 U	1800 U	2000 U	1900 U	2000 U	2000 U
4-BROMOPHENYL-PHENYL ETHER	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
4-CHLORO-3-METHYLPHENOL	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
4-CHLOROANILINE	µg/kg	--	940 U	930 U	910 U	950 U	880 U	960 U	920 U	940 U	960 U
4-CHLOROPHENYL-PHENYL ETHER	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
4-METHYLPHENOL	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
4-NITROANILINE	µg/kg	--	2000 U	1900 U	1900 U	2000 U	1800 U	2000 U	1900 U	2000 U	2000 U
4-NITROPHENOL	µg/kg	--	2000 U	1900 U	1900 U	2000 U	1800 U	2000 U	1900 U	2000 U	2000 U
ACENAPHTHENE	µg/kg	--	6.2 U	6.1 U	6 U	6.2 U	5.8 U	6.3 U	6.1 U	6.2 U	6.3 U
ACENAPHTHYLENE	µg/kg	--	6.2 U	6.1 U	6 U	6.2 U	5.8 U	6.3 U	6.1 U	6.2 U	6.3 U
ANTHRACENE	µg/kg	--	6.2 U	6.1 U	6 U	6.2 U	5.8 U	6.3 U	6.1 U	6.2 U	6.3 U
BENZ[A]ANTHRACENE	µg/kg	--	6.2 U	6.1 U	6 U	6.2 U	5.8 U	6.3 U	6.1 U	6.2 U	6.3 U
BENZO[A]PYRENE	µg/kg	140,000	6.2 U	6.1 U	6 U	6.2 U	5.8 U	6.3 U	6.1 U	6.2 U	6.3 U
BENZO[B]FLUORANTHENE	µg/kg	--	6.2 U	6.1 U	6 U	6.2 U	5.8 U	6.3 U	6.1 U	6.2 U	6.3 U
BENZO[G,H,I]PERYLENE	µg/kg	--	6.2 U	6.1 U	6 U	6.2 U	2 J	6.3 U	6.1 U	6.2 U	6.3 U
BENZO[K]FLUORANTHENE	µg/kg	--	6.2 U	6.1 U	6 U	6.2 U	5.8 U	6.3 U	6.1 U	6.2 U	6.3 U
BENZYL BUTYL PHTHALATE (BBP)	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
BIS(2-CHLOROETHOXY) METHANE	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
BIS(2-CHLOROETHYL) ETHER	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	--	410 U	23 J	390 U	410 U	380 U	23 J	400 U	410 U	420 U
CHRYSENE	µg/kg	--	6.2 U	6.1 U	6 U	6.2 U	2 J	6.3 U	6.1 U	6.2 U	6.3 U
DIBENZ[A,H]ANTHRACENE	µg/kg	--	6.2 U	6.1 U	6 U	6.2 U	5.8 U	6.3 U	6.1 U	6.2 U	6.3 U
DIBENZOFURAN	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
DIETHYL PHTHALATE	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
DIMETHYL PHTHALATE	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
DI-N-BUTYL PHTHALATE	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
DI-N-OCTYLPHTHALATE (DOP)	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
FLUORANTHENE	µg/kg	--	6.2 U	6.1 U	6 U	NA	NA	NA	NA	6.2 U	6.3 U
FLUORENE	µg/kg	--	6.2 U	6.1 U	6 U	6.2 U	5.8 U	6.3 U	6.1 U	6.2 U	6.3 U
HEXACHLOROBENZENE	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
HEXACHLOROBUTADIENE	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
HEXACHLOROCYCLOPENTADIENE	µg/kg	--	2000 U	1900 U	1900 U	2000 U	1800 U	2000 U	1900 U	2000 U	2000 U
HEXACHLOROETHANE	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
INDENO[1,2,3-C,D]PYRENE	µg/kg	--	6.2 U	6.1 U	6 U	6.2 U	5.8 U	6.3 U	6.1 U	6.2 U	6.3 U
NAPHTHALENE	µg/kg	--	6.2 U	6.1 U	6 U	6.2 U	5.8 U	6.3 U	6.1 U	6.2 U	6.3 U
NITROBENZENE	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
N-NITROSODI-N-PROPYLAMINE	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
N-NITROSODIPHENYLAMINE	µg/kg	--	810 U	800 U	790 U	820 U	760 U	840 U	800 U	810 U	830 U
PENTACHLOROPHENOL	µg/kg	--	2000 U	1900 U	1900 U	2000 U	1800 U	2000 U	1900 U	2000 U	2000 U
PHENANTHRENE	µg/kg	41,500	6.2 U	6.1 U	6 U	6.2 U	5.8 U	6.3 U	6.1 U	6.2 U	6.3 U
PHENOL	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U
PYRENE	µg/kg	606,000	2 J	6.1 U	6 U	6.2 U	5.8 U	6.3 U	6.1 U	6.2 U	6.3 U
PYRIDINE	µg/kg	--	410 U	400 U	390 U	410 U	380 U	420 U	400 U	410 U	420 U

TABLE 4-1

SUMMARY OF ANALYTICAL RESULTS FROM SOIL OBTAINED FROM THE STATION WHARF

Sample Number Sample Location Sample Date		Backfill Soil Screening Criteria	0023-S4-753 (FD) DREDGE STOCKPILE 27 2/10/2004	0023-S4-754 DREDGE STOCKPILE 28 2/10/2004	0023-S4-755 DREDGE STOCKPILE 29 2/10/2004	0023-S4-756 DREDGE STOCKPILE 30 2/10/2004	0023-S4-757 DREDGE STOCKPILE 31 2/10/2004	0023-S4-758 DREDGE STOCKPILE 32 2/10/2004	0023-S4-759 DREDGE STOCKPILE 33 2/10/2004	0023-S4-760 DREDGE STOCKPILE 34 2/10/2004
Analyte	**Units**									
TPH-extractable (EPA 8015B)										
TPH as DIESEL FUEL	mg/kg	--	14 U	13 U	14 U	12 U	12 U	12 U	10 U	13
TPH as MOTOR OIL	mg/kg	--	14 U	13 U	14 U	12 U	12 U	12 U	10 U	65
Metals (EPA Method 6010B/7000)										
ANTIMONY	mg/kg	--	7.2 U	6.3 U	6.8 U	6 U	6.1 U	6.2 U	5.2 U	5.2 U
ARSENIC	mg/kg	15.38	13.5 J	12.4 J	9.1 J	7 J	8.9 J	10 J	3.5 J	3.3 J
BARIUM	mg/kg	--	146	151	148	139	141	142	42	44.1
BERYLLIUM	mg/kg	--	0.29 U	0.25 U	0.27 U	0.24 U	0.25 U	0.25 U	0.21 U	0.21 U
CADMIUM	mg/kg	--	0.036 U	0.17 J	0.27 U	0.24 U	0.15 J	0.021 U	0.21 U	0.031 U
CHROMIUM	mg/kg	46.24	44.1	33.1	28.8	23.4	34.4	30.6	10.6	12.3
COBALT	mg/kg	17.5	21.7	18.7	19.9	14.8	18.8	17.2	5.8	6.4
COPPER	mg/kg	39.04	47.3	39.3	36.5	20.6	38.7	29.1	7.6	8.8
LEAD	mg/kg	35.7	19.6	18.1	10.5	7.7	20.1	13.4	6.7	24.3
MERCURY	mg/kg	0.3	0.12 J	0.2 J	0.074 J	0.047 J	0.091 J	0.063 J	0.067 J	0.11 J
MOLYBDENUM	mg/kg	--	0.59	0.51	0.27 U	0.3 U	0.1 U	0.25 U	0.21 U	0.21 U
NICKEL	mg/kg	--	31.7	26.2	22.3	17.5	27.1	22.7	7.5	8.1
SELENIUM	mg/kg	0.44	0.58 UJ	0.87 J	0.52 J	0.48 UJ	0.49 UJ	0.5 UJ	0.42 UJ	0.42 UJ
SILVER	mg/kg	--	0.72 U	0.63 U	0.68 U	0.6 U	0.61 U	0.62 U	0.52 U	0.52 U
THALLIUM	mg/kg	--	0.72 U	0.63 U	0.68 U	0.6 U	0.61 U	0.62 U	0.52 U	0.52 U
VANADIUM	mg/kg	--	87.7	66	69	50.5	69.5	63.9	21.7	24.8
ZINC	mg/kg	177.17	129	105	101	77	110	97	29.4	30.7
PESTICIDES (EPA 8081A)										
ALDRIN	µg/kg	--	2.5 U	2.2 U	2.3 U	2 U	2.1 U	2.1 U	1.8 U	1.8 U
ALPHA BHC	µg/kg	--	2.5 U	2.2 U	2.3 U	2 U	2.1 U	2.1 U	1.8 U	1.8 U
ALPHA ENDOSULFAN	µg/kg	--	2.5 U	2.2 U	2.3 U	2 U	2.1 U	2.1 U	1.8 U	1.8 U
ALPHA-CHLORDANE	µg/kg	22,700	1.4 U	1.3 U	1.4 U	1.2 U	1.2 U	1.2 U	1 U	1 U
BETA BHC	µg/kg	--	2.5 U	2.2 U	2.3 U	2 U	2.1 U	2.1 U	1.8 U	1.8 U
BETA ENDOSULFAN	µg/kg	--	4.3 U	3.8 U	4.1 U	3.6 U	3.7 U	3.7 U	3.1 U	3.1 U
DELTA BHC	µg/kg	--	2.5 U	2.2 U	2.3 U	2 U	2.1 U	2.1 U	1.8 U	1.8 U
DIELDRIN	µg/kg	511	4.3 U	3.8 U	4.1 U	3.6 U	3.7 U	3.7 U	3.1 U	3.1 U
ENDOSULFAN SULFATE	µg/kg	2,130	7.2 U	6.3 U	6.8 U	6 U	6.1 U	6.2 U	5.2 U	5.2 U
ENDRIN ALDEHYDE	µg/kg	9.2	4.3 U	3.8 U	4.1 U	3.6 U	3.7 U	3.7 U	3.1 U	3.1 U
ENDRIN KETONE	µg/kg	--	2.9 U	2.5 U	2.7 U	2.4 U	2.5 U	2.5 U	2.1 U	2.1 U
ENDRIN	µg/kg	--	4.3 U	3.8 U	4.1 U	3.6 U	3.7 U	3.7 U	3.1 U	3.1 U
GAMMA BHC (LINDANE)	µg/kg	--	2.5 U	2.2 U	2.3 U	2 U	2.1 U	2.1 U	1.8 U	1.8 U
GAMMA-CHLORDANE	µg/kg	--	0.6 J	1.3 U	1.4 U	1.2 U	1.2 U	1.2 U	1 U	0.2 J
HEPTACHLOR EPOXIDE	µg/kg	--	2.5 U	2.2 U	2.3 U	2 U	2.1 U	2.1 U	1.8 U	1.8 U
HEPTACHLOR	µg/kg	--	2.5 U	2.2 U	2.3 U	2 U	2.1 U	2.1 U	1.8 U	1.8 U
METHOXYCHLOR	µg/kg	--	14 U	13 U	14 U	12 U	12 U	12 U	10 U	10 U
P,P'-DDD	µg/kg	806	4 J	5	4.1 U	0.1 J	6	0.6 J	0.1 J	0.1 J
P,P'-DDE	µg/kg	449	19	59	0.7 J	2 J	81	7	0.7 J	3.1 U
P,P'-DDT	µg/kg	2,640	0.4 J	13	4.1 U	3.6 U	4	0.4 J	0.3 J	0.4 J
TOXAPHENE	µg/kg	--	140 U	130 U	140 U	120 U	120 U	120 U	100 U	100 U
PCBs (EPA Method 8082) Totals	µg/kg	743-1,982								
AROCLOR 1016	µg/kg	--	48 U	42 U	45 U	39 U	40 U	41 U	35 U	35 U
AROCLOR 1221	µg/kg	--	95 U	84 U	89 U	79 U	81 U	82 U	69 U	69 U
AROCLOR 1232	µg/kg	--	48 U	42 U	45 U	39 U	40 U	41 U	35 U	35 U
AROCLOR 1242	µg/kg	--	48 U	42 U	45 U	39 U	40 U	41 U	35 U	35 U
AROCLOR 1248	µg/kg	--	48 U	42 U	45 U	39 U	40 U	41 U	35 U	35 U
AROCLOR 1254	µg/kg	--	48 U	42 U	45 U	39 U	40 U	41 U	35 U	35 U
AROCLOR 1260	µg/kg	--	48 U	42 U	45 U	39 U	40 U	41 U	35 U	35 U

TABLE 4-1

SUMMARY OF ANALYTICAL RESULTS FROM SOIL OBTAINED FROM THE STATION WHARF

Sample Number Sample Location Sample Date		Backfill Soil Screening Criteria	0023-S4-753 (FD) DREDGE STOCKPILE 27 2/10/2004	0023-S4-754 DREDGE STOCKPILE 28 2/10/2004	0023-S4-755 DREDGE STOCKPILE 29 2/10/2004	0023-S4-756 DREDGE STOCKPILE 30 2/10/2004	0023-S4-757 DREDGE STOCKPILE 31 2/10/2004	0023-S4-758 DREDGE STOCKPILE 32 2/10/2004	0023-S4-759 DREDGE STOCKPILE 33 2/10/2004	0023-S4-760 DREDGE STOCKPILE 34 2/10/2004
Analyte	**Units**									
VOCs (EPA Method 8260B)										
1,1,1-TRICHLOROETHANE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
1,1,2,2-TETRACHLOROETHANE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
1,1,2-TRICHLOROETHANE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
1,1-DICHLOROETHANE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
1,1-DICHLOROETHENE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
1,2-DICHLOROETHANE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
1,2-DICHLOROPROPANE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
2-HEXANONE	µg/kg	--	75 U	66 U	69 U	60 U	64 U	59 U	64 U	69 U
ACETONE	µg/kg	--	17 J	66 UJ	69 UJ	60 UJ	64 UJ	59 UJ	64 UJ	69 UJ
BENZENE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
BROMODICHLOROMETHANE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
BROMOFORM	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
BROMOMETHANE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
CARBON TETRACHLORIDE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
CHLOROBENZENE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
CHLOROETHANE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
CHLOROFORM	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
CHLOROMETHANE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
CIS-1,2-DICHLOROETHENE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
CIS-1,3-DICHLOROPROPENE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
DIBROMOCHLOROMETHANE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
ETHYLBENZENE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
METHYL ETHYL KETONE(MEK)	µg/kg	--	75 U	66 U	69 U	60 U	64 U	59 U	64 U	69 U
METHYL ISOBUTYL KETONE (MIBK)	µg/kg	--	75 U	66 U	69 U	60 U	64 U	59 U	64 U	69 U
METHYL TERT-BUTYL ETHER	µg/kg	--	15 U	13 U	14 U	12 U	13 U	12 U	13 U	14 U
METHYLENE CHLORIDE	µg/kg	--	7.5 UJ	6.6 UJ	6.9 UJ	6 UJ	6.4 UJ	5.9 UJ	6.4 UJ	6.9 UJ
STYRENE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
TETRACHLOROETHENE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
TOLUENE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
TRANS-1,2-DICHLOROETHENE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
TRANS-1,3-DICHLOROPROPENE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
TRICHLOROETHENE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
VINYL ACETATE	µg/kg	--	75 U	66 U	69 U	60 U	64 U	59 U	64 U	69 U
VINYL CHLORIDE	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
XYLENES (TOTAL)	µg/kg	--	7.5 U	6.6 U	6.9 U	6 U	6.4 U	5.9 U	6.4 U	6.9 U
SVOCs (EPA Method 8270C)										
1,2,4-TRICHLOROBENZENE	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
1,2-DICHLOROBENZENE	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
1,3-DICHLOROBENZENE	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
1,4-DICHLOROBENZENE	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
2,4,5-TRICHLOROPHENOL	µg/kg	--	2300 U	2000 U	2200 U	1900 U	2000 U	2000 U	1700 U	1700 U
2,4,6-TRICHLOROPHENOL	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
2,4-DICHLOROPHENOL	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
2,4-DIMETHYLPHENOL	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
2,4-DINITROPHENOL	µg/kg	--	2300 U	2000 U	2200 U	1900 U	2000 U	2000 U	1700 U	1700 U
2,4-DINITROTOLUENE	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
2,6-DINITROTOLUENE	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
2-CHLORONAPHTHALENE	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
2-CHLOROPHENOL	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
2-METHYLPHENOL	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
2-NITROANILINE	µg/kg	--	2300 U	2000 U	2200 U	1900 U	2000 U	2000 U	1700 U	1700 U
2-NITROPHENOL	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
3,3'-DICHLOROBENZIDINE	µg/kg	--	950 U	840 U	890 U	790 U	810 U	820 U	690 U	690 U

TABLE 4-1

SUMMARY OF ANALYTICAL RESULTS FROM SOIL OBTAINED FROM THE STATION WHARF

Sample Number Sample Location Sample Date		Backfill Soil Screening Criteria	0023-S4-753 (FD) DREDGE STOCKPILE 27 2/10/2004	0023-S4-754 DREDGE STOCKPILE 28 2/10/2004	0023-S4-755 DREDGE STOCKPILE 29 2/10/2004	0023-S4-756 DREDGE STOCKPILE 30 2/10/2004	0023-S4-757 DREDGE STOCKPILE 31 2/10/2004	0023-S4-758 DREDGE STOCKPILE 32 2/10/2004	0023-S4-759 DREDGE STOCKPILE 33 2/10/2004	0023-S4-760 DREDGE STOCKPILE 34 2/10/2004
Analyte	**Units**									
3-NITROANILINE	µg/kg	--	2300 U	2000 U	2200 U	1900 U	2000 U	2000 U	1700 U	1700 U
4,6-DINITRO-2-METHYLPHENOL	µg/kg	--	2300 U	2000 U	2200 U	1900 U	2000 U	2000 U	1700 U	1700 U
4-BROMOPHENYL-PHENYL ETHER	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
4-CHLORO-3-METHYLPHENOL	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
4-CHLOROANILINE	µg/kg	--	1100 U	960 U	1000 U	910 U	930 U	950 U	800 U	800 U
4-CHLOROPHENYL-PHENYL ETHER	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
4-METHYLPHENOL	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
4-NITROANILINE	µg/kg	--	2300 U	2000 U	2200 U	1900 U	2000 U	2000 U	1700 U	1700 U
4-NITROPHENOL	µg/kg	--	2300 U	2000 U	2200 U	1900 U	2000 U	2000 U	1700 U	1700 U
ACENAPHTHENE	µg/kg	--	7.2 U	6.3 U	6.8 U	6 U	6.1 U	6.2 U	5.2 U	5.2 U
ACENAPHTHYLENE	µg/kg	--	7.2 U	6.3 U	6.8 U	6 U	6.1 U	6.2 U	5.2 U	5.2 U
ANTHRACENE	µg/kg	--	7.2 U	6.3 U	6.8 U	6 U	6.1 U	6.2 U	5.2 U	5.2 U
BENZ[A]ANTHRACENE	µg/kg	--	7.2 U	6.3 U	6.8 U	6 U	6.1 U	6.2 U	5.2 U	5.2 U
BENZO[A]PYRENE	µg/kg	140,000	7.2 U	6.3 U	6.8 U	6 U	6.1 U	6.2 U	5.2 U	4 J
BENZO[B]FLUORANTHENE	µg/kg	--	7.2 U	6.3 U	6.8 U	6 U	6.1 U	6.2 U	5.2 U	5.2 U
BENZO[G,H,I]PERYLENE	µg/kg	--	2 J	6.3 U	6.8 U	6 U	6.1 U	6.2 U	6	24
BENZO[K]FLUORANTHENE	µg/kg	--	7.2 U	6.3 U	6.8 U	6 U	6.1 U	6.2 U	5.2 U	5.2 U
BENZYL BUTYL PHTHALATE (BBP)	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
BIS(2-CHLOROETHOXY) METHANE	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
BIS(2-CHLOROETHYL) ETHER	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	22 J
CHRYSENE	µg/kg	--	7.2 U	6.3 U	6.8 U	6 U	6.1 U	6.2 U	5.2 U	3 J
DIBENZ[A,H]ANTHRACENE	µg/kg	--	7.2 U	6.3 U	6.8 U	6 U	6.1 U	6.2 U	5.2 U	5.2 U
DIBENZOFURAN	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
DIETHYL PHTHALATE	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
DIMETHYL PHTHALATE	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
DI-N-BUTYL PHTHALATE	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
DI-N-OCTYLPHTHALATE (DOP)	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
FLUORANTHENE	µg/kg	--	7.2 U	6.3 U	6.8 U	6 U	6.1 U	6.2 U	5.2 U	5.2 U
FLUORENE	µg/kg	--	7.2 U	6.3 U	6.8 U	6 U	6.1 U	6.2 U	5.2 U	5.2 U
HEXACHLOROBENZENE	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
HEXACHLOROBUTADIENE	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
HEXACHLOROCYCLOPENTADIENE	µg/kg	--	2300 U	2000 U	2200 U	1900 U	2000 U	2000 U	1700 U	1700 U
HEXACHLOROETHANE	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
INDENO[1,2,3-C,D]PYRENE	µg/kg	--	7.2 U	6.3 U	6.8 U	6 U	6.1 U	6.2 U	5.2 U	4 J
NAPHTHALENE	µg/kg	--	7.2 U	6.3 U	6.8 U	6 U	6.1 U	6.2 U	5.2 U	5.2 U
NITROBENZENE	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
N-NITROSODI-N-PROPYLAMINE	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
N-NITROSODIPHENYLAMINE	µg/kg	--	950 U	840 U	890 U	790 U	810 U	820 U	690 U	690 U
PENTACHLOROPHENOL	µg/kg	--	2300 U	2000 U	2200 U	1900 U	2000 U	2000 U	1700 U	1700 U
PHENANTHRENE	µg/kg	41,500	7.2 U	6.3 U	6.8 U	6 U	6.1 U	6.2 U	5.2 U	5.2 U
PHENOL	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U
PYRENE	µg/kg	606,000	7.2 U	6.3 U	6.8 U	6 U	6.1 U	6.2 U	2 J	3 J
PYRIDINE	µg/kg	--	480 U	420 U	450 U	390 U	400 U	410 U	350 U	350 U

TABLE 4-1

SUMMARY OF ANALYTICAL RESULTS FROM SOIL OBTAINED FROM THE STATION WHARF

Notes:
-- - not applicable
µg/kg - micrograms per kilogram
BHC - benzene hexachloride
DDD - dichlorodiphenyldichloroethane
DDE - dichlorodiphenyldichloroethene
DDT - dichlorodiphenyltrichloroethane
EPA - U S Environmental Protection Agency
FD - field duplicate
J - estimated value
mg/kg - micrograms per milligram
NA - not analyzed
PCB - polychlorinated biphenyl
SVOC - semivolatile organic compound
TPH - total petroleum hydrocarbon
TPH-extractable - total extractable petroleum hydrocarbon
U - not detected at or above the reporting limit (value indicates the reporting limit)
VOC - volatile organic compound

TABLE 4-2

SUMMARY OF ANALYTICAL RESULTS FOR IRP SITE 5 STOCKPILE SOIL, IMPORTED FILL, AND IMPORTED TOPSOIL

Sample Number Sample Location Sample Date		Backfill Soil Screening Criteria	0023-S4-477 IRP SITE 5 STOCKPILE 12/11/2003	0023-S4-478 IRP SITE 5 STOCKPILE 12/11/2003	0023-S4-479 IRP SITE 5 STOCKPILE 12/11/2003	0023-S4-480 IRP SITE 5 STOCKPILE 12/11/2003	0023-S4-481 IRP SITE 5 STOCKPILE 12/11/2003	0023-S4-545 IMPORT FILL 1/20/2004	0023-S4-546 (FD) IMPORT FILL 1/20/2004	0023-S4-547 TOPSOIL #1 1/20/2004	0023-S4-775 TOPSOIL #2 2/12/2004
Analyte	**Units**										
Metals (EPA Method 6010B/7000)											
ANTIMONY	mg/kg	--	5.2 U	5.2 U	5.3 U	5.3 U	5.5 U	0.95 J	0.58 J	1.4 J	5.2 U
ARSENIC	mg/kg	15.38	3 J	3 J	5.7	3.7	2.7	5 J	4 J	13.7 J	4.2 J
BARIUM	mg/kg	--	45.4	50.4	72.3	52.8	94.5	27.1	27	189	84.7 J
BERYLLIUM	mg/kg	--	0.21 U	0.21 U	0.21 U	0.21 U	0.22 U	0.45	0.39	0.23 U	0.21 U
CADMIUM	mg/kg	--	0.21 U	0.21 U	0.25 U	0.033 U	0.22 U	0.021 U	0.028 U	0.053 U	0.21 U
CHROMIUM	mg/kg	46.24	15.4	13.9	23.7	14	20.4	2.9	2.9	19.2	22.7
COBALT	mg/kg	17.5	5.1	5.2	6.8	5.4	10	4.7	3.8	15.5	10.4
COPPER	mg/kg	39.04	15.1	17.1	23.7	20	17.9	11.4	9.8	39.9	20.8
LEAD	mg/kg	35.7	44.4 J	47.4 J	57.7 J	30.9 J	12.7 J	6.6	5.4	8.4	22.4 J
MERCURY	mg/kg	0.3	0.057 J	0.062 J	0.06 J	0.041 J	0.017 J	0.01 J	0.01 J	0.14 J	0.04 J
MOLYBDENUM	mg/kg	--	0.21 U	0.21 U	0.09 U	0.21 U	0.22 U	0.21 U	0.21 U	0.23 U	0.21 U
NICKEL	mg/kg	--	8.5	8.8	11.9	8.8	12.9	4.7 U	4.7 U	18.8	16.3 J
SELENIUM	mg/kg	0.44	0.52 U	0.52 U	0.53 U	0.53 U	0.55 U	0.29 U	0.23 U	0.49 U	1.1 J
SILVER	mg/kg	--	0.16 U	1.2	0.069 U	0.059 U	0.55 U	0.53 U	0.53 U	0.58 U	0.52 U
THALLIUM	mg/kg	--	0.52 U	0.52 U	0.53 U	0.53 U	0.55 U	0.53 U	0.53 U	0.58 U	0.52 U
VANADIUM	mg/kg	--	25.8	27	32.1	26	45.5	20.3	18.3	45.4	35.5
ZINC	mg/kg	177.17	68.5	73.5	132	104	74.1	20.6	18.4	74.1	74.4
PESTICIDES (EPA 8081A)											
ALDRIN	µg/kg	--	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	2 U	1.8 U
ALPHA BHC	µg/kg	--	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	2 U	1.8 U
ALPHA ENDOSULFAN	µg/kg	--	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	2 U	1.8 U
ALPHA-CHLORDANE	µg/kg	22,700	0.3 J	0.8 J	4.3	2	1.1 U	1.1 U	1.1 U	0.05 J	2.7
BETA BHC	µg/kg	--	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	2 U	1.8 U
BETA ENDOSULFAN	µg/kg	--	3.1 U	3.1 U	3.2 U	3.2 U	3.3 U	3.2 U	3.2 U	3.5 U	3.1 U
DELTA BHC	µg/kg	--	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	2 U	1.8 U
DIELDRIN	µg/kg	511	3.1 U	3.1 U	3.2 U	3.2 U	3.3 U	3.2 U	3.2 U	3.5 U	4
ENDOSULFAN SULFATE	µg/kg	2,130	5.2 U	5.2 U	5.3 U	5.3 U	5.5 U	5.3 U	5.3 U	5.8 U	5.2 U
ENDRIN ALDEHYDE	µg/kg	9.2	3.1 U	3.1 U	3.2 U	3.2 U	3.3 U	3.2 U	3.2 U	3.5 U	3.1 U
ENDRIN KETONE	µg/kg	--	2.1 U	2.1 U	2.1 U	2.1 U	2.2 U	2.1 U	2.1 U	2.3 U	2.1 U
ENDRIN	µg/kg	--	3.1 U	3.1 U	3.2 U	3.2 U	3.3 U	3.2 U	3.2 U	3.5 U	3.1 U
GAMMA BHC (LINDANE)	µg/kg	--	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	2 U	1.8 U
GAMMA-CHLORDANE	µg/kg	--	0.5 J	1	3.5	2	1.1 U	1.1 U	1.1 U	0.3 J	2.9
HEPTACHLOR EPOXIDE	µg/kg	--	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	2 U	1 J
HEPTACHLOR	µg/kg	--	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	2 U	0.8 J
METHOXYCHLOR	µg/kg	--	10 U	10 U	11 U	11 U	11 U	11 U	11 U	12 U	10 U
P,P'-DDD	µg/kg	806	1 J	1 J	16	5	0.4 J	3.2 U	3.2 U	2 J	16
P,P'-DDE	µg/kg	449	1 J	1 J	14	3	2 J	3.2 U	3.2 U	0.6 J	31
P,P'-DDT	µg/kg	2,640	4	7.2	46	15	2 J	3.2 U	3.2 U	3.5 U	37
TOXAPHENE	µg/kg	--	100 U	100 U	110 U	110 U	110 U	110 U	110 U	120 U	100 U
PCBs (EPA Method 8082) Total	µg/kg	743-1,982									
AROCLOR 1016	µg/kg	--	9 J	52 U	7 J	8 J	55 U	35 U	35 U	38 U	34 U
AROCLOR 1221	µg/kg	--	100 U	100 U	110 U	110 U	110 U	70 U	70 U	77 U	69 U
AROCLOR 1232	µg/kg	--	52 U	52 U	53 U	53 U	55 U	35 U	35 U	38 U	34 U
AROCLOR 1242	µg/kg	--	52 U	52 U	53 U	53 U	55 U	35 U	35 U	38 U	34 U
AROCLOR 1248	µg/kg	--	52 U	52 U	53 U	53 U	55 U	35 U	35 U	38 U	34 U
AROCLOR 1254	µg/kg	--	26 U	26 U	27 U	27 U	28 U	35 U	35 U	38 U	34 U
AROCLOR 1260	µg/kg	--	10 J	7 J	42	15 J	28 U	35 U	35 U	10 J	9 J

TABLE 4-2

SUMMARY OF ANALYTICAL RESULTS FOR IRP SITE 5 STOCKPILE SOIL, IMPORTED FILL, AND IMPORTED TOPSOIL

Sample Number Sample Location Sample Date		Backfill Soil Screening Criteria	0023-S4-477 IRP SITE 5 STOCKPILE 12/11/2003	0023-S4-478 IRP SITE 5 STOCKPILE 12/11/2003	0023-S4-479 IRP SITE 5 STOCKPILE 12/11/2003	0023-S4-480 IRP SITE 5 STOCKPILE 12/11/2003	0023-S4-481 IRP SITE 5 STOCKPILE 12/11/2003	0023-S4-545 IMPORT FILL 1/20/2004	0023-S4-546 (FD) IMPORT FILL 1/20/2004	0023-S4-547 TOPSOIL #1 1/20/2004	0023-S4-775 TOPSOIL #2 2/12/2004
Analyte	Units										
SVOCs (EPA Method 8270C)		--									
1,2,4-TRICHLOROBENZENE	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
1,2-DICHLOROBENZENE	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
1,3-DICHLOROBENZENE	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
1,4-DICHLOROBENZENE	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
2,4,5-TRICHLOROPHENOL	µg/kg	--	NA	NA	NA	NA	NA	1700 U	1700 U	1900 U	6700 U
2,4,6-TRICHLOROPHENOL	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
2,4-DICHLOROPHENOL	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
2,4-DIMETHYLPHENOL	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
2,4-DINITROPHENOL	µg/kg	--	NA	NA	NA	NA	NA	1700 UJ	1700 UJ	1900 UJ	6700 UJ
2,4-DINITROTOLUENE	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
2,6-DINITROTOLUENE	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
2-CHLORONAPHTHALENE	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
2-CHLOROPHENOL	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
2-METHYLPHENOL	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
2-NITROANILINE	µg/kg	--	NA	NA	NA	NA	NA	1700 U	1700 U	1900 U	6700 U
2-NITROPHENOL	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
3,3'-DICHLOROBENZIDINE	µg/kg	--	NA	NA	NA	NA	NA	700 U	700 U	770 U	2800 U
3-NITROANILINE	µg/kg	--	NA	NA	NA	NA	NA	1700 U	1700 U	1900 U	6700 U
4,6-DINITRO-2-METHYLPHENOL	µg/kg	--	NA	NA	NA	NA	NA	1700 U	1700 U	1900 U	6700 UJ
4-BROMOPHENYL-PHENYL ETHER	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
4-CHLORO-3-METHYLPHENOL	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
4-CHLOROANILINE	µg/kg	--	NA	NA	NA	NA	NA	800 U	800 U	890 U	3200 U
4-CHLOROPHENYL-PHENYL ETHER	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
4-METHYLPHENOL	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
4-NITROANILINE	µg/kg	--	NA	NA	NA	NA	NA	1700 U	1700 U	1900 U	6700 U
4-NITROPHENOL	µg/kg	--	NA	NA	NA	NA	NA	1700 U	1700 U	1900 U	6700 U
ACENAPHTHENE	µg/kg	--	0.6 J	5.2 U	20	2 J	5.5 U	5.3 U	5.3 U	5.8 U	42 U
ACENAPHTHYLENE	µg/kg	--	6.7	4.4 J	13	7	5.5 U	5.3 U	5.3 U	5.8 U	42 U
ANTHRACENE	µg/kg	--	10	5.7	69 J	14	0.9 J	5.3 U	5.3 U	5.8 U	42 UJ
BENZ[A]ANTHRACENE	µg/kg	--	47	11	270	57	1 J	5.3 U	5.3 U	5.8 U	25 J
BENZO[A]PYRENE	µg/kg	140,000	25	7.6	99 J	31	5.5 U	5.3 U	5.3 U	5.8 U	40 J
BENZO[B]FLUORANTHENE	µg/kg	--	84	28	360 J	117	2 J	5.3 U	5.3 U	5.8 U	36 J
BENZO[G,H,I]PERYLENE	µg/kg	--	7.4	16	17	6.5	1 J	5.3 U	5.3 U	5.8 U	27 J
BENZO[K]FLUORANTHENE	µg/kg	--	89	19	260 J	77	2 J	5.3 U	5.3 U	5.8 U	38 J
BENZYL BUTYL PHTHALATE (BBP)	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
BIS(2-CHLOROETHOXY) METHANE	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
BIS(2-CHLOROETHYL) ETHER	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
CHRYSENE	µg/kg	--	97	27	350 J	91	1 J	5.3 U	5.3 U	3 J	50
DIBENZ[A,H]ANTHRACENE	µg/kg	--	43 J	13 J	34 J	11 J	8.8 J	5.3 U	5.3 U	5.8 U	42 U
DIBENZOFURAN	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
DIETHYL PHTHALATE	µg/kg	--	NA	NA	NA	NA	NA	1200	350 U	380 U	1400 U
DIMETHYL PHTHALATE	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
DI-N-BUTYL PHTHALATE	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
DI-N-OCTYLPHTHALATE (DOP)	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
FLUORANTHENE	µg/kg	--	55	14	410 J	61	2 J	5.3 U	5.3 U	3 J	50
FLUORENE	µg/kg	--	0.7 J	0.5 J	12	1 J	5.5 U	5.3 U	5.3 U	5.8 U	42 U
HEXACHLOROBENZENE	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
HEXACHLOROBUTADIENE	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
HEXACHLOROCYCLOPENTADIENE	µg/kg	--	NA	NA	NA	NA	NA	1700 U	1700 U	1900 U	6700 UJ
HEXACHLOROETHANE	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U

TABLE 4-2

SUMMARY OF ANALYTICAL RESULTS FOR IRP SITE 5 STOCKPILE SOIL, IMPORTED FILL, AND IMPORTED TOPSOIL

Sample Number Sample Location Sample Date		Backfill Soil Screening Criteria	0023-S4-477 IRP SITE 5 STOCKPILE 12/11/2003	0023-S4-478 IRP SITE 5 STOCKPILE 12/11/2003	0023-S4-479 IRP SITE 5 STOCKPILE 12/11/2003	0023-S4-480 IRP SITE 5 STOCKPILE 12/11/2003	0023-S4-481 IRP SITE 5 STOCKPILE 12/11/2003	0023-S4-545 IMPORT FILL 1/20/2004	0023-S4-546 (FD) IMPORT FILL 1/20/2004	0023-S4-547 TOPSOIL #1 1/20/2004	0023-S4-775 TOPSOIL #2 2/12/2004
Analyte	**Units**										
INDENO[1,2,3-C,D]PYRENE	µg/kg	--	8 4 J	15 J	100 J	48 J	1 J	5 3 U	5 3 U	5 8 U	22 J
NAPHTHALENE	µg/kg	--	2 J	1 J	110	1 J	0 7 J	5.3 U	5 3 U	5 8 U	42 U
NITROBENZENE	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
N-NITROSODI-N-PROPYLAMINE	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
N-NITROSODIPHENYLAMINE	µg/kg	--	NA	NA	NA	NA	NA	700 U	700 U	770 U	2800 U
PENTACHLOROPHENOL	µg/kg	--	NA	NA	NA	NA	NA	1700 U	1700 U	1900 U	6700 U
PHENANTHRENE	µg/kg	41,500	7 6	4 2 J	100	19	0 9 J	5.3 U	5 3 U	5.8 U	21 J
PHENOL	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U
PYRENE	µg/kg	606,000	57	15	440	65	1 J	5.3 U	5.3 U	3 J	60
PYRIDINE	µg/kg	--	NA	NA	NA	NA	NA	350 U	350 U	380 U	1400 U

Notes:

-- - not applicable
µg/kg - micrograms per kilogram
BHC - benzene hexachloride
EPA - U.S Environmental Protection Agency
FD - field duplicate
IRP - Installation Restoration Program
J - estimated value
mg/kg - micrograms per milligram
NA - not analyzed
DDD - dichlorodiphenyldichloroethane
DDE - dichlorodiphenyldichloroethene
DDT - dichlorodiphenyltrichloroethane
PCB - polychlorinated biphenyl
SVOC - semivolatile organic compound
U - not detected at or above the reporting limit (value indicates the reporting limit)

TABLE 4-3

SUMMARY OF LEAD CONCENTRATIONS IN SOIL - BASED ON PRE-EXCAVATION SAMPLING RESULTS FOR IRP SITE 4 AOPCS 1A AND 2A

Location	Sample No	Depths	Sample Date	Lead Results (mg/kg)
108A	0023-S4-001	0.5'	12/08/03	92 3 J
	0023-S4-002	1.5'	12/08/03	37 1 J
108B	0023-S4-003	0 5'	12/08/03	35 3 J
	0023-S4-004	1 5'	12/08/03	4 2 J
107A	0023-S4-005	0 5'	12/08/03	51.7 J
	0023-S4-006	1 5'	12/08/03	5.9 J
107B	0023-S4-007	0.5'	12/08/03	665 J
	0023-S4-008	1.5'	12/08/03	4.2 J
106A	0023-S4-009	0.5'	12/08/03	9.5 J
	0023-S4-010	1.5'	12/08/03	9.8 J
	0023-S4-011 (FD)	1.5'	12/08/03	6.9 J
106B	0023-S4-012	0.5'	12/08/03	1350 J
	0023-S4-013	1.5'	12/08/03	23 6 J
105A	0023-S4-014	0.5'	12/08/03	11 J
	0023-S4-015	1 5'	12/08/03	6.7 J
105B	0023-S4-016	0 5'	12/08/03	635 J
	0023-S4-017	1 5'	12/08/03	48.6 J
104A	0023-S4-018	0 5'	12/08/03	14.6 J
	0023-S4-019	1.5'	12/08/03	6.2 J
104B	0023-S4-020	0.5'	12/08/03	117 J
	0023-S4-021 (FD)	0.5'	12/08/03	61 J
	0023-S4-022	1 5'	12/08/03	3.4 J
103A	0023-S4-023	0 5'	12/08/03	10 9
	0023-S4-024	1 5'	12/08/03	7 4
102A	0023-S4-025	0 5'	12/08/03	5 6 U
	0023-S4-026	1 5'	12/08/03	15.1
103B	0023-S4-027	0 5'	12/08/03	580
	0023-S4-028	1 5'	12/08/03	1400
102B	0023-S4-029	0.5'	12/08/03	103
	0023-S4-030	1.5'	12/08/03	18.4
101A	0023-S4-031	0.5'	12/08/03	47.1
	0023-S4-032	1 5'	12/08/03	33 9
	0023-S4-033 (FD)	1 5'	12/08/03	7.2
100B	0023-S4-034	0 5'	12/08/03	271
	0023-S4-035	1 5'	12/08/03	7
101B	0023-S4-036	0 5'	12/08/03	4530
	0023-S4-037	1.5'	12/08/03	32.7
100A	0023-S4-038	0.5'	12/08/03	14 7
	0023-S4-039	1.5'	12/08/03	7.3
99A	0023-S4-040	0.5'	12/08/03	11 4
	0023-S4-041	1 5'	12/08/03	7.9
99B	0023-S4-042	0 5'	12/08/03	155
	0023-S4-043 (FD)	0 5'	12/08/03	134
	0023-S4-044	1 5'	12/08/03	260
98A	0023-S4-045	0 5'	12/08/03	12 8 J
	0023-S4-046	1 5'	12/08/03	7.4 J
98B	0023-S4-047	0 5'	12/08/03	33.7 J
	0023-S4-048	1 5'	12/08/03	18.5 J
978A	0023-S4-049	0.5'	12/08/03	25 1 J
97A	0023-S4-050	1.5'	12/08/03	7.8 J

TABLE 4-3

SUMMARY OF LEAD CONCENTRATIONS IN SOIL - BASED ON PRE-EXCAVATION SAMPLING RESULTS FOR IRP SITE 4 AOPCS 1A AND 2A

Location	Sample No	Depths	Sample Date	Lead Results (mg/kg)
97B	0023-S4-051	0 5'	12/08/03	175 J
	0023-S4-052	1 5'	12/08/03	13 3 J
96A	0023-S4-053	0 5'	12/08/03	5 J
	0023-S4-054	1 5'	12/08/03	6.9 J
	0023-S4-055 (FD)	1 5'	12/08/03	6.8 J
96B	0023-S4-056	0 5'	12/08/03	3490
	0023-S4-057	1.5'	12/08/03	32.2 J
95A	0023-S4-058	0.5'	12/08/03	8.6 J
	0023-S4-059	1.5'	12/08/03	7 J
95B	0023-S4-060	0.5'	12/08/03	44 2 J
	0023-S4-061	1.5'	12/08/03	9 8 J
94A	0023-S4-062	0.5'	12/08/03	8 J
	0023-S4-063	1.5'	12/08/03	8.1 J
94B	0023-S4-064	0 5'	12/08/03	3260
	0023-S4-065	1 5'	12/08/03	27 5 J
	0023-S4-066 (FD)	1 5'	12/08/03	71 2
93A	0023-S4-067	0 5'	12/08/03	8 7 J
	0023-S4-068	1 5'	12/08/03	7.2 J
93B	0023-S4-069	0 5'	12/08/03	17.7 J
	0023-S4-070	1 5'	12/08/03	128 J
92A	0023-S4-071	0.5'	12/08/03	82.8 J
	0023-S4-072	1.5'	12/08/03	6.6 J
92B	0023-S4-073	0.5'	12/08/03	72 J
	0023-S4-074	1 5'	12/08/03	59.7 J
91A	0023-S4-075	0 5'	12/08/03	355
	0023-S4-076 (FD)	0 5'	12/08/03	327
	0023-S4-077	1 5'	12/08/03	7 5 J
91B	0023-S4-078	0 5'	12/08/03	29 2 J
	0023-S4-079	1 5'	12/08/03	8 J
90A	0023-S4-080	0 5'	12/08/03	6.1 J
	0023-S4-081	1 5'	12/08/03	6.9 J
89A	0023-S4-082	0 5'	12/08/03	7.9 J
	0023-S4-083	1.5'	12/08/03	6.2 J
90B	0023-S4-084	0.5'	12/08/03	916
	0023-S4-085	1 5'	12/08/03	1810
89B	0023-S4-086	0 5'	12/08/03	2720
	0023-S4-087	1 5'	12/08/03	18 4 J
	0023-S4-088 (FD)	1.5'	12/08/03	7.5 J
88B	0023-S4-089	0 5'	12/08/03	875
	0023-S4-090	1 5'	12/08/03	40 3 J
88A	0023-S4-091	0 5'	12/08/03	6 7 J
	0023-S4-092	1 5'	12/08/03	4 2 J
87A	0023-S4-093	0 5'	12/08/03	9.2 J
	0023-S4-094	1,5'	12/08/03	7 J
86A	0023-S4-095	0.5'	12/08/03	14.1 J
	0023-S4-096	1.5'	12/08/03	7.4 J
86B	0023-S4-097	0.5'	12/08/03	2130
	0023-S4-098 (FD)	0.5'	12/08/03	1030
	0023-S4-099	1.5'	12/08/03	10.3 J
87B	0023-S4-100	0.5'	12/08/03	243
	0023-S4-101	1.5'	12/08/03	23.3 J

TABLE 4-3

SUMMARY OF LEAD CONCENTRATIONS IN SOIL - BASED ON PRE-EXCAVATION SAMPLING RESULTS FOR IRP SITE 4 AOPCS 1A AND 2A

Location	Sample No	Depths	Sample Date	Lead Results (mg/kg)
75A	0023-S4-102	0 5'	12/08/03	9 8 J
	0023-S4-103	1 5'	12/08/03	8 7 J
75B	0023-S4-104	0 5'	12/08/03	22 4 J
	0023-S4-105	1 5'	12/08/03	8 4 J
74A	0023-S4-106	0 5'	12/08/03	4 5 J
	0023-S4-107	1 5'	12/08/03	13 8 J
74B	0023-S4-108	0.5'	12/08/03	517
	0023-S4-109	1.5'	12/08/03	215
	0023-S4-110 (FD)	1 5'	12/08/03	20 6
73A	0023-S4-111	0.5'	12/08/03	5 3
	0023-S4-112	1 5'	12/08/03	3 7
73B	0023-S4-113	0 5'	12/08/03	34.2
	0023-S4-114	1 5'	12/08/03	289
72B	0023-S4-116	0 5'	12/09/03	9
	0023-S4-117	1 5'	12/09/03	11 3
72A	0023-S4-118	0.5'	12/09/03	7 2
	0023-S4-119	1.5'	12/09/03	10 6
71B	0023-S4-120	0 5'	12/09/03	125
	0023-S4-121	1 5'	12/09/03	7 8
71A	0023-S4-122	0.5'	12/09/03	7 5
	0023-S4-123	1 5'	12/09/03	6 9
70A	0023-S4-124	0 5'	12/09/03	28.3
	0023-S4-125 (FD)	0 5'	12/09/03	34.9
	0023-S4-126	1 5'	12/09/03	25 4
70B	0023-S4-127	0.5'	12/09/03	35
	0023-S4-128	1.5'	12/09/03	8.9
69A	0023-S4-129	0.5'	12/09/03	15 5
	0023-S4-130	1 5'	12/09/03	22 3
69B	0023-S4-131	0 5'	12/09/03	8 8
	0023-S4-132	1 5'	12/09/03	8.7
68A	0023-S4-133	0 5'	12/09/03	14.7
	0023-S4-134	1.5'	12/09/03	13
67A	0023-S4-135	0.5'	12/09/03	8 2
	0023-S4-136	1 5'	12/09/03	15 1
	0023-S4-137 (FD)	1 5'	12/09/03	6.1
68B	0023-S4-138	0 5'	12/09/03	1670
	0023-S4-139	1 5'	12/09/03	598
67B	0023-S4-140	0 5'	12/09/03	143
	0023-S4-141	1 5'	12/09/03	23 5
66B	0023-S4-142	0.5'	12/09/03	10 2
	0023-S4-143	1.5'	12/09/03	202
65B	0023-S4-144	0.5'	12/09/03	12 6
	0023-S4-145	1 5'	12/09/03	6
65A	0023-S4-146	0 5'	12/09/03	12 6
	0023-S4-147 (FD)	0 5'	12/09/03	10 9
	0023-S4-148	1 5'	12/09/03	76.5
64B	0023-S4-149	0 5'	12/09/03	3750
	0023-S4-150	1 5'	12/09/03	22 8
64A	0023-S4-151	0.5'	12/09/03	15 2
	0023-S4-152	1.5'	12/09/03	8.8

TABLE 4-3

SUMMARY OF LEAD CONCENTRATIONS IN SOIL - BASED ON PRE-EXCAVATION SAMPLING RESULTS FOR IRP SITE 4 AOPCS 1A AND 2A

Location	Sample No	Depths	Sample Date	Lead Results (mg/kg)
63B	0023-S4-153	0.5'	12/09/03	8
	0023-S4-154	1.5'	12/09/03	11
62B	0023-S4-155	0.5'	12/09/03	9.9
	0023-S4-156	1.5'	12/09/03	9.9
62A	0023-S4-157	0.5'	12/09/03	7.3
	0023-S4-158 (FD)	0.5'	12/09/03	11.4
	0023-S4-159	1.5'	12/09/03	13.6
61B	0023-S4-160	0.5'	12/09/03	139
	0023-S4-161	1.5'	12/09/03	10.7
60A	0023-S4-162	0.5'	12/09/03	13
	0023-S4-163	1.5'	12/09/03	13.5
59B	0023-S4-164	0.5'	12/09/03	524
	0023-S4-165	1.5'	12/09/03	39.7
60B	0023-S4-166	0.5'	12/09/03	73.5
	0023-S4-167	1.5'	12/09/03	8.8
59A	0023-S4-168	0.5'	12/09/03	13.1
	0023-S4-169	1.5'	12/09/03	16.5
	0023-S4-170 (FD)	1.5'	12/09/03	18.5
58B	0023-S4-171	0.5'	12/09/03	1330
	0023-S4-172	1.5'	12/09/03	237
58A	0023-S4-173	0.5'	12/09/03	85.9
	0023-S4-174	1.5'	12/09/03	6.1
57B	0023-S4-175	0.5'	12/09/03	282
	0023-S4-176	1.5'	12/09/03	14
56B	0023-S4-177	0.5'	12/09/03	68
	0023-S4-178	1.5'	12/09/03	26.2
55B	0023-S4-179	0.5'	12/09/03	305
	0023-S4-180 (FD)	0.5'	12/09/03	324
	0023-S4-181	1.5'	12/09/03	49.3
52B	0023-S4-182	0.5'	12/09/03	134
	0023-S4-183	1.5'	12/09/03	232
50B	0023-S4-184	0.5'	12/09/03	113
	0023-S4-185	1.5'	12/09/03	93.8
48B	0023-S4-186	0.5'	12/09/03	1480
	0023-S4-187	1.5'	12/09/03	39.4
46B	0023-S4-188	0.5'	12/09/03	2900
	0023-S4-189	1.5'	12/09/03	17.2
44B	0023-S4-190	0.5'	12/09/03	238
	0023-S4-191	1.5'	12/09/03	361
	0023-S4-192 (FD)	1.5'	12/09/03	20
41B	0023-S4-193	0.5'	12/09/03	22.9
	0023-S4-194	1.5'	12/09/03	4.2
35B	0023-S4-195	0.5'	12/09/03	8
	0023-S4-196	1.5'	12/09/03	37.9
31B	0023-S4-197	0.5'	12/09/03	75.8
	0023-S4-198	1.5'	12/09/03	35.3
30A	0023-S4-199	0.5'	12/09/03	13.7
	0023-S4-200	1.5'	12/09/03	9.8
30B	0023-S4-201	0.5'	12/09/03	20.9
	0023-S4-202 (FD)	0.5'	12/09/03	18.2
	0023-S4-203	1.5'	12/09/03	8.7

TABLE 4-3

SUMMARY OF LEAD CONCENTRATIONS IN SOIL - BASED ON PRE-EXCAVATION SAMPLING RESULTS FOR IRP SITE 4 AOPCS 1A AND 2A

Location	Sample No	Depths	Sample Date	Lead Results (mg/kg)
29B	0023-S4-204	0.5'	12/09/03	10.3 J
	0023-S4-205	1.5'	12/09/03	5.1 U
28B	0023-S4-206	0.5'	12/09/03	15 J
	0023-S4-207	1.5'	12/09/03	18.2 J
25B	0023-S4-208	0.5'	12/09/03	72.6 J
24B	0023-S4-210	0.5'	12/09/03	43 J
	0023-S4-211	1.5'	12/09/03	97.3 J
85B	0023-S4-212	0.5'	12/09/03	290 J
	0023-S4-213	1.5'	12/09/03	73.5 J
	0023-S4-214 (FD)	1.5'	12/09/03	1370 J
85A	0023-S4-215	0.5'	12/09/03	38.8 J
	0023-S4-216	1.5'	12/09/03	28.2 J
84B	0023-S4-217	0.5'	12/09/03	382 J
	0023-S4-218	1.5'	12/09/03	46.9 J
84A	0023-S4-219	0.5'	12/09/03	152 J
	0023-S4-220	1.5'	12/09/03	12.6 J
83B	0023-S4-221	0.5'	12/09/03	2410 J
	0023-S4-222	1.5'	12/09/03	313 J
83A	0023-S4-223	0.5'	12/09/03	46.1 J
	0023-S4-224 (FD)	0.5'	12/09/03	84.4 J
	0023-S4-225	1.5'	12/09/03	68.4
82B	0023-S4-226	0.5'	12/09/03	717
	0023-S4-227	1.5'	12/09/03	206
82A	0023-S4-228	0.5'	12/09/03	201
	0023-S4-229	1.5'	12/09/03	19.1
81B	0023-S4-230	0.5'	12/09/03	2420
	0023-S4-231	1.5'	12/09/03	373
81A	0023-S4-232	0.5'	12/09/03	9.1
	0023-S4-233	1.5'	12/09/03	9.6
80B	0023-S4-234	0.5'	12/09/03	255
	0023-S4-235	1.5'	12/09/03	11.4
	0023-S4-236 (FD)	1.5'	12/09/03	21.5
80A	0023-S4-237	0.5'	12/09/03	30.1
	0023-S4-238	1.5'	12/09/03	7.9
79B	0023-S4-239	0.5'	12/09/03	240
	0023-S4-240	1.5'	12/09/03	14
79A	0023-S4-241	0.5'	12/09/03	29.5
	0023-S4-242	1.5'	12/09/03	5.4
78A	0023-S4-243	0.5'	12/09/03	8.4
	0023-S4-244	1.5'	12/09/03	4.9 U
78B	0023-S4-245	0.5'	12/09/03	334
	0023-S4-246 (FD)	0.5'	12/09/03	530
	0023-S4-247	1.5'	12/09/03	491
77B	0023-S4-248	0.5'	12/09/03	160
	0023-S4-249	1.5'	12/09/03	15.6
77A	0023-S4-250	0.5'	12/09/03	5.2
	0023-S4-251	1.5'	12/09/03	6
76B	0023-S4-252	0.5'	12/09/03	27.3
	0023-S4-253	1.5'	12/09/03	30.1
76A	0023-S4-254	0.5'	12/09/03	6
	0023-S4-255	1.5'	12/09/03	12.4

TABLE 4-3

SUMMARY OF LEAD CONCENTRATIONS IN SOIL - BASED ON PRE-EXCAVATION SAMPLING RESULTS FOR IRP SITE 4 AOPCS 1A AND 2A

Location	Sample No	Depths	Sample Date	Lead Results (mg/kg)
66A	0023-S4-256	0 5'	12/09/03	9 5
	0023-S4-257	1 5'	12/09/03	10 7
	0023-S4-258 (FD)	1 5'	12/09/03	11 6
63A	0023-S4-259	0 5'	12/09/03	232
	0023-S4-260	1 5'	12/09/03	6.1
57A	0023-S4-261	0 5'	12/09/03	7.8
	0023-S4-262	1.5'	12/09/03	19 5
56A	0023-S4-263	0.5'	12/09/03	4 5
	0023-S4-264	1 5'	12/09/03	2 9
55A	0023-S4-265	0 5'	12/09/03	6.4
	0023-S4-266	1 5'	12/09/03	25.3
54B	0023-S4-267	0.5'	12/09/03	190
	0023-S4-268	1.5'	12/09/03	47.7
	0023-S4-269 (FD)	1 5'	12/09/03	123
54A	0023-S4-270	0 5'	12/09/03	252
	0023-S4-271	1 5'	12/09/03	7.3
53A	0023-S4-273	0.5'	12/10/03	27.5
	0023-S4-274	1.5'	12/10/03	6540
53B	0023-S4-275	0 5'	12/10/03	106
	0023-S4-276	1 5'	12/10/03	58 6
52A	0023-S4-277	0 5'	12/10/03	29.6
	0023-S4-278	1 5'	12/10/03	8 2
51B	0023-S4-279	0 5'	12/10/03	20 5
	0023-S4-280	1.5'	12/10/03	48 7
51A	0023-S4-281	0 5'	12/10/03	15.2
	0023-S4-282	1 5'	12/10/03	13.2
	0023-S4-283 (FD)	1.5'	12/10/03	9 5
50A	0023-S4-284	0.5'	12/10/03	19
	0023-S4-285	1 5'	12/10/03	11.9
49B	0023-S4-286	0 5'	12/10/03	76
	0023-S4-287	1 5'	12/10/03	11.5
49A	0023-S4-288	0.5'	12/10/03	270
	0023-S4-289	1.5'	12/10/03	55
48A	0023-S4-290	0 5'	12/10/03	76 1
	0023-S4-291	1 5'	12/10/03	12.3
47B	0023-S4-292	0.5'	12/10/03	19 5
	0023-S4-293 (FD)	0.5'	12/10/03	23 7
	0023-S4-294	1 5'	12/10/03	28.5
45B	0023-S4-295	0 5'	12/10/03	186
	0023-S4-296	1 5'	12/10/03	157
43B	0023-S4-297	0.5'	12/10/03	73
	0023-S4-298	1 5'	12/10/03	39 8
42B	0023-S4-299	0 5'	12/10/03	10 8
	0023-S4-300	1 5'	12/10/03	13.1
40B	0023-S4-301	0 5'	12/10/03	150
	0023-S4-302	1.5'	12/10/03	1040
4A	0023-S4-303	0.5'	12/10/03	13 8
	0023-S4-304	1 5'	12/10/03	19 9
	0023-S4-305 (FD)	1 5'	12/10/03	9 4
6B	0023-S4-306	0 5'	12/10/03	9.9
	0023-S4-307	1.5'	12/10/03	7.7

TABLE 4-3

SUMMARY OF LEAD CONCENTRATIONS IN SOIL - BASED ON PRE-EXCAVATION SAMPLING RESULTS FOR IRP SITE 4 AOPCS 1A AND 2A

Location	Sample No	Depths	Sample Date	Lead Results (mg/kg)
6A	0023-S4-308	0.5'	12/10/03	39.2
	0023-S4-309	1.5'	12/10/03	22.4
9B	0023-S4-310	0.5'	12/10/03	118
	0023-S4-311	1.5'	12/10/03	11.1
10B	0023-S4-312	0.5'	12/10/03	17.2
	0023-S4-313	1.5'	12/10/03	15.3
11B	0023-S4-314	0.5'	12/10/03	28.5
	0023-S4-315	1.5'	12/10/03	28.4
	0023-S4-316 (FD)	1.5'	12/10/03	47
12B	0023-S4-317	0.5'	12/10/03	40.4
	0023-S4-318	1.5'	12/10/03	43.3
13B	0023-S4-319	0.5'	12/10/03	92.1
15B	0023-S4-321	0.5'	12/10/03	68.5
	0023-S4-322	1.5'	12/10/03	67.5
16B	0023-S4-323	0.5'	12/10/03	13
	0023-S4-324	1.5'	12/10/03	14.1
18B	0023-S4-325	0.5'	12/10/03	18
	0023-S4-326 (FD)	0.5'	12/10/03	29.5
	0023-S4-327	1.5'	12/10/03	22.7
20B	0023-S4-328	0.5'	12/10/03	43.2
	0023-S4-329	1.5'	12/10/03	139
21B	0023-S4-330	0.5'	12/10/03	33.5
	0023-S4-331	1.5'	12/10/03	42.1
22B	0023-S4-332	0.5'	12/10/03	30
	0023-S4-333	1.5'	12/10/03	30
23B	0023-S4-334	0.5'	12/10/03	62.7
	0023-S4-335	1.5'	12/10/03	29.3
61A	0023-S4-336	0.5'	12/10/03	8.6
	0023-S4-337	1.5'	12/10/03	9.8
	0023-S4-338 (FD)	1.5'	12/10/03	12 J
1A	0023-S4-339	0.5'	12/10/03	17.2
	0023-S4-340	1.5'	12/10/03	20.1
2B	0023-S4-341	0.5'	12/10/03	3.7
	0023-S4-342	1.5'	12/10/03	19.9
2A	0023-S4-343	0.5'	12/10/03	14.2
	0023-S4-344	1.5'	12/10/03	11.2
3A	0023-S4-345	0.5'	12/10/03	660
	0023-S4-346	1.5'	12/10/03	27.9
4B	0023-S4-347	0.5'	12/10/03	22.5
	0023-S4-348 (FD)	0.5'	12/10/03	51.1
	0023-S4-349	1.5'	12/10/03	45
5B	0023-S4-350	0.5'	12/10/03	9.3
	0023-S4-351	1.5'	12/10/03	9.2
5A	0023-S4-352	0.5'	12/10/03	8.4
	0023-S4-353	1.5'	12/10/03	9.8
7A	0023-S4-354	0.5'	12/10/03	7.4
	0023-S4-355	1.5'	12/10/03	27
8A	0023-S4-356	0.5'	12/10/03	5.7
	0023-S4-357	1.5'	12/10/03	107

TABLE 4-3

SUMMARY OF LEAD CONCENTRATIONS IN SOIL - BASED ON PRE-EXCAVATION SAMPLING RESULTS FOR IRP SITE 4 AOPCS 1A AND 2A

Location	Sample No	Depths	Sample Date	Lead Results (mg/kg)
8B	0023-S4-358	0.5'	12/10/03	15.1
	0023-S4-359	1.5'	12/10/03	28.6
	0023-S4-360 (FD)	1.5'	12/10/03	10.5
9A	0023-S4-361	0.5'	12/10/03	15.1
	0023-S4-362	1.5'	12/10/03	13.8
10A	0023-S4-363	0.5'	12/10/03	12.3
	0023-S4-364	1.5'	12/10/03	6.4
11A	0023-S4-365	0.5'	12/10/03	15.3
	0023-S4-366	1.5'	12/10/03	13
12A	0023-S4-367	0.5'	12/10/03	4.4
	0023-S4-368	1.5'	12/10/03	9.6
13A	0023-S4-369	0.5'	12/10/03	24.5
	0023-S4-370	1.5'	12/10/03	139
	0023-S4-371 (FD)	1.5'	12/10/03	3.9
14A	0023-S4-372	0.5'	12/10/03	22.3
	0023-S4-373	1.5'	12/10/03	274
14B	0023-S4-374	0.5'	12/10/03	15
	0023-S4-375	1.5'	12/10/03	1570
15A	0023-S4-376	0.5'	12/10/03	14.4
	0023-S4-377	1.5'	12/10/03	275
16A	0023-S4-378	0.5'	12/10/03	11
	0023-S4-379	1.5'	12/10/03	35.8
17B	0023-S4-380	0.5'	12/10/03	11
	0023-S4-381 (FD)	0.5'	12/10/03	33.9
	0023-S4-382	1.5'	12/10/03	23.1
17A	0023-S4-383	0.5'	12/10/03	25.5
	0023-S4-384	1.5'	12/10/03	20.4
18A	0023-S4-385	0.5'	12/10/03	24.4
	0023-S4-386	1.5'	12/10/03	128
19B	0023-S4-387	0.5'	12/10/03	49.3
	0023-S4-388	1.5'	12/10/03	57.3
19A	0023-S4-389	0.5'	12/10/03	22.8
	0023-S4-390	1.5'	12/10/03	18.8
20A	0023-S4-391	0.5'	12/10/03	40.2
	0023-S4-392	1.5'	12/10/03	6.5 U
	0023-S4-393 (FD)	1.5'	12/10/03	11.3
21A	0023-S4-394	0.5'	12/10/03	31.2
	0023-S4-395	1.5'	12/10/03	817
22A	0023-S4-397	0.5'	12/11/03	360
	0023-S4-398	1.5'	12/11/03	11.9
23A	0023-S4-399	0.5'	12/11/03	69.6
	0023-S4-400	1.5'	12/11/03	6.5
24A	0023-S4-401	0.5'	12/11/03	18.8
	0023-S4-402	1.5'	12/11/03	10.6
25A	0023-S4-403	0.5'	12/11/03	88.5
	0023-S4-404	1.5'	12/11/03	5.7
26B	0023-S4-405	0.5'	12/11/03	5.5 J
	0023-S4-406 (FD)	0.5'	12/11/03	18.3
	0023-S4-407	1.5'	12/11/03	11.1
26A	0023-S4-408	0.5'	12/11/03	164
	0023-S4-409	1.5'	12/11/03	9.8

TABLE 4-3

SUMMARY OF LEAD CONCENTRATIONS IN SOIL - BASED ON PRE-EXCAVATION SAMPLING RESULTS FOR IRP SITE 4 AOPCS 1A AND 2A

Location	Sample No	Depths	Sample Date	Lead Results (mg/kg)
27B	0023-S4-410	0.5'	12/11/03	23.4
	0023-S4-411	1.5'	12/11/03	11.3
27A	0023-S4-412	0.5'	12/11/03	141
	0023-S4-413	1.5'	12/11/03	11.8
28A	0023-S4-414	0.5'	12/11/03	6
	0023-S4-415	1.5'	12/11/03	5.8
29A	0023-S4-416	0.5'	12/11/03	55.1
	0023-S4-417	1.5'	12/11/03	32.9
	0023-S4-418 (FD)	1.5'	12/11/03	12.7
31A	0023-S4-419	0.5'	12/11/03	70.1
	0023-S4-420	1.5'	12/11/03	5.3 J
32B	0023-S4-421	0.5'	12/11/03	7.5
	0023-S4-422	1.5'	12/11/03	8
32A	0023-S4-423	0.5'	12/11/03	84.5
	0023-S4-424	1.5'	12/11/03	47.4
33B	0023-S4-425	0.5'	12/11/03	116
	0023-S4-426	1.5'	12/11/03	19.3
33A	0023-S4-427	0.5'	12/11/03	14.1
	0023-S4-428 (FD)	0.5'	12/11/03	8.9
	0023-S4-429	1.5'	12/11/03	4.1 J
34A	0023-S4-430	0.5'	12/11/03	67.1
	0023-S4-431	1.5'	12/11/03	6.3
34B	0023-S4-432	0.5'	12/11/03	902
	0023-S4-433	1.5'	12/11/03	14.2
35A	0023-S4-434	0.5'	12/11/03	65.6
	0023-S4-435	1.5'	12/11/03	22.3
36A	0023-S4-436	0.5'	12/11/03	35.9
	0023-S4-437	1.5'	12/11/03	16.3
36B	0023-S4-438	0.5'	12/11/03	8.1
	0023-S4-439	1.5'	12/11/03	9.1 J
	0023-S4-440 (FD)	1.5'	12/11/03	7.3 J
37A	0023-S4-441	0.5'	12/11/03	60.9 J
	0023-S4-442	1.5'	12/11/03	9.3 J
37B	0023-S4-443	0.5'	12/11/03	1330 J
	0023-S4-444	1.5'	12/11/03	40.9 J
38A	0023-S4-445	0.5'	12/11/03	13.3 J
	0023-S4-446	1.5'	12/11/03	15.6 J
38B	0023-S4-447	0.5'	12/11/03	19 J
	0023-S4-448	1.5'	12/11/03	110 J
39A	0023-S4-449	0.5'	12/11/03	14.1 J
	0023-S4-450 (FD)	0.5'	12/11/03	7 J
	0023-S4-451	1.5'	12/11/03	8.6 J
39B	0023-S4-452	0.5'	12/11/03	29.9 J
	0023-S4-453	1.5'	12/11/03	77.8 J
40A	0023-S4-454	0.5'	12/11/03	16.7 J
	0023-S4-455	1.5'	12/11/03	11.4 J
41A	0023-S4-456	0.5'	12/11/03	16.7 J
	0023-S4-457	1.5'	12/11/03	11.9 J
	0023-S4-458 (FD)	1.5'	12/11/03	11.5 J

TABLE 4-3

SUMMARY OF LEAD CONCENTRATIONS IN SOIL - BASED ON PRE-EXCAVATION SAMPLING RESULTS FOR IRP SITE 4 AOPCS 1A AND 2A

Location	Sample No	Depths	Sample Date	Lead Results (mg/kg)
42A	0023-S4-459	0 5'	12/11/03	17 7 J
	0023-S4-460 (FD)	0 5'	12/11/03	20 8 J
	0023-S4-461	1 5'	12/11/03	13.3
43A	0023-S4-462	0 5'	12/11/03	33
	0023-S4-463 (FD)	0.5'	12/11/03	21.1 J
	0023-S4-464	1.5'	12/11/03	50.9 J
44A	0023-S4-465	0.5'	12/11/03	13 J
	0023-S4-466 (FD)	0 5'	12/11/03	999 J
	0023-S4-467	1 5'	12/11/03	10.2 J
45A	0023-S4-468	0 5'	12/11/03	25 J
	0023-S4-469	1 5'	12/11/03	15.8 J
	0023-S4-470 (FD)	1 5'	12/11/03	6 9 J
46A	0023-S4-471	0 5'	12/11/03	81.1 J
	0023-S4-472 (FD)	0.5'	12/11/03	18.4 J
	0023-S4-473	1.5'	12/11/03	9.7 J
47A	0023-S4-474	0.5'	12/11/03	48.9 J
	0023-S4-475	1.5'	12/11/03	5.5 J

Notes:
999 - Grid cell sidewall or floor with soil lead concentrations exceeding TCG that were excavated
AOPCs - Areas of Potential Concern
FD - field duplicate
IRP - Installation Restoration Program
J - estimated value
mg/kg - milligram per kilogram
U - not detected at or above the reporting limit (value indicates the reporting limit)

TABLE 4-4

SUMMARY OF ANALYTICAL RESULTS FROM THE CONFIRMATION SAMPLES - IRP SITE 4 AOPCS 1A AND 2A

Location	Sample No	Depths	Sample Date	Lead Results (mg/kg)
107B N SIDEWALL	0023-S4-500	11"	01/20/04	1140 J
107B E SIDEWALL	0023-S4-501	11"	01/20/04	218 J
107B S SIDEWALL	0023-S4-502	11"	01/20/04	294 J
107B FLOOR	0023-S4-503	12"	01/20/04	6.3 J
106B N SIDEWALL	0023-S4-504	5"	01/20/04	9.8 J
106B S SIDEWALL	0023-S4-505	11"	01/20/04	217 J
106B FLOOR	0023-S4-506	12"	01/20/04	590 J
105B N SIDEWALL	0023-S4-507	2"	01/20/04	5.8 J
105B S SIDEWALL	0023-S4-508	1"	01/20/04	9 J
105B FLOOR	0023-S4-509	12"	01/20/04	75.6 J
104B N SIDEWALL	0023-S4-510	3"	01/20/04	45 J
104B S SIDEWALL	0023-S4-511	1"	01/20/04	7.6 J
104B SLOOR	0023-S4-512	12"	01/20/04	225 J
103B N SIDEWALL	0023-S4-513	20"	01/20/04	195 J
103B E SIDEWALL	0023-S4-514	1"	01/20/04	14.6 J
103B S SIDEWALL	0023-S4-515	15"	01/20/04	22.1 J
103B W SIDEWALL	0023-S4-516	6"	01/20/04	40.5 J
103B FLOOR	0023-S4-517	24"	01/20/04	7.7 J
101B N SIDEWALL	0023-S4-518	2"	01/20/04	6.5 J
101B E SIDEWALL	0023-S4-519	2"	01/20/04	171 J
101B S SIDEWALL	0023-S4-520	12"	01/20/04	8.4 J
101B FLOOR	0023-S4-521	12"	01/20/04	377 J
100B N SIDEWALL	0023-S4-522	10"	01/20/04	8 J
100B S SIDEWALL	0023-S4-523	2"	01/20/04	16.2 J
100B W SIDEWALL	0023-S4-524	12"	01/20/04	59.7 J
100B FLOOR	0023-S4-525	12"	01/20/04	127 J
96B N SIDEWALL	0023-S4-526	4"	01/20/04	110 J
96B E SIDEWALL	0023-S4-527	1"	01/20/04	87.8 J
96B S SIDEWALL	0023-S4-528	4"	01/20/04	6.2 J
96B W SIDEWALL	0023-S4-529	11"	01/20/04	676 J
96B FLOOR	0023-S4-530	12"	01/20/04	1790 J
94B SIDEWALL	0023-S4-531	8"	01/20/04	1660 J
94B N SIDEWALL	0023-S4-532	8"	01/20/04	452 J
94B E SIDEWALL	0023-S4-533	1"	01/20/04	103 J
94B E SIDEWALL	0023-S4-534 (FD)	1"	01/20/04	395 J
94B S SIDEWALL	0023-S4-535	8"	01/20/04	18.6 J
94B W SIDEWALL	0023-S4-536	7"	01/20/04	1600 J
94B FLOOR	0023-S4-537	12"	01/20/04	4710 J
94B FLOOR	0023-S4-538 (FD)	12"	01/20/04	1780 J
91-92 N SIDEWALL	0023-S4-539	2"	01/20/04	14.9 J
91-92 E SIDEWALL	0023-S4-540	5"	01/20/04	1440 J
91-92 S SIDEWALL	0023-S4-541	5"	01/20/04	153 J
91-92 W SIDEWALL	0023-S4-542	5"	01/20/04	1060 J
91-92 FLOOR	0023-S4-543	12"	01/20/04	5.1 J
91-92 FLOOR	0023-S4-544 (FD)	12"	01/20/04	3.9 J
68B N SIDEWALL	0023-S4-548	11"	01/20/04	7.9 J
68B E SIDEWALL	0023-S4-549	2"	01/20/04	12.2 J

TABLE 4-4

SUMMARY OF ANALYTICAL RESULTS FROM THE CONFIRMATION SAMPLES - IRP SITE 4 AOPCS 1A AND 2A

Location	Sample No	Depths	Sample Date	Lead Results (mg/kg)
68B S SIDEWALL	0023-S4-550	12"	01/20/04	307 J
68B W SIDEWALL	0023-S4-551	19"	01/20/04	16.2 J
68B FLOOR	0023-S4-552	24"	01/20/04	7 J
64B N SIDEWALL	0023-S4-553	7"	01/20/04	430 J
64B E SIDEWALL	0023-S4-554	11"	01/20/04	575 J
64B S SIDEWALL	0023-S4-555	4"	01/20/04	127 J
64B W SIDEWALL	0023-S4-556	8"	01/20/04	13.2 J
64B FLOOR	0023-S4-557	12"	01/20/04	1690 J
14B N SIDEWALL	0023-S4-558	6"	01/29/04	30.2 J
14B E SIDEWALL	0023-S4-559	11"	01/29/04	17.4 J
14B S SIDEWALL	0023-S4-560	10"	01/29/04	49.3 J
14B W SIDEWALL	0023-S4-561	7"	01/29/04	9.5 J
14B FLOOR	0023-S4-562	24"	01/29/04	12.8 J
34B N SIDEWALL	0023-S4-563	9"	01/29/04	43.2 J
34B E SIDEWALL	0023-S4-564	7"	01/29/04	1380 J
34B S SIDEWALL	0023-S4-565	1"	01/29/04	208 J
34B W SIDEWALL	0023-S4-566	0"	01/29/04	17.9 J
34B FLOOR	0023-S4-567	12"	01/29/04	130 J
34B FLOOR	0023-S4-568 (FD)	12"	01/29/04	20.4 J
37B N SIDEWALL	0023-S4-569	5"	01/29/04	1340 J
37B E SIDEWALL	0023-S4-570	4"	01/29/04	2970 J
37B S SIDEWALL	0023-S4-571	6"	01/29/04	36.5 J
37B W SIDEWALL	0023-S4-572	7"	01/29/04	840 J
37B FLOOR	0023-S4-573	12"	01/29/04	22.7 J
40B N SIDEWALL	0023-S4-574	1"	01/29/04	17.6 J
40B E SIDEWALL	0023-S4-575	4"	01/29/04	28.5 J
40B S SIDEWALL	0023-S4-576	6"	01/29/04	18.1 J
40B W SIDEWALL	0023-S4-577	3"	01/29/04	24.1 J
40B FLOOR	0023-S4-578	24"	01/29/04	10.9 J
40B FLOOR	0023-S4-579 (FD)	24"	01/29/04	8.4 J
44A N SIDEWALL	0023-S4-580	0"	01/29/04	13.7 J
44A S SIDEWALL	0023-S4-581	8"	01/29/04	17.1 J
44A W SIDEWALL	0023-S4-582	6"	01/29/04	83.1 J
44A FLOOR	0023-S4-583	12"	01/29/04	11.4 J
45A N SIDEWALL	0023-S4-584	0"	01/29/04	41.3 J
45A E SIDEWALL	0023-S4-585	9"	01/29/04	1720 J
45A S SIDEWALL	0023-S4-586	9"	01/29/04	26.3 J
45A FLOOR	0023-S4-587	12"	01/29/04	22.1 J
46B N SIDEWALL	0023-S4-588	5"	01/29/04	9.5 J
46B E SIDEWALL	0023-S4-589	9"	01/29/04	2030 J
46B E SIDEWALL	0023-S4-590 (FD)	9"	01/29/04	1100 J
46B S SIDEWALL	0023-S4-591	2"	01/29/04	5.1 J
46B W SIDEWALL	0023-S4-592	2"	01/29/04	24.4 J
46B FLOOR	0023-S4-593	12"	01/29/04	10.8 J
48B N SIDEWALL	0023-S4-594	2"	01/29/04	95.1 J
48B E SIDEWALL	0023-S4-595	6"	01/29/04	287 J
48B S SIDEWALL	0023-S4-596	2"	01/29/04	22.2 J

TABLE 4-4

SUMMARY OF ANALYTICAL RESULTS FROM THE CONFIRMATION SAMPLES - IRP SITE 4 AOPCS 1A AND 2A

Location	Sample No	Depths	Sample Date	Lead Results (mg/kg)
48B W SIDEWALL	0023-S4-597	12"	01/29/04	1560 J
48B FLOOR	0023-S4-598	12"	01/29/04	270 J
53A N SIDEWALL	0023-S4-599	11"	01/29/04	7 9 J
53A E SIDEWALL	0023-S4-600	10"	01/29/04	20.7 J
53A E SIDEWALL	0023-S4-601 (FD)	10"	01/29/04	18.2 J
53A S SIDEWALL	0023-S4-602	4"	01/29/04	17
53A W SIDEWALL	0023-S4-603	4"	01/29/04	19 9
53A FLOOR	0023-S4-604	24"	01/29/04	15.9
54B N SIDEWALL	0023-S4-605	4"	01/29/04	110
54B E SIDEWALL	0023-S4-606	10"	01/29/04	2140
54B S SIDEWALL	0023-S4-607	10"	01/29/04	747
54B W SIDEWALL	0023-S4-608	0"	01/29/04	383
54B FLOOR	0023-S4-609	12"	01/29/04	23.8
58B N SIDEWALL	0023-S4-610	11"	01/29/04	328
58B S SIDEWALL	0023-S4-611	10"	01/29/04	49 9
58B S SIDEWALL	0023-S4-612 (FD)	10"	01/29/04	73.1
58B W SIDEWALL	0023-S4-613	1"	01/29/04	358
58B FLOOR	0023-S4-614	12"	01/29/04	1830
59B N SIDEWALL	0023-S4-615	2"	01/29/04	966
59B S SIDEWALL	0023-S4-616	8"	01/29/04	50.9
59B FLOOR	0023-S4-617	12"	01/29/04	306
60B N SIDEWALL	0023-S4-618	3"	01/29/04	88 8
60B E SIDEWALL	0023-S4-619	4"	01/29/04	31 7
60B S SIDEWALL	0023-S4-620	3"	01/29/04	47
60B FLOOR	0023-S4-621	12"	01/29/04	12 6
61B N SIDEWALL	0023-S4-622	7"	01/29/04	24 9
61B N SIDEWALL	0023-S4-623 (FD)	7"	01/29/04	116
71B E SIDEWALL	0023-S4-624	1"	01/29/04	562
71B S SIDEWALL	0023-S4-625	6"	01/29/04	6
71B W SIDEWALL	0023-S4-626	2"	01/29/04	10 1
71B FLOOR	0023-S4-627	12"	01/29/04	9 2
78B N SIDEWALL	0023-S4-628	8"	01/29/04	1730
78B E SIDEWALL	0023-S4-629	11"	01/29/04	87 9
78B S SIDEWALL	0023-S4-630	7"	01/29/04	23.6
78B W SIDEWALL	0023-S4-631	1"	01/29/04	1230
78B FLOOR	0023-S4-632	12"	01/29/04	7 7
78B FLOOR	0023-S4-633 (FD)	12"	01/29/04	4 9
81B N SIDEWALL	0023-S4-635	9"	01/30/04	13 J
81B S SIDEWALL	0023-S4-636	6"	01/30/04	6 J
81B W SIDEWALL	0023-S4-637	7"	01/30/04	5930
81B FLOOR	0023-S4-638	12"	01/30/04	18 9 J
82B N SIDEWALL	0023-S4-639	10"	01/30/04	44 8
82B S SIDEWALL	0023-S4-640	7"	01/30/04	73
82B FLOOR	0023-S4-641	12"	01/30/04	409
83B N SIDEWALL	0023-S4-642	1"	01/30/04	286
83B E SIDEWALL	0023-S4-643	10"	01/30/04	4940
83B S SIDEWALL	0023-S4-644	9"	01/30/04	44.3

TABLE 4-4

SUMMARY OF ANALYTICAL RESULTS FROM THE CONFIRMATION SAMPLES - IRP SITE 4 AOPCS 1A AND 2A

Location	Sample No	Depths	Sample Date	Lead Results (mg/kg)
83B S SIDEWALL	0023-S4-645 (FD)	9"	01/30/04	11.1 J
83B FLOOR	0023-S4-646	12"	01/30/04	1240
85B N SIDEWALL	0023-S4-647	11"	01/30/04	7.1 J
85B S SIDEWALL	0023-S4-648	11"	01/30/04	83.1
85B E SIDEWALL	0023-S4-649	5"	01/30/04	13 3 J
85B W SIDEWALL	0023-S4-650	0"	01/30/04	115
85B FLOOR	0023-S4-651	24"	01/30/04	105
86B N SIDEWALL	0023-S4-652	9"	01/30/04	1950
86B E SIDEWALL	0023-S4-653	4"	01/30/04	176
86B S SIDEWALL	0023-S4-654	7"	01/30/04	17 3 J
86B FLOOR	0023-S4-655	12"	01/30/04	7.3 J
88B N SIDEWALL	0023-S4-656	8"	01/30/04	897
88B N SIDEWALL	0023-S4-657 (FD)	8"	01/30/04	2410
88B S SIDEWALL	0023-S4-658	4"	01/30/04	232
88B W SIDEWALL	0023-S4-659	1"	01/30/04	11 4 J
88B FLOOR	0023-S4-660	12"	01/30/04	226
89B N SIDEWALL	0023-S4-661	10"	01/30/04	771
89B S SIDEWALL	0023-S4-662	5"	01/30/04	109
89B FLOOR	0023-S4-663	12"	01/30/04	14 3 J
90B N SIDEWALL	0023-S4-664	0"	01/30/04	7.4 J
90B E SIDEWALL	0023-S4-665	2"	01/30/04	47.5
90B S SIDEWALL	0023-S4-666	5"	01/30/04	24 J
90B W SIDEWALL	0023-S4-667	7"	01/30/04	159
90B W SIDEWALL	0023-S4-668 (FD)	7"	01/30/04	93.5
90B FLOOR	0023-S4-669	24"	01/30/04	6.5 J
91-92 E SIDEWALL OX	0023-S4-670	6"	01/30/04	207
91-92 W SIDEWALL OX	0023-S4-671	3"	01/30/04	19 4 J
94B N SIDEWALL OX	0023-S4-672	14"	01/30/04	470
94B W SIDEWALL OX	0023-S4-673	18"	01/30/04	57.9
94B FLOOR OX	0023-S4-674	18"	01/30/04	86.8
96B W SIDEWALL OX	0023-S4-675	18"	01/30/04	2460
96B FLOOR OX	0023-S4-676	18"	01/30/04	20.9 J
107B N SIDEWALL OX	0023-S4-677	12"	01/30/04	1030
64B FLOOR OX	0023-S4-678	18"	01/30/04	3.5 J
64B FLOOR OX	0023-S4-679 (FD)	18"	01/30/04	2 9 J
58 B FLOOR OX	0023-S4-681	1 5"	02/04/04	851
59B N SIDEWALL OX	0023-S4-682	6"	02/04/04	38.7
71B E SIDEWALL OX	0023-S4-683	11"	02/04/04	673
78B N SIDEWALL OX	0023-S4-684	12"	02/04/04	1520
78B W SIDEWALL OX	0023-S4-685	3"	02/04/04	2430
81B W SIDEWALL OX	0023-S4-686	5"	02/04/04	1150
83B E SIDEWALL OX	0023-S4-687	5"	02/04/04	370
83B FLOOR OX	0023-S4-688	1 5"	02/04/04	12.4 J
86B N SIDEWALL OX	0023-S4-689	6"	02/04/04	1390
88B N SIDEWALL OX	0023-S4-690	7"	02/04/04	457
88B N SIDEWALL OX	0023-S4-691 (FD)	7"	02/04/04	635
89B N SIDEWALL OX	0023-S4-692	7"	02/04/04	317

TABLE 4-4

SUMMARY OF ANALYTICAL RESULTS FROM THE CONFIRMATION SAMPLES - IRP SITE 4 AOPCS 1A AND 2A

Location	Sample No	Depths	Sample Date	Lead Results (mg/kg)
96B N SIDEWALL OX2	0023-S4-693	8"	02/04/04	2620
107B N SIDEWALL OX2	0023-S4-694	3"	02/04/04	1420
54B S SIDEWALL OX	0023-S4-695	6"	02/04/04	326
54B E SIDEWALL OX	0023-S4-696	2"	02/04/04	1280
45B W SIDEWALL OX	0023-S4-697	9"	02/04/04	18300
46B E SIDEWALL OX	0023-S4-698	6"	02/04/04	4520
45A E SIDEWALL OX	0023-S4-699	10"	02/04/04	990
37B N SIDEWALL OX	0023-S4-700	3"	02/04/04	876
37B E SIDEWALL OX	0023-S4-701	8"	02/04/04	16.9
37B E SIDEWALL OX	0023-S4-702 (FD)	8"	02/04/04	19.4 J
37B W SIDEWALL OX	0023-S4-703	1"	02/04/04	1600
34B E SIDEWALL OX	0023-S4-704	11"	02/04/04	18.7 J
45A E SIDEWALL OX2	0023-S4-727	2"	02/09/04	214
46B E SIDEWALL OX2	0023-S4-728	11"	02/09/04	14600
48B W SIDEWALL OX2	0023-S4-729	6"	02/09/04	153
54B W SIDEWALL OX2	0023-S4-730	2"	02/09/04	3500
58B FLOOR OX2	0023-S4-731	24"	02/09/04	16.4 J
107B N SIDEWALL OX2	0023-S4-732	6"	02/09/04	979
96B W SIDEWALL OX2	0023-S4-733	2"	02/09/04	240
81B W SIDEWALL OX2	0023-S4-734	5"	02/09/04	159
78B N SIDEWALL OX2	0023-S4-735	1"	02/09/04	37.2 J
78B W SIDEWALL OX2	0023-S4-736	2"	02/09/04	768
78B W SIDEWALL OX2	0023-S4-737 (FD)	2"	02/09/04	551
71B E SIDEWALL OX2	0023-S4-738	9"	02/09/04	2490
37B N SIDEWALL OX2	0023-S4-739	7"	02/09/04	479
37B W SIDEWALL OX2	0023-S4-740	6"	02/09/04	612
88B N SIDEWALL OX2	0023-S4-741	4"	02/09/04	20 J
86B N SIDEWALL OX2	0023-S4-742	4"	02/09/04	381
107B N SIDEWALL OX3	0023-S4-776	9"	02/12/04	89.1
78B N SIDEWALL OX3	0023-S4-777	10"	02/12/04	456
71B E SIDEWALL OX3	0023-S4-778	10"	02/12/04	1470
54B E SIDEWALL OX3	0023-S4-779	0"	02/12/04	2290
46B E SIDEWALL OX3	0023-S4-780	11"	02/12/04	275
37B W SIDEWALL OX3	0023-S4-781	4"	02/12/04	25.9 J
37B W SIDEWALL OX3	0023-S4-782 (FD)	4"	02/12/04	517
3A N SIDEWALL	0023-S4-783	2"	02/13/04	139
3A E SIDEWALL	0023-S4-784	11"	02/13/04	18.7
3A S SIDEWALL	0023-S4-785	4"	02/13/04	28
3A W SIDEWALL	0023-S4-786	7"	02/13/04	921
3A FLOOR	0023-S4-787	1'	02/13/04	472
21A N SIDEWALL	0023-S4-788	22"	02/13/04	51
21A E SIDEWALL	0023-S4-789	15"	02/13/04	46.5
21A S SIDEWALL	0023-S4-790	7"	02/13/04	806
21A W SIDEWALL	0023-S4-791	12"	02/13/04	27.1
21A FLOOR	0023-S4-792	2'	02/13/04	36.3
71B E SIDEWALL OX4	0023-S4-793	7"	02/18/04	2330
54B E SIDEWALL OX4	0023-S4-794	4"	02/18/04	2130

TABLE 4-4

SUMMARY OF ANALYTICAL RESULTS FROM THE CONFIRMATION SAMPLES - IRP SITE 4 AOPCS 1A AND 2A

Location	Sample No	Depths	Sample Date	Lead Results (mg/kg)
3A W SIDEWALL OX	0023-S4-795	10"	02/18/04	35 7
21A S SIDEWALL OX	0023-S4-796	13"	02/18/04	61.6
54B E SIDEWALL OX5	0023-S4-801	6"	02/20/04	1160 J
71B E SIDEWALL OX5	0023-S4-802	8"	02/20/04	1060 J
71B E SIDEWALL OX5	0023-S4-803 (FD)	8"	02/20/04	1220 J
54B E SIDEWALL OX6	0023-S4-804	6"	02/24/04	1110
71B E SIDEWALL OX6	0023-S4-805	8"	02/24/04	2960
54B E SIDEWALL OX7	0023-S4-815	6"	03/01/04	2770
71B E SIDEWALL OX7	0023-S4-816	9"	03/01/04	66 4
54B E SIDEWALL OX8	0023-S4-817	2"	03/08/04	139

Notes:

999 - Grid cell sidewall or floor with soil lead concentrations exceeding Target Cleanup Goal that were excavated
AOPCs - Areas of Potential Concern
E - East
FD - field duplicate
IRP - Installation Restoration Program
J - estimated value
mg/kg - milligram per kilogram
N - North
OX - over-excavation
S - South
W - West

TABLE 4-5

SUMMARY OF ANALYTICAL RESULTS FOR THE STOCKPILE SAMPLES - IRP SITE 7 AREA 5 AND SITE 4 AOPCS 1A AND 2A

Sample Number Sample Location Sample Date		0023-S4-680 STOCKPILE A1 2/2/2004	0023-S4-705 STOCKPILE B1 2/5/2004	0023-S4-706 STOCKPILE A2 2/5/2004	0023-S4-707 STOCKPILE B2 2/5/2004	0023-S4-708 STOCKPILE A3 2/5/2004	0023-S4-709 STOCKPILE B3 2/5/2004	0023-S4-710 STOCKPILE A4 2/5/2004	0023-S4-711 STOCKPILE B4 2/5/2004	0023-S4-712 STOCKPILE A5 2/5/2004	0023-S4-713 STOCKPILE B5 2/5/2004	0023-S4-714 STOCKPILE A6 2/6/2004	0023-S4-715 STOCKPILE B6 2/6/2004	0023-S4-716 STOCKPILE A7 2/6/2004
Analyte	**Units**													
Metals (EPA Method 6010B/7000)														
ANTIMONY	mg/kg	6 8 U	1 4 J	2 2 J	3 4 J	2 7 J	3 J	1.7 J	3 9 J	2 3 J	2 5 J	3 1 J	2 9 J	4 6 J
ARSENIC	mg/kg	9 1	5 6	5.7	8 4	8.1	7 7	8 8	8 2	8.7	9	11 2	9 1	9.3
BARIUM	mg/kg	212	155	194	379	445	359	314	422	444	431	297	407	655
BERYLLIUM	mg/kg	0 27 U	0 25 U	0 25 U	0 25 U	0 26 U	0 25 U	0 24 U	0 25 U	0 25 U	0 24 U	0 25 U	0 25 U	0 26 U
CADMIUM	mg/kg	0 67	0 45	0 31	0 42	0 51	0 52	0.46	0 49	0 63	0 55	0 5	0 64	0.79
CHROMIUM	mg/kg	39 4	33 3	35 9	60	63 3	57 4	50 6	86 3	59 6	60 2	50 9	66 4	90 1
COBALT	mg/kg	14 9	13 8	13 2	14.3	14 8	13.9	13 5	13 6	13 6	14 2	15	13 9	14 8
COPPER	mg/kg	38 6	34 2	29 3	43	45 9	43	36 7	46 7	41.8	43 1	48 2	51 2	55 1
LEAD	mg/kg	451	302	446	1390	1710	1250	987	1340	1750	1580	1120	1790	3070
MERCURY	mg/kg	0 27 U	0 23 J	0 26	0 58	0 6	0 84	0 66	1 5	0 64	0 49	0 43	0 42	1 7
MOLYBDENUM	mg/kg	0 27 U	0 5	0 13 J	0 18 J	0 27	0 25 U	0.12 J	0 083 J	0 15 J	0 29	1	0 41	0 28
NICKEL	mg/kg	21 4	17.6	16 4	19 1	20 4	18 5	17 7	18 7	18 8	19 3	19 7	21 1	21 1
SELENIUM	mg/kg	0 35 J	0 46 J	0 25 J	0 5 U	1.1	0 39 J	0 49 U	0 28 J	0 49 U	1 2	1 1	0 9	0 27 J
SILVER	mg/kg	0 68 U	0 64 U	0 62 U	0 62 U	0 66 U	0 64 U	0 61 U	0 63 U	0 61 U	0 61 U	0 63 U	0 63 U	0 65 U
THALLIUM	mg/kg	0 68 U	0 64 U	0 62 U	0 62 U	0 66 U	0 64 U	0 61 U	0 63 U	0 61 U	0 61 U	0 63 U	0 63 U	0 65 U
VANADIUM	mg/kg	54 2	53.9	51 4	56 4	58	53 2	51 3	51 7	52 4	55 8	52 7	50 9	50
ZINC	mg/kg	205	157	154	313	350	298	240	305	373	366	287	373	605
STLC CHROMIUM	µg/L	NA	NA	NA	597	438	447	333	526	600	413	385	1100	861
STLC LEAD	µg/L	13700	5700	92800	NA	NA	NA	39600	NA	NA	NA	NA	NA	NA
TCLP CHROMIUM	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP LEAD	µg/L	411	238	275	654	758	654	501	670	793	1080	706	728	1880
PESTICIDES (EPA 8081A)														
ALDRIN	µg/kg	NA	NA	21 U	NA	NA	22 U	NA	NA	21 U	NA	NA	22 U	NA
ALPHA BHC	µg/kg	NA	NA	21 U	NA	NA	22 U	NA	NA	21 U	NA	NA	22 U	NA
ALPHA ENDOSULFAN	µg/kg	NA	NA	21 U	NA	NA	22 U	NA	NA	21 U	NA	NA	22 U	NA
ALPHA-CHLORDANE	µg/kg	NA	NA	12 U	NA	NA	13 U	NA	NA	12 U	NA	NA	13 U	NA
BETA BHC	µg/kg	NA	NA	21 U	NA	NA	22 U	NA	NA	21 U	NA	NA	22 U	NA
BETA ENDOSULFAN	µg/kg	NA	NA	37 U	NA	NA	38 U	NA	NA	37 U	NA	NA	38 U	NA
DELTA BHC	µg/kg	NA	NA	21 U	NA	NA	22 U	NA	NA	21 U	NA	NA	22 U	NA
DIELDRIN	µg/kg	NA	NA	37 U	NA	NA	38 U	NA	NA	37 U	NA	NA	38 U	NA
ENDOSULFAN SULFATE	µg/kg	NA	NA	62 U	NA	NA	64 U	NA	NA	61 U	NA	NA	63 U	NA
ENDRIN ALDEHYDE	µg/kg	NA	NA	37 U	NA	NA	38 U	NA	NA	37 U	NA	NA	38 U	NA
ENDRIN KETONE	µg/kg	NA	NA	25 U	NA	NA	25 U	NA	NA	25 U	NA	NA	25 U	NA
ENDRIN	µg/kg	NA	NA	37 U	NA	NA	38 U	NA	NA	37 U	NA	NA	38 U	NA
GAMMA BHC (LINDANE)	µg/kg	NA	NA	21 U	NA	NA	22 U	NA	NA	21 U	NA	NA	22 U	NA
GAMMA-CHLORDANE	µg/kg	NA	NA	12 U	NA	NA	13 U	NA	NA	12 U	NA	NA	13 U	NA
HEPTACHLOR EPOXIDE	µg/kg	NA	NA	21 U	NA	NA	22 U	NA	NA	21 U	NA	NA	22 U	NA
HEPTACHLOR	µg/kg	NA	NA	21 U	NA	NA	22 U	NA	NA	21 U	NA	NA	22 U	NA
METHOXYCHLOR	µg/kg	NA	NA	120 U	NA	NA	130 U	NA	NA	120 U	NA	NA	130 U	NA
P,P'-DDD	µg/kg	NA	NA	4 J	NA	NA	2 J	NA	NA	7 J	NA	NA	38 U	NA
P,P'-DDE	µg/kg	NA	NA	37 U	NA	NA	38 U	NA	NA	37 U	NA	NA	38 U	NA
P,P'-DDT	µg/kg	NA	NA	37 U	NA	NA	23 J	NA	NA	30 J	NA	NA	30 J	NA
TOXAPHENE	µg/kg	NA	NA	1200 U	NA	NA	1300 U	NA	NA	1200 U	NA	NA	1300 U	NA
PCBs (EPA Method 8082)														
AROCLOR 1016	µg/kg	NA	NA	41 U	NA	NA	42 U	NA	NA	41 U	NA	NA	42 U	NA
AROCLOR 1221	µg/kg	NA	NA	82 U	NA	NA	84 U	NA	NA	81 U	NA	NA	84 U	NA
AROCLOR 1232	µg/kg	NA	NA	41 U	NA	NA	42 U	NA	NA	41 U	NA	NA	42 U	NA
AROCLOR 1242	µg/kg	NA	NA	41 U	NA	NA	42 U	NA	NA	41 U	NA	NA	42 U	NA
AROCLOR 1248	µg/kg	NA	NA	41 U	NA	NA	42 U	NA	NA	41 U	NA	NA	42 U	NA
AROCLOR 1254	µg/kg	NA	NA	84	NA	NA	200	NA	NA	270	NA	NA	200	NA
AROCLOR 1260	µg/kg	NA	NA	75	NA	NA	100	NA	NA	130	NA	NA	75	NA

TABLE 4-5

SUMMARY OF ANALYTICAL RESULTS FOR THE STOCKPILE SAMPLES - IRP SITE 7 AREA 5 AND SITE 4 AOPCS 1A AND 2A

Sample Number		0023-S4-680	0023-S4-705	0023-S4-706	0023-S4-707	0023-S4-708	0023-S4-709	0023-S4-710	0023-S4-711	0023-S4-712	0023-S4-713	0023-S4-714	0023-S4-715	0023-S4-716
Sample Location		STOCKPILE A1	STOCKPILE B1	STOCKPILE A2	STOCKPILE B2	STOCKPILE A3	STOCKPILE B3	STOCKPILE A4	STOCKPILE B4	STOCKPILE A5	STOCKPILE B5	STOCKPILE A6	STOCKPILE B6	STOCKPILE A7
Sample Date		2/2/2004	2/5/2004	2/5/2004	2/5/2004	2/5/2004	2/5/2004	2/5/2004	2/5/2004	2/5/2004	2/5/2004	2/6/2004	2/6/2004	2/6/2004
Analyte	Units													
VOCs (EPA Method 8260B)														
1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
1,1-DICHLOROETHANE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
1,1-DICHLOROETHENE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
1,2-DICHLOROETHANE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
1,2-DICHLOROPROPANE	µg/kg	NA	NA	6.6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
2-HEXANONE	µg/kg	NA	NA	66 U	NA	NA	60 U	NA	NA	63 U	NA	NA	76 U	NA
ACETONE	µg/kg	NA	NA	66 U	NA	NA	21 J	NA	NA	41 J	NA	NA	77	NA
BENZENE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
BROMODICHLOROMETHANE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
BROMOFORM	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
BROMOMETHANE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
CARBON TETRACHLORIDE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
CHLOROBENZENE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
CHLOROETHANE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
CHLOROFORM	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
CHLOROMETHANE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
CIS-1,2-DICHLOROETHENE	µg/kg	NA	NA	6 6 U	NA	NA	10	NA	NA	5 J	NA	NA	7 6 U	NA
CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
DIBROMOCHLOROMETHANE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
ETHYLBENZENE	µg/kg	NA	NA	6 6 U	NA	NA	3 J	NA	NA	1 J	NA	NA	7 6 U	NA
METHYL ETHYL KETONE(MEK)	µg/kg	NA	NA	66 U	NA	NA	60 U	NA	NA	14 J	NA	NA	76 U	NA
METHYL ISOBUTYL KETONE (MIBK)	µg/kg	NA	NA	66 U	NA	NA	60 U	NA	NA	63 U	NA	NA	76 U	NA
METHYL TERT-BUTYL ETHER	µg/kg	NA	NA	13 U	NA	NA	12 U	NA	NA	13 U	NA	NA	15 U	NA
METHYLENE CHLORIDE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
STYRENE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
TETRACHLOROETHENE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
TOLUENE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	1 J	NA	NA	7 6 U	NA
TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
TRICHLOROETHENE	µg/kg	NA	NA	6 6 U	NA	NA	3 J	NA	NA	7	NA	NA	7.6 U	NA
VINYL ACETATE	µg/kg	NA	NA	66 U	NA	NA	60 U	NA	NA	63 U	NA	NA	76 U	NA
VINYL CHLORIDE	µg/kg	NA	NA	6 6 U	NA	NA	6 U	NA	NA	6 3 U	NA	NA	7 6 U	NA
XYLENES (TOTAL)	µg/kg	NA	NA	6.6 U	NA	NA	3 J	NA	NA	3 J	NA	NA	7.6 U	NA
SVOCs (EPA Method 8270C)														
1,2,4-TRICHLOROBENZENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
1,2-DICHLOROBENZENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
1,3-DICHLOROBENZENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
1,4-DICHLOROBENZENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	7900 U	NA	NA	8100 U	NA	NA	16000 U	NA	NA	41000 U	NA
2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
2,4-DICHLOROPHENOL	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
2,4-DIMETHYLPHENOL	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
2,4-DINITROPHENOL	µg/kg	NA	NA	7900 U	NA	NA	8100 U	NA	NA	16000 U	NA	NA	41000 U	NA
2,4-DINITROTOLUENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
2,6-DINITROTOLUENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
2-CHLORONAPHTHALENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
2-CHLOROPHENOL	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
2-METHYLPHENOL	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
2-NITROANILINE	µg/kg	NA	NA	7900 U	NA	NA	8100 U	NA	NA	16000 U	NA	NA	41000 U	NA

TABLE 4-5

SUMMARY OF ANALYTICAL RESULTS FOR THE STOCKPILE SAMPLES - IRP SITE 7 AREA 5 AND SITE 4 AOPCS 1A AND 2A

Sample Number		0023-S4-680	0023-S4-705	0023-S4-706	0023-S4-707	0023-S4-708	0023-S4-709	0023-S4-710	0023-S4-711	0023-S4-712	0023-S4-713	0023-S4-714	0023-S4-715	0023-S4-716
Sample Location		STOCKPILE A1	STOCKPILE B1	STOCKPILE A2	STOCKPILE B2	STOCKPILE A3	STOCKPILE B3	STOCKPILE A4	STOCKPILE B4	STOCKPILE A5	STOCKPILE B5	STOCKPILE A6	STOCKPILE B6	STOCKPILE A7
Sample Date		2/2/2004	2/5/2004	2/5/2004	2/5/2004	2/5/2004	2/5/2004	2/5/2004	2/5/2004	2/5/2004	2/5/2004	2/6/2004	2/6/2004	2/6/2004
Analyte	Units													
2-NITROPHENOL	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	3300 U	NA	NA	3400 U	NA	NA	6500 U	NA	NA	17000 U	NA
3-NITROANILINE	µg/kg	NA	NA	7900 U	NA	NA	8100 U	NA	NA	16000 U	NA	NA	41000 U	NA
4 6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	7900 U	NA	NA	8100 U	NA	NA	16000 U	NA	NA	41000 U	NA
4-BROMOPHENYL-PHENYL ETHER	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
4-CHLOROANILINE	µg/kg	NA	NA	3800 U	NA	NA	3900 U	NA	NA	7500 U	NA	NA	19000 U	NA
4-CHLOROPHENYL-PHENYL ETHER	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
4-METHYLPHENOL	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
4-NITROANILINE	µg/kg	NA	NA	7900 U	NA	NA	8100 U	NA	NA	16000 U	NA	NA	41000 U	NA
4-NITROPHENOL	µg/kg	NA	NA	7900 U	NA	NA	8100 U	NA	NA	16000 U	NA	NA	41000 U	NA
ACENAPHTHENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
ACENAPHTHYLENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
ANTHRACENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
BENZ[A]ANTHRACENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
BENZO[A]PYRENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
BENZO[B]FLUORANTHENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
BENZO[K]FLUORANTHENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
BENZYL BUTYL PHTHALATE (BBP)	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
BIS(2-CHLOROETHOXY) METHANE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
BIS(2-CHLOROETHYL) ETHER	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
CHRYSENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
DIBENZ[A,H)]NTHRACENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
DIBENZOFURAN	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
DIETHYL PHTHALATE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
DIMETHYL PHTHALATE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
DI-N-OCTYLPHTHALATE (DOP)	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
FLUORANTHENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
FLUORENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
HEXACHLOROBENZENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
HEXACHLOROBUTADIENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	7900 U	NA	NA	8100 U	NA	NA	16000 U	NA	NA	41000 U	NA
HEXACHLOROETHANE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
INDENO[1,2,3-C,D]PYRENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
NAPHTHALENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
NITROBENZENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	3300 U	NA	NA	3400 U	NA	NA	6500 U	NA	NA	17000 U	NA
PENTACHLOROPHENOL	µg/kg	NA	NA	7900 U	NA	NA	8100 U	NA	NA	16000 U	NA	NA	41000 U	NA
PHENANTHRENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
PHENOL	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
PYRENE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	190 J	NA	NA	8400 U	NA
PYRIDINE	µg/kg	NA	NA	1600 U	NA	NA	1700 U	NA	NA	3200 U	NA	NA	8400 U	NA
TCLP 1,4-DICHLOROBENZENE	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	10 U	NA
TCLP 2,4-DINITROTOLUENE	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	10 U	NA
TCLP HEXACHLOROBENZENE	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	10 U	NA
TCLP HEXACHLOROBUTADIENE	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	10 U	NA
TCLP HEXACHLOROETHANE	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	10 U	NA

TABLE 4-5

SUMMARY OF ANALYTICAL RESULTS FOR THE STOCKPILE SAMPLES - IRP SITE 7 AREA 5 AND SITE 4 AOPCS 1A AND 2A

Sample Number		0023-S4-680	0023-S4-705	0023-S4-706	0023-S4-707	0023-S4-708	0023-S4-709	0023-S4-710	0023-S4-711	0023-S4-712	0023-S4-713	0023-S4-714	0023-S4-715	0023-S4-716
Sample Location		STOCKPILE A1	STOCKPILE B1	STOCKPILE A2	STOCKPILE B2	STOCKPILE A3	STOCKPILE B3	STOCKPILE A4	STOCKPILE B4	STOCKPILE A5	STOCKPILE B5	STOCKPILE A6	STOCKPILE B6	STOCKPILE A7
Sample Date		2/2/2004	2/5/2004	2/5/2004	2/5/2004	2/5/2004	2/5/2004	2/5/2004	2/5/2004	2/5/2004	2/5/2004	2/6/2004	2/6/2004	2/6/2004
Analyte	Units													
TCLP 2-METHYLPHENOL	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	10 U	NA
TCLP 4-METHYLPHENOL	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	10 U	NA
TCLP NITROBENZENE	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	10 U	NA
TCLP PENTACHLOROPHENOL	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	50 U	NA
TCLP PYRIDINE	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	10 U	NA
TCLP 2,4,6-TRICHLOROPHENOL	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	10 U	NA
TCLP 2,4,5-TRICHLOROPHENOL	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	10 U	NA

TABLE 4-5

SUMMARY OF ANALYTICAL RESULTS FOR THE STOCKPILE SAMPLES - IRP SITE 7 AREA 5 AND SITE 4 AOPCS 1A AND 2A

Sample Number		0023-S4-717	0023-S4-718	0023-S4-719	0023-S4-720	0023-S4-721	0023-S4-722	0023-S4-723	0023-S4-724	0023-S4-725	0023-S4-726	0023-S4-762	0023-S4-763	0023-S4-764
Sample Location		STOCKPILE B7	STOCKPILE A8	STOCKPILE B8	STOCKPILE A9	STOCKPILE B9	STOCKPILE A10	STOCKPILE B10	STOCKPILE A11	STOCKPILE B11	STOCKPILE A12	STOCKPILE B12	STOCKPILE A13	STOCKPILE B13
Sample Date		2/6/2004	2/6/2004	2/6/2004	2/6/2004	2/6/2004	2/9/2004	2/9/2004	2/9/2004	2/9/2004	2/9/2004	2/11/2004	2/11/2004	2/11/2004
Analyte	Units													
Metals (EPA Method 6010B/7000)														
ANTIMONY	mg/kg	3.2 J	2.7 J	2.1 J	2.6 J	3.6 J	2.5 J	4.1 J	4.7 J	4.1 J	1.9 J	6.7 U	5.8 U	6.4 U
ARSENIC	mg/kg	7.1	9	6.9	5.4	10.1	7.5	13.9	10.1	8.3	6.9	4.6	4.8	5.4
BARIUM	mg/kg	351	295	294	302	346	296	661	681	326	316	254	216	398
BERYLLIUM	mg/kg	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.25 U	0.24 U	0.24 U	0.27 U	0.23 U	0.25 U
CADMIUM	mg/kg	0.5	0.51	0.4	0.43	0.54	0.62	0.89	0.88	0.51	0.43	0.13 J	0.069 J	0.26
CHROMIUM	mg/kg	51.7	52.8	45.3	44	53.3	50.2	76.6	101	62.1	47.4	51.5	44	80.6
COBALT	mg/kg	12.8	13.3	12.2	12.1	14.4	12	12.7	12.2	13.5	12.7	12.1	12.9	14.6
COPPER	mg/kg	39.4	36.5	33.6	33.5	38.8	37.6	51.3	45.8	41	36.8	38.4	32.5	50.1
LEAD	mg/kg	1320	984	1000	1240	1080	1140	2970	2900	1100	1090	788	461	908
MERCURY	mg/kg	0.75	0.73	0.7	0.78	0.46	0.85	0.83	1.5	1.5	0.67	0.89	0.57	0.64
MOLYBDENUM	mg/kg	0.24 U	0.24 U	0.24 U	0.1 J	0.11 J	0.054 J	0.64	0.31	0.07 J	0.27	0.11 J	0.031 J	0.13 J
NICKEL	mg/kg	17.3	18.7	16.6	16.1	20.2	16.6	20.5	19.2	18.7	17.1	18.6	19.2	24
SELENIUM	mg/kg	0.48 U	0.47 U	0.48 U	0.49 U	0.47 U	0.4 J	0.61	0.49 U	0.5	0.49 U	2.4	2.9	3.6
SILVER	mg/kg	0.6 U	0.59 U	0.6 U	0.61 U	0.59 U	0.59 U	0.59 U	0.62 U	0.61 U	0.61 U	0.67 U	0.58 U	0.64 U
THALLIUM	mg/kg	0.6 U	0.59 U	0.6 U	0.61 U	0.59 U	0.59 U	0.59 U	0.62 U	0.61 U	0.61 U	0.67 U	0.58 U	0.64 U
VANADIUM	mg/kg	44.1	47.1	41.5	41.6	50.6	43.8	44.3	43.1	47.7	43.8	43.2	52.8	59.4
ZINC	mg/kg	290	270	241	277	272	217	396	388	251	226	198	166	300
STLC CHROMIUM	µg/L	455	437	NA	NA	401	640	1030	717	597	NA	925	NA	1030
STLC LEAD	µg/L	NA	42400	NA	NA	NA	NA	NA	NA	NA	NA	47000	20300	52700
TCLP CHROMIUM	µg/L	NA	NA	NA	NA	NA	NA	NA	3.5 J	NA	NA	NA	NA	NA
TCLP LEAD	µg/L	792	489	475	1050	559	1310	953	674	617	566	869	516	613
PESTICIDES (EPA 8081A)														
ALDRIN	µg/kg	NA	20 U	NA	NA	20 U	NA	NA	2.1 U	NA	NA	2.3 U	NA	NA
ALPHA BHC	µg/kg	NA	20 U	NA	NA	20 U	NA	NA	2.1 U	NA	NA	2.3 U	NA	NA
ALPHA ENDOSULFAN	µg/kg	NA	20 U	NA	NA	20 U	NA	NA	2.1 U	NA	NA	2.3 U	NA	NA
ALPHA-CHLORDANE	µg/kg	NA	12 U	NA	NA	12 U	NA	NA	1.2 U	NA	NA	1.3 U	NA	NA
BETA BHC	µg/kg	NA	20 U	NA	NA	20 U	NA	NA	2.1 U	NA	NA	2.3 U	NA	NA
BETA ENDOSULFAN	µg/kg	NA	36 U	NA	NA	35 U	NA	NA	3.7 U	NA	NA	4 U	NA	NA
DELTA BHC	µg/kg	NA	20 U	NA	NA	20 U	NA	NA	2.1 U	NA	NA	2.3 U	NA	NA
DIELDRIN	µg/kg	NA	36 U	NA	NA	35 U	NA	NA	3.7 U	NA	NA	4 U	NA	NA
ENDOSULFAN SULFATE	µg/kg	NA	59 U	NA	NA	59 U	NA	NA	6.2 U	NA	NA	6.7 U	NA	NA
ENDRIN ALDEHYDE	µg/kg	NA	36 U	NA	NA	35 U	NA	NA	3.7 U	NA	NA	4 U	NA	NA
ENDRIN KETONE	µg/kg	NA	24 U	NA	NA	24 U	NA	NA	2.5 U	NA	NA	2.7 U	NA	NA
ENDRIN	µg/kg	NA	36 U	NA	NA	35 U	NA	NA	3.7 U	NA	NA	4 U	NA	NA
GAMMA BHC (LINDANE)	µg/kg	NA	20 U	NA	NA	20 U	NA	NA	2.1 U	NA	NA	2.3 U	NA	NA
GAMMA-CHLORDANE	µg/kg	NA	12 U	NA	NA	12 U	NA	NA	1.2 U	NA	NA	1.3 U	NA	NA
HEPTACHLOR EPOXIDE	µg/kg	NA	20 U	NA	NA	20 U	NA	NA	2.1 U	NA	NA	2.3 U	NA	NA
HEPTACHLOR	µg/kg	NA	20 U	NA	NA	20 U	NA	NA	2.1 U	NA	NA	2.3 U	NA	NA
METHOXYCHLOR	µg/kg	NA	120 U	NA	NA	120 U	NA	NA	12 U	NA	NA	13 U	NA	NA
P,P'-DDD	µg/kg	NA	36 U	NA	NA	35 U	NA	NA	4	NA	NA	4 J	NA	NA
P,P'-DDE	µg/kg	NA	36 U	NA	NA	35 U	NA	NA	3.7 U	NA	NA	4 U	NA	NA
P,P'-DDT	µg/kg	NA	20 J	NA	NA	16 J	NA	NA	25	NA	NA	17	NA	NA
TOXAPHENE	µg/kg	NA	1200 U	NA	NA	1200 U	NA	NA	120 U	NA	NA	130 U	NA	NA
PCBs (EPA Method 8082)														
AROCLOR 1016	µg/kg	NA	39 U	NA	NA	39 U	NA	NA	41 U	NA	NA	44 U	NA	NA
AROCLOR 1221	µg/kg	NA	78 U	NA	NA	78 U	NA	NA	82 U	NA	NA	88 U	NA	NA
AROCLOR 1232	µg/kg	NA	39 U	NA	NA	39 U	NA	NA	41 U	NA	NA	44 U	NA	NA
AROCLOR 1242	µg/kg	NA	39 U	NA	NA	39 U	NA	NA	41 U	NA	NA	44 U	NA	NA
AROCLOR 1248	µg/kg	NA	39 U	NA	NA	39 U	NA	NA	41 U	NA	NA	44 U	NA	NA
AROCLOR 1254	µg/kg	NA	180	NA	NA	180	NA	NA	41 U	NA	NA	44 U	NA	NA
AROCLOR 1260	µg/kg	NA	83	NA	NA	94	NA	NA	140	NA	NA	48	NA	NA

TABLE 4-5

SUMMARY OF ANALYTICAL RESULTS FOR THE STOCKPILE SAMPLES - IRP SITE 7 AREA 5 AND SITE 4 AOPCS 1A AND 2A

Sample Number		0023-S4-717	0023-S4-718	0023-S4-719	0023-S4-720	0023-S4-721	0023-S4-722	0023-S4-723	0023-S4-724	0023-S4-725	0023-S4-726	0023-S4-762	0023-S4-763	0023-S4-764
Sample Location		STOCKPILE B7	STOCKPILE A8	STOCKPILE B8	STOCKPILE A9	STOCKPILE B9	STOCKPILE A10	STOCKPILE B10	STOCKPILE A11	STOCKPILE B11	STOCKPILE A12	STOCKPILE B12	STOCKPILE A13	STOCKPILE B13
Sample Date		2/6/2004	2/6/2004	2/6/2004	2/6/2004	2/6/2004	2/9/2004	2/9/2004	2/9/2004	2/9/2004	2/9/2004	2/11/2004	2/11/2004	2/11/2004
Analyte	Units													
VOCs (EPA Method 8260B)														
1,1,1-TRICHLOROETHANE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
1,1,2-TRICHLOROETHANE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
1,1-DICHLOROETHANE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
1,1-DICHLOROETHENE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
1,2-DICHLOROETHANE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
1,2-DICHLOROPROPANE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
2-HEXANONE	µg/kg	NA	65 U	NA	NA	62 U	NA	NA	58 U	NA	NA	63 U	NA	NA
ACETONE	µg/kg	NA	49 J	NA	NA	52 J	NA	NA	58 U	NA	NA	63 U	NA	NA
BENZENE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
BROMODICHLOROMETHANE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
BROMOFORM	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
BROMOMETHANE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
CARBON TETRACHLORIDE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
CHLOROBENZENE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
CHLOROETHANE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
CHLOROFORM	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
CHLOROMETHANE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
CIS-1,2-DICHLOROETHENE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
CIS-1,3-DICHLOROPROPENE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
DIBROMOCHLOROMETHANE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
ETHYLBENZENE	µg/kg	NA	0.9 J	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
METHYL ETHYL KETONE(MEK)	µg/kg	NA	14 J	NA	NA	14 J	NA	NA	58 U	NA	NA	63 U	NA	NA
METHYL ISOBUTYL KETONE (MIBK)	µg/kg	NA	65 U	NA	NA	0.8 J	NA	NA	58 U	NA	NA	63 U	NA	NA
METHYL TERT-BUTYL ETHER	µg/kg	NA	13 U	NA	NA	12 U	NA	NA	12 U	NA	NA	13 U	NA	NA
METHYLENE CHLORIDE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
STYRENE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
TETRACHLOROETHENE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
TOLUENE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
TRANS-1,2-DICHLOROETHENE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
TRICHLOROETHENE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
VINYL ACETATE	µg/kg	NA	65 U	NA	NA	62 U	NA	NA	58 U	NA	NA	63 U	NA	NA
VINYL CHLORIDE	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
XYLENES (TOTAL)	µg/kg	NA	6.5 U	NA	NA	6.2 U	NA	NA	5.8 U	NA	NA	6.3 U	NA	NA
SVOCs (EPA Method 8270C)														
1,2,4-TRICHLOROBENZENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
1,2-DICHLOROBENZENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
1,3-DICHLOROBENZENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
1,4-DICHLOROBENZENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
2,4,5-TRICHLOROPHENOL	µg/kg	NA	38000 U	NA	NA	38000 U	NA	NA	32000 U	NA	NA	34000 U	NA	NA
2,4,6-TRICHLOROPHENOL	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
2,4-DICHLOROPHENOL	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
2,4-DIMETHYLPHENOL	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
2,4-DINITROPHENOL	µg/kg	NA	38000 U	NA	NA	38000 U	NA	NA	32000 U	NA	NA	34000 U	NA	NA
2,4-DINITROTOLUENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
2,6-DINITROTOLUENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
2-CHLORONAPHTHALENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
2-CHLOROPHENOL	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
2-METHYLPHENOL	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
2-NITROANILINE	µg/kg	NA	38000 U	NA	NA	38000 U	NA	NA	32000 U	NA	NA	34000 U	NA	NA

TABLE 4-5

SUMMARY OF ANALYTICAL RESULTS FOR THE STOCKPILE SAMPLES - IRP SITE 7 AREA 5 AND SITE 4 AOPCS 1A AND 2A

Sample Number		0023-S4-717	0023-S4-718	0023-S4-719	0023-S4-720	0023-S4-721	0023-S4-722	0023-S4-723	0023-S4-724	0023-S4-725	0023-S4-726	0023-S4-762	0023-S4-763	0023-S4-764
Sample Location		STOCKPILE B7	STOCKPILE A8	STOCKPILE B8	STOCKPILE A9	STOCKPILE B9	STOCKPILE A10	STOCKPILE B10	STOCKPILE A11	STOCKPILE B11	STOCKPILE A12	STOCKPILE B12	STOCKPILE A13	STOCKPILE B13
Sample Date		2/6/2004	2/6/2004	2/6/2004	2/6/2004	2/6/2004	2/9/2004	2/9/2004	2/9/2004	2/9/2004	2/9/2004	2/11/2004	2/11/2004	2/11/2004
Analyte	Units													
2-NITROPHENOL	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
3,3'-DICHLOROBENZIDINE	µg/kg	NA	16000 U	NA	NA	16000 U	NA	NA	13000 U	NA	NA	14000 U	NA	NA
3-NITROANILINE	µg/kg	NA	38000 U	NA	NA	38000 U	NA	NA	32000 U	NA	NA	34000 U	NA	NA
4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	38000 U	NA	NA	38000 U	NA	NA	32000 U	NA	NA	34000 U	NA	NA
4-BROMOPHENYL-PHENYL ETHER	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
4-CHLORO-3-METHYLPHENOL	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
4-CHLOROANILINE	µg/kg	NA	18000 U	NA	NA	18000 U	NA	NA	15000 U	NA	NA	16000 U	NA	NA
4-CHLOROPHENYL-PHENYL ETHER	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
4-METHYLPHENOL	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
4-NITROANILINE	µg/kg	NA	38000 U	NA	NA	38000 U	NA	NA	32000 U	NA	NA	34000 U	NA	NA
4-NITROPHENOL	µg/kg	NA	38000 U	NA	NA	38000 U	NA	NA	32000 U	NA	NA	34000 U	NA	NA
ACENAPHTHENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
ACENAPHTHYLENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
ANTHRACENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
BENZ[A]ANTHRACENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
BENZO[A]PYRENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
BENZO[B]FLUORANTHENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
BENZO[G,H,I]PERYLENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
BENZO[K]FLUORANTHENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
BENZYL BUTYL PHTHALATE (BBP)	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
BIS(2-CHLOROETHOXY) METHANE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
BIS(2-CHLOROETHYL) ETHER	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	890 J	NA	NA
CHRYSENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
DIBENZ[A,H]ANTHRACENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
DIBENZOFURAN	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
DIETHYL PHTHALATE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
DIMETHYL PHTHALATE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
DI-N-BUTYL PHTHALATE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
DI-N-OCTYLPHTHALATE (DOP)	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
FLUORANTHENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
FLUORENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
HEXACHLOROBENZENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
HEXACHLOROBUTADIENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	38000 U	NA	NA	38000 U	NA	NA	32000 U	NA	NA	34000 U	NA	NA
HEXACHLOROETHANE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
INDENO[1,2,3-C,D]PYRENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
NAPHTHALENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
NITROBENZENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
N-NITROSODIPHENYLAMINE	µg/kg	NA	16000 U	NA	NA	16000 U	NA	NA	13000 U	NA	NA	14000 U	NA	NA
PENTACHLOROPHENOL	µg/kg	NA	38000 U	NA	NA	38000 U	NA	NA	32000 U	NA	NA	34000 U	NA	NA
PHENANTHRENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
PHENOL	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
PYRENE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
PYRIDINE	µg/kg	NA	7800 U	NA	NA	7800 U	NA	NA	6500 U	NA	NA	7100 U	NA	NA
TCLP 1,4-DICHLOROBENZENE	µg/L	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA
TCLP 2,4-DINITROTOLUENE	µg/L	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA
TCLP HEXACHLOROBENZENE	µg/L	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA
TCLP HEXACHLOROBUTADIENE	µg/L	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA
TCLP HEXACHLOROETHANE	µg/L	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA

TABLE 4-5

SUMMARY OF ANALYTICAL RESULTS FOR THE STOCKPILE SAMPLES - IRP SITE 7 AREA 5 AND SITE 4 AOPCS 1A AND 2A

Sample Number		0023-S4-717	0023-S4-718	0023-S4-719	0023-S4-720	0023-S4-721	0023-S4-722	0023-S4-723	0023-S4-724	0023-S4-725	0023-S4-726	0023-S4-762	0023-S4-763	0023-S4-764
Sample Location		STOCKPILE B7	STOCKPILE A8	STOCKPILE B8	STOCKPILE A9	STOCKPILE B9	STOCKPILE A10	STOCKPILE B10	STOCKPILE A11	STOCKPILE B11	STOCKPILE A12	STOCKPILE B12	STOCKPILE A13	STOCKPILE B13
Sample Date		2/6/2004	2/6/2004	2/6/2004	2/6/2004	2/6/2004	2/9/2004	2/9/2004	2/9/2004	2/9/2004	2/9/2004	2/11/2004	2/11/2004	2/11/2004
Analyte	Units													
TCLP 2-METHYLPHENOL	µg/L	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA
TCLP 4-METHYLPHENOL	µg/L	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA
TCLP NITROBENZENE	µg/L	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA
TCLP PENTACHLOROPHENOL	µg/L	NA	50 U	NA	NA	50 U	NA	NA	50 U	NA	NA	50 U	NA	NA
TCLP PYRIDINE	µg/L	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA
TCLP 2,4,6-TRICHLOROPHENOL	µg/L	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA
TCLP 2,4,5-TRICHLOROPHENOL	µg/L	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA

TABLE 4-5

SUMMARY OF ANALYTICAL RESULTS FOR THE STOCKPILE SAMPLES - IRP SITE 7 AREA 5 AND SITE 4 AOPCS 1A AND 2A

Sample Number		0023-S4-765	0023-S4-766	0023-S4-767	0023-S4-768	0023-S4-769	0023-S4-770	0023-S4-771	0023-S4-772	0023-S4-773	0023-S4-774	0023-S4-797	0023-S4-798	0023-S4-799
Sample Location		STOCKPILE A14	STOCKPILE B14	STOCKPILE A15	STOCKPILE B15	STOCKPILE C1	STOCKPILE C2	STOCKPILE D1	STOCKPILE D2	STOCKPILE E1	STOCKPILE E2	STOCKPILE F1	STOCKPILE F2	STOCKPILE F3
Sample Date		2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/20/2004	2/20/2004	2/20/2004
Analyte	**Units**													
Metals (EPA Method 6010B/7000)														
ANTIMONY	mg/kg	6 1 U	7 9 U	5 7 U	5 8 U	6 9 U	6 9 U	6 4 U	6 8 U	7 8 U	7 9 U	6 4 U	6 7 U	6 4 U
ARSENIC	mg/kg	3 2	8 7	6 8	3 7	6 2	6 1	7 5	4 2	5 6	4.8	13 6	7 8	8 5
BARIUM	mg/kg	246	486	618	236	271	307	431	214	246	160	724	182	222
BERYLLIUM	mg/kg	0 25 U	0 31 U	0 23 U	0 23 U	0 28 U	0 27 U	0 26 U	0 27 U	0 31 U	0 31 U	0 26 U	0 27 U	0 25 U
CADMIUM	mg/kg	0 14 J	0 2 J	0 4	0 089 J	0 28 U	0 27 U	0 086 J	0 14 J	0 061 J	0 31 U	0 54	0 23 J	0.46
CHROMIUM	mg/kg	45 5	81 3	62 9	42 6	53 4	63 2	84	39 9	55 1	39 8	122	36 9	40 3
COBALT	mg/kg	14 4	17 7	13 2	13 4	16	15 9	13 3	14 7	17 2	16 9	14 3	14	13 5
COPPER	mg/kg	34 7	60 2	44 6	33 5	44 3	44 1	42 8	35 6	53 1	37 6	54 6	30 8	35 7
LEAD	mg/kg	518	1620	2890	445	544	871	908	645	309	277	2170	360	499
MERCURY	mg/kg	0 21 J	0.41	0 86	0 23 J	1 1	1 1	0 69	0 31	0 4	0 11 J	0.74	0 2 J	0 93
MOLYBDENUM	mg/kg	0 25 U	0 8	0 15 J	0 23 U	0 29	0 27 U	0 26 U	0.12 J	0 16 J	0 31 U	0 23 J	0 27 U	0 25 U
NICKEL	mg/kg	20 8	28 6	21 4	20 2	24 6	24 4	21 4	21 9	26 8	25 6	23 8	19 6	19 9
SELENIUM	mg/kg	3.9	4 2	3 2	4 4	3.5	3 3	3 1	3.6	3 3	3.7	0 51 U	0 54 U	0 51 U
SILVER	mg/kg	0 61 U	0 79 U	0 57 U	0 58 U	0 69 U	0 69 U	0 64 U	0 68 U	0 78 U	0 79 U	0 64 U	0 67 U	0 64 U
THALLIUM	mg/kg	0 61 U	0 79 U	0 57 U	0 58 U	0.69 U	0 69 U	0 64 U	0 68 U	0 78 U	0 79 U	0 64 U	0 67 U	0.64 U
VANADIUM	mg/kg	60 1	77 3	58 4	57 6	67 5	66 2	54.3	51 9	71	70 9	55.1	57 5	55 4
ZINC	mg/kg	192	303	354	161	221	256	263	207	185	155	380	163	193
STLC CHROMIUM	µg/L	NA	766	953	NA	650	1020	944	NA	344	NA	705	NA	NA
STLC LEAD	µg/L	32500	NA	NA	21500	22900	40100	40200	24900	7560	11500	NA	24100	40300
TCLP CHROMIUM	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 6 J	NA	NA
TCLP LEAD	µg/L	409	800	360	303	284	574	418	464	83.5	61.4	271	198	190
PESTICIDES (EPA 8081A)														
ALDRIN	µg/kg	2 1 U	NA	NA	2 U	NA	NA	2 2 U	NA	NA	2 7 U	NA	NA	22 U
ALPHA BHC	µg/kg	2 1 U	NA	NA	2 U	NA	NA	2 2 U	NA	NA	2 7 U	NA	NA	22 U
ALPHA ENDOSULFAN	µg/kg	2 1 U	NA	NA	2 U	NA	NA	2 2 U	NA	NA	2 7 U	NA	NA	22 U
ALPHA-CHLORDANE	µg/kg	1 2 U	NA	NA	1 2 U	NA	NA	1 3 U	NA	NA	1 6 U	NA	NA	13 U
BETA BHC	µg/kg	2 1 U	NA	NA	2 U	NA	NA	2 2 U	NA	NA	2 7 U	NA	NA	22 U
BETA ENDOSULFAN	µg/kg	3 7 U	NA	NA	3 5 U	NA	NA	3 8 U	NA	NA	4 7 U	NA	NA	38 U
DELTA BHC	µg/kg	2 1 U	NA	NA	2 U	NA	NA	2 2 U	NA	NA	2 7 U	NA	NA	22 U
DIELDRIN	µg/kg	3 7 U	NA	NA	3 5 U	NA	NA	3 8 U	NA	NA	4 7 U	NA	NA	38 U
ENDOSULFAN SULFATE	µg/kg	6 1 U	NA	NA	5 8 U	NA	NA	6 4 U	NA	NA	7 9 U	NA	NA	64 U
ENDRIN ALDEHYDE	µg/kg	3 7 U	NA	NA	3 5 U	NA	NA	3 8 U	NA	NA	4 7 U	NA	NA	38 U
ENDRIN KETONE	µg/kg	2 5 U	NA	NA	2 3 U	NA	NA	2 6 U	NA	NA	3 1 U	NA	NA	25 U
ENDRIN	µg/kg	3 7 U	NA	NA	3 5 U	NA	NA	3 8 U	NA	NA	4 7 U	NA	NA	38 U
GAMMA BHC (LINDANE)	µg/kg	2 1 U	NA	NA	2 U	NA	NA	2 2 U	NA	NA	2 7 U	NA	NA	22 U
GAMMA-CHLORDANE	µg/kg	1 2 U	NA	NA	1 2 U	NA	NA	1 3 U	NA	NA	1 6 U	NA	NA	13 U
HEPTACHLOR EPOXIDE	µg/kg	2 1 U	NA	NA	2 U	NA	NA	2 2 U	NA	NA	2 7 U	NA	NA	22 U
HEPTACHLOR	µg/kg	2 1 U	NA	NA	2 U	NA	NA	2 2 U	NA	NA	2 7 U	NA	NA	22 U
METHOXYCHLOR	µg/kg	12 U	NA	NA	12 U	NA	NA	13 U	NA	NA	16 U	NA	NA	130 U
P,P'-DDD	µg/kg	4	NA	NA	7	NA	NA	3 J	NA	NA	3 J	NA	NA	1 J
P,P'-DDE	µg/kg	3 7 U	NA	NA	4	NA	NA	3 8 U	NA	NA	4 7 U	NA	NA	38 U
P,P'-DDT	µg/kg	24	NA	NA	29	NA	NA	14	NA	NA	3 J	NA	NA	10 J
TOXAPHENE	µg/kg	120 U	NA	NA	120 U	NA	NA	130 U	NA	NA	160 U	NA	NA	1300 U
PCBs (EPA Method 8082)														
AROCLOR 1016	µg/kg	41 U	NA	NA	38 U	NA	NA	42 U	NA	NA	52 U	NA	NA	42 U
AROCLOR 1221	µg/kg	81 U	NA	NA	76 U	NA	NA	85 U	NA	NA	100 U	NA	NA	84 U
AROCLOR 1232	µg/kg	41 U	NA	NA	38 U	NA	NA	42 U	NA	NA	52 U	NA	NA	42 U
AROCLOR 1242	µg/kg	41 U	NA	NA	38 U	NA	NA	42 U	NA	NA	52 U	NA	NA	42 U
AROCLOR 1248	µg/kg	41 U	NA	NA	38 U	NA	NA	42 U	NA	NA	52 U	NA	NA	42 U
AROCLOR 1254	µg/kg	41 U	NA	NA	38 U	NA	NA	42 U	NA	NA	52 U	NA	NA	88
AROCLOR 1260	µg/kg	98	NA	NA	110	NA	NA	45	NA	NA	16 J	NA	NA	42 U

TABLE 4-5

SUMMARY OF ANALYTICAL RESULTS FOR THE STOCKPILE SAMPLES - IRP SITE 7 AREA 5 AND SITE 4 AOPCS 1A AND 2A

Sample Number		0023-S4-765	0023-S4-766	0023-S4-767	0023-S4-768	0023-S4-769	0023-S4-770	0023-S4-771	0023-S4-772	0023-S4-773	0023-S4-774	0023-S4-797	0023-S4-798	0023-S4-799
Sample Location		STOCKPILE A14	STOCKPILE B14	STOCKPILE A15	STOCKPILE B15	STOCKPILE C1	STOCKPILE C2	STOCKPILE D1	STOCKPILE D2	STOCKPILE E1	STOCKPILE E2	STOCKPILE F1	STOCKPILE F2	STOCKPILE F3
Sample Date		2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/20/2004	2/20/2004	2/20/2004
Analyte	**Units**													
VOCs (EPA Method 8260B)														
1,1,1-TRICHLOROETHANE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
1,1,2,2-TETRACHLOROETHANE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
1,1,2-TRICHLOROETHANE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
1,1-DICHLOROETHANE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
1,1-DICHLOROETHENE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
1,2-DICHLOROETHANE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
1,2-DICHLOROPROPANE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
2-HEXANONE	µg/kg	61 U	NA	NA	68 U	NA	NA	83 U	NA	NA	100 U	NA	NA	89 U
ACETONE	µg/kg	61 U	NA	NA	68 U	NA	NA	83 U	NA	NA	90 J	NA	NA	89 U
BENZENE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
BROMODICHLOROMETHANE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
BROMOFORM	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
BROMOMETHANE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
CARBON TETRACHLORIDE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
CHLOROBENZENE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
CHLOROETHANE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
CHLOROFORM	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
CHLOROMETHANE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
CIS-1,2-DICHLOROETHENE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
CIS-1,3-DICHLOROPROPENE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
DIBROMOCHLOROMETHANE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
ETHYLBENZENE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
METHYL ETHYL KETONE(MEK)	µg/kg	61 U	NA	NA	68 U	NA	NA	83 U	NA	NA	100 U	NA	NA	89 U
METHYL ISOBUTYL KETONE (MIBK)	µg/kg	61 U	NA	NA	68 U	NA	NA	83 U	NA	NA	100 U	NA	NA	89 U
METHYL TERT-BUTYL ETHER	µg/kg	12 U	NA	NA	14 U	NA	NA	17 U	NA	NA	21 U	NA	NA	18 U
METHYLENE CHLORIDE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
STYRENE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
TETRACHLOROETHENE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
TOLUENE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
TRANS-1,2-DICHLOROETHENE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
TRANS-1,3-DICHLOROPROPENE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
TRICHLOROETHENE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
VINYL ACETATE	µg/kg	61 U	NA	NA	68 U	NA	NA	83 U	NA	NA	100 U	NA	NA	89 U
VINYL CHLORIDE	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	8.9 U
XYLENES (TOTAL)	µg/kg	6.1 U	NA	NA	6.8 U	NA	NA	8.3 U	NA	NA	10 U	NA	NA	1 J
SVOCs (EPA Method 8270C)														
1,2,4-TRICHLOROBENZENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
1,2-DICHLOROBENZENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
1,3-DICHLOROBENZENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
1,4-DICHLOROBENZENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
2,4,5-TRICHLOROPHENOL	µg/kg	7900 U	NA	NA	7400 U	NA	NA	33000 U	NA	NA	10000 U	NA	NA	16000 U
2,4,6-TRICHLOROPHENOL	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
2,4-DICHLOROPHENOL	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
2,4-DIMETHYLPHENOL	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
2,4-DINITROPHENOL	µg/kg	7900 U	NA	NA	7400 U	NA	NA	33000 U	NA	NA	10000 U	NA	NA	16000 U
2,4-DINITROTOLUENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
2,6-DINITROTOLUENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
2-CHLORONAPHTHALENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
2-CHLOROPHENOL	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
2-METHYLPHENOL	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
2-NITROANILINE	µg/kg	7900 U	NA	NA	7400 U	NA	NA	33000 U	NA	NA	10000 U	NA	NA	16000 U

TABLE 4-5

SUMMARY OF ANALYTICAL RESULTS FOR THE STOCKPILE SAMPLES - IRP SITE 7 AREA 5 AND SITE 4 AOPCS 1A AND 2A

Sample Number		0023-S4-765	0023-S4-766	0023-S4-767	0023-S4-768	0023-S4-769	0023-S4-770	0023-S4-771	0023-S4-772	0023-S4-773	0023-S4-774	0023-S4-797	0023-S4-798	0023-S4-799
Sample Location		STOCKPILE A14	STOCKPILE B14	STOCKPILE A15	STOCKPILE B15	STOCKPILE C1	STOCKPILE C2	STOCKPILE D1	STOCKPILE D2	STOCKPILE E1	STOCKPILE E2	STOCKPILE F1	STOCKPILE F2	STOCKPILE F3
Sample Date		2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/11/2004	2/20/2004	2/20/2004	2/20/2004
Analyte	Units													
2-NITROPHENOL	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
3,3'-DICHLOROBENZIDINE	µg/kg	3200 U	NA	NA	3000 U	NA	NA	14000 U	NA	NA	4200 U	NA	NA	6700 U
3-NITROANILINE	µg/kg	7900 U	NA	NA	7400 U	NA	NA	33000 U	NA	NA	10000 U	NA	NA	16000 U
4 6-DINITRO-2-METHYLPHENOL	µg/kg	7900 U	NA	NA	7400 U	NA	NA	33000 U	NA	NA	10000 U	NA	NA	16000 U
4-BROMOPHENYL-PHENYL ETHER	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
4-CHLORO-3-METHYLPHENOL	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
4-CHLOROANILINE	µg/kg	3700 U	NA	NA	3500 U	NA	NA	16000 U	NA	NA	4800 U	NA	NA	7700 U
4-CHLOROPHENYL-PHENYL ETHER	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
4-METHYLPHENOL	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
4-NITROANILINE	µg/kg	7900 U	NA	NA	7400 U	NA	NA	33000 U	NA	NA	10000 U	NA	NA	16000 U
4-NITROPHENOL	µg/kg	7900 U	NA	NA	7400 U	NA	NA	33000 U	NA	NA	10000 U	NA	NA	16000 U
ACENAPHTHENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
ACENAPHTHYLENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
ANTHRACENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
BENZ[A]ANTHRACENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
BENZO[A]PYRENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
BENZO[B]FLUORANTHENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
BENZO[G,H,I]PERYLENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
BENZO[K]FLUORANTHENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
BENZYL BUTYL PHTHALATE (BBP)	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
BIS(2-CHLOROETHOXY) METHANE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
BIS(2-CHLOROETHYL) ETHER	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	250 J	NA	NA	3400 U
CHRYSENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
DIBENZ[A,H]}NTHRACENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
DIBENZOFURAN	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
DIETHYL PHTHALATE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
DIMETHYL PHTHALATE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
DI-N-BUTYL PHTHALATE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
DI-N-OCTYLPHTHALATE (DOP)	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
FLUORANTHENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
FLUORENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
HEXACHLOROBENZENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
HEXACHLOROBUTADIENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
HEXACHLOROCYCLOPENTADIENE	µg/kg	7900 U	NA	NA	7400 U	NA	NA	33000 U	NA	NA	10000 U	NA	NA	16000 U
HEXACHLOROETHANE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
INDENO[1,2,3-C,D]PYRENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
NAPHTHALENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
NITROBENZENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
N-NITROSODI-N-PROPYLAMINE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
N-NITROSODIPHENYLAMINE	µg/kg	3200 U	NA	NA	3000 U	NA	NA	14000 U	NA	NA	4200 U	NA	NA	6700 U
PENTACHLOROPHENOL	µg/kg	7900 U	NA	NA	7400 U	NA	NA	33000 U	NA	NA	10000 U	NA	NA	16000 U
PHENANTHRENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
PHENOL	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
PYRENE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
PYRIDINE	µg/kg	1600 U	NA	NA	1500 U	NA	NA	6800 U	NA	NA	2100 U	NA	NA	3400 U
TCLP 1,4-DICHLOROBENZENE	µg/L	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	10 U
TCLP 2,4-DINITROTOLUENE	µg/L	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	10 U
TCLP HEXACHLOROBENZENE	µg/L	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	10 U
TCLP HEXACHLOROBUTADIENE	µg/L	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	10 U
TCLP HEXACHLOROETHANE	µg/L	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	10 U

TABLE 4-5

SUMMARY OF ANALYTICAL RESULTS FOR THE STOCKPILE SAMPLES - IRP SITE 7 AREA 5 AND SITE 4 AOPCS 1A AND 2A

Sample Number Sample Location Sample Date		0023-S4-765 STOCKPILE A14 2/11/2004	0023-S4-766 STOCKPILE B14 2/11/2004	0023-S4-767 STOCKPILE A15 2/11/2004	0023-S4-768 STOCKPILE B15 2/11/2004	0023-S4-769 STOCKPILE C1 2/11/2004	0023-S4-770 STOCKPILE C2 2/11/2004	0023-S4-771 STOCKPILE D1 2/11/2004	0023-S4-772 STOCKPILE D2 2/11/2004	0023-S4-773 STOCKPILE E1 2/11/2004	0023-S4-774 STOCKPILE E2 2/11/2004	0023-S4-797 STOCKPILE F1 2/20/2004	0023-S4-798 STOCKPILE F2 2/20/2004	0023-S4-799 STOCKPILE F3 2/20/2004
Analyte	Units													
TCLP 2-METHYLPHENOL	µg/L	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	10 U
TCLP 4-METHYLPHENOL	µg/L	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	10 U
TCLP NITROBENZENE	µg/L	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	10 U
TCLP PENTACHLOROPHENOL	µg/L	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA	NA	NA	50 U
TCLP PYRIDINE	µg/L	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	10 U
TCLP 2,4,6-TRICHLOROPHENOL	µg/L	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	10 U
TCLP 2,4,5-TRICHLOROPHENOL	µg/L	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	10 U

TABLE 4-5

SUMMARY OF ANALYTICAL RESULTS FOR THE STOCKPILE SAMPLES - IRP SITE 7 AREA 5 AND SITE 4 AOPCS 1A AND 2A

Sample Number		0023-S4-800	0023-S4-806	0023-S4-807	0023-S4-808	0023-S4-809	0023-S4-810	0023-S4-811	0023-S4-812	0023-S4-813 (FD)	0023-S7-001	0023-S7-002	0023-S7-003
Sample Location		STOCKPILE F4	STOCKPILE G1	STOCKPILE G2	STOCKPILE G3	STOCKPILE G4	STOCKPILE G5	STOCKPILE G6	STOCKPILE G7	STOCKPILE G7	STOCKPILE	STOCKPILE	STOCKPILE
Sample Date		2/20/2004	3/1/2004	3/1/2004	3/1/2004	3/1/2004	3/1/2004	3/1/2004	3/1/2004	3/1/2004	2/24/2004	2/24/2004	2/24/2004
Analyte	**Units**												
Metals (EPA Method 6010B/7000)													
ANTIMONY	mg/kg	6 4 U	NA	NA	NA	NA	NA	NA	NA	NA	6.9 U	6 4 U	6 4 U
ARSENIC	mg/kg	9 9	NA	NA	NA	NA	NA	NA	NA	NA	7.5	8 5	7 9
BARIUM	mg/kg	247	NA	NA	NA	NA	NA	NA	NA	NA	155	137	119
BERYLLIUM	mg/kg	0 25 U	NA	NA	NA	NA	NA	NA	NA	NA	0 27 U	0 26 U	0 25 U
CADMIUM	mg/kg	0 36	NA	NA	NA	NA	NA	NA	NA	NA	1 5	3 2	2 4
CHROMIUM	mg/kg	50 5	NA	NA	NA	NA	NA	NA	NA	NA	32 4	43 7	35 4
COBALT	mg/kg	11 8	NA	NA	NA	NA	NA	NA	NA	NA	18 4	18 5	16 8
COPPER	mg/kg	32 3	NA	NA	NA	NA	NA	NA	NA	NA	41	42	63 7
LEAD	mg/kg	926	38 8	31 9	32 3	27 2	35 6	21 8	32 2	31 7	16 5	31 4	36 2
MERCURY	mg/kg	0 22 J	NA	NA	NA	NA	NA	NA	NA	NA	0 023 J	0 078 J	0 054 J
MOLYBDENUM	mg/kg	0 81	NA	NA	NA	NA	NA	NA	NA	NA	0 1 J	0 37	0 54
NICKEL	mg/kg	19 4	NA	NA	NA	NA	NA	NA	NA	NA	23 1	24 1	24 2
SELENIUM	mg/kg	0 51 U	NA	NA	NA	NA	NA	NA	NA	NA	1 7	3 3	2 5
SILVER	mg/kg	0 64 U	NA	NA	NA	NA	NA	NA	NA	NA	0 69 U	0 64 U	0 64 U
THALLIUM	mg/kg	0 64 U	NA	NA	NA	NA	NA	NA	NA	NA	0 69 U	0 64 U	0 64 U
VANADIUM	mg/kg	50 3	NA	NA	NA	NA	NA	NA	NA	NA	65 2	63 6	58 3
ZINC	mg/kg	188	NA	NA	NA	NA	NA	NA	NA	NA	263	235	299
STLC CHROMIUM	µg/L	641	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STLC LEAD	µg/L	29400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP CHROMIUM	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP LEAD	µg/L	457	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PESTICIDES (EPA 8081A)													
ALDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 2 U
ALPHA BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 2 U
ALPHA ENDOSULFAN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 2 U
ALPHA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0 2 J
BETA BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 2 U
BETA ENDOSULFAN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3 8 U
DELTA BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 2 U
DIELDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3 8 U
ENDOSULFAN SULFATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6 4 U
ENDRIN ALDEHYDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3 8 U
ENDRIN KETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 5 U
ENDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3 8 U
GAMMA BHC (LINDANE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 2 U
GAMMA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0 7 J
HEPTACHLOR EPOXIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 2 U
HEPTACHLOR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 2 U
METHOXYCHLOR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13 U
P,P'-DDD	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0 8 J
P,P'-DDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 J
P,P'-DDT	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0 8 J
TOXAPHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130 U
PCBs (EPA Method 8082)													
AROCLOR 1016	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	42 U
AROCLOR 1221	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	84 U
AROCLOR 1232	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	42 U
AROCLOR 1242	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	42 U
AROCLOR 1248	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	42 U
AROCLOR 1254	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130
AROCLOR 1260	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	42 U

TABLE 4-5

SUMMARY OF ANALYTICAL RESULTS FOR THE STOCKPILE SAMPLES - IRP SITE 7 AREA 5 AND SITE 4 AOPCS 1A AND 2A

Sample Number		0023-S4-800	0023-S4-806	0023-S4-807	0023-S4-808	0023-S4-809	0023-S4-810	0023-S4-811	0023-S4-812	0023-S4-813 (FD)	0023-S7-001	0023-S7-002	0023-S7-003
Sample Location		STOCKPILE F4	STOCKPILE G1	STOCKPILE G2	STOCKPILE G3	STOCKPILE G4	STOCKPILE G5	STOCKPILE G6	STOCKPILE G7	STOCKPILE G7	STOCKPILE	STOCKPILE	STOCKPILE
Sample Date		2/20/2004	3/1/2004	3/1/2004	3/1/2004	3/1/2004	3/1/2004	3/1/2004	3/1/2004	3/1/2004	2/24/2004	2/24/2004	2/24/2004
Analyte	**Units**												
VOCs (EPA Method 8260B)													
1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
2-HEXANONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U
ACETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U
BENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
BROMOFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
BROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
CHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
CHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
CHLOROFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
CHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
CIS-1 2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
DIBROMOCHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
ETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
METHYL ETHYL KETONE(MEK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U
METHYL ISOBUTYL KETONE (MIBK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U
METHYL TERT-BUTYL ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12 U
METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
STYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
TETRACHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
TOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
TRICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
VINYL ACETATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59 U
VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
XYLENES (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 U
SVOCs (EPA Method 8270C)													
1,2,4-TRICHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
1,2-DICHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
1,3-DICHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
1,4-DICHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2000 U
2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
2,4-DINITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2000 U
2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
2,6-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
2-CHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
2-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2000 U

TABLE 4-5

SUMMARY OF ANALYTICAL RESULTS FOR THE STOCKPILE SAMPLES - IRP SITE 7 AREA 5 AND SITE 4 AOPCS 1A AND 2A

Sample Number		0023-S4-800	0023-S4-806	0023-S4-807	0023-S4-808	0023-S4-809	0023-S4-810	0023-S4-811	0023-S4-812	0023-S4-813 (FD)	0023-S7-001	0023-S7-002	0023-S7-003
Sample Location		STOCKPILE F4	STOCKPILE G1	STOCKPILE G2	STOCKPILE G3	STOCKPILE G4	STOCKPILE G5	STOCKPILE G6	STOCKPILE G7	STOCKPILE G7	STOCKPILE	STOCKPILE	STOCKPILE
Sample Date		2/20/2004	3/1/2004	3/1/2004	3/1/2004	3/1/2004	3/1/2004	3/1/2004	3/1/2004	3/1/2004	2/24/2004	2/24/2004	2/24/2004
Analyte	Units												
2-NITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	840 U
3-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2000 U
4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2000 U
4-BROMOPHENYL-PHENYL ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
4-CHLOROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	970 U
4-CHLOROPHENYL-PHENYL ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
4-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
4-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2000 U
4-NITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2000 U
ACENAPHTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
BENZ[A]ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
BENZYL BUTYL PHTHALATE (BBP)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
BIS(2-CHLOROETHOXY) METHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
BIS(2-CHLOROETHYL) ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
CHRYSENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
DIBENZ[A,H]]NTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
DIBENZOFURAN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
DI-N-OCTYLPHTHALATE (DOP)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
FLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
HEXACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
HEXACHLOROBUTADIENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2000 U
HEXACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
INDENO[1,2,3-C,D]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
NAPHTHALENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
NITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	840 U
PENTACHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2000 U
PHENANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
PHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
PYRIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420 U
TCLP 1,4-DICHLOROBENZENE	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP 2,4-DINITROTOLUENE	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HEXACHLOROBENZENE	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HEXACHLOROBUTADIENE	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HEXACHLOROETHANE	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4-5

SUMMARY OF ANALYTICAL RESULTS FOR THE STOCKPILE SAMPLES - IRP SITE 7 AREA 5 AND SITE 4 AOPCS 1A AND 2A

Sample Number Sample Location Sample Date		0023-S4-800 STOCKPILE F4 2/20/2004	0023-S4-806 STOCKPILE G1 3/1/2004	0023-S4-807 STOCKPILE G2 3/1/2004	0023-S4-808 STOCKPILE G3 3/1/2004	0023-S4-809 STOCKPILE G4 3/1/2004	0023-S4-810 STOCKPILE G5 3/1/2004	0023-S4-811 STOCKPILE G6 3/1/2004	0023-S4-812 STOCKPILE G7 3/1/2004	0023-S4-813 (FD) STOCKPILE G7 3/1/2004	0023-S7-001 STOCKPILE 2/24/2004	0023-S7-002 STOCKPILE 2/24/2004	0023-S7-003 STOCKPILE 2/24/2004
Analyte	**Units**												
TCLP 2-METHYLPHENOL	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP 4-METHYLPHENOL	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP NITROBENZENE	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP PENTACHLOROPHENOL	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP PYRIDINE	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP 2,4,6-TRICHLOROPHENOL	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP 2,4,5-TRICHLOROPHENOL	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

µg/kg - micrograms per kilogram
µg/L - micrograms per liter
AOPCs - Areas of Potential Concern
BHC - benzene hexachloride
DDD - dichlorodiphenyldichloroethane
DDE - dichlorodiphenyldichloroethene
DDT - dichlorodiphenyltrichloroethane
EPA - U S Environmental Protection Agency
IRP - Installation Restoration Program
J - estimated value
mg/kg - milligrams per kilogram
NA - not analyzed
PCB - polychlorinated biphenyl
STLC - Soluble Threshold Limit Concentration
SVOC - semivolatile organic compound
TCLP - Toxicity Characteristic Leaching Procedure
U - not detected at or above the reporting limit (value indicat
VOC - volatile organic compound

FIGURES

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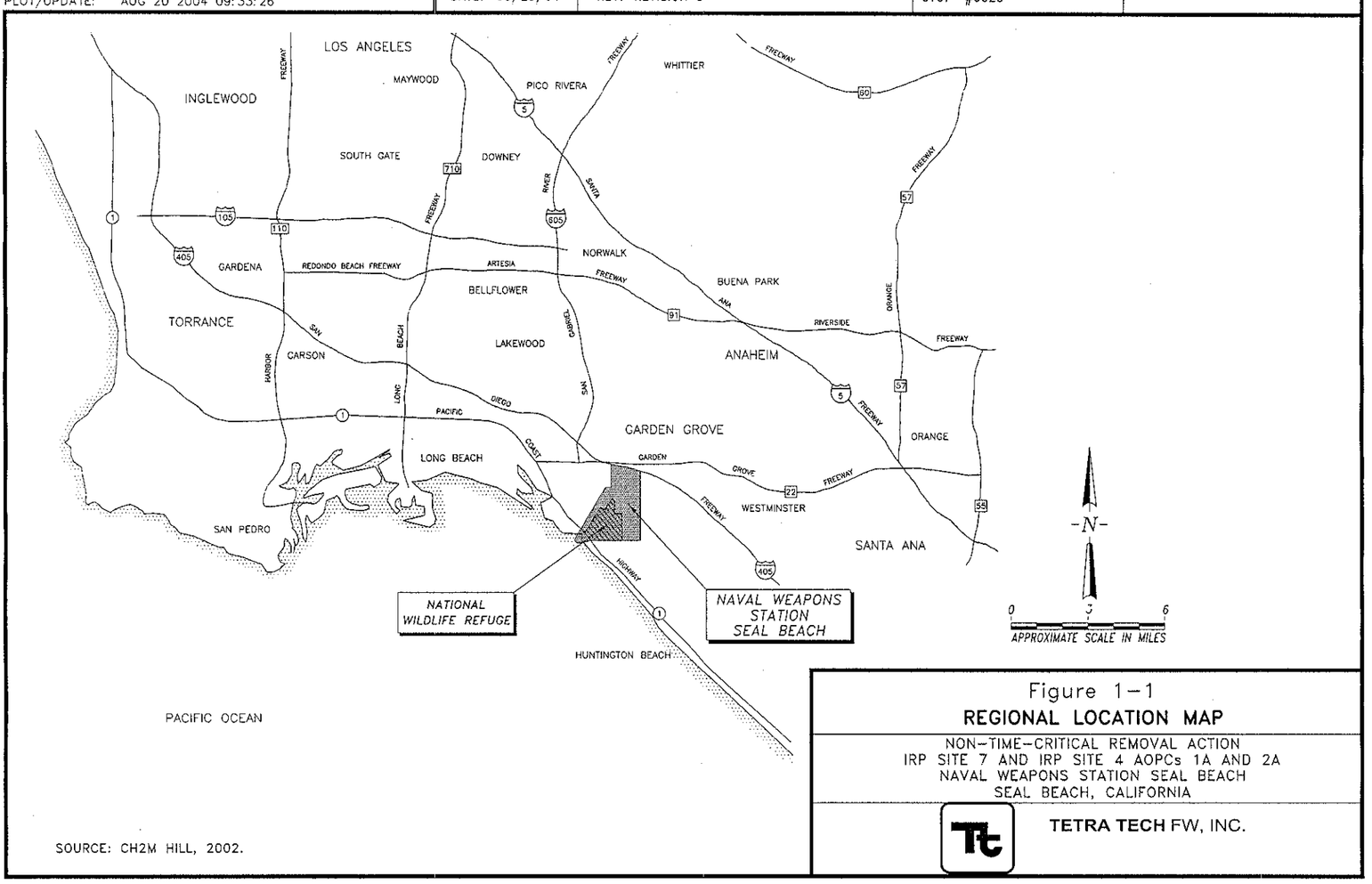

SOURCE: CH2M HILL, 2002.

Figure 1-1
REGIONAL LOCATION MAP

NON-TIME-CRITICAL REMOVAL ACTION
IRP SITE 7 AND IRP SITE 4 AOPCs 1A AND 2A
NAVAL WEAPONS STATION SEAL BEACH
SEAL BEACH, CALIFORNIA

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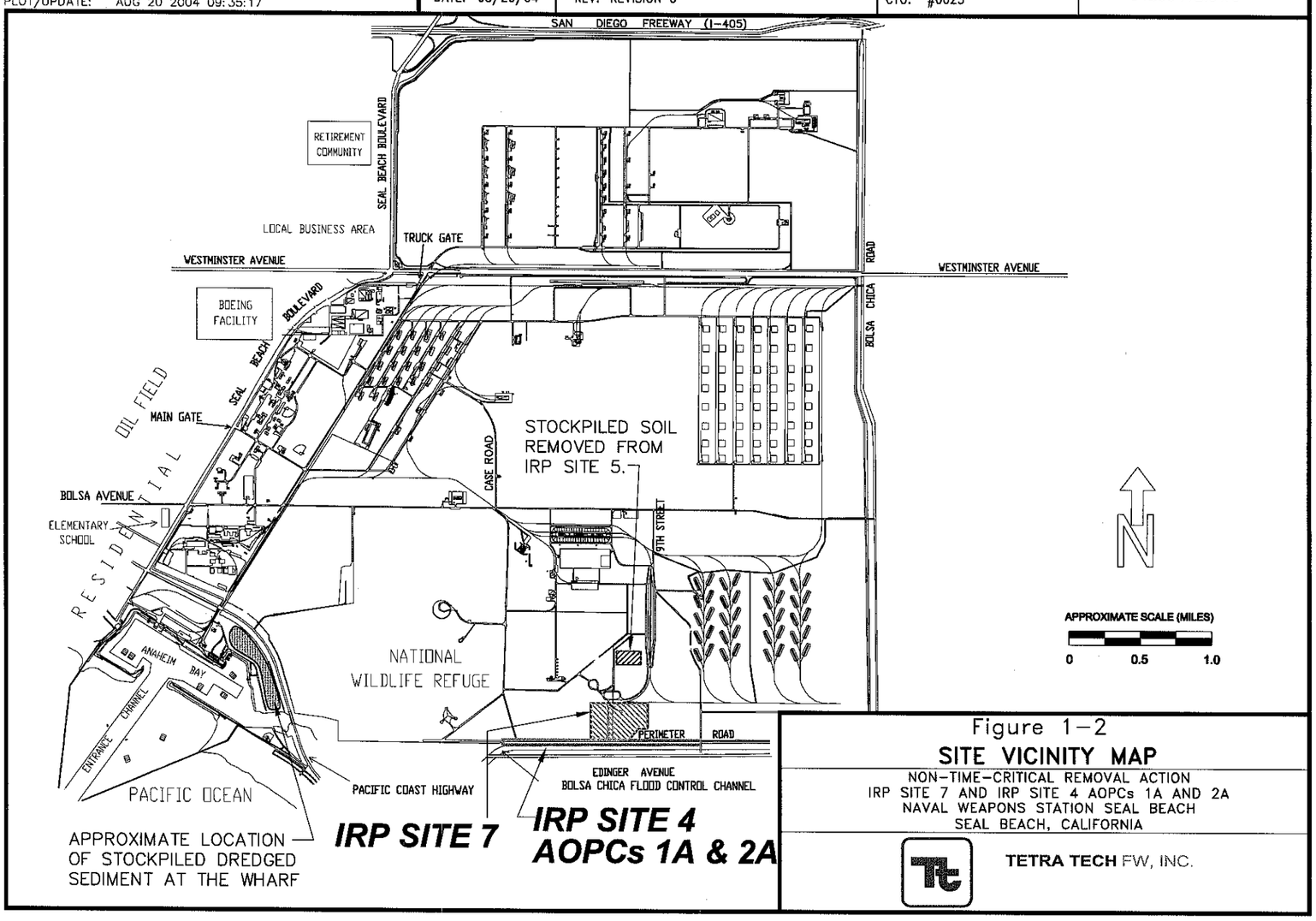
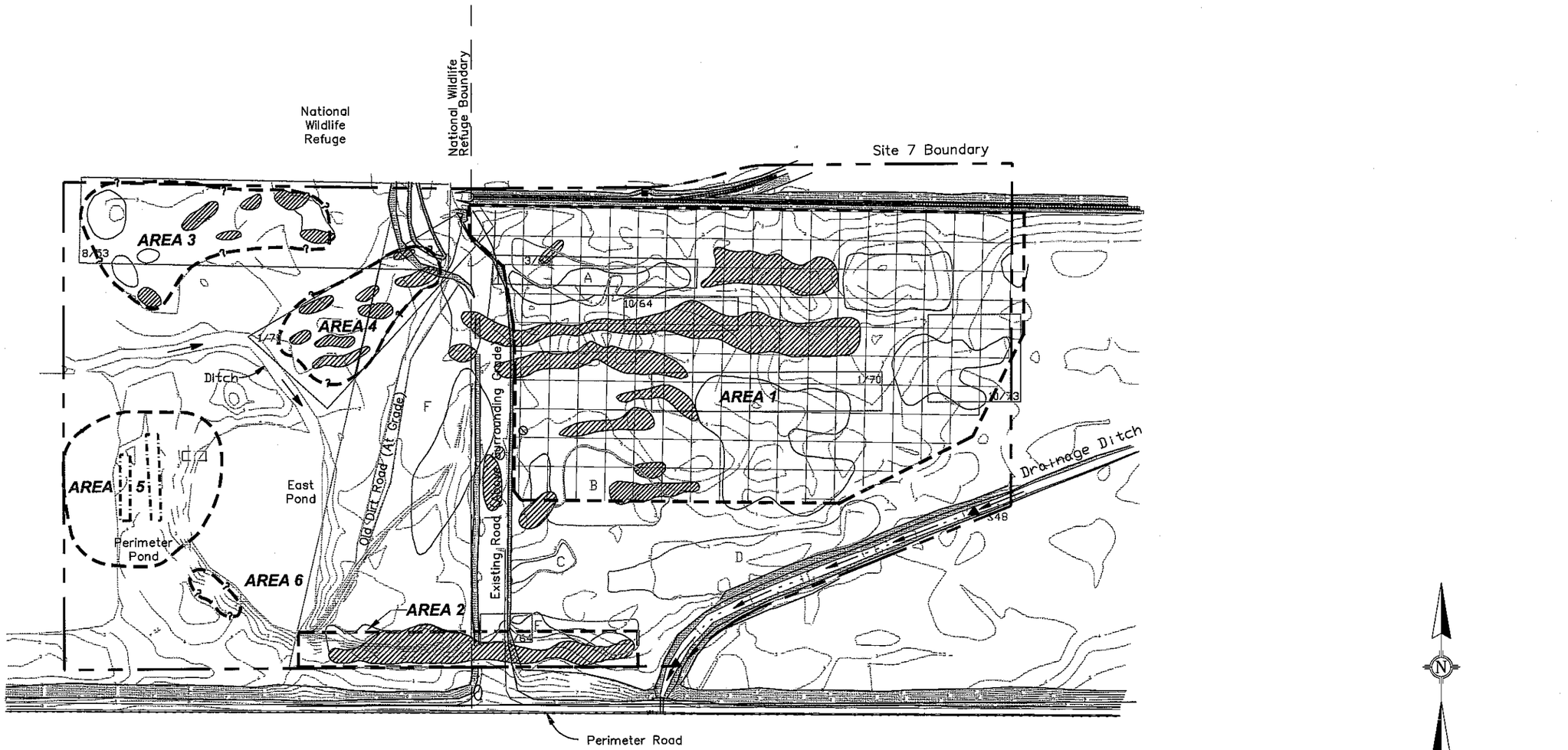


Figure 1-2

SITE VICINITY MAP

NON-TIME-CRITICAL REMOVAL ACTION
IRP SITE 7 AND IRP SITE 4 AOPCs 1A AND 2A
NAVAL WEAPONS STATION SEAL BEACH
SEAL BEACH, CALIFORNIA

TETRA TECH FW, INC.



LEGEND

- AREAS OF CONCENTRATED METAL
- AREAS OF SCATTERED METAL
- OUTLINE OF TRENCH OR AREA OF ACTIVITY FROM HISTORIC AERIAL PHOTO WITH DATE OF AERIAL PHOTO (10/73)
- AREA BOUNDARY
- SURFACE ELEVATION CONTOUR
- RAILROAD
- LIMIT OF BURIED REFUSE
- BOUNDARY OF WETLAND AREA WITHIN SITE 7
- APPROXIMATE LIMITS OF WASTE TRENCHES

SOURCE: CH2M HILL, 2002

Figure 1-3
SITE PLAN – IRP SITE 7

NON-TIME-CRITICAL REMOVAL ACTION
IRP SITE 7 AND IRP SITE 4 AOPCs 1A AND 2A
NAVAL WEAPONS STATION SEAL BEACH
SEAL BEACH, CALIFORNIA

TETRA TECH FW, INC.

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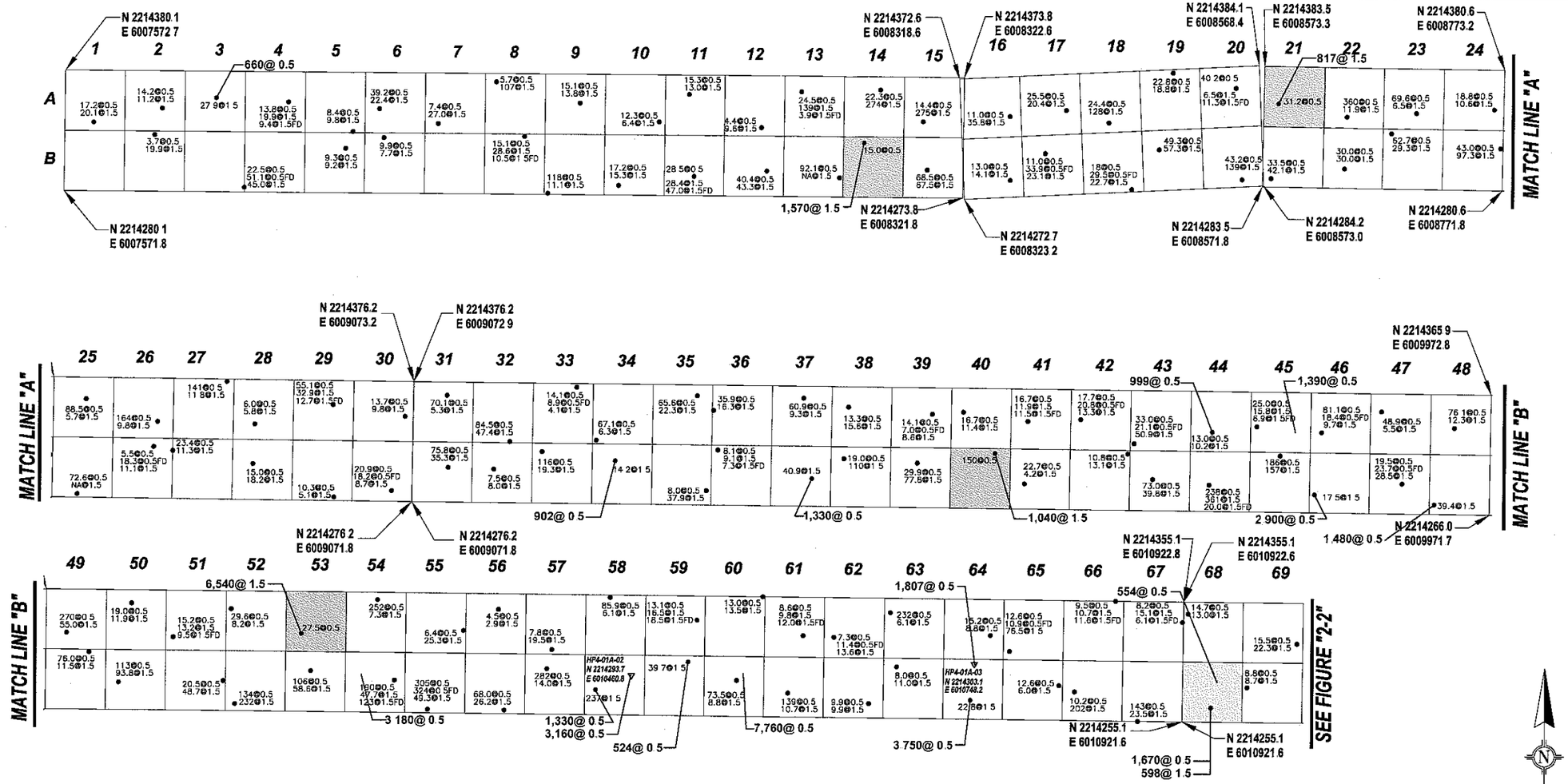
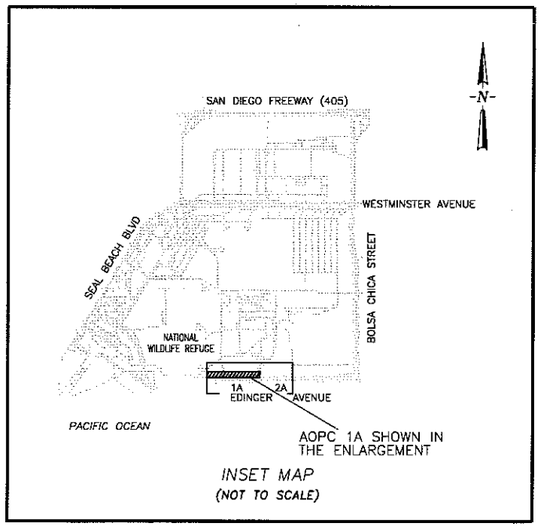


LEGEND

HP4-01A-03 ▽	BECHTEL RSE HYDRO PUNCH SOIL SAMPLE LOCATIONS
SB4-01A-18 ■	BECHTEL RSE SOIL SAMPLE LOCATIONS
FD	FIELD DUPLICATE
@1.5	SAMPLE DEPTH (FEET BELOW GOUND SURFACE)
	EXCAVATED FROM 0 TO 2 FOOT
	EXCAVATED FROM 0 TO 1 FOOT
	EXCAVATED FROM 1 TO 2 FOOT

- TTFWI DECEMBER 2003 CHARACTERIZATION SAMPLE LOCATIONS AND LEAD CONCENTRATIONS BELOW TCG OF 600 mg/kg (ALL RESULTS IN mg/kg)
- TTFWI DECEMBER 2003 CHARACTERIZATION SAMPLE LOCATIONS AND LEAD CONCENTRATIONS EXCEEDING TCG OF 600 mg/kg (ALL RESULTS IN mg/kg)

SAMPLING GRID SIZE
(EACH GRID CELL 50FT X 50FT)



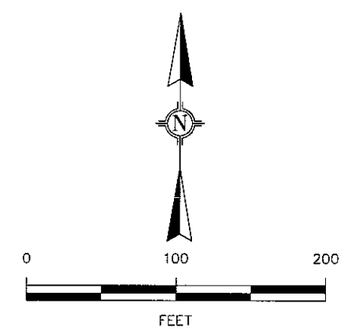


Figure 2-1
LEAD CONCENTRATIONS IN SOIL – BASED ON PRE-EXCAVATION SAMPLING RESULTS FOR IRP SITE 4 AOPC 1A

NON-TIME-CRITICAL REMOVAL ACTION
IRP SITE 7 AND IRP SITE 4 AOPCs 1A AND 2A
NAVAL WEAPONS STATION SEAL BEACH
SEAL BEACH, CALIFORNIA

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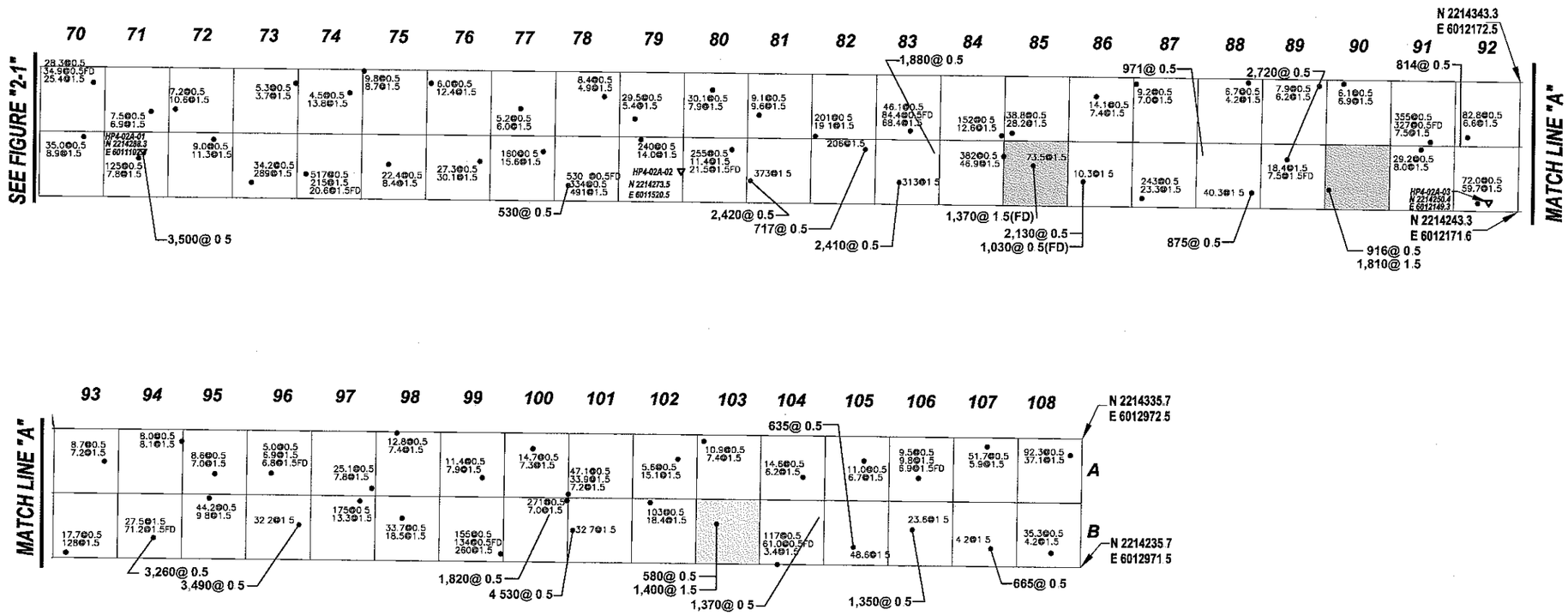
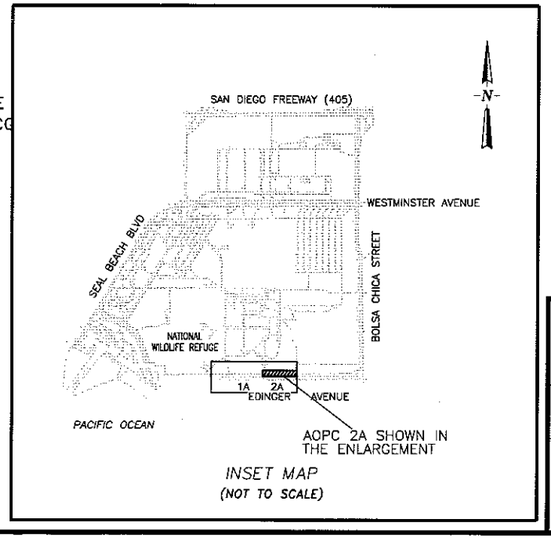


LEGEND

HP4-01A-03 ▽	BECHTEL RSE HYDRO PUNCH SOIL SAMPLE LOCATIONS
SB4-01A-18 ■	BECHTEL RSE SOIL SAMPLE LOCATIONS
FD	FIELD DUPLICATE
@1.5	SAMPLE DEPTH (FEET BELOW GOUND SURFACE)
	EXCAVATED FROM 0 TO 2 FOOT
	EXCAVATED FROM 0 TO 1 FOOT
	EXCAVATED FROM 1 TO 2 FOOT

- TTFWI DECEMBER 2003 CHARACTERIZATION SAMPLE LOCATIONS AND LEAD CONCENTRATIONS BELOW TCG OF 600 mg/kg (ALL RESULTS IN mg/kg)
- TTFWI DECEMBER 2003 CHARACTERIZATION SAMPLE LOCATIONS AND LEAD CONCENTRATIONS EXCEEDING TCG OF 600 mg/kg (ALL RESULTS IN mg/kg)

SAMPLING GRID SIZE
(EACH GRID CELL 50FT X 50FT)



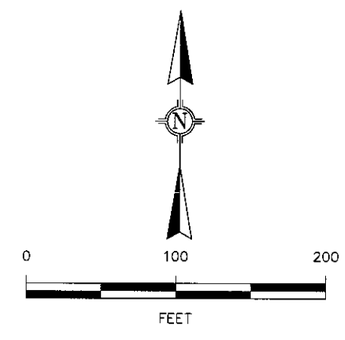


Figure 2-2
LEAD CONCENTRATIONS IN SOIL – BASED ON PRE-EXCAVATION SAMPLING RESULTS FOR IRP SITE 4 AOPC 2A

NON-TIME-CRITICAL REMOVAL ACTION
IRP SITE 7 AND IRP SITE 4 AOPCs 1A AND 2A
NAVAL WEAPONS STATION SEAL BEACH
SEAL BEACH, CALIFORNIA

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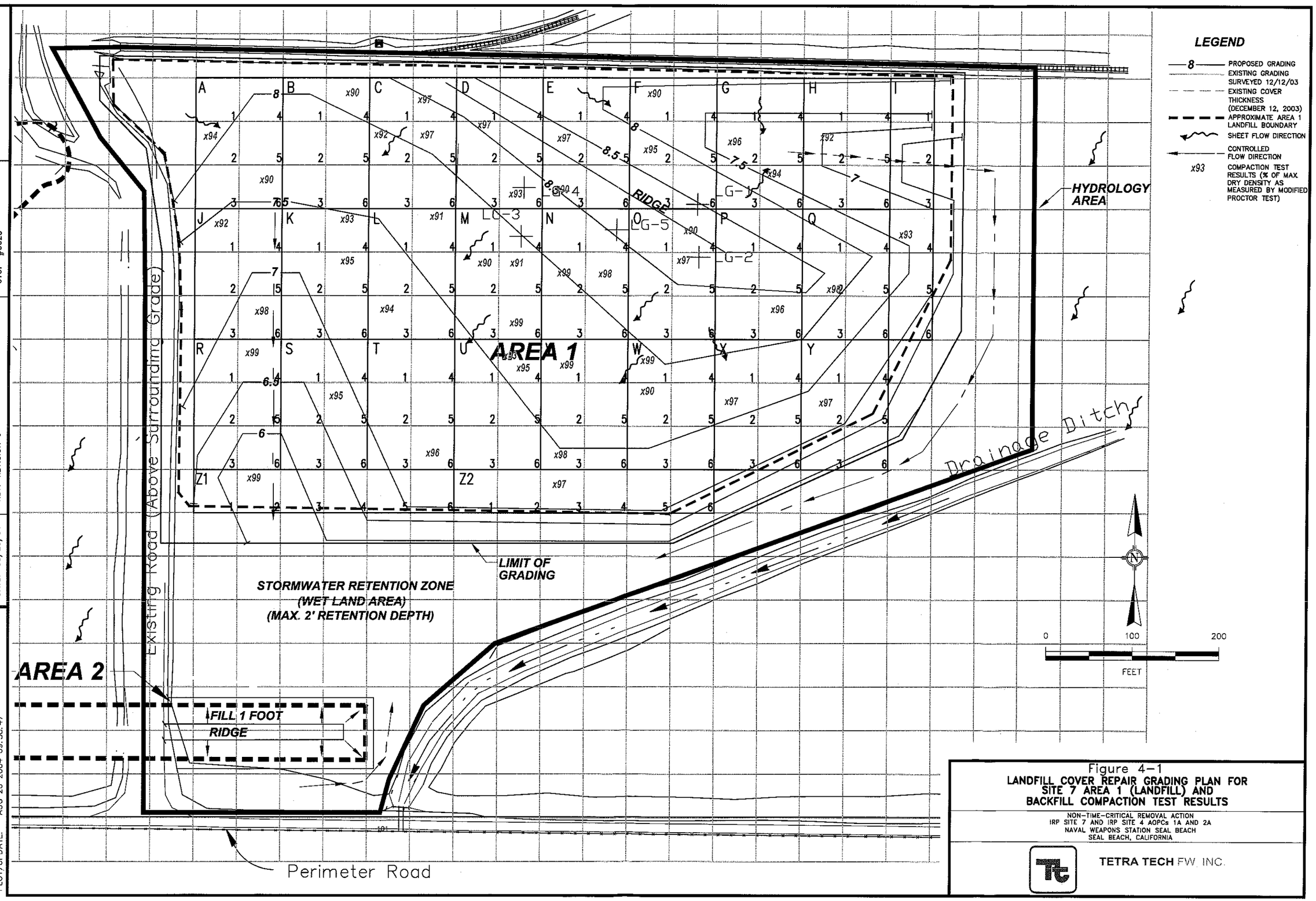

Figure 4-1
LANDFILL COVER REPAIR GRADING PLAN FOR SITE 7 AREA 1 (LANDFILL) AND BACKFILL COMPACTION TEST RESULTS

NON-TIME-CRITICAL REMOVAL ACTION
IRP SITE 7 AND IRP SITE 4 AOPCs 1A AND 2A
NAVAL WEAPONS STATION SEAL BEACH
SEAL BEACH, CALIFORNIA

TETRA TECH FW, INC.

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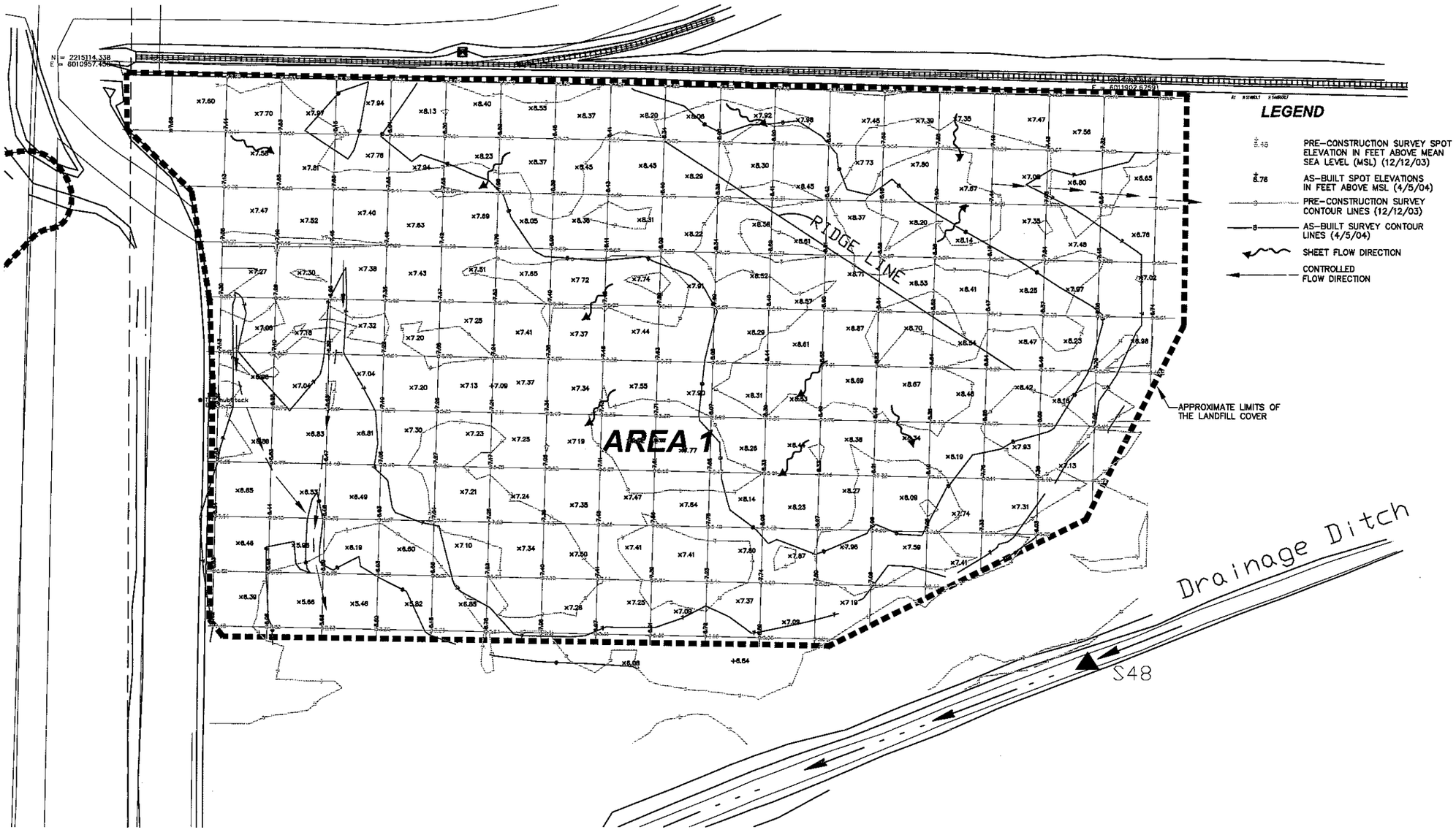

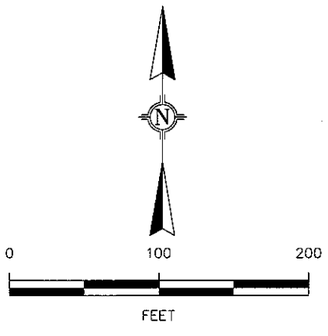

Figure 4-2

AS-BUILT TOPOGRAPHIC MAP OF IRP SITE 7 AREA 1

NON-TIME-CRITICAL REMOVAL ACTION
IRP SITE 7 AND IRP SITE 4 AOPCs 1A AND 2A
NAVAL WEAPONS STATION SEAL BEACH
SEAL BEACH, CALIFORNIA

TETRA TECH FW INC.

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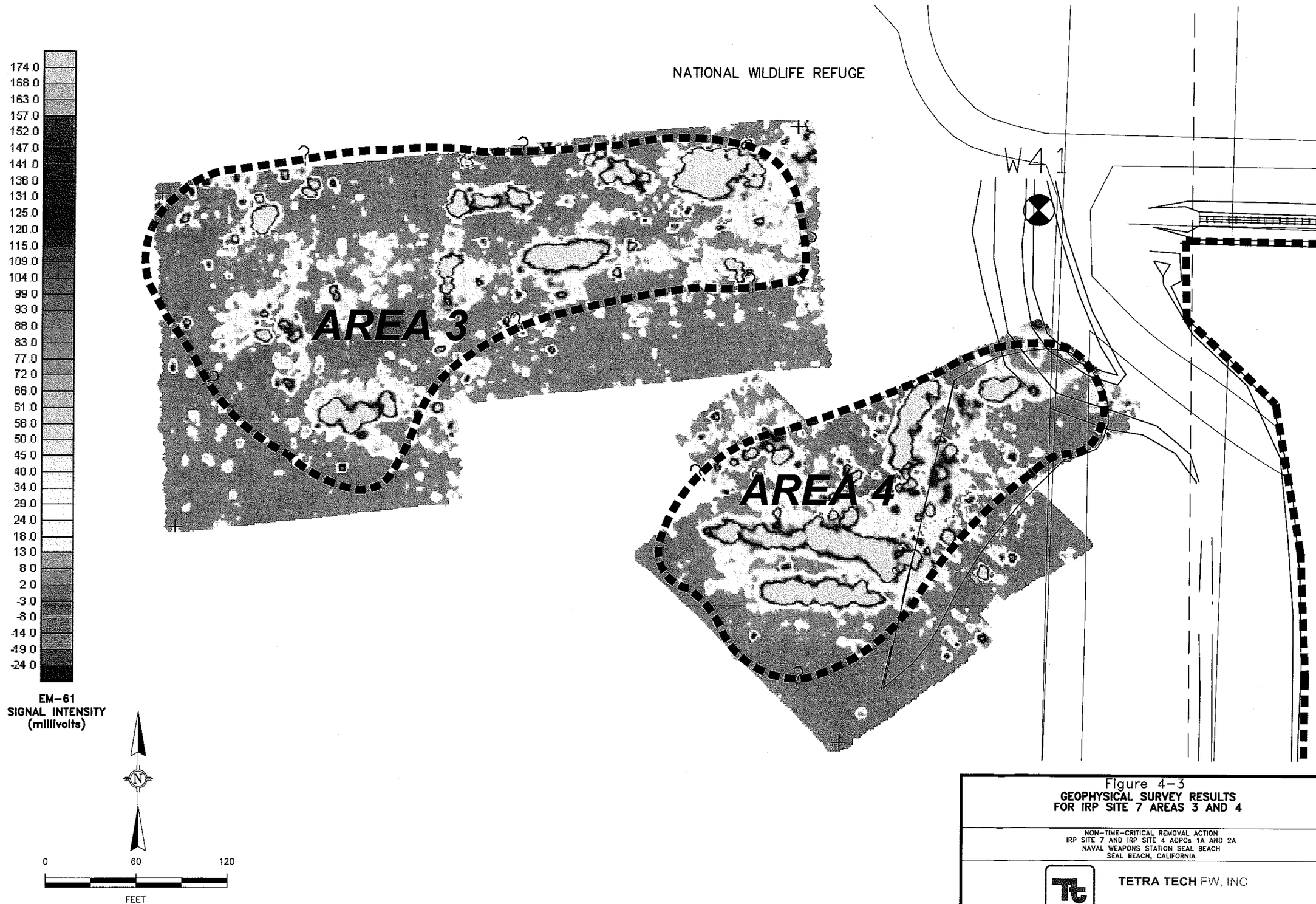

Figure 4-3
GEOPHYSICAL SURVEY RESULTS FOR IRP SITE 7 AREAS 3 AND 4

NON-TIME-CRITICAL REMOVAL ACTION
IRP SITE 7 AND IRP SITE 4 AOPCs 1A AND 2A
NAVAL WEAPONS STATION SEAL BEACH
SEAL BEACH, CALIFORNIA

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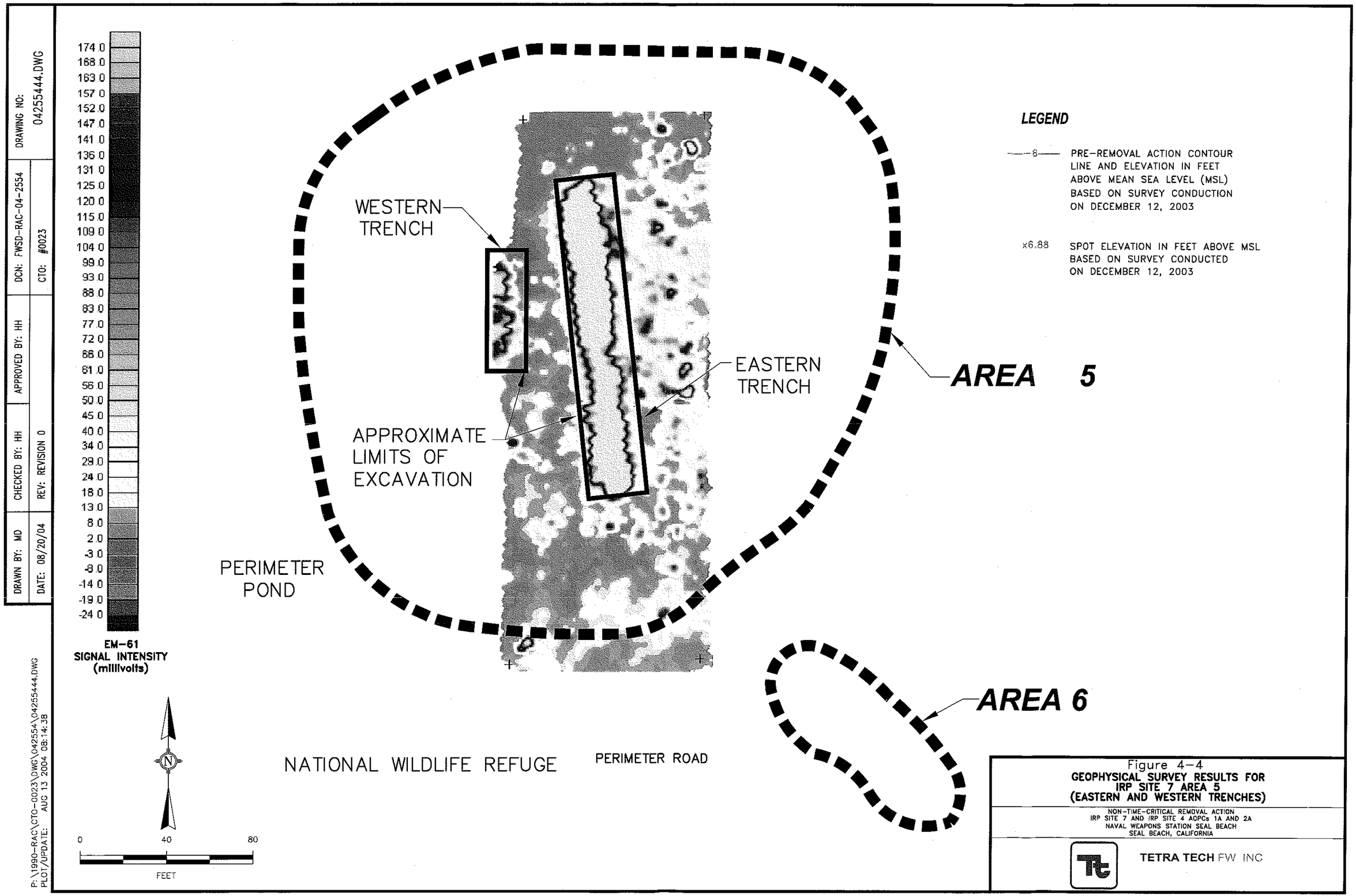
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174.0
168.0
163.0
157.0
152.0
147.0
141.0
136.0
131.0
125.0
120.0
115.0
109.0
104.0
99.0
93.0
88.0
83.0
77.0
72.0
66.0
61.0
56.0
50.0
45.0
40.0
34.0
29.0
24.0
18.0
13.0
8.0
2.0
-3.0
-8.0
-14.0
-19.0
-24.0
EM-61
SIGNAL INTENSITY
(millivolts)
WESTERN TRENCH
EASTERN TRENCH
APPROXIMATE LIMITS OF EXCAVATION
PERIMETER POND
AREA 5
AREA 6
NATIONAL WILDLIFE REFUGE
PERIMETER ROAD
N
0
40
80
FEET
LEGEND
PRE-REMOVAL ACTION CONTOUR LINE AND ELEVATION IN FEET ABOVE MEAN SEA LEVEL (MSL) BASED ON SURVEY CONDUCTION ON DECEMBER 12, 2003
x6.88
SPOT ELEVATION IN FEET ABOVE MSL BASED ON SURVEY CONDUCTED ON DECEMBER 12, 2003
Figure 4-4
GEOPHYSICAL SURVEY RESULTS FOR IRP SITE 7 AREA 5 (EASTERN AND WESTERN TRENCHES)
NON-TIME-CRITICAL REMOVAL ACTION
IRP SITE 7 AND IRP SITE 4 AOPCs 1A AND 2A
NAVAL WEAPONS STATION SEAL BEACH
SEAL BEACH, CALIFORNIA
TETRA TECH FW INC

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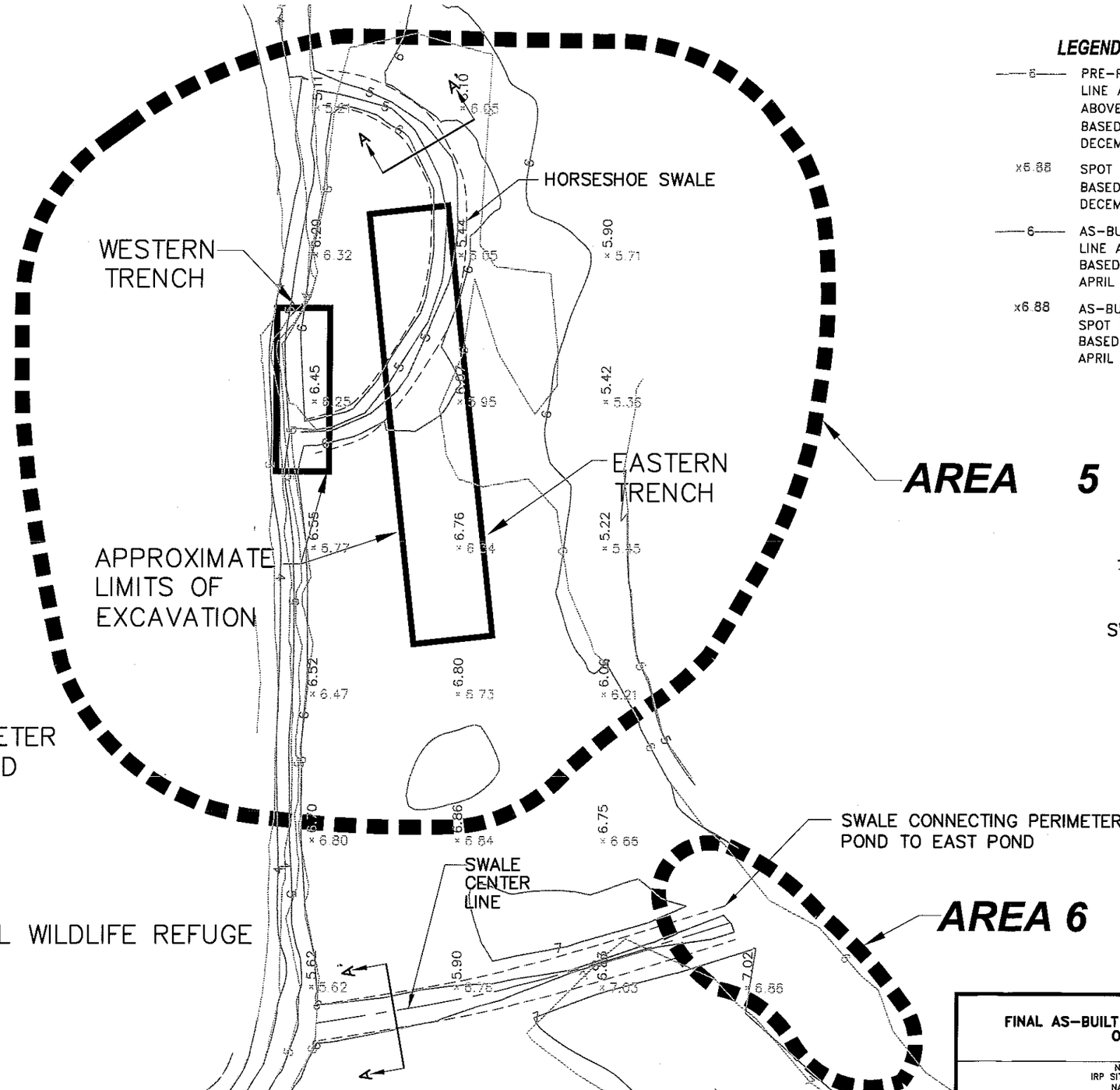
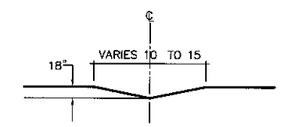


LEGEND

—5—	PRE-REMOVAL ACTION CONTOUR LINE AND ELEVATION IN FEET ABOVE MEAN SEA LEVEL (MSL) BASED ON SURVEY CONDUCTED ON DECEMBER 12, 2003
x6.88	SPOT ELEVATION IN FEET ABOVE MSL BASED ON SURVEY CONDUCTED ON DECEMBER 12, 2003
—6—	AS-BUILT FINAL GRADE CONTOUR LINE AND ELEVATION IN FEET ABOVE MSL BASED ON SURVEY CONDUCTED ON APRIL 5, 2004
x6.88	AS-BUILT FINAL GRADE SURVEYED SPOT ELEVATION IN FEET ABOVE MSL BASED ON SURVEY CONDUCTED ON APRIL 5, 2004

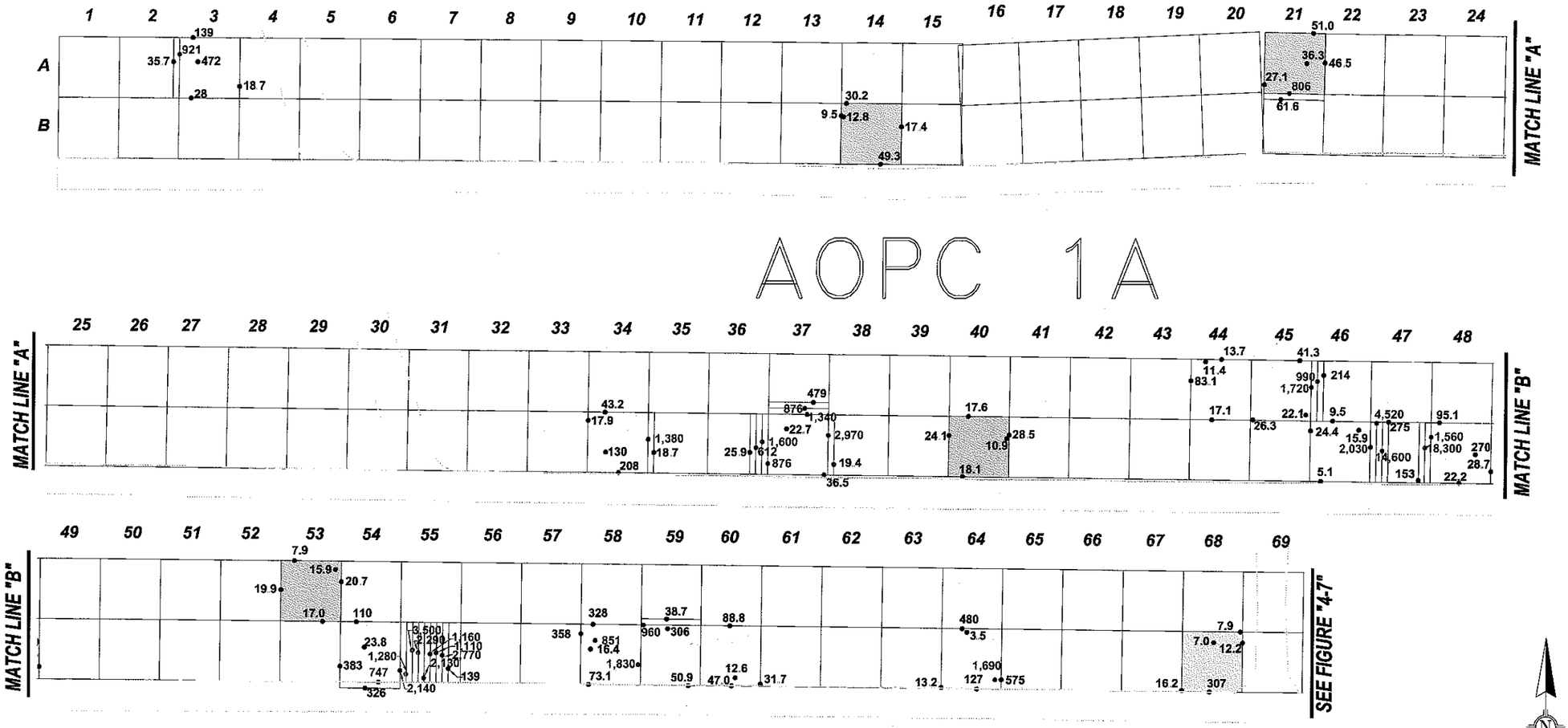


SECTION A-A'
SWALE CROSS-SECTION

Figure 4-5
FINAL AS-BUILT GRADES AND TOPOGRAPHIC SURVEY OF IRP SITE 7 AREA 5

NON-TIME-CRITICAL REMOVAL ACTION
IRP SITE 7 AND IRP SITE 4 AOPCs 1A AND 2A
NAVAL WEAPONS STATION SEAL BEACH
SEAL BEACH, CALIFORNIA

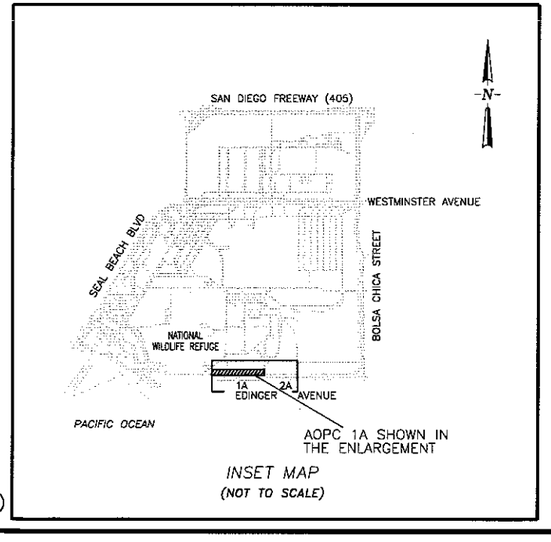
TETRA TECH FW, INC



LEGEND

- • 73.1 — LEAD CONCENTRATION IN mg/kg LESS THAN TCG
- • 1,830 — LEAD CONCENTRATION IN mg/kg EXCEEDING TCG
- EXCAVATED FROM 0 TO 2 FOOT
- EXCAVATED FROM 0 TO 1 FOOT
- EXCAVATED FROM 1 TO 2 FOOT

SAMPLING GRID SIZE
(EACH GRID CELL 50FT X 50FT)



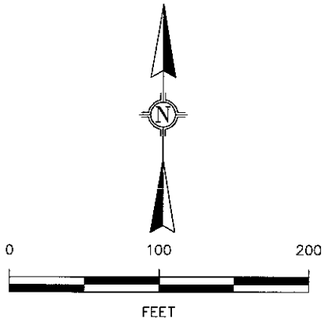


Figure 4-6
LEAD CONCENTRATIONS IN SOIL BASED ON POST-EXCAVATION CONFIRMATION SAMPLING RESULTS FOR IRP SITE 4 AOPC 1A

NON-TIME-CRITICAL REMOVAL ACTION
IRP SITE 7 AND IRP SITE 4 AOPCs 1A AND 2A
NAVAL WEAPONS STATION SEAL BEACH
SEAL BEACH, CALIFORNIA

TETRA TECH FW, INC

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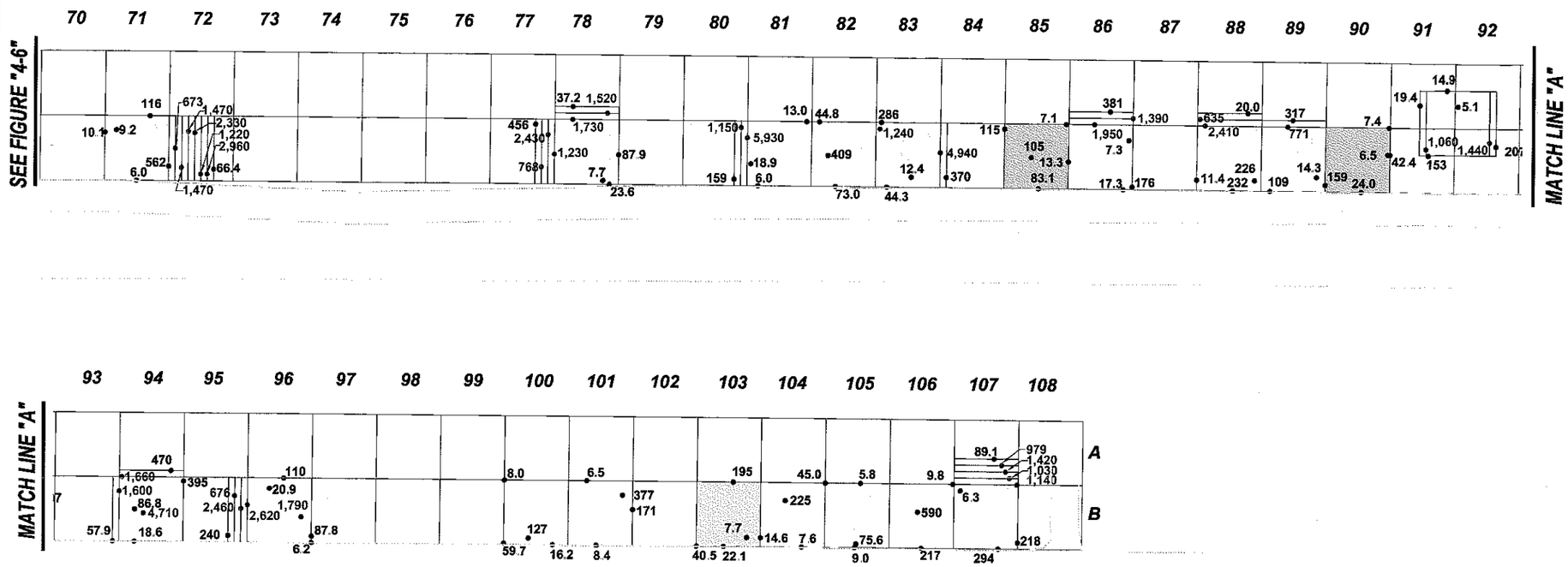
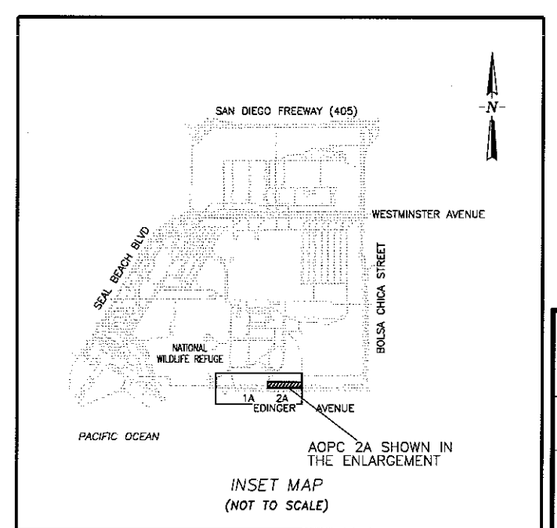
AOPC 2A



LEGEND

- • 73.1 — LEAD CONCENTRATION IN mg/kg LESS THAN TCG
- • 1,830 — LEAD CONCENTRATION IN mg/kg EXCEEDING TCG
- EXCAVATED FROM 0 TO 2 FOOT
- EXCAVATED FROM 0 TO 1 FOOT
- EXCAVATED FROM 1 TO 2 FOOT

SAMPLING GRID SIZE
(EACH GRID CELL 50FT X 50FT)



INSET MAP
(NOT TO SCALE)

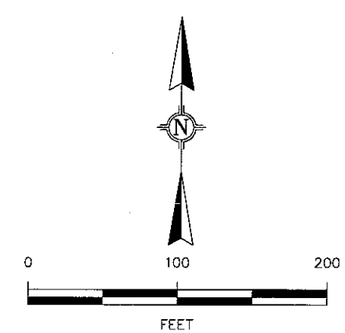


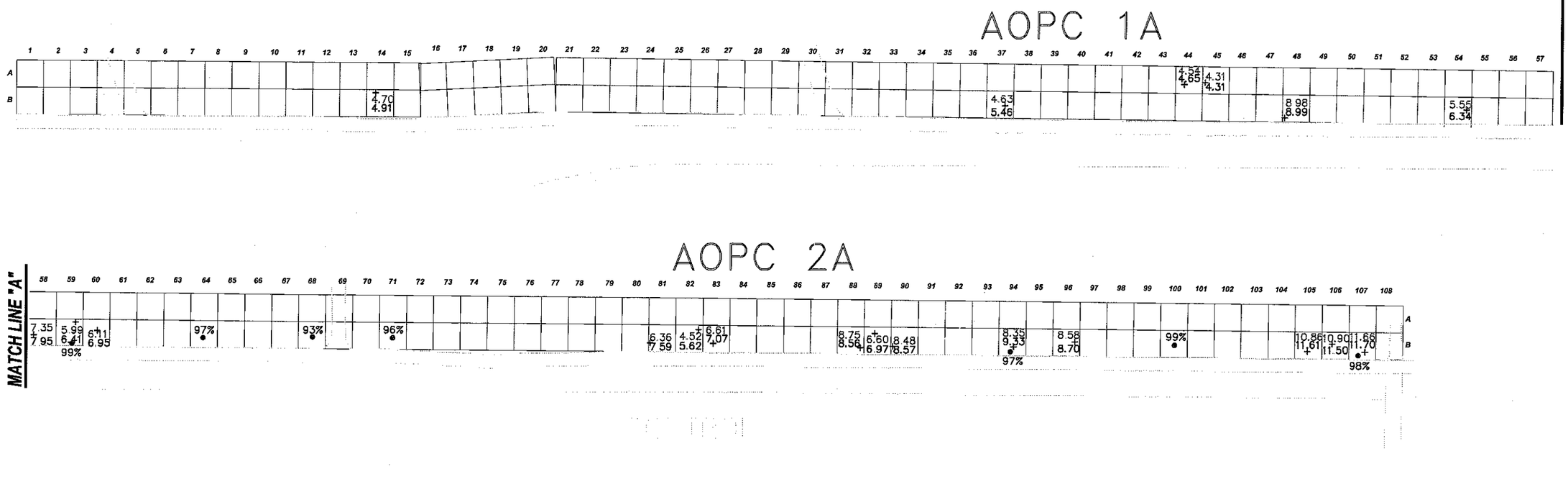
Figure 4-7
LEAD CONCENTRATIONS IN SOIL BASED ON POST-EXCAVATION CONFIRMATION SAMPLING RESULTS FOR IRP SITE 4 AOPC 2A

NON-TIME-CRITICAL REMOVAL ACTION
IRP SITE 7 AND IRP SITE 4 AOPCs 1A AND 2A
NAVAL WEAPONS STATION SEAL BEACH
SEAL BEACH, CALIFORNIA

TETRA TECH FW INC.

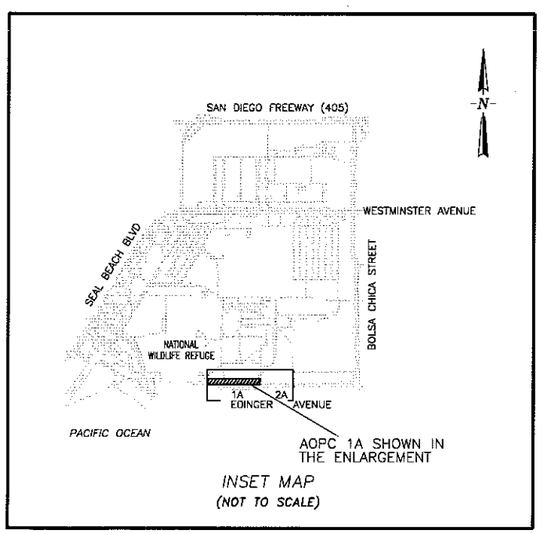
DRAWING NO: 04255446.DWG
DCN: FWSD-RAC-04-2554
CTO: #0023
APPROVED BY: HH
CHECKED BY: HH
REV: REVISION 0
DRAWN BY: MD
DATE: 08/20/04

P:\1990-RAC\CTO-0023\DWG\042554\04255446.DWG
PLOT/UPDATE: AUG 13 2004 08:24:15



LEGEND

4.31	PRE-EXCAVATION SURVEYED SPOT ELEVATION IN FEET ABOVE MEAN SEA LEVEL (MSL) (SURVEY CONDUCTED IN DECEMBER 2003)
‡4.91	POST-BACKFILL AND GRADING AS-BUILT SURVEYED SPOT ELEVATION IN FEET ABOVE MSL (SURVEY CONDUCTED ON APRIL 7, 2004)
•97%	FIELD IN SITU COMPACTION TEST RESULT FOR BACKFILL
	EXCAVATED GRID CELLS (EACH GRID CELL IS 50FT X 50FT)



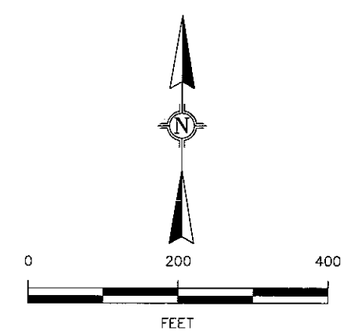


Figure 4-8
FINAL AS-BUILT ELEVATIONS OF SITE 4 AOPCs 1A AND 2A AND BACKFILL COMPACTION TEST RESULTS

NON-TIME-CRITICAL REMOVAL ACTION
IRP SITE 7 AND IRP SITE 4 AOPCs 1A AND 2A
NAVAL WEAPONS STATION SEAL BEACH
SEAL BEACH, CALIFORNIA

TETRA TECH FW, INC

DRAWING NO: 04255448.DWG
DCN: FWSD-RAC-04-2554
CTO: #0023
APPROVED BY: HH
CHECKED BY: HH
REV: REVISION 0
DRAWN BY: MD
DATE: 08/20/04

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PLOT/UPDATE: AUG 13 2004 08:25:34

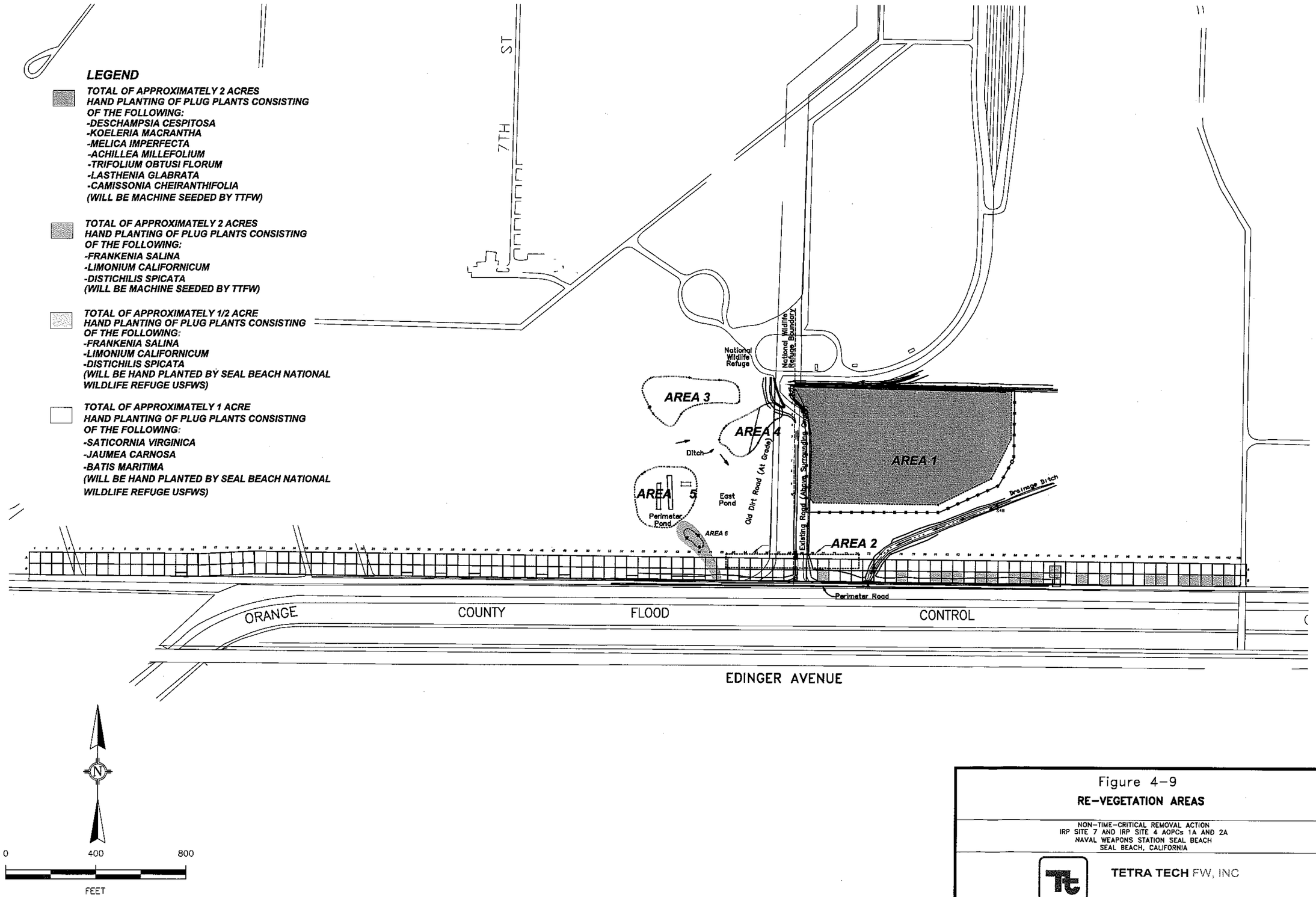

Figure 4-9

RE-VEGETATION AREAS

NON-TIME-CRITICAL REMOVAL ACTION
IRP SITE 7 AND IRP SITE 4 AOPCs 1A AND 2A
NAVAL WEAPONS STATION SEAL BEACH
SEAL BEACH, CALIFORNIA

TETRA TECH FW, INC

DRAWING NO: 04255449.DWG
DCN: FWSD-RAC-04-2554
CTO: #0023
APPROVED BY: HH
CHECKED BY: HH
REV: REVISION 0
DRAWN BY: MD
DATE: 08/20/04

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PLOT/UPDATE: AUG 13 2004 08:27:40

APPENDIX A

GEOTECHNICAL LABORATORY TEST REPORTS

SMITH-EMERY GEOSERVICES
A MEMBER OF THE SMITH-EMERY COMPANIES, ESTABLISHED 1904

January 30, 2004

SEG File No.: 32389-1
SEG Report No.: G-04-5968

Smith-Emery Anaheim Office
1195 N. Tustin Avenue
Anaheim, California 92087

Attention: Mr. Robert Greeley

RE: Soil Testing
Seal Beach Naval Weapon Station

Gentlemen:

Smith-Emery GeoServices has completed testing for the reference material. Test results are as follows:

REPORT OF TEST

Date Sample Received: 1-27-04 **Date Tested:** 1-27-04

GRADING (ASTM D422)

Sieve Size	Cumulative Percentage Passing		
	Sample 1	Sample 2	Sample 3
No. 10	100	100	100
No. 20	99.6	98.9	99.8
No. 40	99.0	97.8	99.4
No. 60	98.3	97.2	98.1
No. 100	95.0	95.2	91.8
No. 200	79.1	84.7	62.5

Hydrometer Analysis (ASTM D422)

Sample I.D.	% SAND	% SILT	% CLAY	CLASSIFICATION
1	20.9	52.0	27.1	Olive brown clayey sandy silt (ML)
2	15.3	41.2	43.5	Dark olive gray silty clay (CL)
3	37.5	44.6	17.9	Olive brown sandy silt (ML)

SMITH-EMERY GEOSERVICES

January 30, 2004
SMITH-EMERY Anaheim Office

SEG File No.: 32389-1
SEG Report No.: G-04-5968

ATTERBERG LIMITS (ASTM D4318)

Sample I.D.	Liquid Limits	Plastic Limits	Plasticity Index	Unified Classification of Soil
1	30	24	6	Clayey sandy silt (ML)
2	37	24	13	Silty clay (CL)
3	nil	nil	NP	Sandy silt (ML)

Moisture Density Relation (ASTM D1557 Method-A)

Sample I.D.	Max. Dry Density (pcf)	Optimum Moisture Content %
1	110.1	16.8
2	109.8	16.8
3	111.3	15.9

Note: Sample No. 1 is a mixture of sample 2 and 3

Should you have any questions regarding the contents of this report, please call.

Respectfully submitted,
SMITH-EMERY GEOSERVICES

ANGELITO CABANILLA
Geotechnical Laboratory Manager

AC/ac
cc: 2-Addressee

COMPACTION TEST REPORT

Curve No.: 3

Project No.: 32389-1 **Date:** 1-30-04

Project: Seal Beach Naval Weapon Station

Location: Seal Beach Naval Weapon Station

Elev./Depth: **Sample No.** 3

Remarks:

MATERIAL DESCRIPTION

Description: Olive brown sandy silt

Classifications - **USCS:** ML **AASHTO:**

Nat. Moist. = 15.9 % **Sp.G. =** 2.700

Liquid Limit = NV **Plasticity Index =** NP

% > No.4 = 0.0 % **% < No.200 =** 62.5 %

TEST RESULTS
Maximum dry density = 111.3 pcf
Optimum moisture = 15.9 %

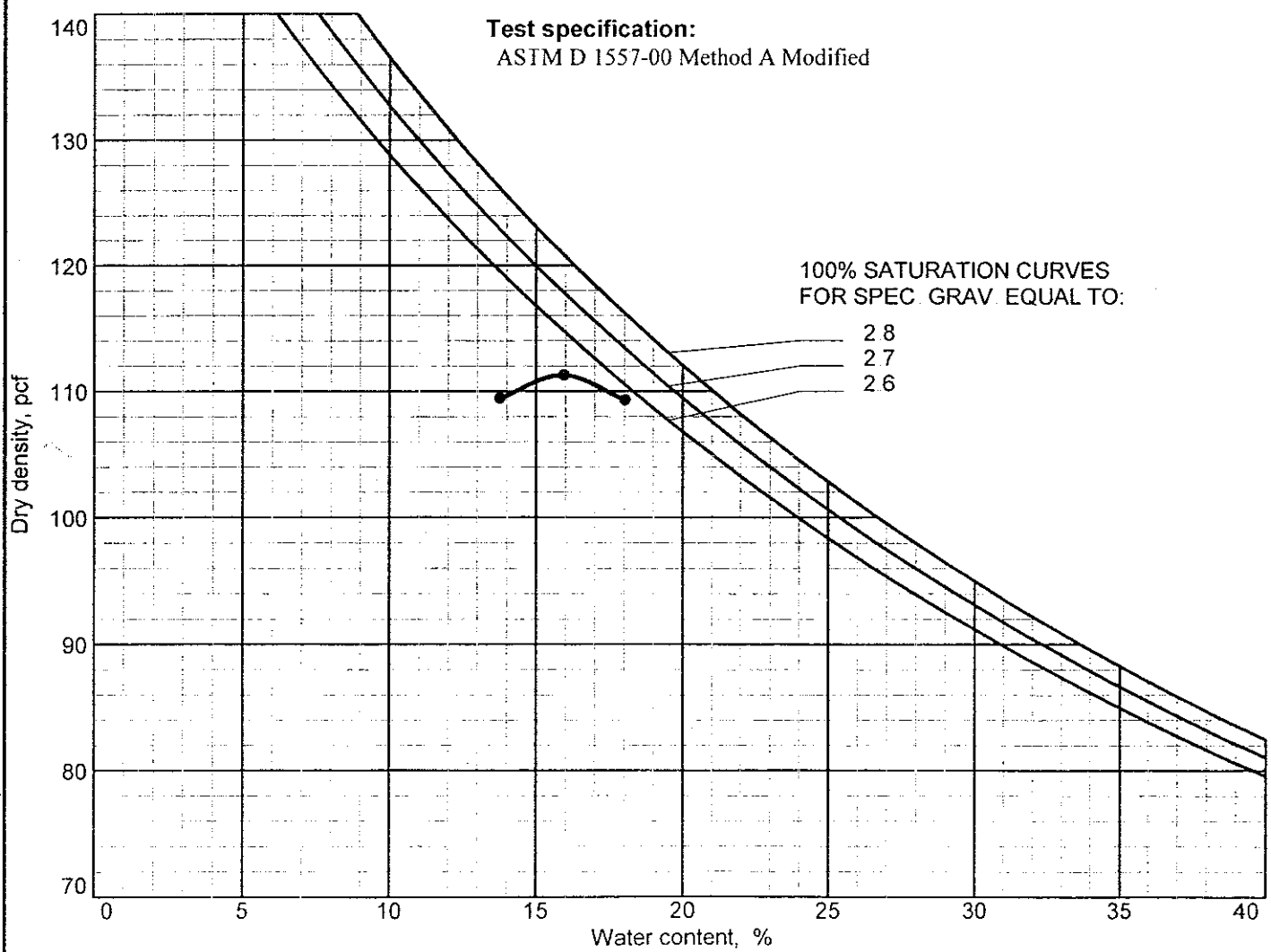
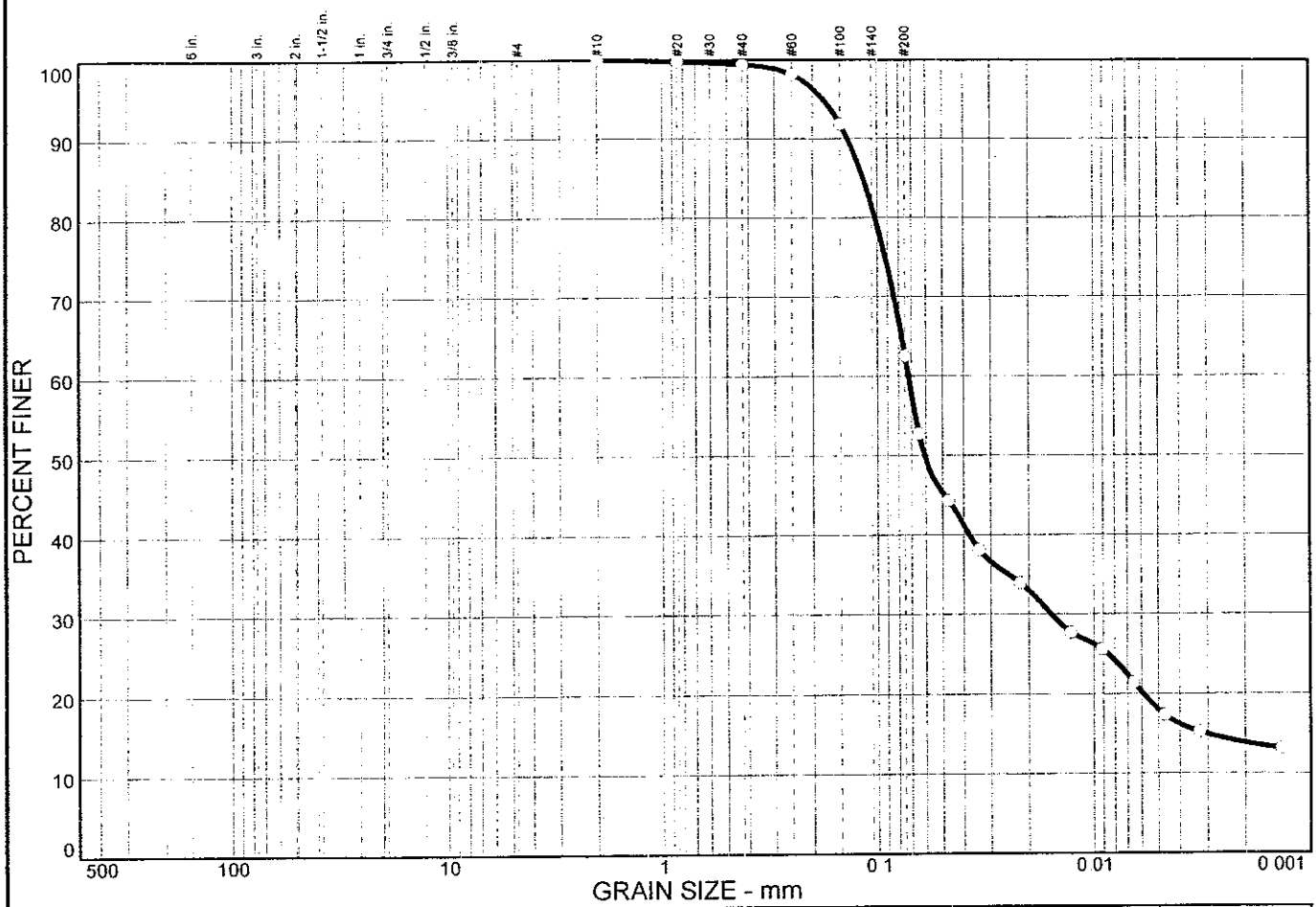


Plate:

Smith-Emery Company

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	0.0	37.5	44.6	17.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	99.8		
#40	99.4		
#60	98.1		
#100	91.8		
#200	62.5		

* (no specification provided)

Soil Description

Olive brown sandy silt

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{85}= 0.117 D_{60}= 0.0724 D_{50}= 0.0610
D_{30}= 0.0159 D_{15}= 0.0031 D_{10}=
C_u= C_c=

Classification

USCS= ML AASHTO=

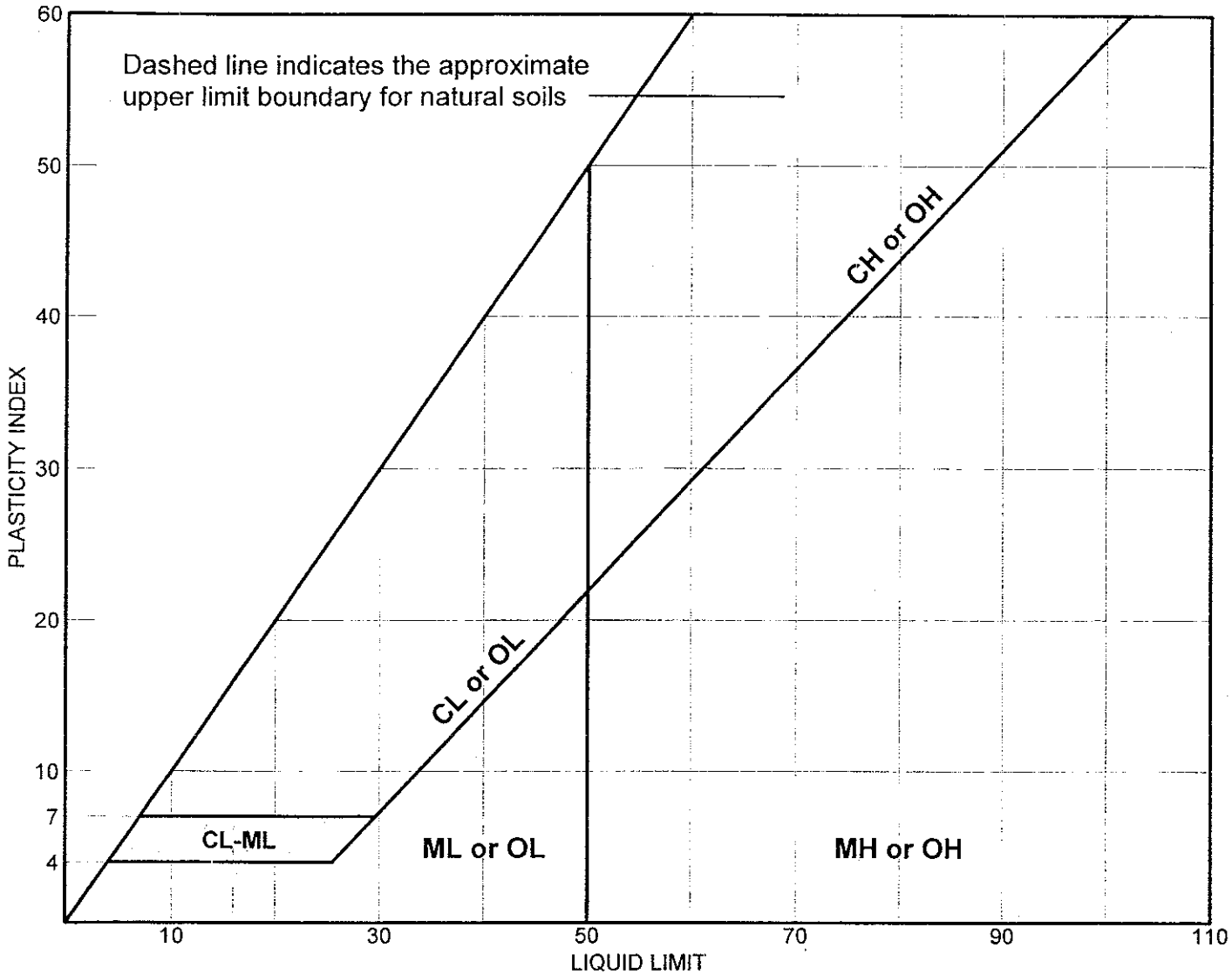
Remarks

Sample No.: 3 **Source of Sample:** **Date:** 1-30-04
Location: Seal Beach Naval Weapon Station **Elev./Depth:**

Smith-Emery Company

Client: Seal Beach Naval Weapon Station
Project: Seal Beach Naval Weapon Station
Project No: 32389-1 **Plate:**

LIQUID AND PLASTIC LIMITS TEST REPORT



SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●		3		15.9	NP	NV	NP	ML

LIQUID AND PLASTIC LIMITS TEST REPORT **Smith-Emery Company**	**Client:** Seal Beach Naval Weapon Station **Project:** Seal Beach Naval Weapon Station **Project No.:** 32389-1 **Plate:**

COMPACTION TEST REPORT

Curve No.: 2

Project No.: 32389-1 **Date:** 1-30-04

Project: Seal Beach Naval Weapon Station

Location: Seal Beach Naval Weapon Station

Elev./Depth: **Sample No.** 2

Remarks:

MATERIAL DESCRIPTION

Description: Dark olive gray silty clay

Classifications - **USCS:** CL **AASHTO:**

Nat. Moist. = 19.8 % **Sp.G. =** 2.700

Liquid Limit = **Plasticity Index =**

% > No.4 = 0.0 % **% < No.200 =** 84.7 %

TEST RESULTS
Maximum dry density = 109.8 pcf
Optimum moisture = 16.8 %

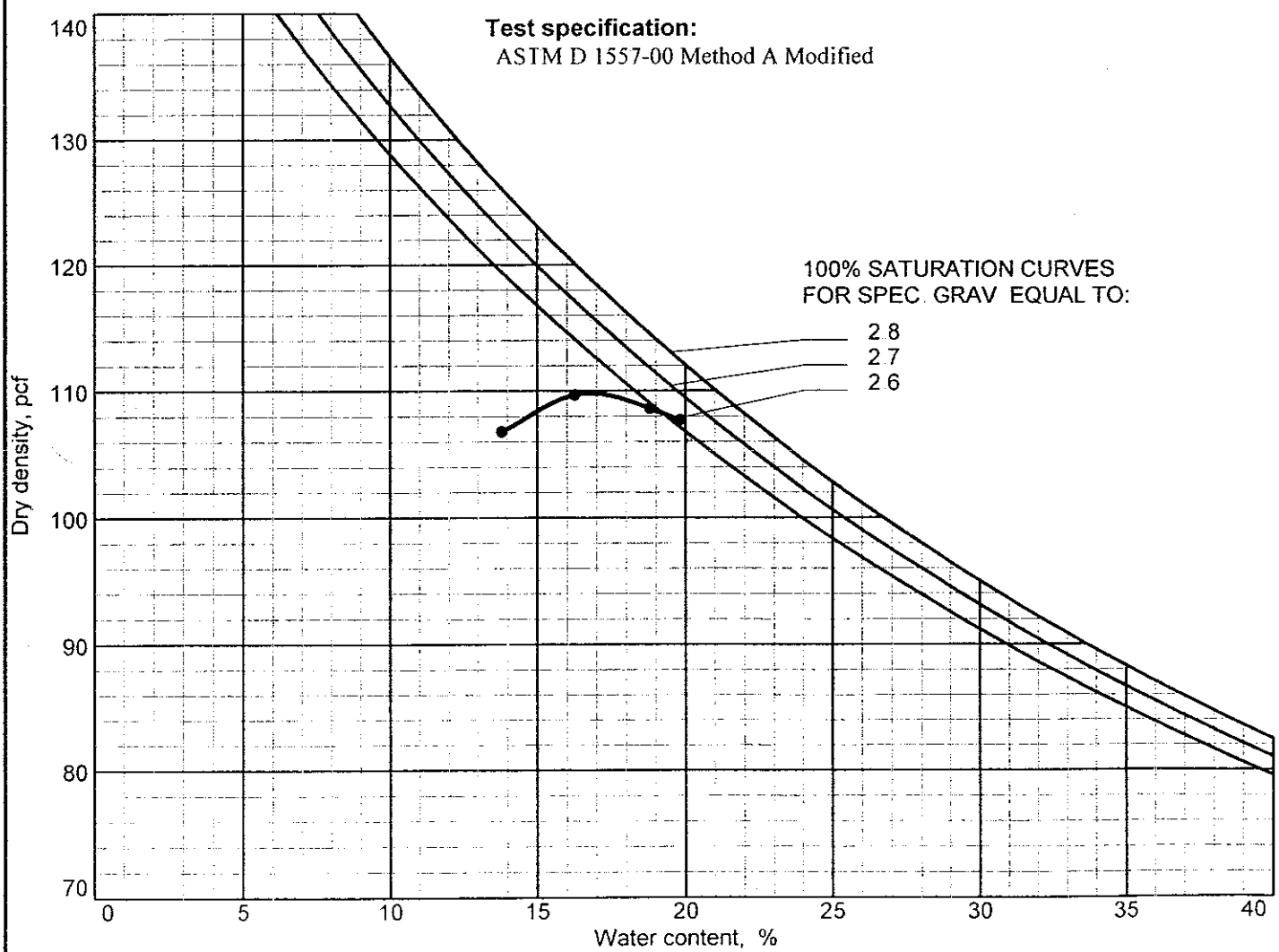
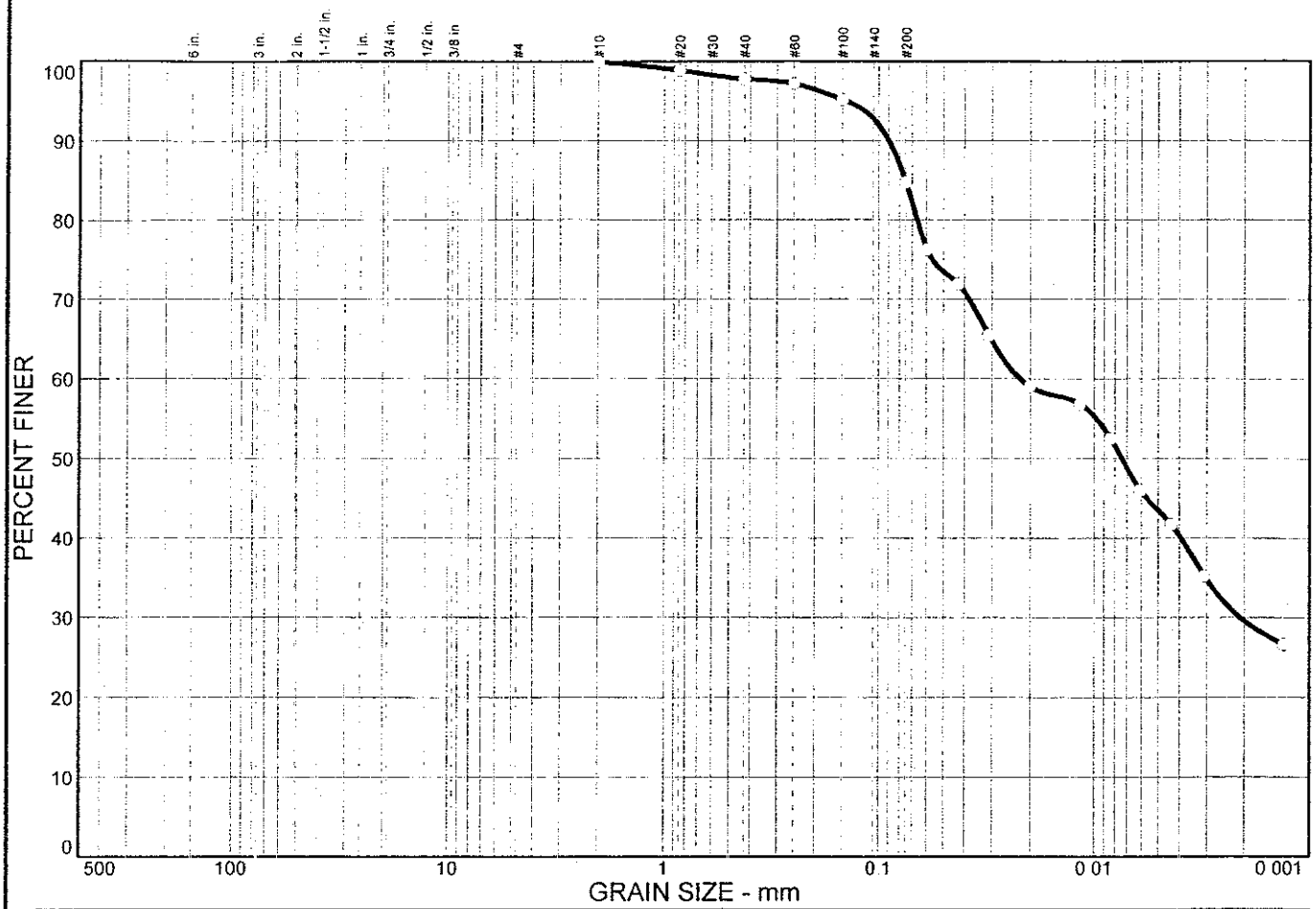


Plate:

Smith-Emery Company

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	0.0	15.3	41.2	43.5

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	98.9		
#40	97.8		
#60	97.2		
#100	95.2		
#200	84.7		

* (no specification provided)

Soil Description

Dark olive gray silty clay

Atterberg Limits

PL= 24 LL= 37 PI= 13

Coefficients

D_{85}= 0.0756 D_{60}= 0.0224 D_{50}= 0.0074
D_{30}= 0.0021 D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= CL AASHTO=

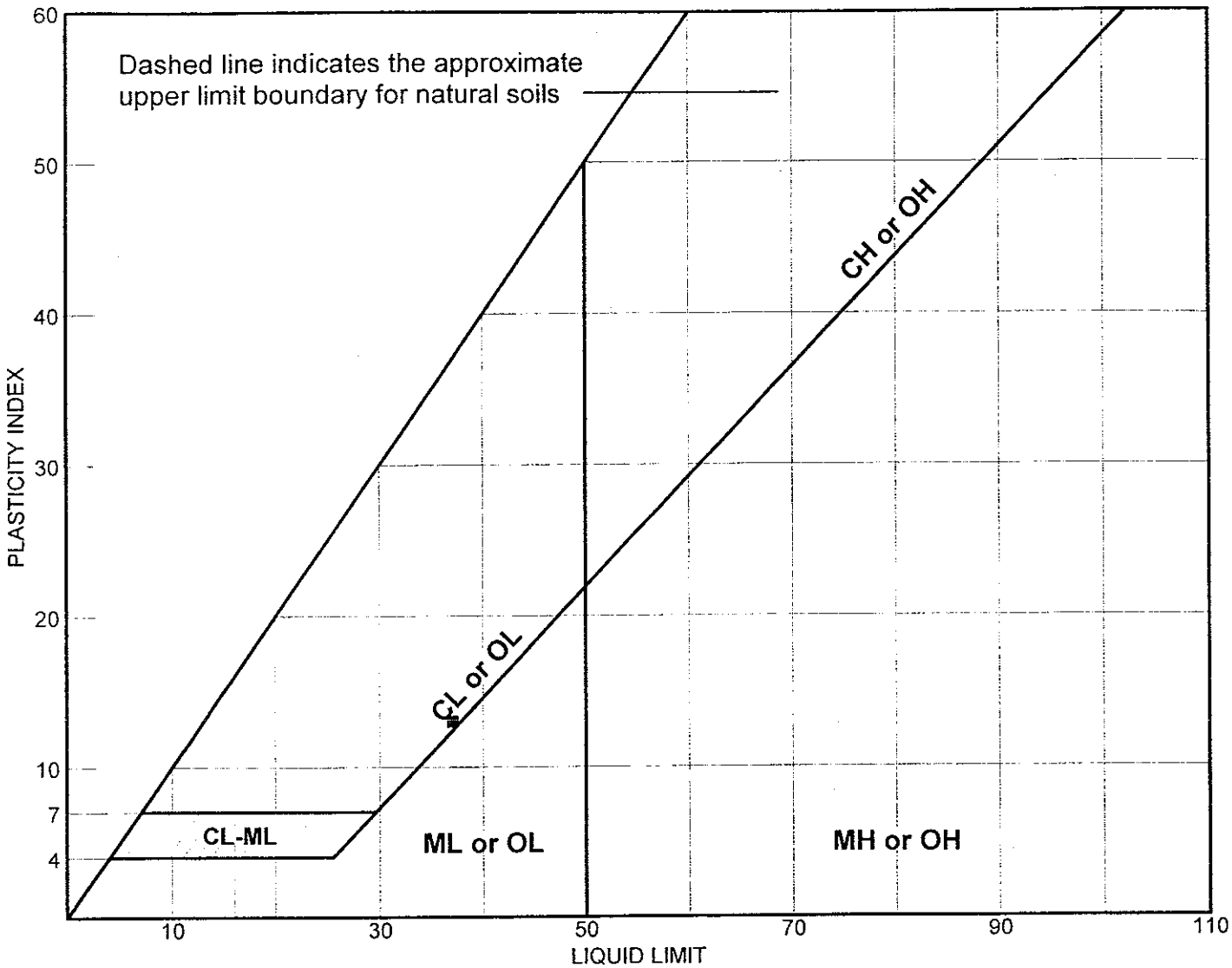
Remarks

Sample No : 2 **Source of Sample:** **Date:**
Location: Seal Beach Naval Weapon Station **Elev./Depth:**

Smith-Emery Company

Client: Seal Beach Naval Weapon Station
Project: Seal Beach Naval Weapon Station
Project No: 32389-1 **Plate:**

LIQUID AND PLASTIC LIMITS TEST REPORT



SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●		2		19.8	24	37	13	CL
■		2		19.8	24	37	13	CL

LIQUID AND PLASTIC LIMITS TEST REPORT **Smith-Emery Company**	**Client:** Seal Beach Naval Weapon Station **Project:** Seal Beach Naval Weapon Station **Project No.:** 32389-1 **Plate:**

COMPACTION TEST REPORT

Curve No.: 1

Project No.: 32389-1 **Date:** 1-30-04

Project: Seal Beach Naval Weapon Station

Location: Seal Beach Naval Weapon Station

Elev./Depth: **Sample No.** 1

Remarks:

MATERIAL DESCRIPTION

Description: Olive brown clayey sandy silt

Classifications - **USCS:** ML **AASHTO:**

Nat. Moist. = **Sp.G. =** 2.700

Liquid Limit = 30 **Plasticity Index =** 6

% > No.4 = 0.0 % **% < No.200 =** 79.1 %

TEST RESULTS
Maximum dry density = 110.1 pcf
Optimum moisture = 16.8 %

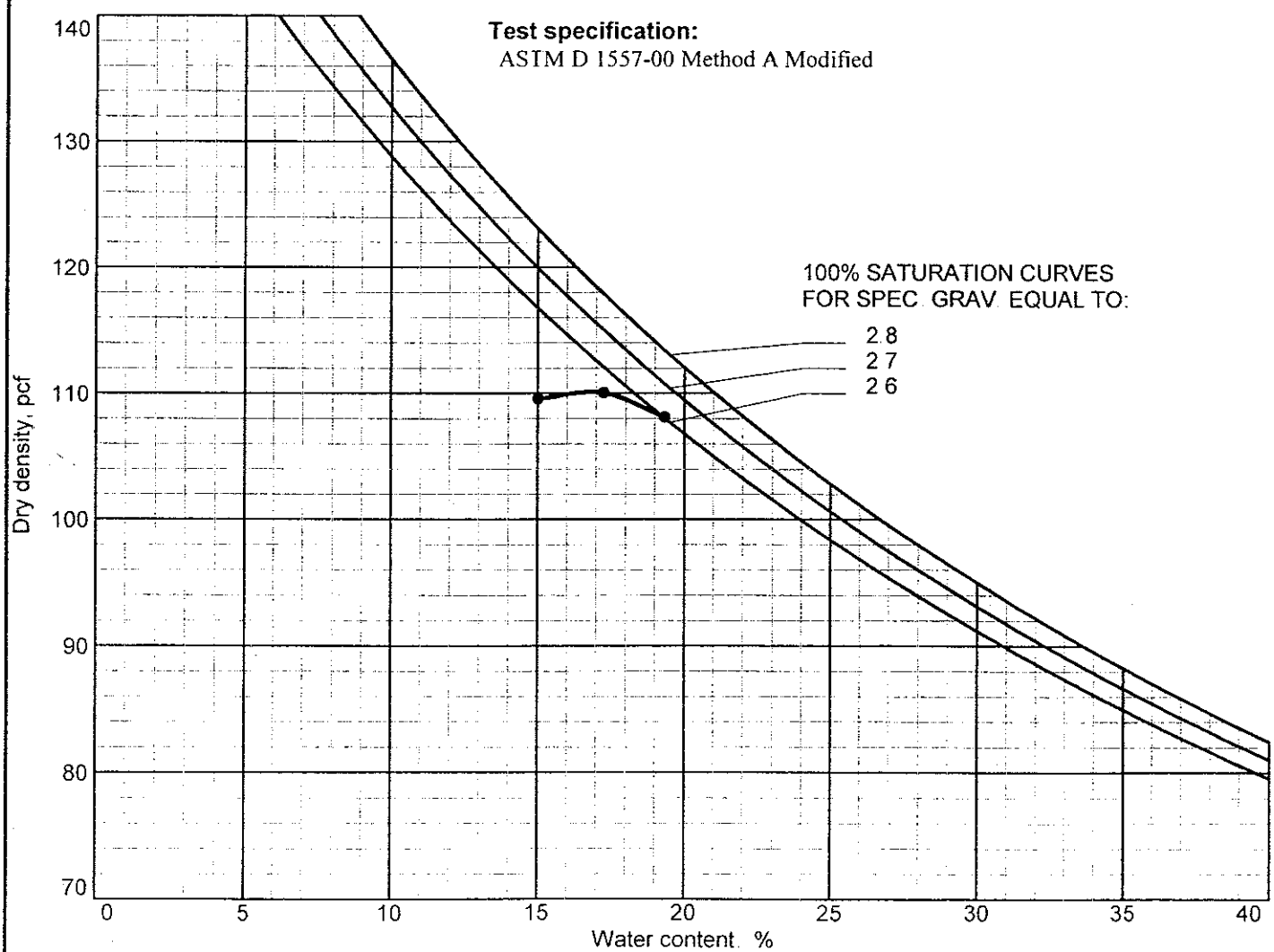
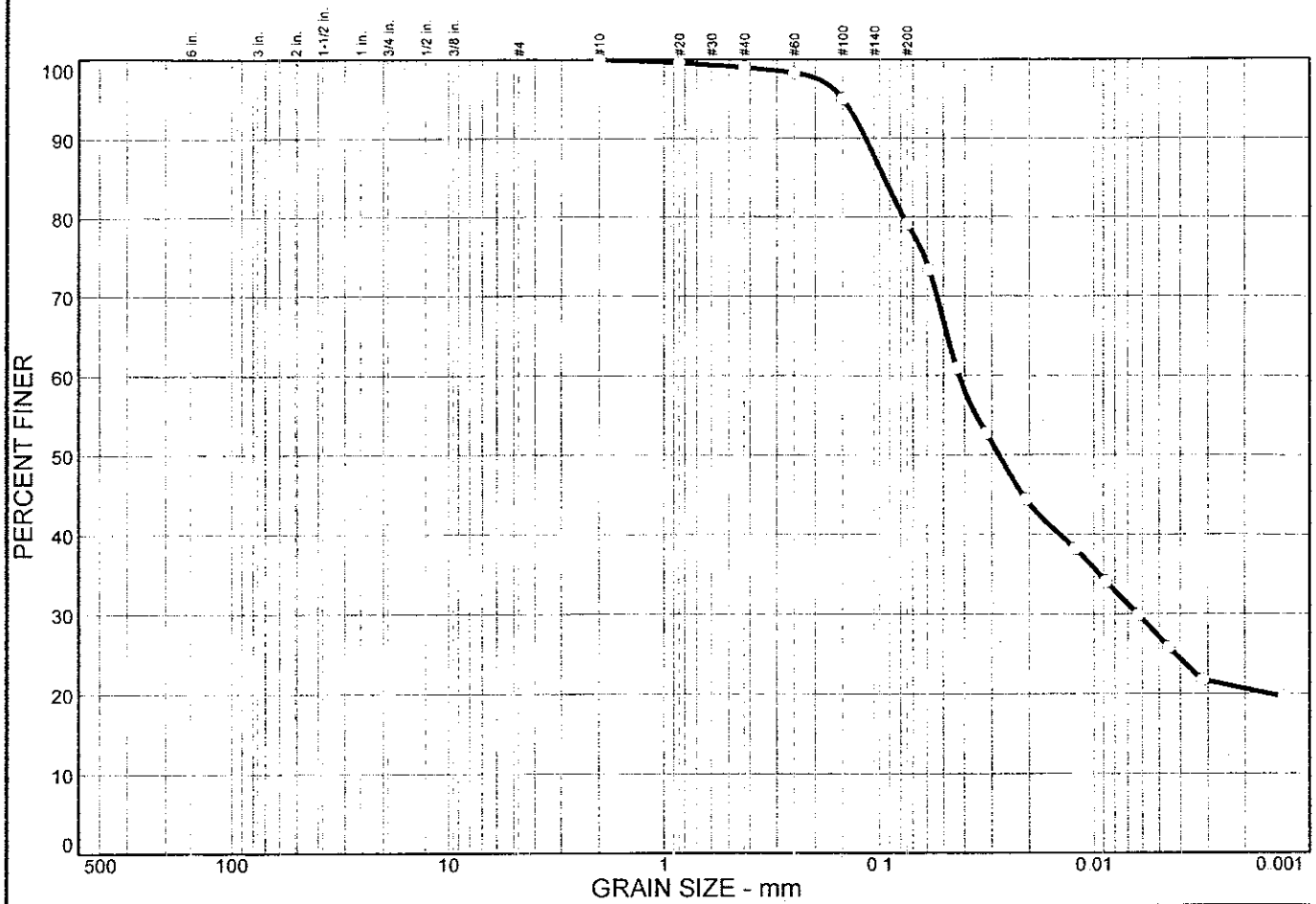


Plate:

Smith-Emery Company

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	0.0	20.9	52.0	27.1

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	99.6		
#40	99.0		
#60	98.3		
#100	95.0		
#200	79.1		

* (no specification provided)

Soil Description

Olive brown clayey sandy silt

Atterberg Limits

PL= 24 LL= 30 PI= 6

Coefficients

D_{85}= 0.0961 D_{60}= 0.0427 D_{50}= 0.0280
D_{30}= 0.0063 D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= ML AASHTO=

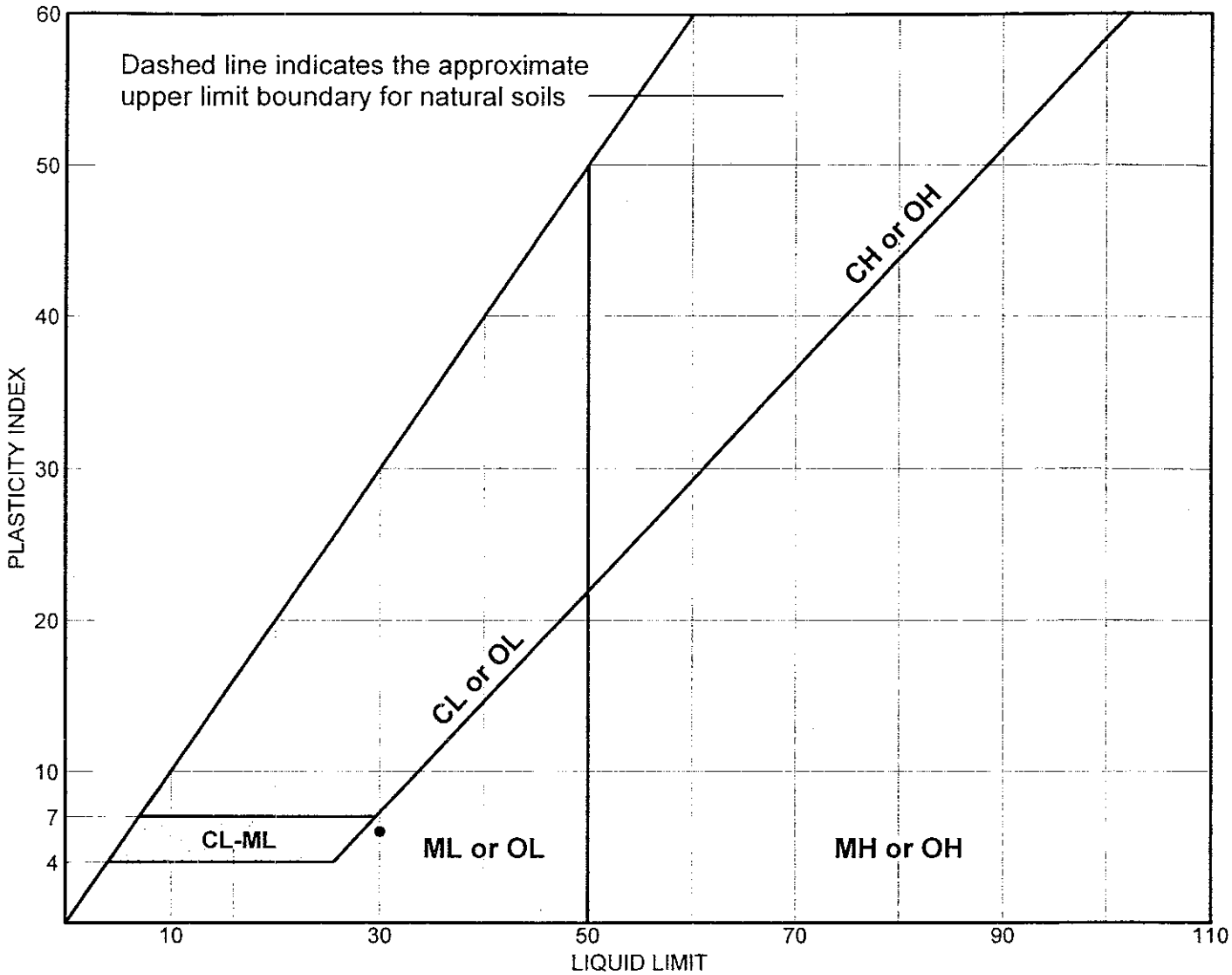
Remarks

Sample No.: 1 **Source of Sample:** **Date:** 1-30-04
Location: Seal Beach Naval Weapon Station **Elev./Depth:**

Smith-Emery Company

Client: Seal Beach Naval Weapon Station
Project: Seal Beach Naval Weapon Station
Project No: 32389-1 **Plate:**

LIQUID AND PLASTIC LIMITS TEST REPORT



SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●		1			24	30	6	ML

LIQUID AND PLASTIC LIMITS TEST REPORT **Smith-Emery Company**	**Client:** Seal Beach Naval Weapon Station **Project:** Seal Beach Naval Weapon Station **Project No.:** 32389-1 **Plate:**

SMITH-EMERY LABORATORIES
An Independent Commercial Testing Laboratory, Established 1904

March 3, 2004

SEL File No.: 33566-1
SEL Report No.: 04-0172

Tetra Tech FW, Inc.
1230 Columbia St # 500
San Diego, Ca. 92101
Attn: Jill Vignieri

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA

SUBJECT: M/D Curve, Atterberg Limits

STANDARD: ASTM D 1557, D 4318

SOURCE: Sampled on site 3-3-04

REPORT OF TESTS

In compliance with the request of your authorized representative, we have conducted the subject test as per project requirements for the above referenced project.

Test results are attached:

Respectfully submitted,
SMITH-EMERY LABORATORIES

Danny Randall

Danny Randall
Operations Manager

DR/cal
cc: Addressee – 2

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Smith - Emery Laboratories

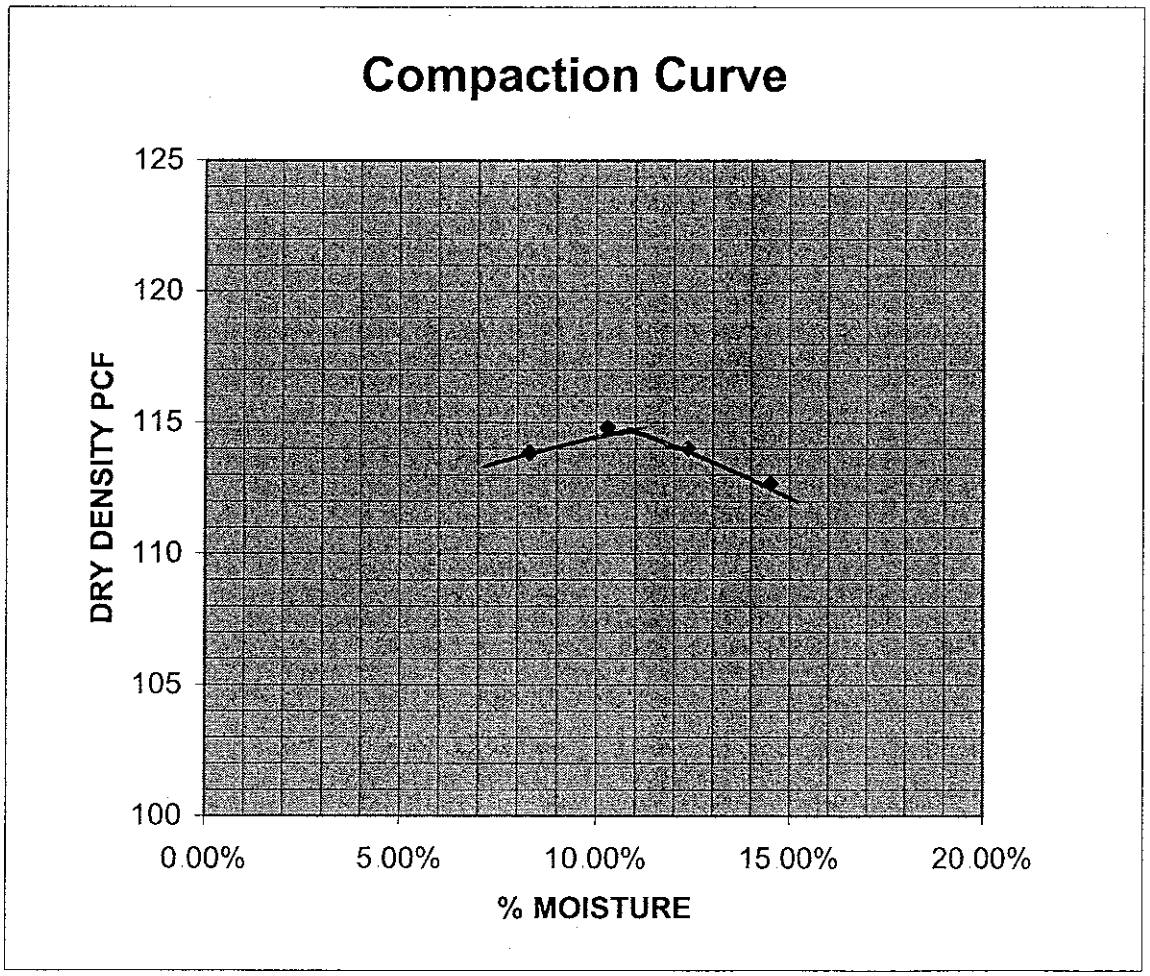
Laboratory Compaction

Date: 3/3/04

Project Name : Seal Beach Naval Project Number: 33566-1
Material Description: Silty Sand w/ Trace of Clay
Sample Location : Area 1 LandFill Report # : 04-0172
Tested by: C.Lievanos Date Tested: 3/8/2004 Soil # : 1
Test Method: ASTM D 1557

Soil + Mold (lb)	13.55	13.52	13.47	13.36
Mold (lb)	9.25	9.25	9.25	9.25
Soil - Wet (lb)	4.3	4.27	4.22	4.11
Wet Density (pcf)	129	128.1	126.6	123.3
Wet Soil (gm)	300	300	300	300
Dry Soil (gm)	262	267	272	277
Loss (gm)	38	33	28	23
% Moisture	0.145038	0.123596	0.102941	0.083032
Dry Density (pcf)	112.66	114.009	114.784	113.847

MAX DENSITY **114.8** **OPTIMUM MOISTURE** **10.9**



Smith - Emery Laboratories

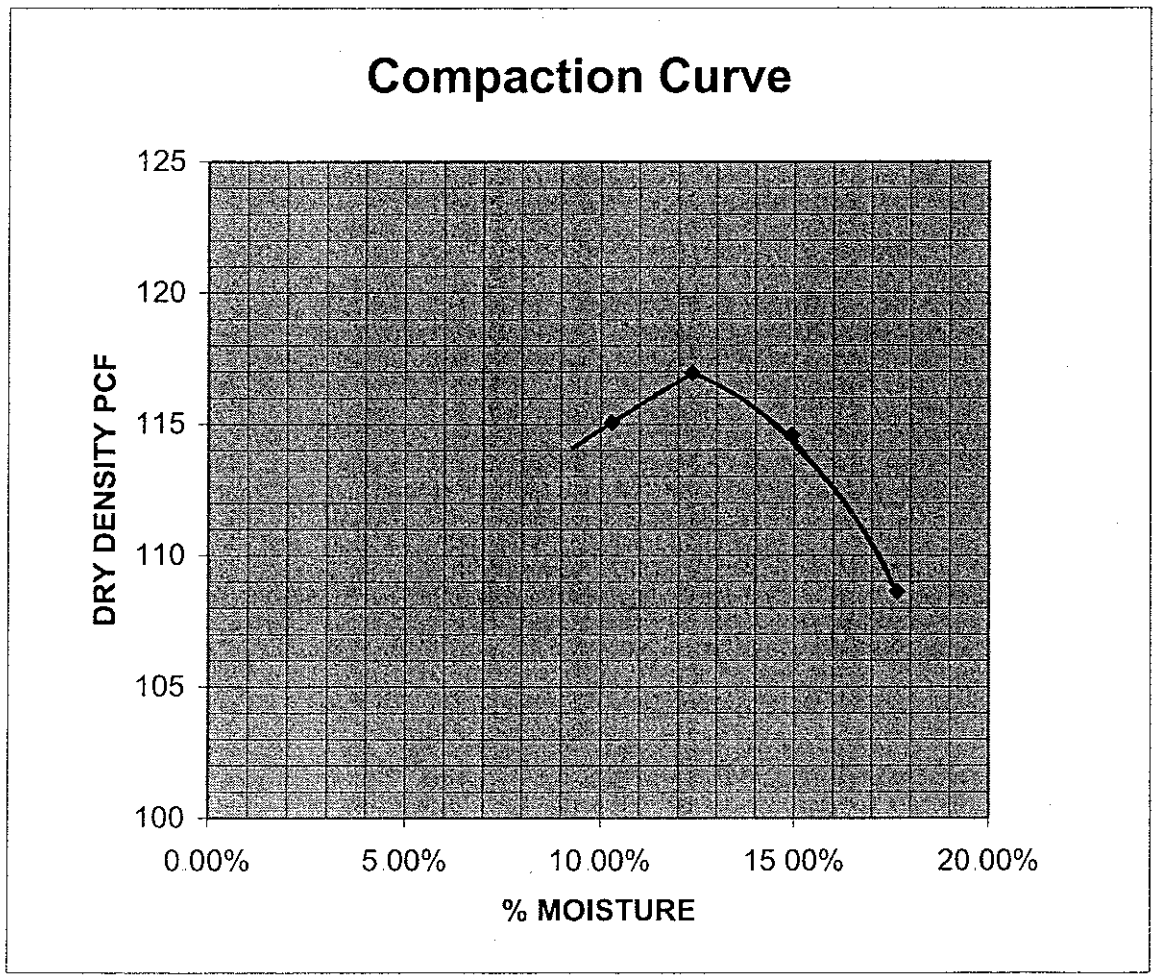
Laboratory Compaction

Date: 3/3/04

Project Name : Seal Beach Naval Project Number: 33566-1
Material Description: Silty Sand w/ Trace of Clay
Sample Location : Area 1 LandFill Report # : 04-0172
Tested by: C.Lievanos Date Tested: 3/5/2004 Soil # : 2
Test Method: ASTM D 1557

Soil + Mold (lb)	13.64	13.51	13.63	13.48
Mold (lb)	9.25	9.25	9.25	9.25
Soil - Wet (lb)	4.39	4.26	4.38	4.23
Wet Density (pcf)	131.7	127.8	131.4	126.9
Wet Soil (gm)	300	300	300	300
Dry Soil (gm)	261	255	267	272
Loss (gm)	39	45	33	28
% Moisture	0.149425	0.176471	0.123596	0.102941
Dry Density (pcf)	114.579	108.63	116.946	115.056

MAX DENSITY **116.9** **OPTIMUM MOISTURE** **12.4**



Smith - Emery Laboratories

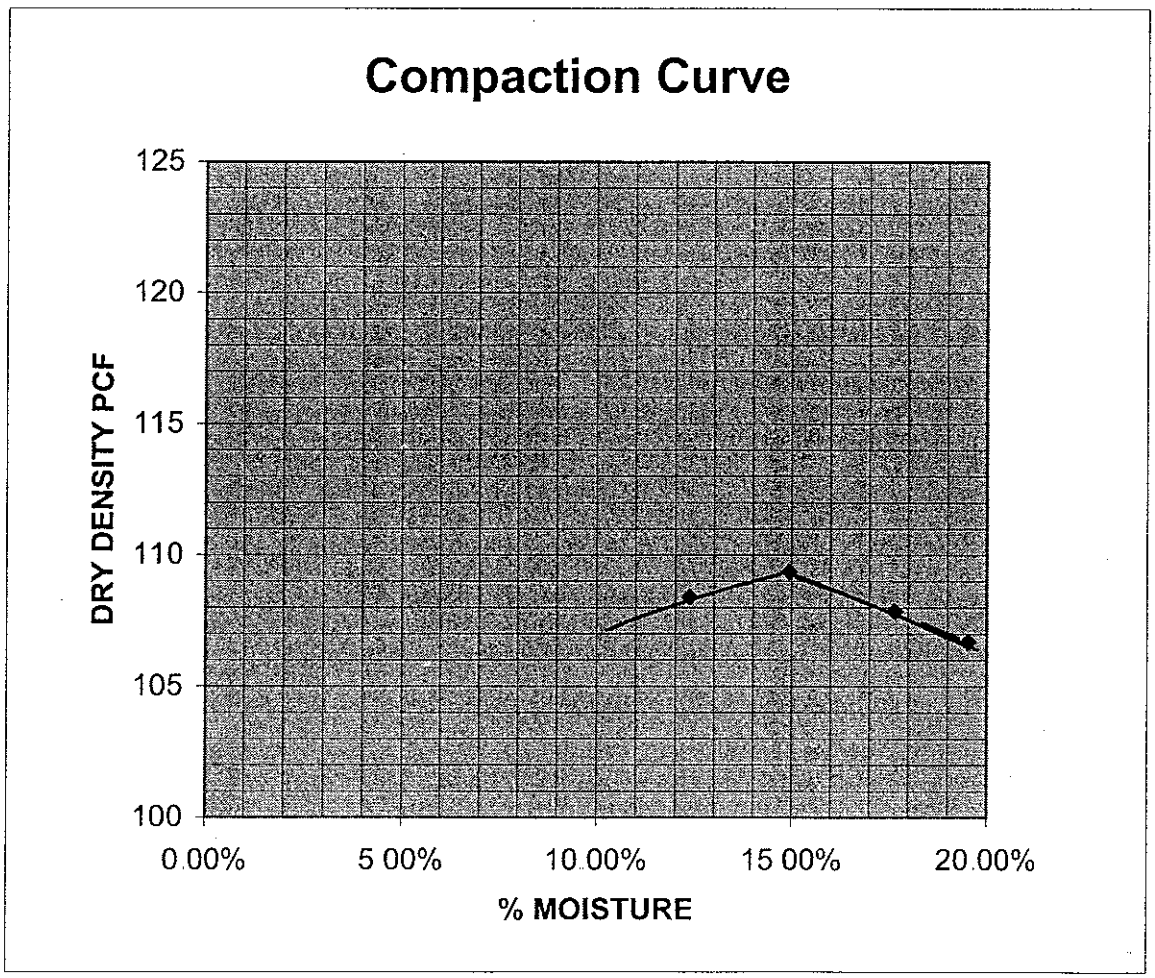
Laboratory Compaction

Date: 3/3/04

Project Name : Seal Beach Naval Project Number: 33566-1
Material Description: Silty Sand w/ Trace of Clay
Sample Location : Warf StockPile Report # : 04-0172
Tested by: C.Lievanos Date Tested: 3/5/2004 Soil # : 3
Test Method: ASTM D 1557

Soil + Mold (lb)	13.48	13.44	13.31	13.5
Mold (lb)	9.25	9.25	9.25	9.25
Soil - Wet (lb)	4.23	4.19	4.06	4.25
Wet Density (pcf)	126.9	125.7	121.8	127.5
Wet Soil (gm)	300	300	300	300
Dry Soil (gm)	255	261	267	251
Loss (gm)	45	39	33	49
% Moisture	0.176471	0.149425	0.123596	0.195219
Dry Density (pcf)	107.865	109.359	108.402	106.675

MAX DENSITY **109.4** **OPTIMUM MOISTURE** **14.9**



SMITH-EMERY LABORATORIES
An Independent Commercial Testing Laboratory, Established 1904

March 3, 2004

SEL File No : 33566-1
SEL Report No : 04-0172

Tetra Tech FW, Inc.
Attn: Jill Vignieri
1230 Columbia St # 500
San Diego, CA 92101

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA

SUBJECT: Atterberg Limits

STANDARD: D 4318

DATE TESTED: 03-05-04

REPORT OF TESTS

In compliance with the request of your authorized representative, we have completed testing for the reference material. Test results are as follows.

Atterberg Limits (ASTM D4318)

Sample No.	Sample Location	Sample Description	Liquid Limits	Plastic Limits	Plasticity Index
1	Area #1 Landfill	Dark olive gray sandy silt	29.0	25.8	3.2
2	Warf Stockpile	Olive gray sandy silt			NP
3	Area #1 Landfill	Dark olive gray sandy silt	23.6	21.3	2.3

NP = non-plastic

Should you have any questions regarding the contents of this report, please call.

Respectfully submitted,
SMITH-EMERY LABORATORIES

Danny Randall
Operations Manager

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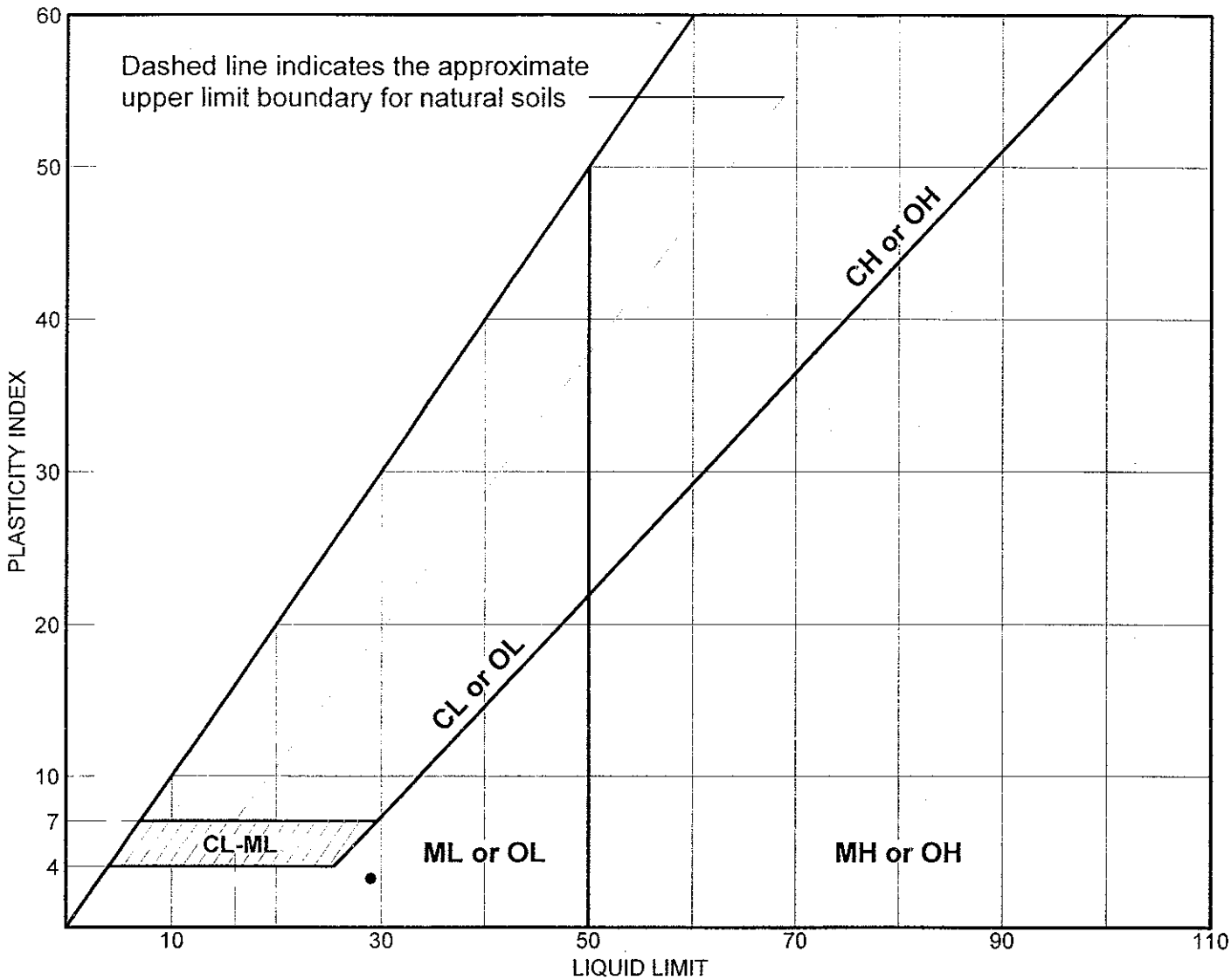
All Rights Reserved

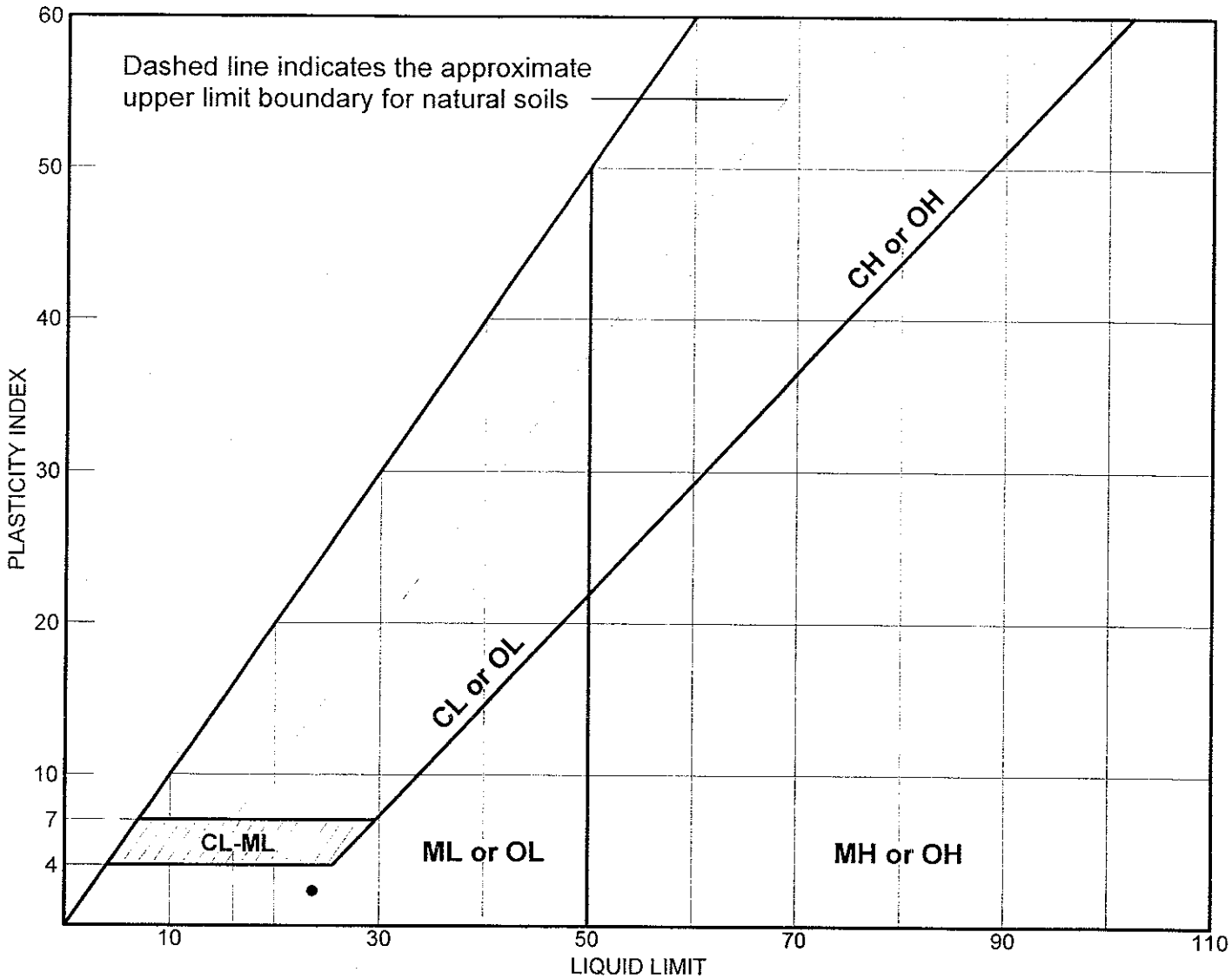
LIQUID AND PLASTIC LIMITS TEST REPORT



SOIL DATA								
SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●		1			25.8	29.0	3.2	ML

LIQUID AND PLASTIC LIMITS TEST REPORT **Smith-Emery Company**	**Client:** Seal Beach Naval Weapon Station **Project:** Seal Beach Naval Weapon Station **Project No.:** 33566-1 **Plate:**

LIQUID AND PLASTIC LIMITS TEST REPORT



SOIL DATA

SYMBOL	SOURCE	SAMPLE NO	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●		3			21.3	23.6	2.3	ML

LIQUID AND PLASTIC LIMITS TEST REPORT **Smith-Emery Company**	**Client:** Seal Beach Naval Weapon Station **Project:** Seal Beach Naval Weapon Station **Project No.:** 33566-1 **Plate:**

SMITH-EMERY LABORATORIES
An Independent Commercial Testing Laboratory, Established 1904

February 27, 2004

SEL File No : 33566-1
SEL Report No : 04-0153

Tetra Tech FW, Inc.
Attn: Jill Vignieri
1230 Columbia Street, Suite 500
San Diego, CA 92101

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA 90740

SUBJECT: SOIL COMPACTION TESTING

REPORT OF TESTS

In compliance with your request, Smith-Emery Laboratories has conducted standard compaction testing for the above referenced project.

Field density tests to determine relative compaction were conducted in accordance with ASTM D2922-91, nuclear method.

Test locations and results are presented on the attached Table 1. Laboratory compaction characteristics of soil tests were performed on representative samples in accordance with ASTM D1557-91, five layer method. Test results are presented on the attached Table 2.

Respectfully submitted,

SMITH-EMERY LABORATORIES

NOTE: This report contains a weekly summary of compaction test results **only** and it should **not** be submitted to City or County grading departments as a certified compaction earth fill report.

Danny Randall

Danny Randall
Operations Manager

DR/brc

Cc: 2-Addressee

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February 27, 2004

SEL File No.: 33566-1
SEL Report No.: 04-0153

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA 90740

TABLE NO. 1

ELEVATION KEY		METHOD KEY
SG-Subgrade	FS-Finish Surface	SC-Sandcone
FG-Finish Grade	FAB-Finish Agg. Base	NG-Nuclear Gauge
AB-Aggregate Base	BTM-Bottom	DT-Drive Tube

RESULTS OF DENSITY TESTS

Test No.	Date	Test Type	Elev. Depth (feet)	Moisture Content (%)	Dry Density (pcf)	Relative Compaction Field (%)	Relative Compaction Specified (%)	Soil Type
1	2/17/04	NG	FSG	12.0	107.8	98	90	1
LOCATION: AOPC 2A 107B								
2	2/17/04	NG	FSG	11.7	110.2	99	90	1
LOCATION: AOPC 2A 100B								
3	2/17/04	NG	FSG	13.2	107.0	97	90	1
LOCATION: AOPC 2A 94B								
4	2/17/04	NG	FSG	11.4	106.3	96	90	1
LOCATION: AOPC 2A 71B								
5	2/17/04	NG	FSG	11.1	102.9	93	90	1
LOCATION: AOPC 2A 68B								
6	2/17/04	NG	FSG	10.6	109.3	99	90	1
LOCATION: AOPC 2A 59B								
7	2/17/04	NG	FSG	11.5	106.7	97	90	1
LOCATION: AOPC 2A 64B								
8	2/20/04	NG	FSG	12.9	109.4	99	90	1
LOCATION: Area 1 Grid M								
9	2/20/04	NG	FSG	15.3	104.0	94	90	1
LOCATION: Area 1 Grid L								

END of Table 1

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February 27, 2004

SEL File No.: 33566-1
SEL Report No.: 04-0153

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA 90740

TABLE NO. 2

RESULT OF LABORATORY COMPACTION CHARACTERISTICS OF SOIL TESTS

Soil Type	Description	Maximum Dry Density (PCF)	Optimum Moisture, (%)
#1	Brown Silty Sand w/ Traces of Clay & Vegetation	110.4	16.5

END of Table 2

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SMITH-EMERY LABORATORIES
An Independent Commercial Testing Laboratory, Established 1904

March 5, 2004

SEL File No.: 33566-1
SEL Report No.: 04-0163

Tetra Tech FW, Inc.
Attn: Jill Vignieri
1230 Columbia Street, Suite 500
San Diego, CA 92101

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA 90740

SUBJECT: SOIL COMPACTION TESTING

REPORT OF TESTS

In compliance with your request, Smith-Emery Laboratories has conducted standard compaction testing for the above referenced project.

Field density tests to determine relative compaction were conducted in accordance with ASTM D2922-91, nuclear method.

Test locations and results are presented on the attached Table 1. Laboratory compaction characteristics of soil tests were performed on representative samples in accordance with ASTM D1557-91, five layer method. Test results are presented on the attached Table 2.

Respectfully submitted,

SMITH-EMERY LABORATORIES

NOTE: This report contains a weekly summary of compaction test results **only** and it should **not** be submitted to City or County grading departments as a certified compaction earth fill report.

Danny Randall

Danny Randall
Operations Manager

DR/brc

Cc: 2-Addressee

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March 5, 2004

SEL File No.: 33566-1
SEL Report No.: 04-0163

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA 90740

TABLE NO. 1

ELEVATION KEY		METHOD KEY
SG-Subgrade	FS-Finish Surface	SC-Sandcone
FG-Finish Grade	FAB-Finish Agg. Base	NG-Nuclear Gauge
AB-Aggregate Base	BTM-Bottom	DT-Drive Tube

RESULTS OF DENSITY TESTS

Test No.	Date	Test Type	Elev. Depth (feet)	Moisture Content (%)	Dry Density (pcf)	Relative Compaction Field (%)	Relative Compaction Specified (%)	Soil Type
10	2/25/04	NG	FSG	12.7	107.6	97	90	1

LOCATION: Area 1 Grid C

END of Table 1

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March 5, 2004

SEL File No.: 33566-1
SEL Report No.: 04-0163

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA 90740

TABLE NO. 2

RESULT OF LABORATORY COMPACTION CHARACTERISTICS OF SOIL TESTS

Soil Type	Description	Maximum Dry Density (PCF)	Optimum Moisture, (%)
#1	Brown Silty Sand w/ Traces of Clay & Vegetation	110.4	16.5

END of Table 2

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SMITH-EMERY LABORATORIES
An Independent Commercial Testing Laboratory, Established 1904

March 11, 2004

SEL File No.: 33566-1
SEL Report No.: 04-0177

Tetra Tech FW, Inc.
Attn: Jill Vignieri
1230 Columbia Street, Suite 500
San Diego, CA 92101

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA 90740

SUBJECT: SOIL COMPACTION TESTING

REPORT OF TESTS

In compliance with your request, Smith-Emery Laboratories has conducted standard compaction testing for the above referenced project.

Field density tests to determine relative compaction were conducted in accordance with ASTM D2922-91, nuclear method.

Test locations and results are presented on the attached Table 1. Laboratory compaction characteristics of soil tests were performed on representative samples in accordance with ASTM D1557-91, five layer method. Test results are presented on the attached Table 2.

Respectfully submitted,

SMITH-EMERY LABORATORIES

NOTE: This report contains a weekly summary of compaction test results **only** and it should **not** be submitted to City or County grading departments as a certified compaction earth fill report.

Danny Randall
Operations Manager

DR/brc

Cc: 2-Addressee

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March 11, 2004

SEL File No.: 33566-1
SEL Report No.: 04-0177

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA 90740

TABLE NO. 1

ELEVATION KEY		METHOD KEY
SG-Subgrade	FS-Finish Surface	SC-Sandcone
FG-Finish Grade	FAB-Finish Agg. Base	NG-Nuclear Gauge
AB-Aggregate Base	BTM-Bottom	DT-Drive Tube

RESULTS OF DENSITY TESTS

Test No.	Date	Test Type	Elev. Depth (feet)	Moisture Content (%)	Dry Density (pcf)	Relative Compaction Field (%)	Relative Compaction Specified (%)	Soil Type
11	3/04/04	NG	FSG	17.2	107.3	97	90	1
LOCATION: Area 1 Grid C5								
12	3/04/04	NG	FSG	17.7	100.1	91	90	1
LOCATION: Area 1 Grid M5								
13	3/04/04	NG	FSG	10.9	109.4	99	90	1
LOCATION: Area 1 Grid NZ								

END of Table 1

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March 11, 2004

SEL File No.: 33566-1
SEL Report No.: 04-0177

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA 90740

TABLE NO. 2

RESULT OF LABORATORY COMPACTION CHARACTERISTICS OF SOIL TESTS

Soil Type	Description	Maximum Dry Density (PCF)	Optimum Moisture, (%)
#1	Brown Silty Sand w/ Traces of Clay & Vegetation	110.4	16.5

END of Table 2

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SMITH-EMERY LABORATORIES
An Independent Commercial Testing Laboratory, Established 1904

March 24, 2004

SEL File No.: 33566-1
SEL Report No.: 04-0207

Tetra Tech FW, Inc.
Attn: Jill Vignieri
1230 Columbia Street, Suite 500
San Diego, CA 92101

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA 90740

SUBJECT: SOIL COMPACTION TESTING

REPORT OF TESTS

In compliance with your request, Smith-Emery Laboratories has conducted standard compaction testing for the above referenced project.

Field density tests to determine relative compaction were conducted in accordance with ASTM D2922-91, nuclear method.

Test locations and results are presented on the attached Table 1. Laboratory compaction characteristics of soil tests were performed on representative samples in accordance with ASTM D1557-91, five layer method. Test results are presented on the attached Table 2.

Respectfully submitted,

SMITH-EMERY LABORATORIES

NOTE: This report contains a weekly summary of compaction test results **only** and it should **not** be submitted to City or County grading departments as a certified compaction earth fill report.

Danny Randall

Danny Randall
Operations Manager

DR/brc

Cc: 2-Addressee

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March 24, 2004

SEL File No : 33566-1
SEL Report No.: 04-0207

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA 90740

TABLE NO. 1

ELEVATION KEY		METHOD KEY
SG-Subgrade	FS-Finish Surface	SC-Sandcone
FG-Finish Grade	FAB-Finish Agg. Base	NG-Nuclear Gauge
AB-Aggregate Base	BTM-Bottom	DT-Drive Tube

RESULTS OF DENSITY TESTS

Test No.	Date	Test Type	Elev. Depth (feet)	Moisture Content (%)	Dry Density (pcf)	Relative Compaction Field (%)	Relative Compaction Specified (%)	Soil Type
14	3/08/04	NG	FSG	13.3	107.1	97	90	1
LOCATION: Area 1 Grid D2								
15	3/08/04	NG	FSG	18.0	99.8	90	90	1
LOCATION: Area 1 Grid E3								
16	3/08/04	NG	FSG	19.1	99.9	90	90	1
LOCATION: Area 1 Grid F1								
17	3/08/04	NG	FSG	16.7	103.8	94	90	1
LOCATION: Area 1 Grid G6								
18	3/08/04	NG	FSG	16.9	101.4	92	90	1
LOCATION: Area 1 Grid H2								
19	3/08/04	NG	FSG	17.4	102.3	93	90	1
LOCATION: Area 1 Grid I4								
20	3/08/04	NG	FSG	12.5	108.1	98	90	1
LOCATION: Area 1 Grid Q2								
21	3/08/04	NG	FSG	16.4	106.1	96	90	1
LOCATION: Area 1 Grid P6								
22	3/08/04	NG	FSG	14.7	99.3	90	90	1
LOCATION: Area 1 Grid O4								
23	3/08/04	SC	FSG	14.3	107.3	97	90	1
LOCATION: Area 1 Grid Y2								
24	3/08/04	NG	FSG	13.6	107.0	97	90	1
LOCATION: Area 1 Grid X2								

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March 24, 2004

SEL File No.: 33566-1
SEL Report No.: 04-0207

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA 90740

TABLE NO. 1

ELEVATION KEY		METHOD KEY
SG-Subgrade	FS-Finish Surface	SC-Sandcone
FG-Finish Grade	FAB-Finish Agg. Base	NG-Nuclear Gauge
AB-Aggregate Base	BTM-Bottom	DT-Drive Tube

RESULTS OF DENSITY TESTS

Test No.	Date	Test Type	Elev. Depth (feet)	Moisture Content (%)	Dry Density (pcf)	Relative Compaction Field (%)	Relative Compaction Specified (%)	Soil Type
25	3/08/04	NG	FSG	16.5	108.8	99	90	1
LOCATION: Area 1 Grid W1								
26	3/08/04	NG	FSG	12.5	108.3	98	90	1
LOCATION: Area 1 Grid V3								
27	3/08/04	NG	FSG	16.2	105.1	95	90	1
LOCATION: Area 1 Grid U4								
28	3/08/04	NG	FSG	15.9	107.1	97	90	1
LOCATION: Area 1 Grid T6								
29	3/09/04	NG	FSG	17.2	107.3	97	90	1
LOCATION: Area 1 Grid Z2-3								
30	3/09/04	SC	FSG	17.7	100.1	95	90	1
LOCATION: Area 1 Grid S5								
31	3/09/04	NG	FSG	10.9	109.4	98	90	1
LOCATION: Area 1 Grid J6								
32	3/09/04	NG	FSG	17.2	107.3	93	90	1
LOCATION: Area 1 Grid K4								
33	3/09/04	NG	FSG	17.7	100.1	90	90	1
LOCATION: Area 1 Grid B4								
34	3/09/04	NG	FSG	10.9	109.4	90	90	1
LOCATION: Area 1 Grid A6								
35	3/09/04	NG	SG	17.2	107.3	92	90	1
LOCATION: Area 1 Grid C2								

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March 24, 2004

SEL File No.: 33566-1
SEL Report No.: 04-0207

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA 90740

TABLE NO. 1

ELEVATION KEY		METHOD KEY
SG-Subgrade	FS-Finish Surface	SC-Sandcone
FG-Finish Grade	FAB-Finish Agg. Base	NG-Nuclear Gauge
AB-Aggregate Base	BTM-Bottom	DT-Drive Tube

RESULTS OF DENSITY TESTS

Test No.	Date	Test Type	Elev. Depth (feet)	Moisture Content (%)	Dry Density (pcf)	Relative Compaction Field (%)	Relative Compaction Specified (%)	Soil Type
36	3/09/04	NG	SG	17.7	100.1	93	90	1
LOCATION: Area 1 Grid D6								
37	3/04/04	NG	SG	10.9	109.4	97	90	1
LOCATION: Area 1 Grid E2								
38	3/09/04	NG	SG	17.2	107.3	95	90	1
LOCATION: Area 1 Grid F2								
39	3/09/04	NG	SG	17.7	100.1	96	90	1
LOCATION: Area 1 Grid G2								
40	3/09/04	SC	SG	10.9	109.4	95	90	1
LOCATION: Area 1 Grid K5								
41	3/09/04	NG	SG	17.2	107.3	91	90	1
LOCATION: Area 1 Grid L4								
42	3/09/04	NG	SG	17.7	100.1	90	90	1
LOCATION: Area 1 Grid M2								
43	3/09/04	NG	SG	10.9	109.4	98	90	1
LOCATION: Area 1 Grid N5								
44	3/09/04	NG	SG	17.2	107.3	97	90	1
LOCATION: Area 1 Grid O5								
45	3/09/04	NG	SG	17.7	100.1	93	90	1
LOCATION: Area 1 Grid U4								
46	3/09/04	NG	SG	10.9	109.4	99	90	1
LOCATION: Area 1 Grid V1								

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March 24, 2004

SEL File No.: 33566-1
SEL Report No.: 04-0207

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA 90740

TABLE NO. 1

ELEVATION KEY		METHOD KEY
SG-Subgrade	FS-Finish Surface	SC-Sandcone
FG-Finish Grade	FAB-Finish Agg. Base	NG-Nuclear Gauge
AB-Aggregate Base	BTM-Bottom	DT-Drive Tube

RESULTS OF DENSITY TESTS

Test No.	Date	Test Type	Elev. Depth (feet)	Moisture Content (%)	Dry Density (pcf)	Relative Compaction Field (%)	Relative Compaction Specified (%)	Soil Type
47	3/09/04	NG	SG	17.2	107.3	90	90	1

LOCATION: Area 1 Grid W2

END of Table 1

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March 24, 2004

SEL File No : 33566-1
SEL Report No : 04-0207

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA 90740

TABLE NO. 2

RESULT OF LABORATORY COMPACTION CHARACTERISTICS OF SOIL TESTS

Soil Type	Description	Maximum Dry Density (PCF)	Optimum Moisture, (%)
#1	Brown Silty Sand w/ Traces of Clay & Vegetation	110.4	16.5

END of Table 2

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SMITH-EMERY LABORATORIES
An Independent Commercial Testing Laboratory, Established 1904

April 8, 2004

SEL File No : 33566-1
SEL Report No.: 04-0240

Tetra Tech FW, Inc.
Attn: Jill Vignieri
1230 Columbia Street, Suite 500
San Diego, CA 92101

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA 90740

SUBJECT: SOIL COMPACTION TESTING

REPORT OF TESTS

In compliance with your request, Smith-Emery Laboratories has conducted standard compaction testing for the above referenced project.

Field density tests to determine relative compaction were conducted in accordance with ASTM D2922-91, nuclear method.

Test locations and results are presented on the attached Table 1. Laboratory compaction characteristics of soil tests were performed on representative samples in accordance with ASTM D1557-91, five layer method. Test results are presented on the attached Table 2.

Respectfully submitted,

SMITH-EMERY LABORATORIES

NOTE: This report contains a weekly summary of compaction test results **only** and it should **not** be submitted to City or County grading departments as a certified compaction earth fill report

Danny Randall
Operations Manager

DR/brc

Cc: 2-Addressee

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April 8, 2004

SEL File No : 33566-1
SEL Report No : 04-0240

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA 90740

TABLE NO. 1

ELEVATION KEY		METHOD KEY
SG-Subgrade	FS-Finish Surface	SC-Sandcone
FG-Finish Grade	FAB-Finish Agg. Base	NG-Nuclear Gauge
AB-Aggregate Base	BTM-Bottom	DT-Drive Tube

RESULTS OF DENSITY TESTS

Test No.	Date	Test Type	Elev. Depth (feet)	Moisture Content (%)	Dry Density (pcf)	Relative Compaction Field (%)	Relative Compaction Specified (%)	Soil Type
48	3/30/04	NG	FSG	10.2	110.2	94	90	3
LOCATION: Area 1 Grid A								
49	3/30/04	NG	FSG	9.5	99.8	92	90	3
LOCATION: Area 1 Grid J								
50	3/30/04	NG	FSG	12.5	99.9	99	90	3
LOCATION: Area 1 Grid R								
51	3/30/04	NG	FSG	10.0	103.8	99	90	2
LOCATION: Area 1 Grid Z1								

END of Table 1

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April 8, 2004

SEL File No.: 33566-1
SEL Report No.: 04-0240

RE: Seal Beach Naval Weapons Station
800 Seal Beach Blvd.
Seal Beach, CA 90740

TABLE NO. 2

RESULT OF LABORATORY COMPACTION CHARACTERISTICS OF SOIL TESTS

Soil Type	Description	Maximum Dry Density (PCF)	Optimum Moisture, (%)
#2	Silty Sand w/ Clay	109.4	14.9
#3	Silty Sand w/ traces of Clay and Seashells	116.9	12.4

END of Table 2

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APPENDIX B

ORDNANCE CERTIFICATION AND VERIFICATION LOGS

NON-TIME-CRITICAL REMOVAL ACTION
INSTALLATION RESTORATION PROGRAM SITE 7
(STATION LANDFILL)
NAVAL WEAPONS STATION SEAL BEACH
SEAL BEACH, CALIFORNIA
CTO 23
Munitions and Explosives of Concern (MEC) and
Material Potentially Presenting an Explosive Hazard (MPPEH)
Certification and Verification Log

Item #	MEC/MPPEH Item Description	Date Certified	Method of Certification*	Certification (SUXOS Initials)	Verification (DOD Rep. Initials)	Disposition**	Comments
001	4- Flash	3/22/04	vis Inspection	AC	RJK	Turned over to NWS/SB	DRMO
002	6 - 40mm AA cases	3/22/04	vis Inspection	AC	RJK	"	"
003	3 - 20mm case's	3/22/04	vis Inspection	AC	RJK	"	"
004	1 - 105mm case	3/22/04	vis Inspection	AC	RJK	"	"
005	10 - Dummy wooden 5" cases	3/22/04	vis Inspection	AC	RJK	Shiped to land fill as non haze waste	De-miled ~~[illegible]~~
006	1 - MK 50 mod 7 fuze can	3/22/04	vis Inspection	AC	RJK	"	"
007	14 - 81mm HEM374 containers shipping	3/22/04	vis Inspection	AC	RJK	shiped to landfill as non haze waste.	De-miled ~~[illegible]~~
	AC						

**Method of Certification: Visual, Mechanical, Flashing, Expray*
***Disposition: DRMO, Landfill, Recycle*

Please initial and print name below if initials appear of form above.

Initial AC Printed name Anthony CRINO Organization TTFWI
Initial RJK Printed name Robert KARSUTA Organization ENVISIONEERING
Initial____ Printed name____ Organization____
Initial____ Printed name____ Organization____

Page # 001

Enclosure (1)

NON-TIME-CRITICAL REMOVAL ACTION
INSTALLATION RESTORATION PROGRAM SITE 7
(STATION LANDFILL)
NAVAL WEAPONS STATION SEAL BEACH
SEAL BEACH, CALIFORNIA
CTO 23
Munitions and Explosives of Concern (MEC) and
Material Potentially Presenting an Explosive Hazard (MPPEH)
Certification and Verification Log

Item #	MEC/MPPEH Item Description	Date Certified	Method of Certification*	Certification (SUXOS Initials)	Verification (DOD Rep. Initials)	Disposition**	Comments
008	2- Fuze Body's	3/22/04	vis Inspection	AC	RJK	Turned over to B/WS/S/B	Demo
009	2- Fuze Ogive's	3/22/04	vis. Inspection	AC	RJK		
010	2- 4"x2" Dummy Projs	3/22/04	vis Inspection	AC	RJK		
011	3- Dummy 3"/50 Projs	3/22/04	vis Inspection	AC	RJK		
012	1- 3"/50 Proj Body	3/22/04	vis Inspection	AC	RJK		
013	5- Fuze shipping caps	3/22/04	vis Inspection	AC	RJK		

**Method of Certification: Visual, Mechanical, Flashing, Expray*
***Disposition: DRMO, Landfill, Recycle*

Please initial and print name below if initials appear of form above.

Initial AC Printed name Anthony Crino Organization TTFWI
Initial RJK Printed name Robert Kacsuta Organization EN Visioneering
Initial _____ Printed name _____ Organization _____
Initial _____ Printed name _____ Organization _____

Page # 002

Enclosure (1)

Naval Weapons Station Seal Beach
Munitions and Explosives of Concern (MEC) and Material Potentially Presenting an Explosive Hazard (MPPEH) Certification and Verification Log

Item #	MEC/MPPEH Item Description	Date Certified	Method of Certification*	Certification (SUXOS Initials)	Verification (DOD Rep. Initials)	Disposition**	Comments
1	40mm cart case	03/26/04	Visual	Tam	RJK	DRMO	
2	5 inch cart. base	03/26/04	Visual	Tam	RJK	"	

**Method of Certification: Visual, Mechanical, Flashing, Expray*
***Disposition: DRMO, Landfill, Recycle*

Please initial and print name below if initials appear of form above.

Initial Tam Printed name Timothy A Munger Organization Tetra Tech FW Inc
Initial RJK Printed name Robert Kacsota Organization Environmental Inc
Initial _____ Printed name _____ Organization _____
Initial _____ Printed name _____ Organization _____

Page #_____

Enclosure (1)

APPENDIX C

CHAIN-OF-CUSTODY, LABORATORY ANALYTICAL REPORTS, AND DATA VALIDATION SUMMARY REPORTS

(The data is submitted on a CD as an electronic copy with this document.)

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05402

Page 1 of 11

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Brentkowski	SAMPLER SIGNATURE: Lisa Brentkowski
PROJECT CONTACT: Lisa Brentkowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6441

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA (8010B) (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA (8010B) (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-001	12/8/03	0902	1	X		S	5 day	X		108A	0.5	–	REG
0023-S4-002	12/8/03	0905	1	X		S	5 day	X		108A	1.5	–	REG
0023-S4-003	12/8/03	0912	1	X		S	5 day	X		108B	0.5	–	REG
0023-S4-004	12/8/03	0914	1	X		S	5 day	X		108B	1.5	–	REG
0023-S4-005	12/8/03	0918	1	X		S	5 day	X		107A	0.5	–	REG
0023-S4-006	12/8/03	0920	1	X		S	5 day	X		107A	1.5	–	REG
0023-S4-007	12/8/03	0924	1	X		S	5 day	X		107B	0.5	–	REG
0023-S4-008	12/8/03	0927	1	X		S	5 day	X		107B	1.5	–	REG
0023-S4-009	12/8/03	0931	1	X		S	5 day	X		106A	0.5	–	REG
0023-S4-010	12/8/03	0933	1		X	S	5 day	X		106A	1.5	–	REG
0023-S4-011	12/8/03	0934	1	X		S	5 day	X		106A	1.5	–	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	12/8/03	[signature]
COMPANY: WFWI	TIME: 1630	COMPANY: 16:30
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6441R

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05403

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CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 030721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

ANALYSES REQUIRED: EPA 6010B (lead only)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6441

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-012	12/8/03	0937	1	X		S	5 day	X		106B	0.5	–	REG
0023-S4-013	12/8/03	0939	1	X		S	5 day	X		106B	1.5	–	REG
0023-S4-014	12/8/03	0943	1	X		S	5 day	X		105A	0.5	–	REG
0023-S4-015	12/8/03	0945	1	X		S	5 day	X		105A	1.5	–	REG
0023-S4-016	12/8/03	0948	1	X		S	5 day	X		105B	0.5	–	REG
0023-S4-017	12/8/03	0950	1	X		S	5 day	X		105B	1.5	–	REG
0023-S4-018	12/8/03	0953	1	X		S	5 day	X		104A	0.5	–	REG
0023-S4-019	12/8/03	0955	1	X		S	5 day	X		104A	1.5	–	REG
0023-S4-020	12/8/03	1021	1	X		S	5 day	X	Run MS/MSD	104B	0.5	–	REG
0023-S4-021	12/8/03	1022	1		X	S	5 day	X		104B	0.5	–	FD
0023-S4-022	12/8/03	1024	1	X		S	5 day	X		104B	1.5	–	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	12/8/03	[signature]
COMPANY: HFWI	TIME: 1630	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6441R

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-1	Received Date:	12/08/2003
Sample ID:	**0023-S4-001**	Sample Matrix	Soil	Moisture %:	8.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	92.3 J		P		03M2389M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-2	Received Date:	12/08/2003
Sample ID:	**0023-S4-002**	Sample Matrix	Soil	Moisture %:	6.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	37.1 J		P		03M2389M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-3	Received Date:	12/08/2003
Sample ID:	**0023-S4-003**	Sample Matrix	Soil	Moisture %:	2.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	35.3 J		P		03M2389M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-4	Received Date:	12/08/2003
Sample ID:	**0023-S4-004**	Sample Matrix	Soil	Moisture %:	4.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	4.2 J		P		03M2389M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-5	Received Date:	12/08/2003
Sample ID:	**0023-S4-005**	Sample Matrix	Soil	Moisture %:	4.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	51.7 J		P		03M2389M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-6	Received Date:	12/08/2003
Sample ID:	**0023-S4-006**	Sample Matrix	Soil	Moisture %:	9.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	5.9J		P		03M2389M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-7	Received Date:	12/08/2003
Sample ID:	**0023-S4-007**	Sample Matrix	Soil	Moisture %:	5.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.6	665 J		P		03M2389M	12/11/03	12/12/03	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-8	Received Date:	12/08/2003
Sample ID:	**0023-S4-008**	Sample Matrix	Soil	Moisture %:	9.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	4.2 J		P		03M2389M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-9	Received Date:	12/08/2003
Sample ID:	**0023-S4-009**	Sample Matrix	Soil	Moisture %:	4.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	9.5 J		P		03M2389M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Hm

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-10	Received Date:	12/08/2003
Sample ID:	**0023-S4-010**	Sample Matrix	Soil	Moisture %:	7.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	9.8 J		P		03M2389M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-11	Received Date:	12/08/2003
Sample ID:	**0023-S4-011**	Sample Matrix	Soil	Moisture %:	6.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	6.9 J		P		03M2389M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-12	Received Date:	12/08/2003
Sample ID:	**0023-S4-012**	Sample Matrix	Soil	Moisture %:	5.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	3.2	1350 J		P		03M2389M	12/11/03	12/12/03	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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3/12/04

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-13	Received Date:	12/08/2003
Sample ID:	**0023-S4-013**	Sample Matrix	Soil	Moisture %:	8.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	23.6 J		P		03M2389M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-14	Received Date:	12/08/2003
Sample ID:	**0023-S4-014**	Sample Matrix	Soil	Moisture %:	6.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	11.0 J		P		03M2389M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-15	Received Date:	12/08/2003
Sample ID:	**0023-S4-015**	Sample Matrix	Soil	Moisture %:	9.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	6.7 J		P		03M2389M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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3/12/04

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-16	Received Date:	12/08/2003
Sample ID:	**0023-S4-016**	Sample Matrix	Soil	Moisture %:	5.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.6	635 J		P		03M2407M	12/14/03	12/16/03	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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3/12/04

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-17	Received Date:	12/08/2003
Sample ID:	**0023-S4-017**	Sample Matrix	Soil	Moisture %:	8.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	48.6 J		P		03M2389M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-18	Received Date:	12/08/2003
Sample ID:	**0023-S4-018**	Sample Matrix	Soil	Moisture %:	4.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	14.6 J		P		03M2389M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-19	Received Date:	12/08/2003
Sample ID:	**0023-S4-019**	Sample Matrix	Soil	Moisture %:	8.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	6.2 J		P		03M2389M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

JHu
3/12/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-20	Received Date:	12/08/2003
Sample ID:	**0023-S4-020**	Sample Matrix	Soil	Moisture %:	6.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	117 J		P		03M2389M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

1 Hm
3/12/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-21	Received Date:	12/08/2003
Sample ID:	**0023-S4-021**	Sample Matrix	Soil	Moisture %:	5.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	61.0 J		P		03M2392M	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7Hu
3/12/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36441	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6441-22	Received Date:	12/08/2003
Sample ID:	**0023-S4-022**	Sample Matrix	Soil	Moisture %:	7.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	3.4 J		P		03M2392M	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7Hm
3/12/04

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	36441
Project ID:	NAVWPNSTA Seal Beach	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	03M2392M		
MS Filename:	-	Date Analyzed:	121203	Time Analyzed:	16:09
MSD Filename:	-	Date Analyzed:	121203	Time Analyzed:	16:12
MS Sample No:	**AAFBMAS22S594**	Sample Lab ID:	03-6043-1	Moisture, %	23.5

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	196	58.5	232	89	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	196	230	88	1	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	36441
Project ID:	NAVWPNSTA Seal Beach	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	03M2389M		
MS Filename:	-	Date Analyzed:	121203	Time Analyzed:	13:16
MSD Filename:	-	Date Analyzed:	121203	Time Analyzed:	13:20
MS Sample No:	**0023-S4-020**	Sample Lab ID:	03-6441-20	Moisture, %	6.6

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	161	117	279 J	101	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	161	280 J	101	0	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

7Hm
3/12/04

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	36441
Project ID:	NAVWPNSTA Seal Beach	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	03M2407M		
MS Filename:	-	Date Analyzed:	121603	Time Analyzed:	12:13
MSD Filename:	-	Date Analyzed:	121603	Time Analyzed:	12:15
MS Sample No:	**B80-032**	Sample Lab ID:	03-6491-5	Moisture, %	18.3

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	184	625	765	76	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	184	765	76	0	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6441 (Level III and Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-001	03-060441-1	Soil	X
0023-S4-002	03-060441-2	Soil	X
0023-S4-003	03-060441-3	Soil	X
0023-S4-004	03-060441-4	Soil	X
0023-S4-005	03-060441-5	Soil	X
0023-S4-006	03-060441-6	Soil	X
0023-S4-007	03-060441-7	Soil	X
0023-S4-008	03-060441-8	Soil	X
0023-S4-009	03-060441-9	Soil	X
0023-S4-010[1,2]	03-060441-10	Soil	X
0023-S4-011[2]	03-060441-11	Soil	X
0023-S4-012	03-060441-12	Soil	X
0023-S4-013	03-060441-13	Soil	X
0023-S4-014	03-060441-14	Soil	X
0023-S4-015	03-060441-15	Soil	X
0023-S4-016	03-060441-16	Soil	X
0023-S4-017	03-060441-17	Soil	X
0023-S4-018	03-060441-18	Soil	X
0023-S4-019	03-060441-19	Soil	X
0023-S4-020	03-060441-20	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-020MD	03-060441-20MD	Soil	X
0023-S4-020MS	03-060441-20MS	Soil	X
0023-S4-020MSD	03-060441-20MSD	Soil	X
0023-S4-021[1,2]	03-060441-21	Soil	X
0023-S4-022[2]	03-060441-22	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Timothy H. Morris, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit 8/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6441 Inorganics

SAMPLES: 0023-S4-001, 0023-S4-002, 0023-S4-003, 0023-S4-004, 0023-S4-005, 0023-S4-006, 0023-S4-007, 0023-S4-008, 0023-S4-009, 0023-S4-010, 0023-S4-011, 0023-S4-012, 0023-S4-013, 0023-S4-014, 0023-S4-015, 0023-S4-016, 0023-S4-017, 0023-S4-018, 0023-S4-019, 0023-S4-020, 0023-S4-021, 0023-S4-022

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

Percent Recoveries for continuing calibrations CCV4 at 116% and CCV7 at 113% (for analytical batches 03M2389 and 03M2392) exceeded the QC limit of 90-110%. Associated samples 0023-S4-001, 0023-S4-002, 0023-S4-003, 0023-S4-004, 0023-S4-005, 0023-S4-006, 0023-S4-007, 0023-S4-008, 0023-S4-009, 0023-S4-010, 0023-S4-011, 0023-S4-012, 0023-S4-013, 0023-S4-014, 0023-S4-015, 0023-S4-017, 0023-S4-018, 0023-S4-019, 0023-S4-020, 0023-S4-021 and 0023-S4-022 were flagged as estimated (J).

III.) Blanks:

Lead was reported at -2.42 ug/L in Continuing Calibration Blank CCB10 for analytical batches 03M2389 and 03M2392. There were no non-detect results, and all positive results for lead in the associated samples were greater than 5X the blank amount (0.61 mg/kg). No action was necessary.

Lead was detected at 3.18 ug/L in Continuing Calibration Blank CCB8 for analytical batches 03M2407. All positive results for lead in the associated samples were greater than the action level of 5X the blank amount (0.8 mg/kg), so no action was required.

IV.) Interference Check:

The following analyte had a negative result in the ICS solution A, in analytical batches 03M2389 and 03M2392, with an absolute value greater than the IDL:

lead	-0.3 mg/kg

There were no associated non-detect results. No action was necessary.

The following interference response was observed in the ICS Solution A with magnitude greater than the IDL in the analytical batch 03M2407:

lead	0.2 mg/kg

This analyte should not be present. The associated sample had reported results greater than 100X the interference level. In the professional judgement of the validator, the level of interference was not considered significant, so no action was taken.

The following analyte had a negative result in the ICS solution A, in analytical batch 03M2407, with an absolute value greater than the IDL:

lead	-2.0 mg/kg

There were no associated non-detect results. No action was necessary.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All MS/MSD criteria were met for this SDG. No action was required

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-010 / 0023-S4-011 and 0023-S4-020 / 0023-S4-021) were identified in this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-010 / 0023-S4-011	35%
0023-S4-020 / 0023-S4-021	63%

One RPD was above the 60% QC limit for soil samples. Data qualification based on field duplicate RPD was not required; no action was taken.

IX.) Serial Dilution Analysis:

The Serial Dilution Percent Difference (%D) for sample 0023-S4-020 was 12.6%, which exceeded the 10% QC limit. All positive results for lead in the SDG samples were flagged as estimated (J).

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05404

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CHAIN-OF-CUSTODY RECORD

PROJECT NAME	PURCHASE ORDER NO.	LABORATORY NAME
IRP Site 4	020721 Task 25	APCL
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D	LABORATORY ID (FOR LABORATORY): 03-6443
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski	
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier	

ANALYSES REQUIRED: EPA 6010B (Pb only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Pb only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-023	12/8/03	1027	1	X		S	5 day	X		103A	0.5	–	REG
0023-S4-024	12/8/03	1028	1	X		S	5 day	X		103A	1.5	–	REG
0023-S4-025	12/8/03	1031	1	X		S	5 day	X		102A	0.5	–	REG
0023-S4-026	12/8/03	1034	1	X		S	5 day	X		102A	1.5	–	REG
0023-S4-027	12/8/03	1036	1	X		S	5 day	X		103B	0.5	–	REG
0023-S4-028	12/8/03	1038	1	X		S	5 day	X		103B	1.5	–	REG
0023-S4-029	12/8/03	1041	1	X		S	5 day	X		102B	0.5	–	REG
0023-S4-030	12/8/03	1043	1	X		S	5 day	X		102B	1.5	–	REG
0023-S4-031	12/8/03	1047	1	X		S	5 day	X		101A	0.5	–	REG
0023-S4-032	12/8/03	1048	1		X	S	5 day	X		101A	1.5	–	REG
0023-S4-033	12/8/03	1049	1	X		S	5 day	X		101A	1.5	–	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/8/03	[illegible]
COMPANY: T+FWI	TIME: 1430	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

Project Information Section
Do not submit to Laboratory

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6443P

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05405

Page 4 of 11

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6443

ANALYSES REQUIRED: EPA 6010B (Leachate)

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Leachate)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-034	12/8/03	1052	1	X		S	5 day	X		100B	0.5	–	REG
0023-S4-035	12/8/03	1054	1	X		S	5 day	X		100B	1.5	–	REG
0023-S4-036	12/8/03	1057	1	X		S	5 day	X		101B	0.5	–	REG
0023-S4-037	12/8/03	1100	1	X		S	5 day	X		101B	1.5	–	REG
0023-S4-038	12/8/03	1104	1	X		S	5 day	X		100A	0.5	–	REG
0023-S4-039	12/8/03	1106	1	X		S	5 day	X		100A	1.5	–	REG
0023-S4-040	12/8/03	1109	1	X		S	5 day	X	Run MS/MSD	99A	0.5	–	REG
0023-S4-041	12/8/03	1111	1	X		S	5 day	X		99A	1.5	–	REG
0023-S4-042	12/8/03	1115	1	X		S	5 day	X		99B	0.5	–	REG
0023-S4-043	12/8/03	1116	1		X	S	5 day	X		99B	0.5	–	FD
0023-S4-044	12/8/03	1117	1	X		S	5 day	X		99B	1.5	–	REG

RELINQUISHED BY (Signature): [signature]	DATE: 12/8/03	RECEIVED BY (Signature): [signature]	LABORATORY INSTRUCTIONS/COMMENTS: N/A
COMPANY: TTFWE	TIME: 1630	COMPANY: APCL	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	COMPOSITE DESCRIPTION: N/A
COMPANY	TIME	COMPANY	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
COMPANY	TIME	COMPANY	TEMPERATURE: ____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6443A

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-1	Received Date:	12/08/2003
Sample ID:	**0023-S4-023**	Sample Matrix	Soil	Moisture %:	6.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	10.9		P		03M2393L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-2	Received Date:	12/08/2003
Sample ID:	**0023-S4-024**	Sample Matrix	Soil	Moisture %:	7.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	7.4		P		03M2393L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-3	Received Date:	12/08/2003
Sample ID:	**0023-S4-025**	Sample Matrix	Soil	Moisture %:	6.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	5.6	U	P		03M2393L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LH
3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-4	Received Date:	12/08/2003
Sample ID:	**0023-S4-026**	Sample Matrix	Soil	Moisture %:	18.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	15.1		P		03M2393L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-5	Received Date:	12/08/2003
Sample ID:	**0023-S4-027**	Sample Matrix	Soil	Moisture %:	4.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	580		P		03M2393L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-6	Received Date:	12/08/2003
Sample ID:	**0023-S4-028**	Sample Matrix	Soil	Moisture %:	8.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.6	1400		P		03M2393L	12/12/03	12/12/03	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-7	Received Date:	12/08/2003
Sample ID:	**0023-S4-029**	Sample Matrix	Soil	Moisture %:	5.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	103		P		03M2393L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-8	Received Date:	12/08/2003
Sample ID:	**0023-S4-030**	Sample Matrix	Soil	Moisture %:	16.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	18.4		P		03M2393L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-9	Received Date:	12/08/2003
Sample ID:	**0023-S4-031**	Sample Matrix	Soil	Moisture %:	5.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	47.1		P		03M2393L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-10	Received Date:	12/08/2003
Sample ID:	**0023-S4-032**	Sample Matrix	Soil	Moisture %:	5.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	33.9		P		03M2393L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-11	Received Date:	12/08/2003
Sample ID:	**0023-S4-033**	Sample Matrix	Soil	Moisture %:	7.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	7.2		P		03M2393L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-12	Received Date:	12/08/2003
Sample ID:	**0023-S4-034**	Sample Matrix	Soil	Moisture %:	7.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	271		P		03M2393L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-13	Received Date:	12/08/2003
Sample ID:	**0023-S4-035**	Sample Matrix	Soil	Moisture %:	6.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	7.0		P		03M2393L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-14	Received Date:	12/08/2003
Sample ID:	**0023-S4-036**	Sample Matrix	Soil	Moisture %:	7.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	3.2	4530		P		03M2393L	12/12/03	12/12/03	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-15	Received Date:	12/08/2003
Sample ID:	**0023-S4-037**	Sample Matrix	Soil	Moisture %:	10.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	32.7		P		03M2393L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-16	Received Date:	12/08/2003
Sample ID:	**0023-S4-038**	Sample Matrix	Soil	Moisture %:	5.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	14.7		P		03M2393L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-17	Received Date:	12/08/2003
Sample ID:	**0023-S4-039**	Sample Matrix	Soil	Moisture %:	7.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	7.3		P		03M2393L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-18	Received Date:	12/08/2003
Sample ID:	**0023-S4-040**	Sample Matrix	Soil	Moisture %:	12.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	11.4		P		03M2393L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-19	Received Date:	12/08/2003
Sample ID:	**0023-S4-041**	Sample Matrix	Soil	Moisture %:	8.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	7.9		P		03M2393L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-20	Received Date:	12/08/2003
Sample ID:	**0023-S4-042**	Sample Matrix	Soil	Moisture %:	4.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	155		P		03M2393L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-21	Received Date:	12/08/2003
Sample ID:	**0023-S4-043**	Sample Matrix	Soil	Moisture %:	4.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	134		P		03M2392M	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL

B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control

* - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control

E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA

CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36443	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6443-22	Received Date:	12/08/2003
Sample ID:	**0023-S4-044**	Sample Matrix	Soil	Moisture %:	5.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	260		P		03M2392M	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

ORIGINAL

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6443 (Level III and Level IV)

RECEIVED
MAR 26 2004

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-023	03-6443-1	Soil	X
0023-S4-024	03-6443-2	Soil	X
0023-S4-025	03-6443-3	Soil	X
0023-S4-026	03-6443-4	Soil	X
0023-S4-027	03-6443-5	Soil	X
0023-S4-028	03-6443-6	Soil	X
0023-S4-029	03-6443-7	Soil	X
0023-S4-030	03-6443-8	Soil	X
0023-S4-031	03-6443-9	Soil	X
0023-S4-032[1, 2]	03-6443-10	Soil	X
0023-S4-033[2]	03-6443-11	Soil	X
0023-S4-034	03-6443-12	Soil	X
0023-S4-035	03-6443-13	Soil	X
0023-S4-036	03-6443-14	Soil	X
0023-S4-037	03-6443-15	Soil	X
0023-S4-038	03-6443-16	Soil	X
0023-S4-039	03-6443-17	Soil	X
0023-S4-040	03-6443-18	Soil	X
0023-S4-041	03-6443-19	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-042[2]	03-6443-20	Soil	X
0023-S4-043[1,2]	03-6443-21	Soil	X
0023-S4-044	03-6443-22	Soil	X
0023-S4-040MD	03-6443-18MD	Soil	X
0023-S4-040MS	03-6443-18MS	Soil	X
0023-S4-040MSD	03-6443-18MSD	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6443 Inorganics

SAMPLES: 0023-S4-023, 0023-S4-024, 0023-S4-025, 0023-S4-026, 0023-S4-027, 0023-S4-028, 0023-S4-029, 0023-S4-030, 0023-S4-031, 0023-S4-032, 0023-S4-033, 0023-S4-034, 0023-S4-035, 0023-S4-036, 0023-S4-037, 0023-S4-038, 0023-S4-039, 0023-S4-040, 0023-S4-041, 0023-S4-042, 0023-S4-043, 0023-S4-044

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with one qualification. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was reported at -2.42 ug/L in Continuing Calibration Blank CCB5. The results for lead in the associated SDG samples were greater than the action level of 5X the blank amount (2.42 mg/kg), so no action was required.

Lead was detected at 6.74 ug/L in Continuing Calibration Blank CCB2. The detection of lead in associated SDG sample 0023-S4-025, which was less than the action level of 5X the blank amount (6.74 mg/kg), was flagged as undetected (U). The results for lead in the other associated SDG samples were greater than the action level, so no further action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-040. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-032 / 0023-S4-033 and 0023-S4-042 / 0023-S4-043) were identified for this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-032 / 0023-S4-033	130%
0023-S4-042 / 0023-S4-043	14.5%

The RPD for the first set exceeded the 60% QC limit for soil samples. Data qualification based on field duplicate RPD was not required, so no action was taken.

IX.) Serial Dilution Analysis:

The Percent Difference (%D) for lead was 10.7% in the batch Serial Dilution Analysis, which exceeded the 10% QC limit. The sample used for this analysis was not one of the client's samples, therefore the matrix was not associable with this SDG. No action was taken.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05406

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CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010B (lead only)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6446

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-045	12/8/03	1120	1	X		S	5 day	X		98A	0.5	–	REG
0023-S4-046	12/8/03	1122	1	X		S	5 day	X		98A	1.5	–	REG
0023-S4-047	12/8/03	1126	1	X		S	5 day	X		98B	0.5	–	REG
0023-S4-048	12/8/03	1127	1	X		S	5 day	X		98B	1.5	–	REG
0023-S4-049	12/8/03	1131	1	X		S	5 day	X		97A	0.5	–	REG
0023-S4-050	12/8/03	1133	1	X		S	5 day	X		97A	1.5	–	REG
0023-S4-051	12/8/03	1136	1	X		S	5 day	X		97B	0.5	–	REG
0023-S4-052	12/8/03	1138	1	X		S	5 day	X		97B	1.5	–	REG
0023-S4-053	12/8/03	1142	1	X		S	5 day	X		96A	0.5	–	REG
0023-S4-054	12/8/03	1144	1		X	S	5 day	X		96A	1.5	–	REG
0023-S4-055	12/8/03	1145	1	X		S	5 day	X		96A	1.5	–	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/8/03	[illegible]
COMPANY: AFWI	TIME: 1630	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6446R

FOSTER WHEELER ENVIRONMENTAL CORPORATION

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NUMBER 05407

CHAIN-OF-CUSTODY RECORD

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PROJECT NAME	IRP Site 4
PURCHASE ORDER NO.	020721 Task 05
PROJECT LOCATION	NAVWPNSTA, Seal Beach, CA
PROJECT NO.	1990.023D
SAMPLER NAME	Lisa Bienkowski
SAMPLER SIGNATURE	Lisa Bienkowski
PROJECT CONTACT	Lisa Bienkowski
AIRBILL NUMBER	Courier
LABORATORY NAME	APCL
LABORATORY ID (FOR LABORATORY)	03-6446

ANALYSES REQUIRED: EPA 6010B (Lead only)

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-056	12/8/03	1148	1	X		S	5 day	X		96B	0.5	–	REG
0023-S4-057	12/8/03	1150	1	X		S	5 day	X		96B	1.5	–	REG
0023-S4-058	12/8/03	1152	1	X		S	5 day	X		95A	0.5	–	REG
0023-S4-059	12/8/03	1154	1	X		S	5 day	X		95A	1.5	–	REG
0023-S4-060	12/8/03	1241	1	X		S	5 day	X	Run MS/MSD	95B	0.5	–	REG
0023-S4-061	12/8/03	1243	1	X		S	5 day	X		95B	1.5	–	REG
0023-S4-062	12/8/03	1246	1	X		S	5 day	X		94A	0.5	–	REG
0023-S4-063	12/8/03	1247	1	X		S	5 day	X		94A	1.5	–	REG
0023-S4-064	12/8/03	1250	1	X		S	5 day	X		94B	0.5	–	REG
0023-S4-065	12/8/03	1251	1		X	S	5 day	X		94B	1.5	–	REG
0023-S4-066	12/8/03	1252	1	X		S	5 day	X		94B	1.5	–	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	12/8/03	[signature]
COMPANY: TFWI	TIME: 1630	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)

TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN

COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6446R

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-1	Received Date:	12/08/2003
Sample ID:	**0023-S4-045**	Sample Matrix	Soil	Moisture %:	13.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	12.8 J		P		03M2397L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7/Hm
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-2	Received Date:	12/08/2003
Sample ID:	**0023-S4-046**	Sample Matrix	Soil	Moisture %:	14.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	7.4 J		P		03M2397L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

1 Hm
03/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-3	Received Date:	12/08/2003
Sample ID:	**0023-S4-047**	Sample Matrix	Soil	Moisture %:	9.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	33.7 J		P		03M2397L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-4	Received Date:	12/08/2003
Sample ID:	**0023-S4-048**	Sample Matrix	Soil	Moisture %:	12.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	18.5 J		P		03M2397L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7/Hm
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-5	Received Date:	12/08/2003
Sample ID:	**0023-S4-049**	Sample Matrix	Soil	Moisture %:	8.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	25.1 J		P		03M2397L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-6	Received Date:	12/08/2003
Sample ID:	**0023-S4-050**	Sample Matrix	Soil	Moisture %:	10.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	7.8 J		P		03M2397L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Hm
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-7	Received Date:	12/08/2003
Sample ID:	**0023-S4-051** J	Sample Matrix	Soil	Moisture %:	7.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	175		P		03M2397L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Hm
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-8	Received Date:	12/08/2003
Sample ID:	**0023-S4-052**	Sample Matrix	Soil	Moisture %:	8.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	13.3 J		P		03M2397L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Hm
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-9	Received Date:	12/08/2003
Sample ID:	**0023-S4-053**	Sample Matrix	Soil	Moisture %:	12.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	5.0 J		P		03M2397L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Hm

3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-10	Received Date:	12/08/2003
Sample ID:	**0023-S4-054**	Sample Matrix	Soil	Moisture %:	14.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	6.9 J		P		03M2397L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Hm
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-11	Received Date:	12/08/2003
Sample ID:	**0023-S4-055**	Sample Matrix	Soil	Moisture %:	15.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	6.8 J		P		03M2397L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

1 Hm
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-12	Received Date:	12/08/2003
Sample ID:	**0023-S4-056**	Sample Matrix	Soil	Moisture %:	7.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	3.3	3490		P		03M2397L	12/12/03	12/14/03	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-13	Received Date:	12/08/2003
Sample ID:	**0023-S4-057**	Sample Matrix	Soil	Moisture %:	13.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	32.2 J		P		03M2397L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7Hm
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-14	Received Date:	12/08/2003
Sample ID:	**0023-S4-058**	Sample Matrix	Soil	Moisture %:	14.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	8.6 J		P		03M2397L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7Hm
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-15	Received Date:	12/08/2003
Sample ID:	**0023-S4-059**	Sample Matrix	Soil	Moisture %:	19.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	7.0 J		P		03M2397L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-16	Received Date:	12/08/2003
Sample ID:	**0023-S4-060**	Sample Matrix	Soil	Moisture %:	11.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	44.2 J		P		03M2397L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-17	Received Date:	12/08/2003
Sample ID:	**0023-S4-061**	Sample Matrix	Soil	Moisture %:	13.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	9.8 J		P		03M2397L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Hm
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-18	Received Date:	12/08/2003
Sample ID:	**0023-S4-062**	Sample Matrix	Soil	Moisture %:	13.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	8.0 J		P		03M2397L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7Hm
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-19	Received Date:	12/08/2003
Sample ID:	**0023-S4-063**	Sample Matrix	Soil	Moisture %:	14.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	8.1 J		P		03M2397L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Hu
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-20	Received Date:	12/08/2003
Sample ID:	**0023-S4-064**	Sample Matrix	Soil	Moisture %:	8.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.6	3260		P		03M2397L	12/12/03	12/14/03	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-21	Received Date:	12/08/2003
Sample ID:	**0023-S4-065**	Sample Matrix	Soil	Moisture %:	9.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	27.5		P		03M2392M	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36446	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6446-22	Received Date:	12/08/2003
Sample ID:	**0023-S4-066**	Sample Matrix	Soil	Moisture %:	8.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	71.2		P		03M2392M	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	36446
Project ID:	NAVWPNSTA Seal Beach	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	03M2397L		
MS Filename:	-	Date Analyzed:	121403	Time Analyzed:	12:59
MSD Filename:	-	Date Analyzed:	121403	Time Analyzed:	13:02
MS Sample No:	**0023-S4-060**	Sample Lab ID:	03-6446-16	Moisture, %	11.8

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	170	44.2	200 J	92	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	170	198 J	90 *	2	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

_____

7 Hm 2/11/04

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	36446
Project ID:	NAVWPNSTA Seal Beach	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	03M2392M		
MS Filename:	-	Date Analyzed:	121203	Time Analyzed:	16:09
MSD Filename:	-	Date Analyzed:	121203	Time Analyzed:	16:12
MS Sample No:	**AAFBMAS22S594**	Sample Lab ID:	03-6043-1	Moisture, %	23.5

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	196	58.5	232	89	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	196	230	88	1	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

ORIGINAL

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

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DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6446 (Level III and Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-045	03-06446-1	Soil	X
0023-S4-046	03-06446-2	Soil	X
0023-S4-047	03-06446-3	Soil	X
0023-S4-048	03-06446-4	Soil	X
0023-S4-049	03-06446-5	Soil	X
0023-S4-050	03-06446-6	Soil	X
0023-S4-051	03-06446-7	Soil	X
0023-S4-052	03-06446-8	Soil	X
0023-S4-053	03-06446-9	Soil	X
0023-S4-054[1,2]	03-06446-10	Soil	X
0023-S4-055[2]	03-06446-11	Soil	X
0023-S4-056	03-06446-12	Soil	X
0023-S4-057	03-06446-13	Soil	X
0023-S4-058	03-06446-14	Soil	X
0023-S4-059	03-06446-15	Soil	X
0023-S4-060	03-06446-16	Soil	X
0023-S4-061	03-06446-17	Soil	X
0023-S4-062	03-06446-18	Soil	X
0023-S4-063	03-06446-19	Soil	X
0023-S4-064	03-06446-20	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-065[1,2]	03-06446-21	Soil	X
0023-S4-066[2]	03-06446-22	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Timothy H. Morris, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6446 Inorganics

SAMPLES: 0023-S4-045, 0023-S4-046, 0023-S4-047, 0023-S4-048, 0023-S4-049, 0023-S4-050, 0023-S4-051, 0023-S4-052, 0023-S4-053, 0023-S4-054, 0023-S4-055, 0023-S4-056, 0023-S4-057, 0023-S4-058, 0023-S4-059, 0023-S4-060, 0023-S4-061, 0023-S4-062, 0023-S4-063, 0023-S4-064, 0023-S4-065, 0023-S4-066

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was reported at -2.42 ug/L in Continuing Calibration Blank CCB10 for analytical batch 03M2392. There were no non-detect results and all positive results for lead in the associated samples were greater than the action level of 5X the blank amount (0.61 mg/kg). No action was necessary.

Lead was detected at 5.22 ug/L in Continuing Calibration Blank CCB10 for analytical batch 03M2399. All positive results for lead in the associated samples were greater than the action level of 5X the blank amount (1.31/kg). No action was necessary.

IV.) Interference Check:

The following analyte had a negative result in the ICS solution A, in analytical batch 03M2392, with an

absolute value greater than the IDL:

lead	-0.3 mg/kg

There were no non-detect results within this SDG. No action was necessary.

The following interference response was observed in the ICS Solution A with magnitude greater than the IDL for analytical batch 03M2397

lead	1.85 mg/kg

This analyte should not be present. Aluminum, calcium, iron and/or magnesium was detected in samples 0023-S4-045, 0023-S4-046, 0023-S4-047, 0023-S4-048, 0023-S4-049, 023-S4-050, 0023-S4-051, 0023-S4-052, 0023-S4-053, 0023-S4-054, 0023-S4-055, 0023-S4-057, 0023-S4-058, 0023-S4-059, 0023-S4-060, 0023-S4-061, 0023-S4-062, and 0023-S4-063 at a concentration comparable to the ICS standard. Results for lead in these samples were flagged as estimated (J). All remaining associated samples had reported results greater than 100X the interference level. In the professional judgement of the validator, the level of interference was not considered significant, so no further action was taken.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All MS / MSD criteria were met, therefore no action was necessary.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-124 / 0023-S4-125 and 0023-S4-136 / 0023-S4-137) were identified in this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-054 / 0023-S4-055	1.5%
0023-S4-065 / 0023-S4-066	89%

One RPD was above the 60% QC limit for soil samples. Data qualification based on field duplicate RPD was not required; no action was taken.

IX.) Serial Dilution Analysis:

All criteria were met with the batch Serial Dilution Analysis using a sample associated from another SDG. An additional sample reported with this data package was not the client's sample, therefore the matrix was not associable with this SDG. No action was taken.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05408

Page 7 of 11

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6448

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-067	12/8/03	1256	1	X		S	5 day	X		93A	0.5	–	REG
0023-S4-068	12/8/03	1257	1	X		S	5 day	X		93A	1.5	–	REG
0023-S4-069	12/8/03	1300	1	X		S	5 day	X		93B	0.5	–	REG
0023-S4-070	12/8/03	1301	1	X		S	5 day	X		93B	1.5	–	REG
0023-S4-071	12/8/03	1305	1	X		S	5 day	X		92A	0.5	–	REG
0023-S4-072	12/8/03	1306	1	X		S	5 day	X		92A	1.5	–	REG
0023-S4-073	12/8/03	1309	1	X		S	5 day	X		92B	0.5	–	REG
0023-S4-074	12/8/03	1310	1	X		S	5 day	X		92B	1.5	–	REG
0023-S4-075	12/8/03	1313	1	X		S	5 day	X		91A	0.5	–	REG
0023-S4-076	12/8/03	1314	1		X	S	5 day	X		91A	0.5	–	FD
0023-S4-077	12/8/03	1315	1	X		S	5 day	X		91A	1.5	–	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	12/8/03	[signature]
COMPANY: TAFNE	TIME: 1630	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6448R

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05409

CHAIN-OF-CUSTODY RECORD

Page 8 of 11

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6448

ANALYSES REQUIRED: EPA 6010B (Lead only)

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-078	12/8/03	1318	1	X		S	S day	X		91B	0.5	-	REG
0023-S4-079	12/8/03	1320	1	X		S	S day	X		91B	1.5	-	REG
0023-S4-080	12/8/03	1324	1	X		S	S day	X	Run MS/MSD	90A	0.5	-	REG
0023-S4-081	12/8/03	1325	1	X		S	S day	X		90A	1.5	-	REG
0023-S4-082	12/8/03	1328	1	X		S	S day	X		89A	0.5	-	REG
0023-S4-083	12/8/03	1329	1	X		S	S day	X		89A	1.5	-	REG
0023-S4-084	12/8/03	1332	1	X		S	S day	X		90B	0.5	-	REG
0023-S4-085	12/8/03	1333	1	X		S	S day	X		90B	1.5	-	REG
0023-S4-086	12/8/03	1336	1	X		S	S day	X		89B	0.5	-	REG
0023-S4-087	12/8/03	1338	1		X	S	S day	X		89B	1.5	-	REG
0023-S4-088	12/8/03	1339	1	X		S	S day	X		89B	1.5	-	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/8/03	S. Kirkbride
COMPANY: FFWI	TIME: 1630	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6448R

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-1	Received Date:	12/08/2003
Sample ID:	**0023-S4-067**	Sample Matrix	Soil	Moisture %:	10.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	8.7 J		P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

jd 3-22-04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-2	Received Date:	12/08/2003
Sample ID:	**0023-S4-068**	Sample Matrix	Soil	Moisture %:	16.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	7.2 J		P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

JL 3/22/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-3	Received Date:	12/08/2003
Sample ID:	**0023-S4-069**	Sample Matrix	Soil	Moisture %:	7.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	17.7	J	P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

JP 3/22/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-4	Received Date:	12/08/2003
Sample ID:	**0023-S4-070**	Sample Matrix	Soil	Moisture %:	7.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	128	J	P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-5	Received Date:	12/08/2003
Sample ID:	**0023-S4-071**	Sample Matrix	Soil	Moisture %:	12.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	82.8 J		P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-6	Received Date:	12/08/2003
Sample ID:	**0023-S4-072**	Sample Matrix	Soil	Moisture %:	19.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	6.6 J		P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-7	Received Date:	12/08/2003
Sample ID:	**0023-S4-073**	Sample Matrix	Soil	Moisture %:	7.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	72.0	J	P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-8	Received Date:	12/08/2003
Sample ID:	**0023-S4-074**	Sample Matrix	Soil	Moisture %:	6.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	59.7 J		P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-9	Received Date:	12/08/2003
Sample ID:	**0023-S4-075**	Sample Matrix	Soil	Moisture %:	9.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	355		P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-10	Received Date:	12/08/2003
Sample ID:	**0023-S4-076**	Sample Matrix	Soil	Moisture %:	10.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	327		P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-11	Received Date:	12/08/2003
Sample ID:	**0023-S4-077**	Sample Matrix	Soil	Moisture %:	18.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	7.5	J	P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-12	Received Date:	12/08/2003
Sample ID:	**0023-S4-078**	Sample Matrix	Soil	Moisture %:	11.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	29.2 J		P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-13	Received Date:	12/08/2003
Sample ID:	**0023-S4-079**	Sample Matrix	Soil	Moisture %:	18.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	8.0 J		P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-14	Received Date:	12/08/2003
Sample ID:	**0023-S4-080**	Sample Matrix	Soil	Moisture %:	19.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	6.1 J		P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-15	Received Date:	12/08/2003
Sample ID:	**0023-S4-081**	Sample Matrix	Soil	Moisture %:	20.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	6.9 J		P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-16	Received Date:	12/08/2003
Sample ID:	**0023-S4-082**	Sample Matrix	Soil	Moisture %:	19.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	7.9 J		P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-17	Received Date:	12/08/2003
Sample ID:	**0023-S4-083**	Sample Matrix	Soil	Moisture %:	21.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	6.2 J		P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-18	Received Date:	12/08/2003
Sample ID:	**0023-S4-084**	Sample Matrix	Soil	Moisture %:	6.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	916		P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-19	Received Date:	12/08/2003
Sample ID:	**0023-S4-085**	Sample Matrix	Soil	Moisture %:	7.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	1810		P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-20	Received Date:	12/08/2003
Sample ID:	**0023-S4-086**	Sample Matrix	Soil	Moisture %:	18.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	2720		P		03M2396L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-21	Received Date:	12/08/2003
Sample ID:	**0023-S4-087**	Sample Matrix	Soil	Moisture %:	20.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	18.4 J		P		03M2403L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4.	Service ID:	36448	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6448-22	Received Date:	12/08/2003
Sample ID:	**0023-S4-088**	Sample Matrix	Soil	Moisture %:	21.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	7.5 J		P		03M2403L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	36448
Project ID:	IRP Site 4.	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	03M2396L		
MS Filename:	-	Date Analyzed:	121403	Time Analyzed:	11:16
MSD Filename:	-	Date Analyzed:	121403	Time Analyzed:	11:20
MS Sample No:	**0023-S4-080**	Sample Lab ID:	03-6448-14	Moisture, %	19.5

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	186	6.1	191	99	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	186	190	99	0	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	36448
Project ID:	IRP Site 4.	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	03M2403L		
MS Filename:	-	Date Analyzed:	121503	Time Analyzed:	13:39
MSD Filename:	-	Date Analyzed:	121503	Time Analyzed:	13:42
MS Sample No:	**0023-S4-180**	Sample Lab ID:	03-6470-21	Moisture, %	11.6

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	170	324	493	99	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	170	494	100	1	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6448 (Level III and Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-067	03-06448-1	Soil	X
0023-S4-068	03-06448-2	Soil	X
0023-S4-069	03-06448-3	Soil	X
0023-S4-070	03-06448-4	Soil	X
0023-S4-071	03-06448-5	Soil	X
0023-S4-072	03-06448-6	Soil	X
0023-S4-073	03-06448-7	Soil	X
0023-S4-074	03-06448-8	Soil	X
0023-S4-075	03-06448-9	Soil	X
0023-S4-076[1,2]	03-06448-10	Soil	X
0023-S4-077[2]	03-06448-11	Soil	X
0023-S4-078	03-06448-12	Soil	X
0023-S4-079	03-06448-13	Soil	X
0023-S4-080	03-06448-14	Soil	X
0023-S4-080MD	03-06448-14MD	Soil	X
0023-S4-080MS	03-06448-14MS	Soil	X
0023-S4-080MSD	03-06448-14MSD	Soil	X
0023-S4-081	03-06448-15	Soil	X
0023-S4-082	03-06448-16	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-083	03-06448-17	Soil	X
0023-S4-084	03-06448-18	Soil	X
0023-S4-085	03-06448-19	Soil	X
0023-S4- 086	03-06448-20	Soil	X
0023-S4-087 [1,2]	03-06448-21	Soil	X
0023-S4-088[2]	03-06448-22	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Timothy H. Morris, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit 3/22/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6448 Inorganics

SAMPLES: 0023-S4-067, 0023-S4-068, 0023-S4-069, 0023-S4-070, 0023-S4-071, 0023-S4-072, 0023-S4-073, 0023-S4-074, 0023-S4-075, 0023-S4-079, 0023-S4-077, 0023-S4-078, 0023-S4-079, 0023-S4-080, 0023-S4-081, 0023-S4-082, 0023-S4-083, 0023-S4-084, 0023-S4-085, 0023-S4-086, 0023-S4-087, 0023-S4-088

TOTAL LEAD

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

The following blank results for lead were reported in the preparation batches listed:

Blank ID	Prep. Batch #	Max. Conc.	Action Level
PB	03M2396	0.15 mg/kg	0.75 mg/kg
PB	03M2403	0.063 mg/kg	0.31 mg/kg
CCB10	03M2396	5.22 ug/L	1.31 mg/kg
CCB2	03M2403	5.20 ug/L	1.30 mg/kg
CCB6	03M2403	-4.49 ug/L	1.1 mg/kg

CCB = Continuing Calibration Blank, PB = Preparation Blank

All results for lead in the SDG samples were greater than the action level of 5X the blank amounts, so no action was required.

IV.) Interference Check:

Lead had a negative result of -0.55 mg/kg in the ICS solution A, in analytical batch 03M2403, with an absolute value greater than the IDL. There were no non-detect results within this portion of the SDG. No action was necessary.

Lead was detecte in the ICS Solution A with magnitude greater than the IDL for analytical batch 03M2396 at the following concentration:

lead	1.85 mg/kg

This analyte should not be present. Aluminum, calcium, iron and/or magnesium was detected in samples 0023-S4-067, 0023-S4-068, 0023-S4-069, 0023-S4-070, 0023-S4-071, 0023-S4-072, 0023-S4-073, 0023-S4-074, 0023-S4-077, 0023-S4-078, 0023-S4-079, 0023-S4-080, 0023-S4-081, 0023-S4-082, 0023-S4-083, 0023-S4-087, 0023-S4-088 at a concentration comparable to the ICS standard. Results for lead in these samples were flagged as estimated (J). All remaining associated samples had reported results greater than 100X the interference level. In the professional judgement of the validator, the level of interference was not considered significant for those samples, so no further action was taken.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-075 / 0023-S4-076 and 0023-S4-087 / 0023-S4-088) were identified in this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-075 / 0023-S4-076	8.2%
0023-S4-077 / 0023-S4-078	84%

One RPD was above the 60% QC limit for soil samples. Data qualification based on field duplicate RPD was not required; no action was taken.

IX.) Serial Dilution Analysis:

All serial dilution criteria were met for this SDG. No action was required.

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NUMBER 05410

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CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAV WPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE:
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6451

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-089	12/8/03	1342	1	X		S	5 day	X		88B	0.5	–	REG
0023-S4-090	12/8/03	1343	1	X		S	5 day	X		88B	1.5	–	REG
0023-S4-091	12/8/03	1347	1	X		S	5 day	X		88A	0.5	–	REG
0023-S4-092	12/8/03	1348	1	X		S	5 day	X		88A	1.5	–	REG
0023-S4-093	12/8/03	1352	1	X		S	5 day	X		87A	0.5	–	REG
0023-S4-094	12/8/03	1353	1	X		S	5 day	X		87A	1.5	–	REG
0023-S4-095	12/8/03	1357	1	X		S	5 day	X		86A	0.5	–	REG
0023-S4-096	12/8/03	1359	1	X		S	5 day	X		86A	1.5	–	REG
0023-S4-097	12/8/03	1402	1	X		S	5 day	X		86B	0.5	–	REG
0023-S4-098	12/8/03	1403	1		X	S	5 day	X		86B	0.5	–	FD
0023-S4-099	12/8/03	1405	1	X		S	5 day	X		86B	1.5	–	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	12/8/03	[signature]
COMPANY: FWEI	TIME: 1630	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6451R

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1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05411

CHAIN-OF-CUSTODY RECORD

Page 1 of 11

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6451

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 601/8 (Landfill)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 601/8 (Landfill)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-100	12/8/03	1408	1	X		S	5 day	X	Run MS/MSD	87B	0.5	–	REG
0023-S4-101	12/8/03	1409	1	X		S	5 day	X		87B	1.5	–	REG
0023-S4-102	12/8/03	1421	1	X		S	5 day	X		75A	0.5	–	REG
0023-S4-103	12/8/03	1423	1	X		S	5 day	X		75A	1.5	–	REG
0023-S4-104	12/8/03	1426	1	X		S	5 day	X		75B	0.5	–	REG
0023-S4-105	12/8/03	1428	1	X		S	5 day	X		75B	1.5	–	REG
0023-S4-106	12/8/03	1432	1	X		S	5 day	X		74A	0.5	–	REG
0023-S4-107	12/8/03	1433	1	X		S	5 day	X		74A	1.5	–	REG
0023-S4-108	12/8/03	1437	1	X		S	5 day	X		74B	0.5	–	REG
0023-S4-109	12/8/03	1438	1		X	S	5 day	X		74B	1.5	–	REG
0023-S4-110	12/8/03	1439	1	X		S	5 day	X		74B	1.5	–	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	12/8/03	[signature]
COMPANY: FWI	TIME: 1630	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6451R

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-1	Received Date:	12/08/2003
Sample ID:	**0023-S4-089**	Sample Matrix	Soil	Moisture %:	4.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	875		P		03M2398L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-2	Received Date:	12/08/2003
Sample ID:	**0023-S4-090**	Sample Matrix	Soil	Moisture %:	9.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	40.3 J		P		03M2398L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-3	Received Date:	12/08/2003
Sample ID:	**0023-S4-091**	Sample Matrix	Soil	Moisture %:	21.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	6.7 J		P		03M2398L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-4	Received Date:	12/08/2003
Sample ID:	**0023-S4-092**	Sample Matrix	Soil	Moisture %:	23.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	4.2 J		P		03M2398L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-5	Received Date:	12/08/2003
Sample ID:	**0023-S4-093**	Sample Matrix	Soil	Moisture %:	24.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	9.2 J		P		03M2398L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-6	Received Date:	12/08/2003
Sample ID:	**0023-S4-094**	Sample Matrix	Soil	Moisture %:	24.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	7.0 J		P		03M2398L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-7	Received Date:	12/08/2003
Sample ID:	**0023-S4-095**	Sample Matrix	Soil	Moisture %:	27.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	14.1 J		P		03M2398L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-8	Received Date:	12/08/2003
Sample ID:	**0023-S4-096**	Sample Matrix	Soil	Moisture %:	24.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	7.4 J		P		03M2398L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-9	Received Date:	12/08/2003
Sample ID:	**0023-S4-097**	Sample Matrix	Soil	Moisture %:	23.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	2.0	2130		P		03M2398L	12/12/03	12/14/03	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-10	Received Date:	12/08/2003
Sample ID:	**0023-S4-098**	Sample Matrix	Soil	Moisture %:	22.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	1030		P		03M2398L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-11	Received Date:	12/08/2003
Sample ID:	**0023-S4-099**	Sample Matrix	Soil	Moisture %:	17.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	10.3 J		P		03M2398L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-12	Received Date:	12/08/2003
Sample ID:	**0023-S4-100**	Sample Matrix	Soil	Moisture %:	3.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	243		P		03M2398L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-13	Received Date:	12/08/2003
Sample ID:	**0023-S4-101**	Sample Matrix	Soil	Moisture %:	4.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	23.3 J		P		03M2398L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Hu
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-14	Received Date:	12/08/2003
Sample ID:	**0023-S4-102**	Sample Matrix	Soil	Moisture %:	16.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	9.8 J		P		03M2398L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Hn

3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-15	Received Date:	12/08/2003
Sample ID:	**0023-S4-103**	Sample Matrix	Soil	Moisture %:	18.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	8.7 J		P		03M2398L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control *- Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

3-12-04

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3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-16	Received Date:	12/08/2003
Sample ID:	**0023-S4-104**	Sample Matrix	Soil	Moisture %:	27.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	22.4 J		P		03M2398L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Hu
3/11/021

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-17	Received Date:	12/08/2003
Sample ID:	**0023-S4-105**	Sample Matrix	Soil	Moisture %:	24.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	8.4 J		P		03M2398L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Mu
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-18	Received Date:	12/08/2003
Sample ID:	**0023-S4-106**	Sample Matrix	Soil	Moisture %:	13.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	4.5 J		P		03M2398L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Mu
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-19	Received Date:	12/08/2003
Sample ID:	**0023-S4-107**	Sample Matrix	Soil	Moisture %:	18.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	13.8 J		P		03M2398L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Hm
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-20	Received Date:	12/08/2003
Sample ID:	**0023-S4-108**	Sample Matrix	Soil	Moisture %:	11.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	517		P		03M2398L	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-21	Received Date:	12/08/2003
Sample ID:	**0023-S4-109**	Sample Matrix	Soil	Moisture %:	14.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	215		P		03M2392M	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	NAVWPNSTA Seal Beach	Service ID:	36451	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6451-22	Received Date:	12/08/2003
Sample ID:	**0023-S4-110**	Sample Matrix	Soil	Moisture %:	18.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	20.6		P		03M2392M	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	36451
Project ID:	NAVWPNSTA Seal Beach	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	03M2392M		
MS Filename:	-	Date Analyzed:	121203	Time Analyzed:	16:09
MSD Filename:	-	Date Analyzed:	121203	Time Analyzed:	16:12
MS Sample No:	**AAFBMAS22S594**	Sample Lab ID:	03-6043-1	Moisture, %	23.5

Spiked Components	Unit	Spike Added	Concentration Unspiked	MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	196	58.5	232	89	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	REC
LEAD	mg/kg	196	230	88	1	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	36451
Project ID:	NAVWPNSTA Seal Beach	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	03M2398L		
MS Filename:	-	Date Analyzed:	121403	Time Analyzed:	14:38
MSD Filename:	-	Date Analyzed:	121403	Time Analyzed:	14:41
MS Sample No:	**0023-S4-100**	Sample Lab ID:	03-6451-12	Moisture, %	3.2

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	155	243	411	108	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	155	410	108	0	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

ORIGINAL

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

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DATA VALIDATION SUMMARY REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6451 (Level III and Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-089	03-06451-1	Soil	X
0023-S4-090	03-06451-2	Soil	X
0023-S4-091	03-06451-3	Soil	X
0023-S4-092	03-06451-4	Soil	X
0023-S4-093	03-06451-5	Soil	X
0023-S4-094	03-06451-6	Soil	X
0023-S4-095	03-06451-7	Soil	X
0023-S4-096	03-06451-8	Soil	X
0023-S4-097[2]	03-06451-9	Soil	X
0023-S4-098[1,2]	03-06451-10	Soil	X
0023-S4-099	03-06451-11	Soil	X
0023-S4-100	03-06451-12	Soil	X
0023-S4-100MD	03-06451-12MD	Soil	X
0023-S4-100MS	03-06451-12MS	Soil	X
0023-S4-100MSD	03-06451-12MSD	Soil	X
0023-S4-101	03-06451-13	Soil	X
0023-S4-102	03-06451-14	Soil	X
0023-S4-103	03-06451-15	Soil	X
0023-S4-104	03-06451-16	Soil	X
0023-S4-105	03-06451-17	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-106	03-06451-18	Soil	X
0023-S4-107	03-06451-19	Soil	X
0023-S4-108[2]	03-06451-20	Soil	X
0023-S4-109[1,2]	03-06451-21	Soil	X
0023-S4-110	03-06451-22	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Timothy H. Morris, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6451 Inorganics

SAMPLES: 0023-S4-089, 0023-S4-090, 0023-S4-091, 0023-S4-092, 0023-S4-093, 0023-S4-094, 0023-S4-095, 0023-S4-096, 0023-S4-097, 0023-S4-098, 0023-S4-099, 0023-S4-100, 0023-S4-101, 0023-S4-102, 0023-S4-103, 0023-S4-104, 0023-S4-105, 0023-S4-106, 0023-S4-107, 0023-S4-108, 0023-S4-109, 0023-S4-110

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was reported at -2.42 ug/L in Continuing Calibration Blank CCB10 for analytical batch 03M2392. There were no non-detect results, and all positive results for lead in the associated samples were greater than the action level of 5X the blank amount (0.61 mg/kg). No action was necessary.

Lead was detected at 5.22 ug/L in Continuing Calibration Blank CCB9 for analytical batch 03M2398. All positive results for lead in the associated samples were greater than the action level of 5X the blank amount (1.3 mg/kg), so no action was required.

IV.) Interference Check:

The following analyte had a negative result in the ICS solution A, in analytical batch 03M2392, with an

absolute value greater than the IDL:

lead	-0.3 mg/kg

There were no non-detect results within this SDG. No action was necessary.

The following interference responses were observed in the ICS Solution A with magnitude greater than the IDL in the analytical batch 03M2398:

lead	1.85 mg/kg

This analyte should not be present. Aluminum, calcium, iron and/or magnesium was detected in samples 0023-S4-090, 0023-S4-091, 0023-S4-092, 0023-S4-093, 0023-S4-094, 0023-S4-095, 0023-S4-096, 0023-S4-099, 0023-S4-101, 0023-S4-102, 0023-S4-103, 0023-S4-104, 0023-S4-105, 0023-S4-106, and 0023-S4-107 at a concentration comparable to the ICS standard. Results for lead in these samples were flagged as estimated (J). All remaining samples had reported results greater than 100X the interference level. In the professional judgement of the validator, the level of interference was not considered significant, so no further action was taken.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All MS / MSD criteria were met, therefore no action was necessary.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-097 / 0023-S4-098 and 0023-S4-109 / 0023-S4-110) were identified in this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-097 / 0023-S4-098	70%
0023-S4-109 / 0023-S4-110	165%

Both RPD's were above the 60% QC limit for soil samples. Data qualification based on field duplicate RPD was not required; no action was taken.

IX.) Serial Dilution Analysis:

The client sample used for this analysis met all criteria. An additional sample used for this analysis was not the client's sample, therefore the matrix was not associable with this SDG. No action was taken.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05412

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CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6452

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-111	12/8/03	1442	1	X		S	5 day	X		73A	0.5	–	REG
0023-S4-112	12/8/03	1444	1	X		S	5 day	X		73A	1.5	–	REG
0023-S4-113	12/8/03	1445	1	X		S	5 day	X		73B	0.5	–	REG
0023-S4-114	12/8/03	1446	1	X		S	5 day	X		73B	1.5	–	REG
0023-S4-115	12/8/03	1620	1	X		W	5 day	X		EQ Rinsate	–	–	ER

12/8/03

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/8/03	[signature]
COMPANY: HFWI	TIME: 1630	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6452

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36452	Collected by:	
		Lab Sample ID:	03M2388-MB-01	Received Date:	12/11/2003
Sample ID:	**03M2388-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.3	<0.3	U	P		03M2388M	12/11/03	12/12/03	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36452	Collected by:	
		Lab Sample ID:	03M2383-MB-01	Received Date:	12/10/2003
Sample ID:	**03M2383-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	μg/L	5	<5	U	P		03M2383M	12/10/03	12/10/03	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36452	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6452-1	Received Date:	12/08/2003
Sample ID:	**0023-S4-111**	Sample Matrix	Soil	Moisture %:	20.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	5.3		P		03M2388M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36452	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6452-2	Received Date:	12/08/2003
Sample ID:	**0023-S4-112**	Sample Matrix	Soil	Moisture %:	23.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	3.7		P		03M2388M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36452	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6452-3	Received Date:	12/08/2003
Sample ID:	**0023-S4-113**	Sample Matrix	Soil	Moisture %:	6.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	34.2		P		03M2388M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36452	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6452-4	Received Date:	12/08/2003
Sample ID:	**0023-S4-114**	Sample Matrix	Soil	Moisture %:	9.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	289		P		03M2388M	12/11/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/08/2003
Project ID:	IRP Site 4	Service ID:	36452	Collected by:	Lisa Bienkowski
		Lab Sample ID:	03-6452-5	Received Date:	12/08/2003
Sample ID:	**0023-S4-115**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	μg/L	5	<5	U	P		03M2383M	12/10/03	12/10/03	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	36452
Project ID:	IRP Site 4	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	03M2388M		
MS Filename:	-	Date Analyzed:	121203	Time Analyzed:	10:32
MSD Filename:	-	Date Analyzed:	121203	Time Analyzed:	10:34
MS Sample No:	**NT079**	Sample Lab ID:	03-6463-1	Moisture, %	12.5

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	171	0.97	180	105	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	171	180	105	0	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	36452
Project ID:	IRP Site 4	Project No:	1990.023D	Sample Matrix:	Water
		Batch No:	03M2383M		
MS Filename:	-	Date Analyzed:	121003	Time Analyzed:	12:14
MSD Filename:	-	Date Analyzed:	121003	Time Analyzed:	12:20
MS Sample No:	**GD03NOV26-089**	Sample Lab ID:	03-6399-2		

Spiked Components	Unit	Spike Added	Concentration Unspiked	MS	MS Rec% #	QC Limit, % REC
LEAD	μg/L	3000	15200	17600	80	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	REC
LEAD	μg/L	3000	17700	83	4	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

ORIGINAL

DATA VALIDATION SUMMARY
REPORT

RECEIVED
MAR 26 2004

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVEL:	EPA Level III
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRICES:	Soil and Water
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6452 (Level III)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-111	03-06452-1	Soil	X
0023-S4-112	03-06452-2	Soil	X
0023-S4-113	03-06452-3	Soil	X
0023-S4-114	03-06452-4	Soil	X
0023-S4-115[1]	03-06452-5	Water	X

Note 1: Sample was identified as an equipment rinsate

DATA REVIEWER(S): Timothy H. Morris, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6452 Inorganics

SAMPLES: 0023-S4-111, 0023-S4-112, 0023-S4-113, 0023-S4-114, 0023-S4-115

TOTAL LEAD

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

All Blank criteria were met. No action was taken.

IV.) Interference Check:

The following analyte had a negative response in the ICS solution A with absolute value greater than the IDL for analytical batch 03M2383:

lead	-0.25 mg/kg

There were no associated non-detect results in this SDG. No action was necessary.

The following analyte had a negative response in the ICS solution A with absolute value greater than the IDL for analytical batch 03M2388:

lead	-0.30 mg/kg

There were no associated non-detect results in this SDG. No action was necessary.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All MS / MSD criteria were met for this SDG using batch analysis. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG using batch analysis. No action was required.

VIII.) Field Duplicates:

There were no Field Duplicate samples identified in the SDG. No action was required.

IX.) Serial Dilution Analysis:

All Serial Dilution criteria were met for this SDG using batch analysis. No action was required.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05413

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6468

Project Information Section — Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-116	12/9/03	0702	1	X		S	S day	X		72AB	0.5	-	REG
0023-S4-117	12/9/03	0704	1	X		S	S day	X		72AB	1.5	-	REG
0023-S4-118	12/9/03	0707	1	X		S	S day	X		72A	0.5	-	REG
0023-S4-119	12/9/03	0708	1	X		S	S day	X		72A	1.5	-	REG
0023-S4-120	12/9/03	0710	1	X		S	S day	X	Run MS/MSD	71B	0.5	-	REG
0023-S4-121	12/9/03	0712	1	X		S	S day	X		71B	1.5	-	REG
0023-S4-122	12/9/03	0715	1	X		S	S day	X		71A	0.5	-	REG
0023-S4-123	12/9/03	0716	1	X		S	S day	X		71A	1.5	-	REG
0023-S4-124	12/9/03	0719	1	X		S	S day	X		70A	0.5	-	REG
0023-S4-125	12/9/03	0720	1		X	S	S day	X		70A	0.5	-	FD
0023-S4-126	12/9/03	0721	1	X		S	S day	X		70A	1.5	-	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/9/03	Amanda Johnson
COMPANY: TFFWI	TIME: 1600	COMPANY: TFFWI
RELINQUISHED BY (Signature): Amanda Johnson	DATE: 12/9/03	RECEIVED BY (Signature): [signature]
COMPANY: TFFWI	TIME: 1655	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6468

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05414

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010B (Lead only)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6468

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-127	12/9/03	0724	1	X		S	5 day	X		70B	0.5	–	REG
0023-S4-128	12/9/03	0726	1	X		S	5 day	X		70B	1.5	–	REG
0023-S4-129	12/9/03	0729	1	X		S	5 day	X		69A	0.5	–	REG
0023-S4-130	12/9/03	0730	1	X		S	5 day	X		69A	1.5	–	REG
0023-S4-131	12/9/03	0735	1	X		S	5 day	X		69B	0.5	–	REG
0023-S4-132	12/9/03	0737	1	X		S	5 day	X		69B	1.5	–	REG
0023-S4-133	12/9/03	0740	1	X		S	5 day	X		68A	0.5	–	REG
0023-S4-134	12/9/03	0742	1	X		S	5 day	X		68A	1.5	–	REG
0023-S4-135	12/9/03	0746	1	X		S	5 day	X		67A	0.5	–	REG
0023-S4-136	12/9/03	0747	1		X	S	5 day	X		67A	1.5	–	REG
0023-S4-137	12/9/03	0748	1	X		S	5 day	X		67A	1.5	–	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/9/03	Amanda Johnson
COMPANY: HFWI	TIME: 1600	COMPANY: HFWI
RELINQUISHED BY (Signature): Amanda Johnson	DATE: 12/9/03	RECEIVED BY (Signature): [signature]
COMPANY: HFWI	TIME: 1655	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: ~~Pre-Existing~~ Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6468

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/12/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	
		Lab Sample ID:	03M2399-MB-01	Received Date:	12/12/2003
Sample ID:	**03M2399-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.3	<0.3	U	P		03M2399M	12/12/03	12/14/03	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/12/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	
		Lab Sample ID:	03M2392-MB-01	Received Date:	12/12/2003
Sample ID:	**03M2392-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.3	<0.3	U	P		03M2392M	12/12/03	12/12/03	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-1	Received Date:	12/09/2003
Sample ID:	**0023-S4-116**	Sample Matrix	Soil	Moisture %:	17.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	9.0		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-2	Received Date:	12/09/2003
Sample ID:	**0023-S4-117**	Sample Matrix	Soil	Moisture %:	17.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	11.3		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-3	Received Date:	12/09/2003
Sample ID:	**0023-S4-118**	Sample Matrix	Soil	Moisture %:	14.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	7.2		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-4	Received Date:	12/09/2003
Sample ID:	**0023-S4-119**	Sample Matrix	Soil	Moisture %:	17.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	10.6		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-5	Received Date:	12/09/2003
Sample ID:	**0023-S4-120**	Sample Matrix	Soil	Moisture %:	10.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	125		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-6	Received Date:	12/09/2003
Sample ID:	**0023-S4-121**	Sample Matrix	Soil	Moisture %:	14.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	7.8		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-7	Received Date:	12/09/2003
Sample ID:	**0023-S4-122**	Sample Matrix	Soil	Moisture %:	16.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	7.5		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-8	Received Date:	12/09/2003
Sample ID:	**0023-S4-123**	Sample Matrix	Soil	Moisture %:	15.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	6.9		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-9	Received Date:	12/09/2003
Sample ID:	**0023-S4-124**	Sample Matrix	Soil	Moisture %:	9.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	28.3		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-10	Received Date:	12/09/2003
Sample ID:	**0023-S4-125**	Sample Matrix	Soil	Moisture %:	11.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	34.9		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-11	Received Date:	12/09/2003
Sample ID:	**0023-S4-126**	Sample Matrix	Soil	Moisture %:	18.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	25.4		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-12	Received Date:	12/09/2003
Sample ID:	**0023-S4-127**	Sample Matrix	Soil	Moisture %:	18.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	35.0		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-13	Received Date:	12/09/2003
Sample ID:	**0023-S4-128**	Sample Matrix	Soil	Moisture %:	17.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	8.9		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-14	Received Date:	12/09/2003
Sample ID:	**0023-S4-129**	Sample Matrix	Soil	Moisture %:	12.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	15.5		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-15	Received Date:	12/09/2003
Sample ID:	**0023-S4-130**	Sample Matrix	Soil	Moisture %:	19.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	22.3		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-16	Received Date:	12/09/2003
Sample ID:	**0023-S4-131**	Sample Matrix	Soil	Moisture %:	10.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	8.8		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-17	Received Date:	12/09/2003
Sample ID:	**0023-S4-132**	Sample Matrix	Soil	Moisture %:	13.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	8.7		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-18	Received Date:	12/09/2003
Sample ID:	**0023-S4-133**	Sample Matrix	Soil	Moisture %:	29.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	14.7		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-19	Received Date:	12/09/2003
Sample ID:	**0023-S4-134**	Sample Matrix	Soil	Moisture %:	31.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	13.0		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-20	Received Date:	12/09/2003
Sample ID:	**0023-S4-135**	Sample Matrix	Soil	Moisture %:	20.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	8.2		P		03M2399M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-21	Received Date:	12/09/2003
Sample ID:	**0023-S4-136**	Sample Matrix	Soil	Moisture %:	29.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	15.1		P		03M2392M	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	NVWPNSTA, Seal Beach,CA	Service ID:	36468	Collected by:	Lisa B.
		Lab Sample ID:	03-6468-22	Received Date:	12/09/2003
Sample ID:	**0023-S4-137**	Sample Matrix	Soil	Moisture %:	21.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	6.1		P		03M2392M	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	36468
Project ID:	NVWPNSTA, Seal Beach,CA	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	03M2399M		
MS Filename:	-	Date Analyzed:	121403	Time Analyzed:	10:52
MSD Filename:	-	Date Analyzed:	121403	Time Analyzed:	14:42
MS Sample No:	**0023-S4-120**	Sample Lab ID:	03-6468-5	Moisture, %	10.1

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	167	125	266	84	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	167	266	84	0	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	36468
Project ID:	NVWPNSTA, Seal Beach,CA	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	03M2392M		
MS Filename:	-	Date Analyzed:	121203	Time Analyzed:	16:09
MSD Filename:	-	Date Analyzed:	121203	Time Analyzed:	16:12
MS Sample No:	**AAFBMAS22S594**	Sample Lab ID:	03-6043-1	Moisture, %	23.5

Spiked Components	Unit	Spike Added	Concentration Unspiked	MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	196	58.5	232	89	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	REC
LEAD	mg/kg	196	230	88	1	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

RECEIVED
MAR 26 2004

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6468 (Level III and Level IV)

ORIGINAL

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-116	03-06468-1	Soil	X
0023-S4-117	03-06468-2	Soil	X
0023-S4-118	03-06468-3	Soil	X
0023-S4-119	03-06468-4	Soil	X
0023-S4-120	03-06468-5	Soil	X
0023-S4-120MD	03-06468-5MD	Soil	X
0023-S4-120MS	03-06468-5MS	Soil	X
0023-S4-120MSD	03-06468-5MSD	Soil	X
0023-S4-121	03-06468-6	Soil	X
0023-S4-122	03-06468-7	Soil	X
0023-S4-123	03-06468-8	Soil	X
0023-S4-124[2]	03-06468-9	Soil	X
0023-S4-125[1,2]	03-06468-10	Soil	X
0023-S4-126	03-06468-11	Soil	X
0023-S4-127	03-06468-12	Soil	X
0023-S4-128	03-06468-13	Soil	X
0023-S4-129	03-06468-14	Soil	X
0023-S4-130	03-06468-15	Soil	X
0023-S4-131	03-06468-16	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-132	03-06468-17	Soil	X
0023-S4-133	03-06468-18	Soil	X
0023-S4-134	03-06468-19	Soil	X
0023-S4-135[2]	03-06468-20	Soil	X
0023-S4-136[1,2]	03-06468-21	Soil	X
0023-S4-137	03-06468-22	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Timothy H. Morris, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6468 Inorganics

SAMPLES: 0023-S4-116, 0023-S4-117, 0023-S4-118, 0023-S4-119, 0023-S4-120, 0023-S4-121, 0023-S4-122, 0023-S4-123, 0023-S4-124, 0023-S4-125, 0023-S4-126, 0023-S4-127, 0023-S4-128, 0023-S4-129, 0023-S4-130, 0023-S4-131, 0023-S4-132, 0023-S4-133, 0023-S4-134, 0023-S4-135, 0023-S4-136, 0023-S4-137

TOTAL LEAD

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was reported at -2.42 ug/L in Continuing Calibration Blank CCB10 for analytical batch 03M2392. There were no associated non-detect results, and all positive results for lead in the associated samples were greater than the action level of 5X the blank amount (0.61 mg/kg). No action was necessary.

Lead was reported at -2.88 ug/L in Continuing Calibration Blank CCB10 for analytical batch 03M2399. There were no associated non-detect results, and all positive results for lead in the associated samples were greater than the action level of 5X the blank amount (0.72 mg/kg). No action was necessary.

IV.) Interference Check:

The following analyte had a negative result in the ICS solution A, in analytical batch 03M2392, with an absolute value greater than the IDL:

lead	-0.3 mg/kg

There were no non-detect results within this SDG. No action was necessary.

The following analyte had a negative result in the ICS solution A, in analytical batch 03M2399, with an absolute value greater than the IDL:

lead	-0.2 mg/kg

There were no non-detect results within this SDG. No action was necessary.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All MS / MSD criteria were met, therefore no action was necessary.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-124 / 0023-S4-125 and 0023-S4-136 / 0023-S4-137) were identified in this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-124 / 0023-S4-125	21%
0023-S4-136 / 0023-S4-137	84%

One RPD was above the 60% QC limit for soil samples. Data qualification based on field duplicate RPD was not required; no action was taken.

IX.) Serial Dilution Analysis:

The client sample used for this analysis met all criteria. An additional sample used for this analysis was not the client's sample, therefore the matrix was not associable with this SDG. No action was taken.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05415

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6469

ANALYSES REQUIRED: EPA 8081B (pesticides)

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 8081B (pesticides)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-138	12/9/03	0752	1	X		S	5 day	X		68B	0.5	–	REG
0023-S4-139	12/9/03	0753	1	X		S	5 day	X		68B	1.5	–	REG
0023-S4-140	12/9/03	0758	1	X		S	5 day	X	Rinsate/MS	67B	0.5	–	REG
0023-S4-141	12/9/03	0759	1	X		S	5 day	X		67B	1.5	–	REG
0023-S4-142	12/9/03	0803	1	X		S	5 day	X		66B	0.5	–	REG
0023-S4-143	12/9/03	0805	1	X		S	5 day	X		66B	1.5	–	REG
0023-S4-144	12/9/03	0808	1	X		S	5 day	X		65B	0.5	–	REG
0023-S4-145	12/9/03	0810	1	X		S	5 day	X		65B	1.5	–	REG
0023-S4-146	12/9/03	0813	1	X		S	5 day	X		65A	0.5	–	REG
0023-S4-147	12/9/03	0814	1		X	S	5 day	X		65A	0.5	–	FD
0023-S4-148	12/9/03	0815	1	X		S	5 day	X		65A	1.5	–	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/9/03	Amanda Johnson
COMPANY: AFWI	TIME: 1600	COMPANY: AFWI
RELINQUISHED BY (Signature): Amanda Johnson	DATE: 12/9/03	RECEIVED BY (Signature): [illegible]
COMPANY: AFWI	TIME: 1655	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6469R

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05416

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 00721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010B (Lead)

LABORATORY NAME: AFCL

LABORATORY ID (FOR LABORATORY): 03-6469

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-149	12/9/03	0818	1	X		S	5 day	X		64B	0.5	–	REG
0023-S4-150	12/9/03	0819	1	X		S	5 day	X		64B	1.5	–	REG
0023-S4-151	12/9/03	0822	1	X		S	5 day	X		64A	0.5	–	REG
0023-S4-152	12/9/03	0824	1	X		S	5 day	X		64A	1.5	–	REG
0023-S4-153	12/9/03	0828	1	X		S	5 day	X		63B	0.5	–	REG
0023-S4-154	12/9/03	0829	1	X		S	5 day	X		63B	1.5	–	REG
0023-S4-155	12/9/03	0833	1	X		S	5 day	X		62B	0.5	–	REG
0023-S4-156	12/9/03	0835	1	X		S	5 day	X		62B	1.5	–	REG
0023-S4-157	12/9/03	0837	1	X		S	5 day	X		62A	0.5	–	REG
0023-S4-158	12/9/03	0838	1		X	S	5 day	X		62A	0.5	–	FD
0023-S4-159	12/9/03	0839	1	X		S	5 day	X		62A	1.5	–	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	12/9/03	Amanda Johnson
COMPANY: HFWI	TIME: 1600	COMPANY: HFWI
RELINQUISHED BY (Signature): Amanda Johnson	DATE: 12/9/03	RECEIVED BY (Signature): [signature]
COMPANY: HFWI	TIME: 1655	COMPANY: AFCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6460

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-1	Received Date:	12/09/2003
Sample ID:	**0023-S4-138**	Sample Matrix	Soil	Moisture %:	8.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.6	1670		P		03M2400M	12/12/03	12/14/03	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-2	Received Date:	12/09/2003
Sample ID:	**0023-S4-139**	Sample Matrix	Soil	Moisture %:	11.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	598		P		03M2400M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-3	Received Date:	12/09/2003
Sample ID:	**0023-S4-140**	Sample Matrix	Soil	Moisture %:	4.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	143		P		03M2400M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-4	Received Date:	12/09/2003
Sample ID:	**0023-S4-141**	Sample Matrix	Soil	Moisture %:	13.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	23.5		P		03M2400M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-5	Received Date:	12/09/2003
Sample ID:	**0023-S4-142**	Sample Matrix	Soil	Moisture %:	17.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	10.2		P		03M2400M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-6	Received Date:	12/09/2003
Sample ID:	**0023-S4-143**	Sample Matrix	Soil	Moisture %:	22.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	202		P		03M2400M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-7	Received Date:	12/09/2003
Sample ID:	**0023-S4-144**	Sample Matrix	Soil	Moisture %:	17.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	12.6		P		03M2400M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-8	Received Date:	12/09/2003
Sample ID:	**0023-S4-145**	Sample Matrix	Soil	Moisture %:	22.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	6.0		P		03M2400M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-9	Received Date:	12/09/2003
Sample ID:	**0023-S4-146**	Sample Matrix	Soil	Moisture %:	26.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	12.6		P		03M2400M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-10	Received Date:	12/09/2003
Sample ID:	**0023-S4-147**	Sample Matrix	Soil	Moisture %:	22.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	10.9		P		03M2400M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-11	Received Date:	12/09/2003
Sample ID:	**0023-S4-148**	Sample Matrix	Soil	Moisture %:	19.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	76.5		P		03M2400M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-12	Received Date:	12/09/2003
Sample ID:	**0023-S4-149**	Sample Matrix	Soil	Moisture %:	17.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.8	3750		P		03M2400M	12/12/03	12/14/03	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-13	Received Date:	12/09/2003
Sample ID:	**0023-S4-150**	Sample Matrix	Soil	Moisture %:	22.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	22.8		P		03M2400M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-14	Received Date:	12/09/2003
Sample ID:	**0023-S4-151**	Sample Matrix	Soil	Moisture %:	24.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	15.2		P		03M2400M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-15	Received Date:	12/09/2003
Sample ID:	**0023-S4-152**	Sample Matrix	Soil	Moisture %:	23.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	8.8		P		03M2400M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-16	Received Date:	12/09/2003
Sample ID:	**0023-S4-153**	Sample Matrix	Soil	Moisture %:	19.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	8.0		P		03M2400M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-17	Received Date:	12/09/2003
Sample ID:	**0023-S4-154**	Sample Matrix	Soil	Moisture %:	26.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	11.0		P		03M2400M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-18	Received Date:	12/09/2003
Sample ID:	**0023-S4-155**	Sample Matrix	Soil	Moisture %:	11.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	9.9		P		03M2400M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-19	Received Date:	12/09/2003
Sample ID:	**0023-S4-156**	Sample Matrix	Soil	Moisture %:	15.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	9.9		P		03M2400M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-20	Received Date:	12/09/2003
Sample ID:	**0023-S4-157**	Sample Matrix	Soil	Moisture %:	17.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	7.3		P		03M2400M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-21	Received Date:	12/09/2003
Sample ID:	**0023-S4-158**	Sample Matrix	Soil	Moisture %:	15.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	11.4		P		03M2403L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36469	Collected by:	Lisa B.
		Lab Sample ID:	03-6469-22	Received Date:	12/09/2003
Sample ID:	**0023-S4-159**	Sample Matrix	Soil	Moisture %:	15.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	13.6		P		03M2403L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

VALIDATA
Chemical Services, Inc.
4070 Balleycastle Lane, Duluth, GA 30097
(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

ORIGINAL

DATA VALIDATION SUMMARY
REPORT

RECEIVED
MAR 26 2004

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6469 (Level III and Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-138	03-6469-1	Soil	X
0023-S4-139	03-6469-2	Soil	X
0023-S4-140	03-6469-3	Soil	X
0023-S4-141	03-6469-4	Soil	X
0023-S4-142	03-6469-5	Soil	X
0023-S4-143	03-6469-6	Soil	X
0023-S4-144	03-6469-7	Soil	X
0023-S4-145	03-6469-8	Soil	X
0023-S4-146[2]	03-6469-9	Soil	X
0023-S4-147[1, 2]	03-6469-10	Soil	X
0023-S4-148	03-6469-11	Soil	X
0023-S4-149	03-6469-12	Soil	X
0023-S4-150	03-6469-13	Soil	X
0023-S4-151	03-6469-14	Soil	X
0023-S4-152	03-6469-15	Soil	X
0023-S4-153	03-6469-16	Soil	X
0023-S4-154	03-6469-17	Soil	X
0023-S4-155	03-6469-18	Soil	X
0023-S4-156	03-6469-19	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-157[2]	03-6469-20	Soil	X
0023-S4-158[1,2]	03-6469-21	Soil	X
0023-S4-159	03-6469-22	Soil	X
0023-S4-140MD	03-6469-3MD	Soil	X
0023-S4-140MS	03-6469-3MS	Soil	X
0023-S4-140MSD	03-6469-3MSD	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6469 Inorganics

SAMPLES: 0023-S4-138, 0023-S4-139, 0023-S4-140, 0023-S4-141, 0023-S4-142, 0023-S4-143, 0023-S4-144, 0023-S4-145, 0023-S4-146, 0023-S4-147, 0023-S4-148, 0023-S4-149, 0023-S4-150, 0023-S4-151, 0023-S4-152, 0023-S4-153, 0023-S4-154, 0023-S4-155, 0023-S4-156, 0023-S4-157, 0023-S4-158, 0023-S4-159

TOTAL LEAD

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was reported at -2.88 ug/L in Continuing Calibration Blank CCB11. All results for lead in the associated SDG samples were greater than the action level of 5X the blank amount (2.88 mg/kg), so no action was required.

Lead was detected at 5.20 ug/L in Continuing Calibration Blank CCB2. Both positive results for lead in the associated SDG samples were greater than the action level of 5X the blank amount (6.74 mg/kg), so no action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-140. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-146 / 0023-S4-147 and 0023-S4-157 / 0023-S4-158) were identified for this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-146 / 0023-S4-147	14.5%
0023-S4-157 / 0023-S4-158	43.8%

Both RPDs were within the 60% QC limit for soil samples. No action was required.

IX.) Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05417

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 030721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010B (Lead only)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6470

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-160	12/9/03	0844	1	X		S	5 day	X	Run MS/MSD	60B	0.5	–	REG
0023-S4-161	12/9/03	0846	1	X		S	5 day	X		60B	1.5	–	REG
0023-S4-162	12/9/03	0848	1	X		S	5 day	X		60A	0.5	–	REG
0023-S4-163	12/9/03	0850	1	X		S	5 day	X		60A	1.5	–	REG
0023-S4-164	12/9/03	0856	1	X		S	5 day	X		59B	0.5	–	REG
0023-S4-165	12/9/03	0857	1	X		S	5 day	X		59B	1.5	–	REG
0023-S4-166	12/9/03	0919	1	X		S	5 day	X		60B	0.5	–	REG
0023-S4-167	12/9/03	0920	1	X		S	5 day	X		60B	1.5	–	REG
0023-S4-168	12/9/03	0924	1	X		S	5 day	X		59A	0.5	–	REG
0023-S4-169	12/9/03	0925	1		X	S	5 day	X		59A	1.5	–	REG
0023-S4-170	12/9/03	0928	1	X		S	5 day	X		59A	1.5	–	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	12/9/03	Amanda Johnson
COMPANY: HFWI	TIME: 1600	COMPANY: HFWI
RELINQUISHED BY (Signature): Amanda Johnson	DATE: 12/9/03	RECEIVED BY (Signature): [signature]
COMPANY: HFWI	TIME: 1655	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6470R

FOSTER WHEELER ENVIRONMENTAL CORPORATION

1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05418

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6470

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-171	12/9/03	0933	1	X		S	5 day	X		58B	0.5	–	REG
0023-S4-172	12/9/03	0935	1	X		S	5 day	X		58B	1.5	–	REG
0023-S4-173	12/9/03	0940	1	X		S	5 day	X		58A	0.5	–	REG
0023-S4-174	12/9/03	0941	1	X		S	5 day	X		58A	1.5	–	REG
0023-S4-175	12/9/03	0944	1	X		S	5 day	X		57B	0.5	–	REG
0023-S4-176	12/9/03	0946	1	X		S	5 day	X		57B	1.5	–	REG
0023-S4-177	12/9/03	0950	1	X		S	5 day	X		56B	0.5	–	REG
0023-S4-178	12/9/03	0951	1	X		S	5 day	X		56B	1.5	–	REG
0023-S4-179	12/9/03	0953	1	X		S	5 day	X		55B	0.5	–	REG
0023-S4-180	12/9/03	0954	1		X	S	5 day	X	Run MS/MSD	55B	0.5	–	FD
0023-S4-181	12/9/03	0956	1	X		S	5 day	X		55B	1.5	–	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/9/03	Amanda Johnson
COMPANY: HFWI	TIME: 1600	COMPANY: HFWI
RELINQUISHED BY (Signature): Amanda Johnson	DATE: 12/9/03	RECEIVED BY (Signature): [illegible]
COMPANY: HFWI	TIME: 1655	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)

TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN

COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre ~~Excavation~~ Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6470R

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-1	Received Date:	12/09/2003
Sample ID:	**0023-S4-160**	Sample Matrix	Soil	Moisture %:	21.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	139		P		03M2401L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-2	Received Date:	12/09/2003
Sample ID:	**0023-S4-161**	Sample Matrix	Soil	Moisture %:	22.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	10.7		P		03M2401L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-3	Received Date:	12/09/2003
Sample ID:	**0023-S4-162**	Sample Matrix	Soil	Moisture %:	15.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	13.0		P		03M2401L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-4	Received Date:	12/09/2003
Sample ID:	**0023-S4-163**	Sample Matrix	Soil	Moisture %:	27.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	13.5		P		03M2401L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-5	Received Date:	12/09/2003
Sample ID:	**0023-S4-164**	Sample Matrix	Soil	Moisture %:	26.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	2.1	524		P		03M2401L	12/12/03	12/15/03	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-6	Received Date:	12/09/2003
Sample ID:	**0023-S4-165**	Sample Matrix	Soil	Moisture %:	25.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	39.7		P		03M2401L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-7	Received Date:	12/09/2003
Sample ID:	**0023-S4-166**	Sample Matrix	Soil	Moisture %:	29.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	73.5		P		03M2401L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-8	Received Date:	12/09/2003
Sample ID:	**0023-S4-167**	Sample Matrix	Soil	Moisture %:	29.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	8.8		P		03M2401L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-9	Received Date:	12/09/2003
Sample ID:	**0023-S4-168**	Sample Matrix	Soil	Moisture %:	24.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	13.1		P		03M2401L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-10	Received Date:	12/09/2003
Sample ID:	**0023-S4-169**	Sample Matrix	Soil	Moisture %:	26.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	16.5		P		03M2401L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-11	Received Date:	12/09/2003
Sample ID:	**0023-S4-170**	Sample Matrix	Soil	Moisture %:	29.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	18.5		P		03M2401L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-12	Received Date:	12/09/2003
Sample ID:	**0023-S4-171**	Sample Matrix	Soil	Moisture %:	24.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	4.0	1330		P		03M2401L	12/12/03	12/15/03	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-13	Received Date:	12/09/2003
Sample ID:	**0023-S4-172**	Sample Matrix	Soil	Moisture %:	19.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	237		P		03M2401L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-14	Received Date:	12/09/2003
Sample ID:	**0023-S4-173**	Sample Matrix	Soil	Moisture %:	23.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	85.9		P		03M2401L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-15	Received Date:	12/09/2003
Sample ID:	**0023-S4-174**	Sample Matrix	Soil	Moisture %:	24.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	6.1		P		03M2401L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-16	Received Date:	12/09/2003
Sample ID:	**0023-S4-175**	Sample Matrix	Soil	Moisture %:	27.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	282		P		03M2401L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-17	Received Date:	12/09/2003
Sample ID:	**0023-S4-176**	Sample Matrix	Soil	Moisture %:	25.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	14.0		P		03M2401L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-18	Received Date:	12/09/2003
Sample ID:	**0023-S4-177**	Sample Matrix	Soil	Moisture %:	3.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	68.0		P		03M2401L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-19	Received Date:	12/09/2003
Sample ID:	**0023-S4-178**	Sample Matrix	Soil	Moisture %:	6.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	26.2		P		03M2401L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-20	Received Date:	12/09/2003
Sample ID:	**0023-S4-179**	Sample Matrix	Soil	Moisture %:	11.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	305		P		03M2401L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-21	Received Date:	12/09/2003
Sample ID:	**0023-S4-180**	Sample Matrix	Soil	Moisture %:	11.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	324		P		03M2403L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36470	Collected by:	Lisa B.
		Lab Sample ID:	03-6470-22	Received Date:	12/09/2003
Sample ID:	**0023-S4-181**	Sample Matrix	Soil	Moisture %:	11.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	49.3		P		03M2403L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6470 (Level III and Level IV)

RECEIVED
MAR 26 2004

OVERVIEW

ORIGINAL

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-160	03-6470-1	Soil	X
0023-S4-161	03-6470-2	Soil	X
0023-S4-162	03-6470-3	Soil	X
0023-S4-163	03-6470-4	Soil	X
0023-S4-164	03-6470-5	Soil	X
0023-S4-165	03-6470-6	Soil	X
0023-S4-166	03-6470-7	Soil	X
0023-S4-167	03-6470-8	Soil	X
0023-S4-168	03-6470-9	Soil	X
0023-S4-169[1, 2]	03-6470-10	Soil	X
0023-S4-170[2]	03-6470-11	Soil	X
0023-S4-171	03-6470-12	Soil	X
0023-S4-172	03-6470-13	Soil	X
0023-S4-173	03-6470-14	Soil	X
0023-S4-174	03-6470-15	Soil	X
0023-S4-175	03-6470-16	Soil	X
0023-S4-176	03-6470-17	Soil	X
0023-S4-177	03-6470-18	Soil	X
0023-S4-178	03-6470-19	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-179[2]	03-6470-20	Soil	X
0023-S4-180[1,2]	03-6470-21	Soil	X
0023-S4-181	03-6470-22	Soil	X
0023-S4-160MD	03-6470-1MD	Soil	X
0023-S4-160MS	03-6470-1MS	Soil	X
0023-S4-160MSD	03-6470-1MSD	Soil	X
0023-S4-180MD	03-6470-21MD	Soil	X
0023-S4-180MS	03-6470-21MS	Soil	X
0023-S4-180MSD	03-6470-21MSD	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6471 Inorganics

SAMPLES: 0023-S4-160, 0023-S4-161, 0023-S4-162, 0023-S4-163, 0023-S4-164, 0023-S4-165, 0023-S4-166, 0023-S4-167, 0023-S4-168, 0023-S4-169, 0023-S4-170, 0023-S4-171, 0023-S4-172, 0023-S4-173, 0023-S4-174, 0023-S4-175, 0023-S4-176, 0023-S4-177, 0023-S4-178, 0023-S4-179, 0023-S4-180, 0023-S4-181

TOTAL LEAD

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was detected at 5.20 ug/L in Continuing Calibration Blank CCB2. All results for lead in the SDG samples were greater than the action level of 5X the blank amount (5.20 mg/kg), so no action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG samples 0023-S4-160 and 0023-S4-180. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-169 / 0023-S4-170 and 0023-S4-179 / 0023-S4-180) were identified for this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-169 / 0023-S4-170	11.4%
0023-S4-179 / 0023-S4-180	6.0%

Both RPDs were within the 60% QC limit for soil samples. No action was required.

IX.) Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05419

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: ~~Courier~~
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6471

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (Leadmap)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Leadmap)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-182	12/9/03	0959	1	X		S	S day	X		52B	0.5	-	REG
0023-S4-183	12/9/03	1001	1	X		S	S day	X		52B	1.5	-	REG
0023-S4-184	12/9/03	1006	1	X		S	S day	X		50B	0.5	-	REG
0023-S4-185	12/9/03	1007	1	X		S	S day	X		50B	1.5	-	REG
0023-S4-186	12/9/03	1012	1	X		S	S day	X		48B	0.5	-	REG
0023-S4-187	12/9/03	1014	1	X		S	S day	X		48B	1.5	-	REG
0023-S4-188	12/9/03	1017	1	X		S	S day	X		46B	0.5	-	REG
0023-S4-189	12/9/03	1019	1	X		S	S day	X		46B	1.5	-	REG
0023-S4-190	12/9/03	1023	1	X		S	T day	X		44B	0.5	-	REG
0023-S4-191	12/9/03	1024	1		X	S	S day	X		44B	1.5	-	REG
0023-S4-192	12/9/03	1025	1	X		S	S day	X		44B	1.5	-	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/9/03	Amanda Johnson
COMPANY: HFWI	TIME: 1600	COMPANY: HFWI
RELINQUISHED BY (Signature): Amanda Johnson	DATE: 12/9/03	RECEIVED BY (Signature): [illegible]
COMPANY: HFWI	TIME: 1655	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6471

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05420

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010B (Lead only)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6471

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-193	12/9/03	1029	1	X		S	5 day	X		41B	0.5	–	REG
0023-S4-194	12/9/03	1031	1	X		S	5 day	X		41B	1.5	–	REG
0023-S4-195	12/9/03	1035	1	X		S	5 day	X		35B	0.5	–	REG
0023-S4-196	12/9/03	1037	1	X		S	5 day	X		35B	1.5	–	REG
0023-S4-197	12/9/03	1040	1	X		S	5 day	X		31B	0.5	–	REG
0023-S4-198	12/9/03	1042	1	X		S	5 day	X		31B	1.5	–	REG
0023-S4-199	12/9/03	1044	1	X		S	5 day	X		30A	0.5	–	REG
0023-S4-200	12/9/03	1046	1	X		S	5 day	X	Run MS/MSD	30A	1.5	–	REG
0023-S4-201	12/9/03	1049	1	X		S	5 day	X		30B	0.5	–	REG
0023-S4-202	12/9/03	1050	1		X	S	5 day	X		30B	0.5	–	FD
0023-S4-203	12/9/03	1052	1	X		S	5 day	X		30B	1.5	–	REG

RELINQUISHED BY (Signature): [signature]	DATE: 12/9/03	RECEIVED BY (Signature): Amanda Johnson	
COMPANY: FFWI	TIME: 1000	COMPANY: FFWI	
RELINQUISHED BY (Signature): Amanda Johnson	DATE: 12/9/03	RECEIVED BY (Signature): [signature]	
COMPANY: FFWI	TIME: 1055	COMPANY: APCL	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	
COMPANY	TIME	COMPANY	

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6471

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-1	Received Date:	12/09/2003
Sample ID:	**0023-S4-182**	Sample Matrix	Soil	Moisture %:	15.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	134		P		03M2402M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-2	Received Date:	12/09/2003
Sample ID:	**0023-S4-183**	Sample Matrix	Soil	Moisture %:	14.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	232		P		03M2402M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-3	Received Date:	12/09/2003
Sample ID:	**0023-S4-184**	Sample Matrix	Soil	Moisture %:	28.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	113		P		03M2402M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-4	Received Date:	12/09/2003
Sample ID:	**0023-S4-185**	Sample Matrix	Soil	Moisture %:	28.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	93.8		P		03M2402M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-5	Received Date:	12/09/2003
Sample ID:	**0023-S4-186**	Sample Matrix	Soil	Moisture %:	9.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	1480		P		03M2402M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-6	Received Date:	12/09/2003
Sample ID:	**0023-S4-187**	Sample Matrix	Soil	Moisture %:	20.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	39.4		P		03M2402M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-7	Received Date:	12/09/2003
Sample ID:	**0023-S4-188**	Sample Matrix	Soil	Moisture %:	24.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	2.0	2900		P		03M2402M	12/12/03	12/14/03	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-8	Received Date:	12/09/2003
Sample ID:	**0023-S4-189**	Sample Matrix	Soil	Moisture %:	28.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	17.2		P		03M2402M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-9	Received Date:	12/09/2003
Sample ID:	**0023-S4-190**	Sample Matrix	Soil	Moisture %:	30.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	238		P		03M2402M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-10	Received Date:	12/09/2003
Sample ID:	**0023-S4-191**	Sample Matrix	Soil	Moisture %:	32.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	361		P		03M2402M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-11	Received Date:	12/09/2003
Sample ID:	**0023-S4-192**	Sample Matrix	Soil	Moisture %:	30.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	20.0		P		03M2402M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-12	Received Date:	12/09/2003
Sample ID:	**0023-S4-193**	Sample Matrix	Soil	Moisture %:	22.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	22.9		P		03M2402M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-13	Received Date:	12/09/2003
Sample ID:	**0023-S4-194**	Sample Matrix	Soil	Moisture %:	20.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	4.2		P		03M2402M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-14	Received Date:	12/09/2003
Sample ID:	**0023-S4-195**	Sample Matrix	Soil	Moisture %:	23.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	8.0		P		03M2402M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-15	Received Date:	12/09/2003
Sample ID:	**0023-S4-196**	Sample Matrix	Soil	Moisture %:	23.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	37.9		P		03M2402M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-16	Received Date:	12/09/2003
Sample ID:	**0023-S4-197**	Sample Matrix	Soil	Moisture %:	24.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	75.8		P		03M2402M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-17	Received Date:	12/09/2003
Sample ID:	**0023-S4-198**	Sample Matrix	Soil	Moisture %:	32.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	35.3		P		03M2402M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-18	Received Date:	12/09/2003
Sample ID:	**0023-S4-199**	Sample Matrix	Soil	Moisture %:	18.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	13.7		P		03M2402M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-19	Received Date:	12/09/2003
Sample ID:	**0023-S4-200**	Sample Matrix	Soil	Moisture %:	19.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	9.8		P		03M2402M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-20	Received Date:	12/09/2003
Sample ID:	**0023-S4-201**	Sample Matrix	Soil	Moisture %:	12.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	20.9		P		03M2402M	12/12/03	12/14/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-21	Received Date:	12/09/2003
Sample ID:	**0023-S4-202**	Sample Matrix	Soil	Moisture %:	12.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	18.2		P		03M2392M	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36471	Collected by:	Lisa B.
		Lab Sample ID:	03-6471-22	Received Date:	12/09/2003
Sample ID:	**0023-S4-203**	Sample Matrix	Soil	Moisture %:	18.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	8.7		P		03M2392M	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

ORIGINAL

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6471 (Level III and Level IV)

RECEIVED
MAR 26 2004

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-182	03-6471-1	Soil	X
0023-S4-183	03-6471-2	Soil	X
0023-S4-184	03-6471-3	Soil	X
0023-S4-185	03-6471-4	Soil	X
0023-S4-186	03-6471-5	Soil	X
0023-S4-187	03-6471-6	Soil	X
0023-S4-188	03-6471-7	Soil	X
0023-S4-189	03-6471-8	Soil	X
0023-S4-190	03-6471-9	Soil	X
0023-S4-191[1, 2]	03-6471-10	Soil	X
0023-S4-192[2]	03-6471-11	Soil	X
0023-S4-193	03-6471-12	Soil	X
0023-S4-194	03-6471-13	Soil	X
0023-S4-195	03-6471-14	Soil	X
0023-S4-196	03-6471-15	Soil	X
0023-S4-197	03-6471-16	Soil	X
0023-S4-198	03-6471-17	Soil	X
0023-S4-199	03-6471-18	Soil	X
0023-S4-200	03-6471-19	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-201[2]	03-6471-20	Soil	X
0023-S4-202[1,2]	03-6471-21	Soil	X
0023-S4-203	03-6471-22	Soil	X
0023-S4-200MD	03-6471-19MD	Soil	X
0023-S4-200MS	03-6471-19MS	Soil	X
0023-S4-200MSD	03-6471-19MSD	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6471 Inorganics

SAMPLES: 0023-S4-182, 0023-S4-183, 0023-S4-184, 0023-S4-185, 0023-S4-186, 0023-S4-187, 0023-S4-188, 0023-S4-189, 0023-S4-190, 0023-S4-191, 0023-S4-192, 0023-S4-193, 0023-S4-194, 0023-S4-195, 0023-S4-196, 0023-S4-197, 0023-S4-198, 0023-S4-199, 0023-S4-200, 0023-S4-201, 0023-S4-202, 0023-S4-203

TOTAL LEAD

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was reported at -2.88 ug/L in Continuing Calibration Blank CCB11. All results for lead in the associated SDG samples were greater than the action level of 5X the blank amount (2.88 mg/kg), so no action was required.

Lead was reported at -2.42 ug/L in Continuing Calibration Blank CCB10. All results for lead in the associated SDG samples were greater than the action level of 5X the blank amount (2.42 mg/kg), so no action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-200. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-191 / 0023-S4-192 and 0023-S4-201 / 0023-S4-202) were identified for this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-191 / 0023-S4-192	179%
0023-S4-201 / 0023-S4-202	13.8%

The RPD for the first set exceeded the 60% QC limit for soil samples. Data qualification based on field duplicate RPD was not required, so no action was taken.

IX.) Serial Dilution Analysis:

The Percent Difference for lead was 10.7% for the batch Serial Dilution Analysis, which exceeded the 10% QC limit. The sample used for this analysis was not one of the client's samples, therefore the matrix was not associable with this SDG. No action was taken.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05421

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6472

ANALYSES REQUIRED: EPA 6010B (lead only)

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-204	12/9/03	1055	1	X		S	5 day	X		29B	0.5	–	Reg
0023-S4-205	12/9/03	1056	1	X		S	5 day	X		29B	1.5	–	Reg
0023-S4-206	12/9/03	1101	1	X		S	5 day	X		28B	0.5	–	Reg
0023-S4-207	12/9/03	1103	1	X		S	5 day	X		28B	1.5	–	Reg
0023-S4-208	12/9/03	1108	1	X		S	5 day	X		25B	0.5	–	Reg
~~0023-S4-209~~	~~12/9/03~~	~~[illegible]~~	~~1~~	~~X~~		~~S~~	~~5 day~~	~~X~~	~~Bottle broken, kit returned, no sample~~	~~12/9/03~~	~~1.5~~	~~–~~	~~Reg~~
0023-S4-210	12/9/03	1123	1	X		S	5 day	X		24B	0.5	–	Reg
0023-S4-211	12/9/03	1128	1	X		S	5 day	X		24B	1.5	–	Reg
0023-S4-212	12/9/03	1223	1	X		S	5 day	X		*85B	0.5	–	Reg
0023-S4-213	12/9/03	1225	1		X	S	5 day	X		*85B	1.5	–	Reg
0023-S4-214	12/9/03	1227	1	X		S	5 day	X		*85B	1.5	–	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/9/03	Amanda Johnson
COMPANY: FFWI	TIME: 1600	COMPANY: FFWI
RELINQUISHED BY (Signature): Amanda Johnson	DATE: 12/9/03	RECEIVED BY (Signature): [illegible]
COMPANY: FFWI	TIME: 1655	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

* In water

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6472

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05422

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010 (Lead only)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6472

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010 (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-215	12/9/03	1229	1	X		S	5 day	X		85A	0.5	–	REG
0023-S4-216	12/9/03	1231	1	X		S	5 day	X		85A	1.5	–	REG
0023-S4-217	12/9/03	1232	1	X		S	5 day	X		84B	0.5	–	REG
0023-S4-218	12/9/03	1234	1	X		S	5 day	X		84B	1.5	–	REG
0023-S4-219	12/9/03	1236	1	X		S	5 day	X		84A	0.5	–	REG
0023-S4-220	12/9/03	1238	1	X		S	5 day	X	Run MS/MSD	84A	1.5	–	REG
0023-S4-221	12/9/03	1240	1	X		S	5 day	X		83B	0.5	–	REG
0023-S4-222	12/9/03	1242	1	X		S	5 day	X		83B	1.5	–	REG
0023-S4-223	12/9/03	1246	1	X		S	5 day	X		83A	0.5	–	REG
0023-S4-224	12/9/03	1247	1		X	S	5 day	X		83A	0.5	–	FD
0023-S4-225	12/9/03	1249	1	X		S	5 day	X		83A	1.5	–	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	12/9/03	Amanda Johnson
COMPANY: FFWI	TIME: 1600	COMPANY: FFWI
RELINQUISHED BY (Signature): Amanda Johnson	DATE: 12/9/03	RECEIVED BY (Signature): [signature]
COMPANY: FFWI	TIME: 1655	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6472R

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-1	Received Date:	12/09/2003
Sample ID:	**0023-S4-204**	Sample Matrix	Soil	Moisture %:	20.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	10.3 J		P		03M2404L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

ALH
2/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-2	Received Date:	12/09/2003
Sample ID:	**0023-S4-205**	Sample Matrix	Soil	Moisture %:	22.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	5.1 U		P		03M2404L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-3	Received Date:	12/09/2003
Sample ID:	**0023-S4-206**	Sample Matrix	Soil	Moisture %:	34.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.46	15.0 J		P		03M2404L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-4	Received Date:	12/09/2003
Sample ID:	**0023-S4-207**	Sample Matrix	Soil	Moisture %:	32.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	18.2 J		P		03M2404L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-5	Received Date:	12/09/2003
Sample ID:	**0023-S4-208**	Sample Matrix	Soil	Moisture %:	4.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	72.6	J	P		03M2404L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

1612

ALH 3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-6	Received Date:	12/09/2003
Sample ID:	**0023-S4-210**	Sample Matrix	Soil	Moisture %:	21.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	43.0 J		P		03M2404L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-7	Received Date:	12/09/2003
Sample ID:	**0023-S4-211**	Sample Matrix	Soil	Moisture %:	15.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	97.3	J	P		03M2404L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-8	Received Date:	12/09/2003
Sample ID:	**0023-S4-212**	Sample Matrix	Soil	Moisture %:	20.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	290	J	P		03M2404L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH 3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-9	Received Date:	12/09/2003
Sample ID:	**0023-S4-213**	Sample Matrix	Soil	Moisture %:	23.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	73.5	J	P		03M2404L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-10	Received Date:	12/09/2003
Sample ID:	**0023-S4-214**	Sample Matrix	Soil	Moisture %:	23.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	3.9	1370 J		P		03M2404L	12/14/03	12/15/03	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH 3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-11	Received Date:	12/09/2003
Sample ID:	**0023-S4-215**	Sample Matrix	Soil	Moisture %:	19.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	38.8	J	P		03M2404L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH 3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-12	Received Date:	12/09/2003
Sample ID:	**0023-S4-216**	Sample Matrix	Soil	Moisture %:	22.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	28.2 J		P		03M2404L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-13	Received Date:	12/09/2003
Sample ID:	**0023-S4-217**	Sample Matrix	Soil	Moisture %:	21.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	382 J		P		03M2404L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

1620

ALH 3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-14	Received Date:	12/09/2003
Sample ID:	**0023-S4-218**	Sample Matrix	Soil	Moisture %:	23.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	46.9	J	P		03M2404L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

1621

AJH 3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-15	Received Date:	12/09/2003
Sample ID:	**0023-S4-219**	Sample Matrix	Soil	Moisture %:	21.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	152	J	P		03M2404L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH 3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-16	Received Date:	12/09/2003
Sample ID:	**0023-S4-220**	Sample Matrix	Soil	Moisture %:	24.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	12.6 J		P		03M2404L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AJH 3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-17	Received Date:	12/09/2003
Sample ID:	**0023-S4-221**	Sample Matrix	Soil	Moisture %:	22.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	19	2410	J	P		03M2404L	12/14/03	12/15/03	50	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

1624

LLH 3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-18	Received Date:	12/09/2003
Sample ID:	**0023-S4-222**	Sample Matrix	Soil	Moisture %:	22.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	313	J	P		03M2404L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LH 3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-19	Received Date:	12/09/2003
Sample ID:	**0023-S4-223**	Sample Matrix	Soil	Moisture %:	22.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	46.1	J	P		03M2404L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LH
3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-20	Received Date:	12/09/2003
Sample ID:	**0023-S4-224**	Sample Matrix	Soil	Moisture %:	25.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	84.4	J	P		03M2404L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH 3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36472	Collected by:	Lisa B.
		Lab Sample ID:	03-6472-21	Received Date:	12/09/2003
Sample ID:	**0023-S4-225**	Sample Matrix	Soil	Moisture %:	24.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	68.4		P		03M2392M	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

RECEIVED
MAR 26 2004

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6472 (Level III and Level IV)

ORIGINAL

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-204	03-6472-1	Soil	X
0023-S4-205	03-6472-2	Soil	X
0023-S4-206	03-6472-3	Soil	X
0023-S4-207	03-6472-4	Soil	X
0023-S4-208	03-6472-5	Soil	X
0023-S4-210	03-6472-6	Soil	X
0023-S4-211	03-6472-7	Soil	X
0023-S4-212	03-6472-8	Soil	X
0023-S4-213[1,2]	03-6472-9	Soil	X
0023-S4-214[2]	03-6472-10	Soil	X
0023-S4-215	03-6472-11	Soil	X
0023-S4-216	03-6472-12	Soil	X
0023-S4-217	03-6472-13	Soil	X
0023-S4-218	03-6472-14	Soil	X
0023-S4-219	03-6472-15	Soil	X
0023-S4-220	03-6472-16	Soil	X
0023-S4-221	03-6472-17	Soil	X
0023-S4-222	03-6472-18	Soil	X
0023-S4-223[2]	03-6472-19	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-224[1,2]	03-6472-20	Soil	X
0023-S4-225	03-6472-21	Soil	X
0023-S4-160MD	03-6472-1MD	Soil	X
0023-S4-160MS	03-6472-1MS	Soil	X
0023-S4-160MSD	03-6472-1MSD	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6472 Inorganics

SAMPLES: 0023-S4-204, 0023-S4-205, 0023-S4-206, 0023-S4-207, 0023-S4-208, 0023-S4-210, 0023-S4-211, 0023-S4-212, 0023-S4-213, 0023-S4-214, 0023-S4-215, 0023-S4-216, 0023-S4-217, 0023-S4-218, 0023-S4-219, 0023-S4-220, 0023-S4-221, 0023-S4-222, 0023-S4-223, 0023-S4-224, 0023-S4-225

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was detected at 5.20 ug/L in Continuing Calibration Blank CCB2. The positive result for lead in associated SDG sample 0023-S4-205, which was less than the action level of 5X the blank amount (5.20 mg/kg), was flagged as undetected (U).

Lead was reported at -2.42 ug/L in Continuing Calibration Blank CCB10. The result for lead in the associated SDG sample was greater than the action level of 5X the blank amount (2.42 mg/kg), so no action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG samples 0023-S4-220. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-213 / 0023-S4-214 and 0023-S4-223 / 0023-S4-224) were identified for this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-213 / 0023-S4-214	180%
0023-S4-223 / 0023-S4-224	59%

The RPD for the first set exceeded the 60% QC limit for soil samples. Data qualification based on field duplicate RPD was not required, so no action was taken.

IX.) Serial Dilution Analysis:

The Percent Differences (%D's) were 10.7% and 10.9% for the two Serial Dilution Analyses, which exceeded the 10% QC limit. All positive results for the SDG samples, except sample 0023-S4-225, were flagged as estimated (J). The sample used for the analysis associated with sample 0023-S4-225 was not one of the client's samples, therefore the matrix was not associable. No further action was taken.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05423

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPN STA Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski.	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 8015M (Low Boiling)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6473

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 8015M (Low Boiling)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-226	12/9/03	1252	1	X		S	5 day	X		82B	0.5	–	REG
0023-S4-227	12/9/03	1254	1	X		S	5 day	X		82B	1.5	–	REG
0023-S4-228	12/9/03	1257	1	X		S	5 day	X		82A	0.5	–	REG
0023-S4-229	12/9/03	1259	1	X		S	5 day	X		82A	1.5	–	REG
0023-S4-230	12/9/03	1302	1	X		S	5 day	X		81B	0.5	–	REG
0023-S4-231	12/9/03	1303	1	X		S	5 day	X		81B	1.5	–	REG
0023-S4-232	12/9/03	1306	1	X		S	5 day	X		81A	0.5	–	REG
0023-S4-233	12/9/03	1308	1	X		S	5 day	X		81A	1.5	–	REG
0023-S4-234	12/9/03	1312	1	X		S	5 day	X		80B	0.5	–	REG
0023-S4-235	12/9/03	1313	1		X	S	5 day	X		80B	1.5	–	REG
0023-S4-236	12/9/03	1314	1	X		S	5 day	X		80B	1.5	–	FD

RELINQUISHED BY (Signature): [signature]	DATE: 12/9/03	RECEIVED BY (Signature): Amanda Johnson
COMPANY: FFWI	TIME: 1600	COMPANY: FFWI
RELINQUISHED BY (Signature): Amanda Johnson	DATE: 12/9/03	RECEIVED BY (Signature): [signature]
COMPANY: FFWI	TIME: 1655	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6473A

FOSTER WHEELER ENVIRONMENTAL CORPORATION

1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05424

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010B Lead

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6473

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B Lead	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-237	12/9/03	1318	1	X		S	5 day	X		80A	0.5	–	REG
0023-S4-238	12/9/03	1320	1	X		S	5 day	X		80A	1.5	–	REG
0023-S4-239	12/9/03	1322	1	X		S	5 day	X		79B	0.5	–	REG
0023-S4-240	12/9/03	1324	1	X		S	5 day	X	Run MS/MSD	79B	1.5	–	REG
0023-S4-241	12/9/03	1326	1	X		S	5 day	X		79A	0.5	–	REG
0023-S4-242	12/9/03	1328	1	X		S	5 day	X		79A	1.5	–	REG
0023-S4-243	12/9/03	1332	1	X		S	5 day	X		78A	0.5	–	REG
0023-S4-244	12/9/03	1334	1	X		S	5 day	X		78A	1.5	–	REG
0023-S4-245	12/9/03	1336	1	X		S	5 day	X		78B	0.5	–	REG
0023-S4-246	12/9/03	1338	1		X	S	5 day	X		78B	0.5	–	FD
0023-S4-247	12/9/03	1340	1	X		S	5 day	X		78B	1.5	–	REG

RELINQUISHED BY (Signature): [signature]	DATE: 12/9/03	RECEIVED BY (Signature): Amanda Johnson	LABORATORY INSTRUCTIONS/COMMENTS: N/A
COMPANY: HFWI	TIME: 1600	COMPANY: HFWI	
RELINQUISHED BY (Signature): Amanda Johnson	DATE: 12/9/03	RECEIVED BY (Signature): [signature]	COMPOSITE DESCRIPTION: N/A
COMPANY: HFWI	TIME: 1655	COMPANY: APCL	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
COMPANY	TIME	COMPANY	TEMPERATURE: ____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6473A

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-1	Received Date:	12/09/2003
Sample ID:	**0023-S4-226**	Sample Matrix	Soil	Moisture %:	24.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	2.0	717		P		03M2405L	12/14/03	12/15/03	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-2	Received Date:	12/09/2003
Sample ID:	**0023-S4-227**	Sample Matrix	Soil	Moisture %:	25.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	206		P		03M2405L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL

Q Qualifier: N - Spike recovery out of control

W - Post digestion spike for GFAA out of control

M Qualifier: P - ICP A - FLAA F - GFAA

B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

* - Duplicate analysis out of control

E - Serial dilution difference out of control

CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-3	Received Date:	12/09/2003
Sample ID:	**0023-S4-228**	Sample Matrix	Soil	Moisture %:	27.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	201		P		03M2405L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL; B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control; * - Duplicate analysis out of control; W - Post digestion spike for GFAA out of control; E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-4	Received Date:	12/09/2003
Sample ID:	**0023-S4-229**	Sample Matrix	Soil	Moisture %:	26.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	19.1		P		03M2405L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-5	Received Date:	12/09/2003
Sample ID:	**0023-S4-230**	Sample Matrix	Soil	Moisture %:	24.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	20	2420		P		03M2405L	12/14/03	12/15/03	50	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-6	Received Date:	12/09/2003
Sample ID:	**0023-S4-231**	Sample Matrix	Soil	Moisture %:	26.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	373		P		03M2405L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-7	Received Date:	12/09/2003
Sample ID:	**0023-S4-232**	Sample Matrix	Soil	Moisture %:	27.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	9.1		P		03M2405L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-8	Received Date:	12/09/2003
Sample ID:	**0023-S4-233**	Sample Matrix	Soil	Moisture %:	28.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	9.6		P		03M2405L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-9	Received Date:	12/09/2003
Sample ID:	**0023-S4-234**	Sample Matrix	Soil	Moisture %:	25.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	255		P		03M2405L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-10	Received Date:	12/09/2003
Sample ID:	**0023-S4-235**	Sample Matrix	Soil	Moisture %:	29.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	11.4		P		03M2405L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL

Q Qualifier: N - Spike recovery out of control

W - Post digestion spike for GFAA out of control

M Qualifier: P - ICP A - FLAA F - GFAA

B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

* - Duplicate analysis out of control

E - Serial dilution difference out of control

CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-11	Received Date:	12/09/2003
Sample ID:	**0023-S4-236**	Sample Matrix	Soil	Moisture %:	27.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	21.5		P		03M2405L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-12	Received Date:	12/09/2003
Sample ID:	**0023-S4-237**	Sample Matrix	Soil	Moisture %:	27.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	30.1		P		03M2405L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL; B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control; * - Duplicate analysis out of control; W - Post digestion spike for GFAA out of control; E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-13	Received Date:	12/09/2003
Sample ID:	**0023-S4-238**	Sample Matrix	Soil	Moisture %:	26.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	7.9		P		03M2405L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL; B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control; * - Duplicate analysis out of control; W - Post digestion spike for GFAA out of control; E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-14	Received Date:	12/09/2003
Sample ID:	**0023-S4-239**	Sample Matrix	Soil	Moisture %:	28.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	240		P		03M2405L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-15	Received Date:	12/09/2003
Sample ID:	**0023-S4-240**	Sample Matrix	Soil	Moisture %:	25.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	14.0		P		03M2405L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-16	Received Date:	12/09/2003
Sample ID:	**0023-S4-241**	Sample Matrix	Soil	Moisture %:	25.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	29.5		P		03M2405L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-17	Received Date:	12/09/2003
Sample ID:	**0023-S4-242**	Sample Matrix	Soil	Moisture %:	25.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	5.4		P		03M2405L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-18	Received Date:	12/09/2003
Sample ID:	**0023-S4-243**	Sample Matrix	Soil	Moisture %:	25.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	8.4		P		03M2405L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-19	Received Date:	12/09/2003
Sample ID:	**0023-S4-244**	Sample Matrix	Soil	Moisture %:	27.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	4.9	U	P		03M2405L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-20	Received Date:	12/09/2003
Sample ID:	**0023-S4-245**	Sample Matrix	Soil	Moisture %:	6.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	334		P		03M2405L	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-21	Received Date:	12/09/2003
Sample ID:	**0023-S4-246**	Sample Matrix	Soil	Moisture %:	9.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.7	530		P		03M2403L	12/12/03	12/15/03	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36473	Collected by:	Lisa B.
		Lab Sample ID:	03-6473-22	Received Date:	12/09/2003
Sample ID:	**0023-S4-247**	Sample Matrix	Soil	Moisture %:	13.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.7	491		P		03M2403L	12/12/03	12/15/03	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

VALIDATA
Chemical Services, Inc.
4070 Balleycastle Lane, Duluth, GA 30097
(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

ORIGINAL

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6473 (Level III and Level IV)

RECEIVED
MAR 26 2004

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-226	03-6473-1	Soil	X
0023-S4-227	03-6473-2	Soil	X
0023-S4-228	03-6473-3	Soil	X
0023-S4-229	03-6473-4	Soil	X
0023-S4-230	03-6473-5	Soil	X
0023-S4-231	03-6473-6	Soil	X
0023-S4-232	03-6473-7	Soil	X
0023-S4-233	03-6473-8	Soil	X
0023-S4-234[1,2]	03-6473-9	Soil	X
0023-S4-235[2]	03-6473-10	Soil	X
0023-S4-236	03-6473-11	Soil	X
0023-S4-237	03-6473-12	Soil	X
0023-S4-238	03-6473-13	Soil	X
0023-S4-239	03-6473-14	Soil	X
0023-S4-240	03-6473-15	Soil	X
0023-S4-241	03-6473-16	Soil	X
0023-S4-242	03-6473-17	Soil	X
0023-S4-243	03-6473-18	Soil	X
0023-S4-244[2]	03-6473-19	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-245[1,2]	03-6473-20	Soil	X
0023-S4-246	03-6473-21	Soil	X
0023-S4-247	03-6473-22	Soil	X
0023-S4-240MD	03-6473-15MD	Soil	X
0023-S4-240MS	03-6473-15MS	Soil	X
0023-S4-240MSD	03-6473-15MSD	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6473 Inorganics

SAMPLES: 0023-S4-226, 0023-S4-227, 0023-S4-228, 0023-S4-229, 0023-S4-230, 0023-S4-231, 0023-S4-232, 0023-S4-233, 0023-S4-234, 0023-S4-235, 0023-S4-236, 0023-S4-237, 0023-S4-238, 0023-S4-239, 0023-S4-240, 0023-S4-241, 0023-S4-242, 0023-S4-243, 0023-S4-244, 0023-S4-245, 0023-S4-246, 0023-S4-247

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was detected at 5.20 ug/L in Continuing Calibration Blank CCB2. The positive result for lead in associated SDG sample 0023-S4-244, which was less than the action level of 5X the blank amount (5.20 mg/kg), was flagged as undetected (U).

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG samples 0023-S4-240. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-235 / 0023-S4-236 and 0023-S4-245 / 0023-S4-246) were identified for this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-235 / 0023-S4-236	61%
0023-S4-245 / 0023-S4-246	45%

The RPD for the first set exceeded the 60% QC limit for soil samples. Data qualification based on field duplicate criteria was not required, so no action was taken.

IX.) Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05425

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010B (Metals)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6474

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Metals)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-248	12/9/03	1341	1	X		S	5 day	X		77B	0.5	–	REG
0023-S4-249	12/9/03	1343	1	X		S	5 day	X		77B	1.5	–	REG
0023-S4-250	12/9/03	1346	1	X		S	5 day	X		77A	0.5	–	REG
0023-S4-251	12/9/03	1348	1	X		S	5 day	X		77A	1.5	–	REG
0023-S4-252	12/9/03	1351	1	X		S	5 day	X		76B	0.5	–	REG
0023-S4-253	12/9/03	1353	1	X		S	5 day	X		76B	1.5	–	REG
0023-S4-254	12/9/03	1357	1	X		S	5 day	X		76A	0.5	–	REG
0023-S4-255	12/9/03	1359	1	X		S	5 day	X		76A	1.5	–	REG
0023-S4-256	12/9/03	1408	1	X		S	5 day	X		66A	0.5	–	REG
0023-S4-257	12/9/03	1410	1		X	S	5 day	X		66A	1.5	–	REG
0023-S4-258	12/9/03	1411	1	X		S	5 day	X		66A	1.5	–	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/9/03	Amanda Johnson
COMPANY: FFWI	TIME: 1600	COMPANY: FFWI
RELINQUISHED BY (Signature): Amanda Johnson	DATE: 12/9/03	RECEIVED BY (Signature): [illegible]
COMPANY: FFWI	TIME: 1655	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6474

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05426

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowsk	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA Cd/Pb/Cr/Ni/Zn

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6474

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA Cd/Pb/Cr/Ni/Zn	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-259	12/9/03	1414	1	X		S	5 day	X		63A	0.5	–	REG
0023-S4-260	12/9/03	1416	1	X		S	5 day	X	RINS MS/MSD	63A	1.5	–	REG
0023-S4-261	12/9/03	1424	1	X		S	5 day	X		57A	0.5	–	REG
0023-S4-262	12/9/03	1426	1	X		S	5 day	X		57A	1.5	–	REG
0023-S4-263	12/9/03	1431	1	X		S	5 day	X		56A	0.5	–	REG
0023-S4-264	12/9/03	1433	1	X		S	5 day	X		56A	1.5	–	REG
0023-S4-265	12/9/03	1434	1	X		S	5 day	X		55A	0.5	–	REG
0023-S4-266	12/9/03	1436	1	X		S	5 day	X		55A	1.5	–	REG
0023-S4-267	12/9/03	1439	1	X		S	5 day	X		54B	0.5	–	REG
0023-S4-268	12/9/03	1441	1	X	X	S	5 day	X		54B	1.5	–	REG
0023-S4-269	12/9/03	1443	1	X		S	5 day	X		54B	1.5	–	FD

RELINQUISHED BY (Signature): [signature]	DATE: 12/9/03	RECEIVED BY (Signature): Amanda Johnson	
COMPANY: FWI	TIME: 1600	COMPANY: FFWI	
RELINQUISHED BY (Signature): Amanda Johnson	DATE: 12/9/03	RECEIVED BY (Signature): [signature]	
COMPANY: FFWI	TIME: 1655	COMPANY: APCL	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	
COMPANY	TIME	COMPANY	

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6474A

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05427

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach CA	PROJECT NO.: 1990-023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 1,4-DIOXANE (1 mg/day)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6474

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 1,4-DIOXANE (1 mg/day)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-270	12/9/03	1449	1	X		S	5 day	X		S4A	0.5	-	REG
0023-S4-271	12/9/03	1452	1	X		S	5 day	X		S4A	1.5	-	REG
0023-S4-272	12/9/03	1525	1	X		W	5 day	X		EQ Rinsate	-	-	ER
~~0023-S4-~~			1				5 day	X					
~~0023-S4-~~			1				5 day	X					
~~0023-S4-~~			1				5 day	X					
~~0023-S4-~~			1				5 day	X					
~~0023-S4-~~			1				5 day	X					
~~0023-S4-~~			1				5 day	X					
~~0023-S4-~~			1				5 day	X					
~~0023-S4-~~			1				5 day	X					

B 12/9/03

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	12/9/03	Amanda Johnson
COMPANY: HFWI	TIME: 1600	COMPANY: HFWI
RELINQUISHED BY (Signature): Amanda Johnson	DATE: 12/9/03	RECEIVED BY (Signature): [signature]
COMPANY: HFWI	TIME: 1655	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6474

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-1	Received Date:	12/09/2003
Sample ID:	**0023-S4-248**	Sample Matrix	Soil	Moisture %:	25.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	160		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-2	Received Date:	12/09/2003
Sample ID:	**0023-S4-249**	Sample Matrix	Soil	Moisture %:	25.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	15.6		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-3	Received Date:	12/09/2003
Sample ID:	**0023-S4-250**	Sample Matrix	Soil	Moisture %:	26.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	5.2		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-4	Received Date:	12/09/2003
Sample ID:	**0023-S4-251**	Sample Matrix	Soil	Moisture %:	26.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	6.0		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-5	Received Date:	12/09/2003
Sample ID:	**0023-S4-252**	Sample Matrix	Soil	Moisture %:	23.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	27.3		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-6	Received Date:	12/09/2003
Sample ID:	**0023-S4-253**	Sample Matrix	Soil	Moisture %:	25.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	30.1		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-7	Received Date:	12/09/2003
Sample ID:	**0023-S4-254**	Sample Matrix	Soil	Moisture %:	30.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	6.0		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-8	Received Date:	12/09/2003
Sample ID:	**0023-S4-255**	Sample Matrix	Soil	Moisture %:	31.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	12.4		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-9	Received Date:	12/09/2003
Sample ID:	**0023-S4-256**	Sample Matrix	Soil	Moisture %:	22.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	9.5		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-10	Received Date:	12/09/2003
Sample ID:	**0023-S4-257**	Sample Matrix	Soil	Moisture %:	27.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	10.7		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-11	Received Date:	12/09/2003
Sample ID:	**0023-S4-258**	Sample Matrix	Soil	Moisture %:	27.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	11.6		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-12	Received Date:	12/09/2003
Sample ID:	**0023-S4-259**	Sample Matrix	Soil	Moisture %:	16.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	232		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-13	Received Date:	12/09/2003
Sample ID:	**0023-S4-260**	Sample Matrix	Soil	Moisture %:	16.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	6.1		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-14	Received Date:	12/09/2003
Sample ID:	**0023-S4-261**	Sample Matrix	Soil	Moisture %:	22.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	7.8		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-15	Received Date:	12/09/2003
Sample ID:	**0023-S4-262**	Sample Matrix	Soil	Moisture %:	24.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	19.5		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-16	Received Date:	12/09/2003
Sample ID:	**0023-S4-263**	Sample Matrix	Soil	Moisture %:	18.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	4.5		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-17	Received Date:	12/09/2003
Sample ID:	**0023-S4-264**	Sample Matrix	Soil	Moisture %:	21.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	2.9		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-18	Received Date:	12/09/2003
Sample ID:	**0023-S4-265**	Sample Matrix	Soil	Moisture %:	21.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	6.4		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-19	Received Date:	12/09/2003
Sample ID:	**0023-S4-266**	Sample Matrix	Soil	Moisture %:	22.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	25.3		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-20	Received Date:	12/09/2003
Sample ID:	**0023-S4-267**	Sample Matrix	Soil	Moisture %:	28.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	190		P		03M2408M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-21	Received Date:	12/09/2003
Sample ID:	**0023-S4-268**	Sample Matrix	Soil	Moisture %:	27.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	47.7		P		03M2403L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-22	Received Date:	12/09/2003
Sample ID:	**0023-S4-269**	Sample Matrix	Soil	Moisture %:	29.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	123		P		03M2403L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-23	Received Date:	12/09/2003
Sample ID:	**0023-S4-270**	Sample Matrix	Soil	Moisture %:	32.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	252		P		03M2403L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-24	Received Date:	12/09/2003
Sample ID:	**0023-S4-271**	Sample Matrix	Soil	Moisture %:	19.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	7.3		P		03M2403L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/09/2003
Project ID:	IRP Site 4	Service ID:	36474	Collected by:	Lisa B.
		Lab Sample ID:	03-6474-25	Received Date:	12/09/2003
Sample ID:	**0023-S4-272**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	μg/L	5	3.5	B	P		03M2416L	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

RECEIVED
MAR 2 5 2004

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6474 (Level III and Level IV)

OVERVIEW

ORIGINAL

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-248	03-6474-1	Soil	X
0023-S4-249	03-6474-2	Soil	X
0023-S4-250	03-6474-3	Soil	X
0023-S4-251	03-6474-4	Soil	X
0023-S4-252	03-6474-5	Soil	X
0023-S4-253	03-6474-6	Soil	X
0023-S4-254	03-6474-7	Soil	X
0023-S4-255	03-6474-8	Soil	X
0023-S4-256	03-6474-9	Soil	X
0023-S4-257[1,2]	03-6474-10	Soil	X
0023-S4-258[2]	03-6474-11	Soil	X
0023-S4-259	03-6474-12	Soil	X
0023-S4-260	03-6474-13	Soil	X
0023-S4-261	03-6474-14	Soil	X
0023-S4-262	03-6474-15	Soil	X
0023-S4-263	03-6474-16	Soil	X
0023-S4-264	03-6474-17	Soil	X
0023-S4-265	03-6474-18	Soil	X
0023-S4-266	03-6474-19	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-267	03-6474-20	Soil	X
0023-S4-268[1,2]	03-6474-21	Soil	X
0023-S4-269[2]	03-6474-22	Soil	X
0023-S4-270	03-6474-23	Soil	X
0023-S4-271	03-6474-24	Soil	X
0023-S4-272	03-6474-25	Soil	X
0023-S4-260MD	03-6474-13MD	Soil	X
0023-S4-260MS	03-6474-13MS	Soil	X
0023-S4-260MSD	03-6474-13MSD	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit 3/15/04

Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6474 Inorganics

SAMPLES: 0023-S4-248, 0023-S4-249, 0023-S4-250, 0023-S4-251, 0023-S4-252, 0023-S4-253, 0023-S4-254, 0023-S4-255, 0023-S4-256, 0023-S4-257, 0023-S4-258, 0023-S4-259, 0023-S4-260, 0023-S4-261, 0023-S4-262, 0023-S4-263, 0023-S4-264, 0023-S4-265, 0023-S4-266, 0023-S4-267, 0023-S4-268, 0023-S4-269, 0023-S4-270, 0023-S4-271, 0023-S4-272

TOTAL LEAD

SUMMARY

All laboratory data were acceptable withoutqualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was detected at 5.20 ug/L in Continuing Calibration Blank CCB2. The positive results for lead in the associated SDG samples were greater than the action level of 5X the blank amount (5.20 mg/kg), so no action was required.

Lead was detected at 1.29 ug/L in Continuing Calibration Blank CCB4. The positive results for lead in the associated SDG samples were greater than the action level of 5X the blank amount (1.29 mg/kg), so no action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG samples 0023-S4-260. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-257 / 0023-S4-258 and 0023-S4-268 / 0023-S4-269) were identified for this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-257 / 0023-S4-258	8.1%
0023-S4-268 / 0023-S4-269	88%

The RPD for the second set exceeded the 60% QC limit for soil samples. Data qualification based on field duplicate criteria was not required, so no action was taken.

IX.) Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05428

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010B (Lead)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6494

Project Information Section: Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-273	12/10/03	0716	1	X		S	5 day	X		53A	0.5	—	Reg
0023-S4-274	12/10/03	0722	1	X		S	5 day	X		53A	1.5	—	Reg
0023-S4-275	12/10/03	0725	1	X		S	5 day	X		53B	0.5	—	Reg
0023-S4-276	12/10/03	0727	1	X		S	5 day	X		53B	1.5	—	Reg
0023-S4-277	12/10/03	0732	1	X		S	5 day	X		52A	0.5	—	Reg
0023-S4-278	12/10/03	0736	1	X		S	5 day	X		52A	1.5	—	Reg
0023-S4-279	12/10/03	0740	1	X		S	5 day	X		51B	0.5	—	Reg
0023-S4-280	12/10/03	0744	1	X		S	5 day	X	Run MS/MSD	51B	1.5	—	Reg
0023-S4-281	12/10/03	0746	1	X		S	5 day	X		51A	0.5	—	Reg
0023-S4-282	12/10/03	0747	1		X	S	5 day	X		51A	1.5	—	Reg
0023-S4-283	12/10/03	0748	1	X		S	5 day	X		51A	1.5	—	FD

RELINQUISHED BY (Signature): [signature]	DATE: 12/10/03	RECEIVED BY (Signature): [signature]
COMPANY: TAWI	TIME: 1600	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6494

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05429

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach, CA	PROJECT NO.: 1990.0231D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: LPAH/DPL (Lab Analysis)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6496

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	LPAH/DPL (Lab Analysis)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-284	12/10/03	0751	1	X		S	5 day	X		50A	0.5	—	REG
0023-S4-285	12/10/03	0755	1	X		S	5 day	X		50A	1.5	—	REG
0023-S4-286	12/10/03	0757	1	X		S	5 day	X		49B	0.5	—	REG
0023-S4-287	12/10/03	0759	1	X		S	5 day	X		49B	1.5	—	REG
0023-S4-288	12/10/03	0804	1	X		S	5 day	X		48A (49A)	0.5	—	REG
0023-S4-289	12/10/03	0806	1	X		S	5 day	X		48A (49A)	1.5	—	REG
0023-S4-290	12/10/03	0810	1	X		S	5 day	X		48A	0.5	—	REG
0023-S4-291	12/10/03	0815	1	X		S	5 day	X		48A	1.5	—	REG
0023-S4-292	12/10/03	0819	1	X		S	5 day	X		47B	0.5	—	REG
0023-S4-293	12/10/03	0821	1		X	S	5 day	X		47B	0.5	—	FD
0023-S4-294	12/10/03	0824	1	X		S	5 day	X		47B	1.5	—	REG

RELINQUISHED BY (Signature): Lisa Bienkowski	DATE: 12/10/03	RECEIVED BY (Signature): [illegible]	LABORATORY INSTRUCTIONS/COMMENTS: N/A
COMPANY: TTFWI	TIME: 1600	COMPANY: APCL	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	COMPOSITE DESCRIPTION: N/A
COMPANY	TIME	COMPANY	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
COMPANY	TIME	COMPANY	TEMPERATURE: ____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6496

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-1	Received Date:	12/10/2003
Sample ID:	**0023-S4-273**	Sample Matrix	Soil	Moisture %:	30.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	27.5		P		03M2409M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-2	Received Date:	12/10/2003
Sample ID:	**0023-S4-274**	Sample Matrix	Soil	Moisture %:	28.4
Sample Type:	Field Sample				

Element Name	CAS No.	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	4.2	6540		P		03M2409M	12/14/03	12/15/03	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-3	Received Date:	12/10/2003
Sample ID:	**0023-S4-275**	Sample Matrix	Soil	Moisture %:	24.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	106		P		03M2409M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P = ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-4	Received Date:	12/10/2003
Sample ID:	**0023-S4-276**	Sample Matrix	Soil	Moisture %:	23.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	58.6		P		03M2409M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-5	Received Date:	12/10/2003
Sample ID:	**0023-S4-277**	Sample Matrix	Soil	Moisture %:	24.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	29.6		P		03M2409M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-6	Received Date:	12/10/2003
Sample ID:	**0023-S4-278**	Sample Matrix	Soil	Moisture %:	27.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	8.2		P		03M2409M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-7	Received Date:	12/10/2003
Sample ID:	**0023-S4-279**	Sample Matrix	Soil	Moisture %:	24.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	20.5		P		03M2409M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-8	Received Date:	12/10/2003
Sample ID:	**0023-S4-280**	Sample Matrix	Soil	Moisture %:	29.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	48.7		P		03M2409M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-9	Received Date:	12/10/2003
Sample ID:	**0023-S4-281**	Sample Matrix	Soil	Moisture %:	24.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	15.2		P		03M2409M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-10	Received Date:	12/10/2003
Sample ID:	**0023-S4-282**	Sample Matrix	Soil	Moisture %:	24.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	13.2		P		03M2409M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-11	Received Date:	12/10/2003
Sample ID:	**0023-S4-283**	Sample Matrix	Soil	Moisture %:	28.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	9.5		P		03M2409M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-12	Received Date:	12/10/2003
Sample ID:	**0023-S4-284**	Sample Matrix	Soil	Moisture %:	29.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	19.0		P		03M2409M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-13	Received Date:	12/10/2003
Sample ID:	**0023-S4-285**	Sample Matrix	Soil	Moisture %:	23.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	11.9		P		03M2409M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-14	Received Date:	12/10/2003
Sample ID:	**0023-S4-286**	Sample Matrix	Soil	Moisture %:	29.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	76.0		P		03M2409M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-15	Received Date:	12/10/2003
Sample ID:	**0023-S4-287**	Sample Matrix	Soil	Moisture %:	32.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	11.5		P		03M2409M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-16	Received Date:	12/10/2003
Sample ID:	**0023-S4-288**	Sample Matrix	Soil	Moisture %:	32.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	270		P		03M2409M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-17	Received Date:	12/10/2003
Sample ID:	**0023-S4-289**	Sample Matrix	Soil	Moisture %:	26.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	55.0		P		03M2409M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-18	Received Date:	12/10/2003
Sample ID:	**0023-S4-290**	Sample Matrix	Soil	Moisture %:	38.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.49	76.1		P		03M2409M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-19	Received Date:	12/10/2003
Sample ID:	**0023-S4-291**	Sample Matrix	Soil	Moisture %:	28.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	12.3		P		03M2409M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-20	Received Date:	12/10/2003
Sample ID:	**0023-S4-292**	Sample Matrix	Soil	Moisture %:	29.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	19.5		P		03M2409M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-21	Received Date:	12/10/2003
Sample ID:	**0023-S4-293**	Sample Matrix	Soil	Moisture %:	29.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	23.7		P		03M2403L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36496	Collected by:	Lisa B.
		Lab Sample ID:	03-6496-22	Received Date:	12/10/2003
Sample ID:	**0023-S4-294**	Sample Matrix	Soil	Moisture %:	34.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.46	28.5		P		03M2403L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6496 (Level III and Level IV)

RECEIVED
MAR 2 5 2004

OVERVIEW

SAMPLES:

ORIGINAL

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-273	03-6496-1	Soil	X
0023-S4-274	03-6496-2	Soil	X
0023-S4-275	03-6496-3	Soil	X
0023-S4-276	03-6496-4	Soil	X
0023-S4-277	03-6496-5	Soil	X
0023-S4-278	03-6496-6	Soil	X
0023-S4-279	03-6496-7	Soil	X
0023-S4-280	03-6496-8	Soil	X
0023-S4-281	03-6496-9	Soil	X
0023-S4-282[1,2]	03-6496-10	Soil	X
0023-S4-283[2]	03-6496-11	Soil	X
0023-S4-284	03-6496-12	Soil	X
0023-S4-285	03-6496-13	Soil	X
0023-S4-286	03-6496-14	Soil	X
0023-S4-287	03-6496-15	Soil	X
0023-S4-288	03-6496-16	Soil	X
0023-S4-289	03-6496-17	Soil	X
0023-S4-290	03-6496-18	Soil	X
0023-S4-291	03-6496-19	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-292[1,2]	03-6496-20	Soil	X
0023-S4-293[2]	03-6496-21	Soil	X
0023-S4-294	03-6496-22	Soil	X
0023-S4-280MD	03-6496-8MD	Soil	X
0023-S4-280MS	03-6496-8MS	Soil	X
0023-S4-280MSD	03-6496-8MSD	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit 3-15-04

Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6496 Inorganics

SAMPLES: 0023-S4-273, 0023-S4-274, 0023-S4-275, 0023-S4-276, 0023-S4-277, 0023-S4-278, 0023-S4-279, 0023-S4-280, 0023-S4-281, 0023-S4-282, 0023-S4-283, 0023-S4-284, 0023-S4-285, 0023-S4-286, 0023-S4-287, 0023-S4-288, 0023-S4-289, 0023-S4-290, 0023-S4-291, 0023-S4-292, 0023-S4-293, 0023-S4-294

TOTAL LEAD

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was detected at 5.20 ug/L in Continuing Calibration Blank CCB2. The positive results for lead in the associated SDG samples were greater than the action level of 5X the blank amount (5.20 mg/kg), so no action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG samples 0023-S4-280. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-282 / 0023-S4-283 and 0023-S4-292 / 0023-S4-293) were identified for this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-282 / 0023-S4-283	32.6%
0023-S4-292 / 0023-S4-293	19.4%

Both RPDs were within the 60% QC limit for soil samples. No action was required.

IX.) Serial Dilution Analysis:

All Serial Dilution Analyses criteria were met. No action was required.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05430

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 026721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6497

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-295	12/10/03	0830	1	X		S	5 day	X		45B	0.5	–	REG
0023-S4-296	12/10/03	0833	1	X		S	5 day	X		45B	1.5	–	REG
0023-S4-297	12/10/03	0837	1	X		S	5 day	X		43B	0.5	–	REG
0023-S4-298	12/10/03	0839	1	X		S	5 day	X		43B	1.5	–	REG
0023-S4-299	12/10/03	0844	1	X		S	5 day	X		42B	0.5	–	REG
0023-S4-300	12/10/03	0847	1	X		S	5 day	X	Run MS/MSD	42B	1.5	–	REG
0023-S4-301	12/10/03	0849	1	X		S	5 day	X		40B	0.5	–	REG
0023-S4-302	12/10/03	0852	1	X		S	5 day	X		40B	1.5	–	REG
0023-S4-303	12/10/03	0930	1	X		S	5 day	X		4A	0.5	–	REG
0023-S4-304	12/10/03	0932	1		X	S	5 day	X		4A	1.5	–	REG
0023-S4-305	12/10/03	0933	1	X		S	5 day	X		4A	1.5	–	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	12/10/03	[signature]
COMPANY: HFWI	TIME: 1600	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6497

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05431

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRPSite 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010B (Lead only)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6497

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-54-306	12/10/03	0939	1	X		S	5 day	X		6B	0.5	–	REG
0023-54-307	12/10/03	0941	1	X		S	5 day	X		6B	1.5	–	REG
0023-54-308	12/10/03	0943	1	X		S	5 day	X		6A	0.5	–	REG
0023-54-309	12/10/03	0945	1	X		S	5 day	X		6A	1.5	–	REG
0023-54-310	12/10/03	0948	1	X		S	5 day	X		9B	0.5	–	REG
0023-54-311	12/10/03	0950	1	X		S	5 day	X		9B	1.5	–	REG
0023-54-312	12/10/03	0953	1	X		S	5 day	X		10B	0.5	–	REG
0023-54-313	12/10/03	0955	1	X		S	5 day	X		10B	1.5	–	REG
0023-54-314	12/10/03	0957	1	X		S	5 day	X		11B	0.5	–	REG
0023-54-315	12/10/03	0958	1		X	S	5 day	X		11B	1.5	–	REG
0023-54-316	12/10/03	0959	1	X		S	5 day	X		11B	1.5	–	FP

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/10/03	[illegible]
COMPANY: TFWI	TIME: 1600	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6497

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-1	Received Date:	12/10/2003
Sample ID:	**0023-S4-295**	Sample Matrix	Soil	Moisture %:	41.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.51	186		P		03M2410M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-2	Received Date:	12/10/2003
Sample ID:	**0023-S4-296**	Sample Matrix	Soil	Moisture %:	36.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.47	157		P		03M2410M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-3	Received Date:	12/10/2003
Sample ID:	**0023-S4-297**	Sample Matrix	Soil	Moisture %:	29.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	73.0		P		03M2410M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-4	Received Date:	12/10/2003
Sample ID:	**0023-S4-298**	Sample Matrix	Soil	Moisture %:	34.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.46	39.8		P		03M2410M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-5	Received Date:	12/10/2003
Sample ID:	**0023-S4-299**	Sample Matrix	Soil	Moisture %:	25.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	10.8		P		03M2410M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-6	Received Date:	12/10/2003
Sample ID:	**0023-S4-300**	Sample Matrix	Soil	Moisture %:	32.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	13.1		P		03M2410M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-7	Received Date:	12/10/2003
Sample ID:	**0023-S4-301**	Sample Matrix	Soil	Moisture %:	28.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	150		P		03M2410M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-8	Received Date:	12/10/2003
Sample ID:	**0023-S4-302**	Sample Matrix	Soil	Moisture %:	37.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	2.4	1040		P		03M2410M	12/14/03	12/15/03	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-9	Received Date:	12/10/2003
Sample ID:	**0023-S4-303**	Sample Matrix	Soil	Moisture %:	23.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	13.8		P		03M2410M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-10	Received Date:	12/10/2003
Sample ID:	**0023-S4-304**	Sample Matrix	Soil	Moisture %:	31.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	19.9		P		03M2410M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL; B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control; * - Duplicate analysis out of control; W - Post digestion spike for GFAA out of control; E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-11	Received Date:	12/10/2003
Sample ID:	**0023-S4-305**	Sample Matrix	Soil	Moisture %:	24.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	9.4		P		03M2410M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-12	Received Date:	12/10/2003
Sample ID:	**0023-S4-306**	Sample Matrix	Soil	Moisture %:	16.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	9.9		P		03M2410M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-13	Received Date:	12/10/2003
Sample ID:	**0023-S4-307**	Sample Matrix	Soil	Moisture %:	18.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	7.7		P		03M2410M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-14	Received Date:	12/10/2003
Sample ID:	**0023-S4-308**	Sample Matrix	Soil	Moisture %:	29.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	39.2		P		03M2410M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-15	Received Date:	12/10/2003
Sample ID:	**0023-S4-309**	Sample Matrix	Soil	Moisture %:	43.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.53	22.4		P		03M2410M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-16	Received Date:	12/10/2003
Sample ID:	**0023-S4-310**	Sample Matrix	Soil	Moisture %:	4.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	118		P		03M2410M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-17	Received Date:	12/10/2003
Sample ID:	**0023-S4-311**	Sample Matrix	Soil	Moisture %:	6.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	11.1		P		03M2410M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-18	Received Date:	12/10/2003
Sample ID:	**0023-S4-312**	Sample Matrix	Soil	Moisture %:	38.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.49	17.2		P		03M2410M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-19	Received Date:	12/10/2003
Sample ID:	**0023-S4-313**	Sample Matrix	Soil	Moisture %:	40.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.50	15.3		P		03M2410M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-20	Received Date:	12/10/2003
Sample ID:	**0023-S4-314**	Sample Matrix	Soil	Moisture %:	33.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	28.5		P		03M2410M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-21	Received Date:	12/10/2003
Sample ID:	**0023-S4-315**	Sample Matrix	Soil	Moisture %:	34.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.46	28.4		P		03M2403L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36497	Collected by:	Lisa B.
		Lab Sample ID:	03-6497-22	Received Date:	12/10/2003
Sample ID:	**0023-S4-316**	Sample Matrix	Soil	Moisture %:	33.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	47.0		P		03M2403L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6497 (Level III and Level IV)

RECEIVED
MAR 26 2004

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-295	03-6497-1	Soil	X
0023-S4-296	03-6497-2	Soil	X
0023-S4-297	03-6497-3	Soil	X
0023-S4-298	03-6497-4	Soil	X
0023-S4-299	03-6497-5	Soil	X
0023-S4-300	03-6497-6	Soil	X
0023-S4-301	03-6497-7	Soil	X
0023-S4-302	03-6497-8	Soil	X
0023-S4-303	03-6497-9	Soil	X
0023-S4-304[1,2]	03-6497-10	Soil	X
0023-S4-305[2]	03-6497-11	Soil	X
0023-S4-306	03-6497-12	Soil	X
0023-S4-307	03-6497-13	Soil	X
0023-S4-308	03-6497-14	Soil	X
0023-S4-309	03-6497-15	Soil	X
0023-S4-310	03-6497-16	Soil	X
0023-S4-311	03-6497-17	Soil	X
0023-S4-312	03-6497-18	Soil	X
0023-S4-313	03-6497-19	Soil	X

ORIGINAL

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-314	03-6497-20	Soil	X
0023-S4-315[1,2]	03-6497-21	Soil	X
0023-S4-316[2]	03-6497-22	Soil	X
0023-S4-300MD	03-6497-6MD	Soil	X
0023-S4-300MS	03-6497-6MS	Soil	X
0023-S4-300MSD	03-6497-6MSD	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6497 Inorganics

SAMPLES: 0023-S4-295, 0023-S4-296, 0023-S4-297, 0023-S4-298, 0023-S4-299, 0023-S4-300, 0023-S4-301, 0023-S4-302, 0023-S4-303, 0023-S4-304, 0023-S4-305, 0023-S4-306, 0023-S4-307, 0023-S4-308, 0023-S4-309, 0023-S4-310, 0023-S4-311, 0023-S4-312, 0023-S4-313, 0023-S4-314, 0023-S4-315, 0023-S4-316

TOTAL LEAD

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was detected at 5.20 ug/L in Continuing Calibration Blank CCB2. The positive results for lead in the associated SDG samples were greater than the action level of 5X the blank amount (5.20 mg/kg), so no action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG samples 0023-S4-220. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-304 / 0023-S4-305 and 0023-S4-315 / 0023-S4-316) were identified for this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-304 / 0023-S4-305	72%
0023-S4-315 / 0023-S4-316	49%

The RPD for the first set exceeded the 60% QC limit for soil samples. Data qualification based on field duplicate criteria was not required, so no action was taken.

IX.) Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05432

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPN STA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6498

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-317	12/10/03	1004	1	X		S	5 day	X		12B	0.5	–	REG
0023-S4-318	12/10/03	1007	1	X		S	5 day	X		12B	1.5	–	REG
0023-S4-319	12/10/03	1012	1	X		S	5 day	X		13B	0.5	–	REG
~~0023-S4-320~~	~~12/10/03~~		~~1~~	~~X~~		~~S~~	~~5 day~~	~~X~~	~~[illegible]~~	~~13B~~	~~1.5~~	~~–~~	~~REG~~
0023-S4-321	12/10/03	1019	1	X		S	5 day	X	Run MS/MSD	15B	0.5	–	REG
0023-S4-322	12/10/03	1021	1	X		S	5 day	X		15B	1.5	–	REG
0023-S4-323	12/10/03	1023	1	X		S	5 day	X		16B	0.5	–	REG
0023-S4-324	12/10/03	1025	1	X		S	5 day	X		16B	1.5	–	REG
0023-S4-325	12/10/03	1027	1	X		S	5 day	X		18B	0.5	–	REG
0023-S4-326	12/10/03	1028	1		X	S	5 day	X		18B	0.5	–	FD
0023-S4-327	12/10/03	1030	1	X		S	5 day	X		18B	1.5	–	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/10/03	[signature]
COMPANY: FFWI	TIME: 1600	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05433

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 TASK 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE:
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6498

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: 6 PAH (1,0B) (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	6 PAH (1,0B) (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-328	12/10/03	1031	1	X		S	5 day	X		20B	0.5	–	REG
0023-S4-329	12/10/03	1033	1	X		S	5 day	X		20B	1.5	–	REG
0023-S4-330	12/10/03	1037	1	X		S	5 day	X		21B	0.5	–	REG
0023-S4-331	12/10/03	1039	1	X		S	5 day	X		21B	1.5	–	REG
0023-S4-332	12/10/03	1041	1	X		S	5 day	X		22B	0.5	–	REG
0023-S4-333	12/10/03	1043	1	X		S	5 day	X		22B	1.5	–	REG
0023-S4-334	12/10/03	1047	1	X		S	5 day	X		23B	0.5	–	REG
0023-S4-335	12/10/03	1049	1	X		S	5 day	X		23B	1.5	–	REG
0023-S4-336	12/10/03	1100	1	X		S	5 day	X		61A	0.5	–	REG
0023-S4-337	12/10/03	1103	1		X	S	5 day	X		61A	1.5	–	REG
0023-S4-338	12/10/03	1104	1	X		S	5 day	X		61A	1.5	–	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/10/03	[illegible]
COMPANY: FFWC	TIME: 1700	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03649

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-1	Received Date:	12/10/2003
Sample ID:	**0023-S4-317**	Sample Matrix	Soil	Moisture %:	10.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	40.4		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-2	Received Date:	12/10/2003
Sample ID:	**0023-S4-318**	Sample Matrix	Soil	Moisture %:	7.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	43.3		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-3	Received Date:	12/10/2003
Sample ID:	**0023-S4-319**	Sample Matrix	Soil	Moisture %:	12.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	92.1		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-4	Received Date:	12/10/2003
Sample ID:	**0023-S4-321**	Sample Matrix	Soil	Moisture %:	40.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.50	68.5		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control.

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-5	Received Date:	12/10/2003
Sample ID:	**0023-S4-322**	Sample Matrix	Soil	Moisture %:	29.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	67.5		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-6	Received Date:	12/10/2003
Sample ID:	**0023-S4-323**	Sample Matrix	Soil	Moisture %:	32.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	13.0		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-7	Received Date:	12/10/2003
Sample ID:	**0023-S4-324**	Sample Matrix	Soil	Moisture %:	35.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.46	14.1		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-8	Received Date:	12/10/2003
Sample ID:	**0023-S4-325**	Sample Matrix	Soil	Moisture %:	6.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	18.0		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-9	Received Date:	12/10/2003
Sample ID:	**0023-S4-326**	Sample Matrix	Soil	Moisture %:	10.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	29.5		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-10	Received Date:	12/10/2003
Sample ID:	**0023-S4-327**	Sample Matrix	Soil	Moisture %:	18.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	22.7		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-11	Received Date:	12/10/2003
Sample ID:	**0023-S4-328**	Sample Matrix	Soil	Moisture %:	14.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	43.2		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-12	Received Date:	12/10/2003
Sample ID:	**0023-S4-329**	Sample Matrix	Soil	Moisture %:	17.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	139		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-13	Received Date:	12/10/2003
Sample ID:	**0023-S4-330**	Sample Matrix	Soil	Moisture %:	10.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	33.5		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-14	Received Date:	12/10/2003
Sample ID:	**0023-S4-331**	Sample Matrix	Soil	Moisture %:	12.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	42.1		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-15	Received Date:	12/10/2003
Sample ID:	**0023-S4-332**	Sample Matrix	Soil	Moisture %:	4.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	30.0		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-16	Received Date:	12/10/2003
Sample ID:	**0023-S4-333**	Sample Matrix	Soil	Moisture %:	6.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	30.0		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-17	Received Date:	12/10/2003
Sample ID:	**0023-S4-334**	Sample Matrix	Soil	Moisture %:	32.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	62.7		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-18	Received Date:	12/10/2003
Sample ID:	**0023-S4-335**	Sample Matrix	Soil	Moisture %:	44.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.54	29.3		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-19	Received Date:	12/10/2003
Sample ID:	**0023-S4-336**	Sample Matrix	Soil	Moisture %:	14.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	8.6		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-20	Received Date:	12/10/2003
Sample ID:	**0023-S4-337**	Sample Matrix	Soil	Moisture %:	26.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	9.8		P		03M2411M	12/14/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36498	Collected by:	Lisa B.
		Lab Sample ID:	03-6498-21	Received Date:	12/10/2003
Sample ID:	**0023-S4-338**	Sample Matrix	Soil	Moisture %:	20.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	12.0 J		P		03M2426L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH
3/02/04

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6498 (Level III and Level IV)

RECEIVED
MAR 26 2004

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-317	03-6498-1	Soil	X
0023-S4-318	03-6498-2	Soil	X
0023-S4-319	03-6498-3	Soil	X
0023-S4-321	03-6498-4	Soil	X
0023-S4-322	03-6498-5	Soil	X
0023-S4-323	03-6498-6	Soil	X
0023-S4-324	03-6498-7	Soil	X
0023-S4-325[2]	03-6498-8	Soil	X
0023-S4-326[1,2]	03-6498-9	Soil	X
0023-S4-327	03-6498-10	Soil	X
0023-S4-328	03-6498-11	Soil	X
0023-S4-329	03-6498-12	Soil	X
0023-S4-330	03-6498-13	Soil	X
0023-S4-331	03-6498-14	Soil	X
0023-S4-332	03-6498-15	Soil	X
0023-S4-333	03-6498-16	Soil	X
0023-S4-334	03-6498-17	Soil	X
0023-S4-335	03-6498-18	Soil	X
0023-S4-336	03-6498-19	Soil	X

ORIGINAL

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-337[1,2]	03-6498-20	Soil	X
0023-S4-338[2]	03-6498-21	Soil	X
0023-S4-321MD	03-6498-4MD	Soil	X
0023-S4-321MS	03-6498-4MS	Soil	X
0023-S4-321MSD	03-6498-4MSD	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6498 Inorganics

SAMPLES: 0023-S4-317, 0023-S4-318, 0023-S4-319, 0023-S4-321, 0023-S4-322, 0023-S4-323, 0023-S4-324, 0023-S4-325, 0023-S4-326, 0023-S4-327, 0023-S4-328, 0023-S4-329, 0023-S4-330, 0023-S4-331, 0023-S4-332, 0023-S4-333, 0023-S4-334, 0023-S4-335, 0023-S4-336, 0023-S4-337, 0023-S4-338

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with one qualification. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was reported at -5.51 ug/L in Continuing Calibration Blank CCB9. The positive result for lead in the associated SDG sample was greater than the action level of 5X the blank amount (5.51 mg/kg), so no action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG samples 0023-S4-321. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-325 / 0023-S4-326 and 0023-S4-337 / 0023-S4-338) were identified for this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-325 / 0023-S4-326	48%
0023-S4-337 / 0023-S4-338	20%

Both RPDs were within the 60% QC limit for soil samples. No action was required.

IX.) Serial Dilution Analysis:

The Percent Difference (%D) of lead was 23.5% for the batch Serial Dilution Analysis, which exceeded the 10% QC limit. The positive result for lead in associated sample 0023-S4-338 was flagged as estimated (J).

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05434

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6499

Project Information Section
Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-339	12/10/03	1211	1	X		S	5 day	X		1A	0.5	-	REG
0023-S4-340	12/10/03	1213	1	X		S	5 day	X	Run MS/MSD	1A	1.5	-	REG
0023-S4-341	12/10/03	(1215) 1218	1	X		S	5 day	X		2B	0.5	-	REG
0023-S4-342	12/10/03	1218	1	X		S	5 day	X		2B	1.5	-	REG
0023-S4-343	12/10/03	1220	1	X		S	5 day	X		2A	0.5	-	REG
0023-S4-344	12/10/03	1222	1	X		S	5 day	X		2A	1.5	-	REG
0023-S4-345	12/10/03	1226	1	X		S	5 day	X		3A	0.5	-	REG
0023-S4-346	12/10/03	1228	1	X		S	5 day	X		3A	1.5	-	REG
0023-S4-347	12/10/03	1235	1	X		S	5 day	X		4B	0.5	-	REG
0023-S4-348	12/10/03	1237	1		X	S	5 day	X		4B	0.5	-	FD
0023-S4-349	12/10/03	1238	1	X		S	5 day	X		4B	1.5	-	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	12/10/03	[signature]
COMPANY: THFWI	TIME: 1600	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6499R

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05435

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6499

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 1013 (Landmark)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 1013 (Landmark)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-350	12/10/03	1241	1	X		S	5 day	X		5B	0.5	–	REG
0023-S4-351	12/10/03	1243	1	X		S	5 day	X		5B	1.5	–	REG
0023-S4-352	12/10/03	1246	1	X		S	5 day	X		5A	0.5	–	REG
0023-S4-353	12/10/03	1248	1	X		S	5 day	X		5A	1.5	–	REG
0023-S4-354	12/10/03	1251	1	X		S	5 day	X		7A	0.5	–	REG
0023-S4-355	12/10/03	1253	1	X		S	5 day	X		7A	1.5	–	REG
0023-S4-356	12/10/03	1256	1	X		S	5 day	X		8A	0.5	–	REG
0023-S4-357	12/10/03	1258	1	X		S	5 day	X		8A	1.5	–	REG
0023-S4-358	12/10/03	1302	1	X		S	5 day	X		8B	0.5	–	REG
0023-S4-359	12/10/03	1304	1		X	S	5 day	X		8B	1.5	–	REG
0023-S4-360	12/10/03	1305	1	X		S	5 day	X	Run MS/MSD	8B	1.5	–	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	12/10/03	[signature]
COMPANY: T+FWI	TIME: 1600	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6499R

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-1	Received Date:	12/10/2003
Sample ID:	0023-S4-339	Sample Matrix	Soil	Moisture %:	43.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.53	17.2		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-2	Received Date:	12/10/2003
Sample ID:	**0023-S4-340**	Sample Matrix	Soil	Moisture %:	59.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.74	20.1		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-3	Received Date:	12/10/2003
Sample ID:	**0023-S4-341**	Sample Matrix	Soil	Moisture %:	27.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	3.7		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-4	Received Date:	12/10/2003
Sample ID:	0023-S4-342	Sample Matrix	Soil	Moisture %:	32.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	19.9		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-5	Received Date:	12/10/2003
Sample ID:	**0023-S4-343**	Sample Matrix	Soil	Moisture %:	62.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.79	14.2		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-6	Received Date:	12/10/2003
Sample ID:	0023-S4-344	Sample Matrix	Soil	Moisture %:	72.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.1	11.2		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-7	Received Date:	12/10/2003
Sample ID:	**0023-S4-345**	Sample Matrix	Soil	Moisture %:	74.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.2	660		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-8	Received Date:	12/10/2003
Sample ID:	**0023-S4-346**	Sample Matrix	Soil	Moisture %:	71.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.0	27.9		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-9	Received Date:	12/10/2003
Sample ID:	**0023-S4-347**	Sample Matrix	Soil	Moisture %:	38.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.49	22.5		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-10	Received Date:	12/10/2003
Sample ID:	**0023-S4-348**	Sample Matrix	Soil	Moisture %:	57.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.70	51.1		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-11	Received Date:	12/10/2003
Sample ID:	0023-S4-349	Sample Matrix	Soil	Moisture %:	47.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.57	45.0		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-12	Received Date:	12/10/2003
Sample ID:	**0023-S4-350**	Sample Matrix	Soil	Moisture %:	8.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	9.3		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-13	Received Date:	12/10/2003
Sample ID:	**0023-S4-351**	Sample Matrix	Soil	Moisture %:	13.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	9.2		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-14	Received Date:	12/10/2003
Sample ID:	**0023-S4-352**	Sample Matrix	Soil	Moisture %:	12.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	8.4		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-15	Received Date:	12/10/2003
Sample ID:	**0023-S4-353**	Sample Matrix	Soil	Moisture %:	14.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	9.8		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-16	Received Date:	12/10/2003
Sample ID:	**0023-S4-354**	Sample Matrix	Soil	Moisture %:	32.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	7.4		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-17	Received Date:	12/10/2003
Sample ID:	0023-S4-355	Sample Matrix	Soil	Moisture %:	48.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.58	27.0		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-18	Received Date:	12/10/2003
Sample ID:	**0023-S4-356**	Sample Matrix	Soil	Moisture %:	44.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.54	5.7		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-19	Received Date:	12/10/2003
Sample ID:	**0023-S4-357**	Sample Matrix	Soil	Moisture %:	61.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.78	107		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-20	Received Date:	12/10/2003
Sample ID:	**0023-S4-358**	Sample Matrix	Soil	Moisture %:	39.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.50	15.1		P		03M2414M	12/15/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-21	Received Date:	12/10/2003
Sample ID:	**0023-S4-359**	Sample Matrix	Soil	Moisture %:	50.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.61	28.6 J		P		03M2426L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH
3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	IRP Site 4	Service ID:	36499	Collected by:	Lisa B.
		Lab Sample ID:	03-6499-22	Received Date:	12/10/2003
Sample ID:	**0023-S4-360**	Sample Matrix	Soil	Moisture %:	44.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.54	10.5	J	P		03M2426L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH
3/02/04

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6499 (Level III and Level IV)

RECEIVED
MAR 26 2004

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-339	03-6499-1	Soil	X
0023-S4-340	03-6499-2	Soil	X
0023-S4-341	03-6499-3	Soil	X
0023-S4-342	03-6499-4	Soil	X
0023-S4-343	03-6499-5	Soil	X
0023-S4-344	03-6499-6	Soil	X
0023-S4-345	03-6499-7	Soil	X
0023-S4-346[2]	03-6499-8	Soil	X
0023-S4-347[1,2]	03-6499-9	Soil	X
0023-S4-348	03-6499-10	Soil	X
0023-S4-349	03-6499-11	Soil	X
0023-S4-350	03-6499-12	Soil	X
0023-S4-351	03-6499-13	Soil	X
0023-S4-352	03-6499-14	Soil	X
0023-S4-353	03-6499-15	Soil	X
0023-S4-354	03-6499-16	Soil	X
0023-S4-355	03-6499-17	Soil	X
0023-S4-356	03-6499-18	Soil	X
0023-S4-357	03-6499-19	Soil	X

ORIGINAL

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-358[1,2]	03-6499-20	Soil	X
0023-S4-359[2]	03-6499-21	Soil	X
0023-S4-360	03-6499-22	Soil	X
0023-S4-340MD	03-6499-2MD	Soil	X
0023-S4-340MS	03-6499-2MS	Soil	X
0023-S4-340MSD	03-6499-2MSD	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6499 Inorganics

SAMPLES: 0023-S4-339, 0023-S4-340, 0023-S4-341, 0023-S4-342, 0023-S4-343, 0023-S4-344, 0023-S4-345, 0023-S4-346, 0023-S4-347, 0023-S4-348, 0023-S4-349, 0023-S4-350, 0023-S4-351, 0023-S4-352, 0023-S4-353, 0023-S4-354, 0023-S4-355, 0023-S4-356, 0023-S4-357, 0023-S4-358, 0023-S4-359, 0023-S4-360

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was detected at 3.18 ug/L in Continuing Calibration Blank CCB8. All positive results for lead in the associated SDG samples were greater than the action level of 5X the blank amount (3.18 mg/kg), so no action was required.

Lead was reported at -5.51 ug/L in Continuing Calibration Blank CCB9. The positive result for lead in the associated SDG sample was greater than the action level of 5X the blank amount (5.51 mg/kg), so no action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG samples 0023-S4-340. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-347 / 0023-S4-348 and 0023-S4-359 / 0023-S4-360) were identified for this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-347/ 0023-S4-348	78%
0023-S4-359 / 0023-S4-360	93%

Both RPDs exceeded the 60% QC limit for soil samples. Data qualification based on field duplicate criteria was not required, so no action was taken.

IX.) Serial Dilution Analysis:

The Percent Difference (%D) of lead was 23.5% for the batch Serial Dilution Analysis, which exceeded the 10% QC limit. The positive results for lead in associated samples 0023-S4-359 and 0023-S4-360 were flagged as estimated (J).

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05436

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 02001 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach CA	PROJECT NO.: 1490.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6500

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 8010B (Lindane)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 8010B (Lindane)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-361	12/10/03	1320	1	X		S	5 day	X		9A	0.5	–	REG
0023-S4-362	12/10/03	1326	1	X		S	5 day	X		9A	1.5	–	REG
0023-S4-363	12/10/03	1333	1	X		S	5 day	X		10A	0.5	–	REG
0023-S4-364	12/10/03	1336	1	X		S	5 day	X		10A	1.5	–	REG
0023-S4-365	12/10/03	1341	1	X		S	5 day	X		11A	0.5	–	REG
0023-S4-366	12/10/03	1345	1	X		S	5 day	X		11A	1.5	–	REG
0023-S4-367	12/10/03	1350	1	X		S	5 day	X		12A	0.5	–	REG
0023-S4-368	12/10/03	1353	1	X		S	5 day	X		12A	1.5	–	REG
0023-S4-369	12/10/03	1358	1	X		S	5 day	X		13A	0.5	–	REG
0023-S4-370	12/10/03	1400	1		X	S	5 day	X		13A	1.5	–	REG
0023-S4-371	12/10/03	1401	1	X		S	5 day	X		13A	1.5	–	FD

RELINQUISHED BY (Signature): [signature]	DATE: 12/10/03	RECEIVED BY (Signature): [signature]	
COMPANY: T&WI	TIME: 1600	COMPANY: APCL	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	
COMPANY	TIME	COMPANY	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	
COMPANY	TIME	COMPANY	

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6500A

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05437

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010B (Pb only)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6500

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Pb only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-372	12/10/03	1404	1	X		S	5 day	X		14A	0.5	–	REG
0023-S4-373	12/10/03	1406	1	X		S	5 day	X		14A	1.5	–	REG
0023-S4-374	12/10/03	1408	1	X		S	5 day	X		14B	0.5	–	REG
0023-S4-375	12/10/03	1410	1	X		S	5 day	X		14B	1.5	–	REG
0023-S4-376	12/10/03	1414	1	X		S	5 day	X		15A	0.5	–	REG
0023-S4-377	12/10/03	1416	1	X		S	5 day	X		15A	1.5	–	REG
0023-S4-378	12/10/03	1419	1	X		S	5 day	X		16A	0.5	–	REG
0023-S4-379	12/10/03	1421	1	X		S	5 day	X		16A	1.5	–	REG
0023-S4-380	12/10/03	1423	1	X		S	5 day	X	Run MS/MSD	17B	0.5	–	REG
0023-S4-381	12/10/03	1424	1		X	S	5 day	X		17B	0.5	–	FD
0023-S4-382	12/10/03	1426	1	X		S	5 day	X		17B	1.5	–	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/10/03	[illegible]
COMPANY: AFWI	TIME: 1600	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6500R

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-1	Received Date:	12/10/2003
Sample ID:	**0023-S4-361**	Sample Matrix	Soil	Moisture %:	34.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.46	15.1		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control - E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-2	Received Date:	12/10/2003
Sample ID:	0023-S4-362	Sample Matrix	Soil	Moisture %:	49.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.60	13.8		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-3	Received Date:	12/10/2003
Sample ID:	0023-S4-363	Sample Matrix	Soil	Moisture %:	46.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.56	12.3		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL; B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control; * - Duplicate analysis out of control; W - Post digestion spike for GFAA out of control; E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-4	Received Date:	12/10/2003
Sample ID:	0023-S4-364	Sample Matrix	Soil	Moisture %:	32.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	6.4		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-5	Received Date:	12/10/2003
Sample ID:	0023-S4-365	Sample Matrix	Soil	Moisture %:	40.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.50	15.3		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-6	Received Date:	12/10/2003
Sample ID:	0023-S4-366	Sample Matrix	Soil	Moisture %:	45.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.55	13.0		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-7	Received Date:	12/10/2003
Sample ID:	0023-S4-367	Sample Matrix	Soil	Moisture %:	31.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	4.4		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-8	Received Date:	12/10/2003
Sample ID:	0023-S4-368	Sample Matrix	Soil	Moisture %:	45.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.55	9.6		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-9	Received Date:	12/10/2003
Sample ID:	0023-S4-369	Sample Matrix	Soil	Moisture %:	46.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.56	24.5		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-10	Received Date:	12/10/2003
Sample ID:	**0023-S4-370**	Sample Matrix	Soil	Moisture %:	64.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.84	139		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-11	Received Date:	12/10/2003
Sample ID:	**0023-S4-371**	Sample Matrix	Soil	Moisture %:	29.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	3.9		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL

Q Qualifier: N - Spike recovery out of control

W - Post digestion spike for GFAA out of control

M Qualifier: P - ICP A - FLAA F - GFAA

B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

* - Duplicate analysis out of control

E - Serial dilution difference out of control

CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-12	Received Date:	12/10/2003
Sample ID:	**0023-S4-372**	Sample Matrix	Soil	Moisture %:	47.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.57	22.3		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL; B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control; * - Duplicate analysis out of control; W - Post digestion spike for GFAA out of control; E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-13	Received Date:	12/10/2003
Sample ID:	0023-S4-373	Sample Matrix	Soil	Moisture %:	73.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.1	274		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-14	Received Date:	12/10/2003
Sample ID:	0023-S4-374	Sample Matrix	Soil	Moisture %:	42.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.52	15.0		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-15	Received Date:	12/10/2003
Sample ID:	0023-S4-375	Sample Matrix	Soil	Moisture %:	75.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.2	1570		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-16	Received Date:	12/10/2003
Sample ID:	**0023-S4-376**	Sample Matrix	Soil	Moisture %:	36.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.47	14.4		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-17	Received Date:	12/10/2003
Sample ID:	0023-S4-377	Sample Matrix	Soil	Moisture %:	65.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.88	275		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-18	Received Date:	12/10/2003
Sample ID:	0023-S4-378	Sample Matrix	Soil	Moisture %:	33.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	11.0		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-19	Received Date:	12/10/2003
Sample ID:	0023-S4-379	Sample Matrix	Soil	Moisture %:	52.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.63	35.8		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL; B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control; * - Duplicate analysis out of control; W - Post digestion spike for GFAA out of control; E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-20	Received Date:	12/10/2003
Sample ID:	0023-S4-380	Sample Matrix	Soil	Moisture %:	39.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.49	11.0		P		03M2421M	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-21	Received Date:	12/10/2003
Sample ID:	**0023-S4-381**	Sample Matrix	Soil	Moisture %:	61.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.78	33.9		P		03M2403L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL

B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control

* - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control

E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA

CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36500	Collected by:	Lisa B.
		Lab Sample ID:	03-6500-22	Received Date:	12/10/2003
Sample ID:	0023-S4-382	Sample Matrix	Soil	Moisture %:	46.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.56	23.1		P		03M2403L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6500 (Level III and Level IV)

ORIGINAL

OVERVIEW

SAMPLES:

RECEIVED
MAR 26 2004

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-361	03-6500-1	Soil	X
0023-S4-362	03-6500-2	Soil	X
0023-S4-363	03-6500-3	Soil	X
0023-S4-364	03-6500-4	Soil	X
0023-S4-365	03-6500-5	Soil	X
0023-S4-366	03-6500-6	Soil	X
0023-S4-367	03-6500-7	Soil	X
0023-S4-368	03-6500-8	Soil	X
0023-S4-369	03-6500-9	Soil	X
0023-S4-370[1,2]	03-6500-10	Soil	X
0023-S4-371[2]	03-6500-11	Soil	X
0023-S4-372	03-6500-12	Soil	X
0023-S4-373	03-6500-13	Soil	X
0023-S4-374	03-6500-14	Soil	X
0023-S4-375	03-6500-15	Soil	X
0023-S4-376	03-6500-16	Soil	X
0023-S4-377	03-6500-17	Soil	X
0023-S4-378	03-6500-18	Soil	X
0023-S4-379	03-6500-19	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-380[2]	03-6500-20	Soil	X
0023-S4-381[1,2]	03-6500-21	Soil	X
0023-S4-382	03-6500-22	Soil	X
0023-S4-340MD	03-6500-20MD	Soil	X
0023-S4-340MS	03-6500-20MS	Soil	X
0023-S4-340MSD	03-6500-20MSD	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6500 Inorganics

SAMPLES: 0023-S4-361, 0023-S4-362, 0023-S4-363, 0023-S4-364, 0023-S4-365, 0023-S4-366, 0023-S4-367, 0023-S4-368, 0023-S4-369, 0023-S4-370, 0023-S4-371, 0023-S4-372, 0023-S4-373, 0023-S4-374, 0023-S4-375, 0023-S4-376, 0023-S4-377, 0023-S4-378, 0023-S4-379, 0023-S4-380, 0023-S4-381, 0023-S4-382

TOTAL LEAD

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was detected at 3.18 ug/L in Continuing Calibration Blank CCB8. All positive results for lead in the associated SDG samples were greater than the action level of 5X the blank amount (3.18 mg/kg), so no action was required.

Lead was detected at 5.20 ug/L in Continuing Calibration Blank CCB2. All positive results for lead in the associated SDG samples were greater than the action level of 5X the blank amount (5.20 mg/kg), so no action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG samples 0023-S4-380. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-370 / 0023-S4-371 and 0023-S4-380 / 0023-S4-381) were identified for this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-370/ 0023-S4-371	189%
0023-S4-380 / 0023-S4-381	102%

Both RPDs exceeded the 60% QC limit for soil samples. Data qualification based on field duplicate criteria was not required, so no action was taken.

IX.) Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05438

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 000721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010B (Cadmium)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6501

Project Information Section
Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Cadmium)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-383	12/10/03	1429	1	X		S	5 day	X		17A	0.5	–	REG
0023-S4-384	12/10/03	1431	1	X		S	5 day	X		17A	1.5	–	REG
0023-S4-385	12/10/03	1434	1	X		S	5 day	X		18A	0.5	–	REG
0023-S4-386	12/10/03	1436	1	X		S	5 day	X		18A	1.5	–	REG
0023-S4-387	12/10/03	1438	1	X		S	5 day	X		19B	0.5	–	REG
0023-S4-388	12/10/03	1439	1	X		S	5 day	X		19B	1.5	–	REG
0023-S4-389	12/10/03	1442	1	X		S	5 day	X		19A	0.5	–	REG
0023-S4-390	12/10/03	1444	1	X		S	5 day	X		19A	1.5	–	REG
0023-S4-391	12/10/03	1446	1	X		S	5 day	X		20A	0.5	–	REG
0023-S4-392	12/10/03	1448	1		X	S	5 day	X		20A	1.5	–	REG
0023-S4-393	12/10/03	1449	1	X		S	5 day	X		20A	1.5	–	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/10/03	[illegible]
COMPANY: Tetra Tech	TIME: 1600	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6501R

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05439

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 8015B (Lead only)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6501

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 8015B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-394	12/10/03	1451	1	X		S	5 day	X		21A	0.5	–	[illegible]
0023-S4-395	12/10/03	1454	1	X		S	5 day	X		21A	6.5	–	[illegible]
0023-S4-396	12/10/03	1530	1	X		W	5 day	X		EQ Rinsate	–	–	[illegible]
0023-S4-			1				5 day	X					
0023-S4-			1				5 day	X					
0023-S4-			1				5 day	X					
0023-S4-			1				5 day	X					
0023-S4-			1				5 day	X					
0023-S4-			1				5 day	X					
0023-S4-			1				5 day	X					
0023-S4-			1				5 day	X					

RELINQUISHED BY (Signature): [signature]	DATE: 12/10/03	RECEIVED BY (Signature): [signature]	LABORATORY INSTRUCTIONS/COMMENTS: N/A
COMPANY: FFWI	TIME: 1600	COMPANY: APCL	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	COMPOSITE DESCRIPTION: N/A
COMPANY	TIME	COMPANY	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
COMPANY	TIME	COMPANY	TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6501R

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36501	Collected by:	Lisa B.
		Lab Sample ID:	03-6501-1	Received Date:	12/10/2003
Sample ID:	0023-S4-383	Sample Matrix	Soil	Moisture %:	36.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.47	25.5		P		03M2395L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36501	Collected by:	Lisa B.
		Lab Sample ID:	03-6501-2	Received Date:	12/10/2003
Sample ID:	**0023-S4-384**	Sample Matrix	Soil	Moisture %:	61.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.79	20.4		P		03M2395L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36501	Collected by:	Lisa B.
		Lab Sample ID:	03-6501-3	Received Date:	12/10/2003
Sample ID:	**0023-S4-385**	Sample Matrix	Soil	Moisture %:	46.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.56	24.4		P		03M2395L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36501	Collected by:	Lisa B.
		Lab Sample ID:	03-6501-4	Received Date:	12/10/2003
Sample ID:	0023-S4-386	Sample Matrix	Soil	Moisture %:	60.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.76	128		P		03M2395L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36501	Collected by:	Lisa B.
		Lab Sample ID:	03-6501-5	Received Date:	12/10/2003
Sample ID:	0023-S4-387	Sample Matrix	Soil	Moisture %:	44.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.54	49.3		P		03M2395L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36501	Collected by:	Lisa B.
		Lab Sample ID:	03-6501-6	Received Date:	12/10/2003
Sample ID:	**0023-S4-388**	Sample Matrix	Soil	Moisture %:	56.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.69	57.3		P		03M2395L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36501	Collected by:	Lisa B.
		Lab Sample ID:	03-6501-7	Received Date:	12/10/2003
Sample ID:	**0023-S4-389**	Sample Matrix	Soil	Moisture %:	44.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.54	22.8		P		03M2395L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36501	Collected by:	Lisa B.
		Lab Sample ID:	03-6501-8	Received Date:	12/10/2003
Sample ID:	0023-S4-390	Sample Matrix	Soil	Moisture %:	68.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.94	18.8		P		03M2395L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36501	Collected by:	Lisa B.
		Lab Sample ID:	03-6501-9	Received Date:	12/10/2003
Sample ID:	**0023-S4-391**	Sample Matrix	Soil	Moisture %:	50.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.60	40.2		P		03M2395L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36501	Collected by:	Lisa B.
		Lab Sample ID:	03-6501-10	Received Date:	12/10/2003
Sample ID:	**0023-S4-392**	Sample Matrix	Soil	Moisture %:	29.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	6.5	U	P		03M2395L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH
3/03/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36501	Collected by:	Lisa B.
		Lab Sample ID:	03-6501-11	Received Date:	12/10/2003
Sample ID:	**0023-S4-393**	Sample Matrix	Soil	Moisture %:	47.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.57	11.3		P		03M2395L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control.
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36501	Collected by:	Lisa B.
		Lab Sample ID:	03-6501-12	Received Date:	12/10/2003
Sample ID:	**0023-S4-394**	Sample Matrix	Soil	Moisture %:	48.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.58	31.2		P		03M2395L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36501	Collected by:	Lisa B.
		Lab Sample ID:	03-6501-13	Received Date:	12/10/2003
Sample ID:	**0023-S4-395**	Sample Matrix	Soil	Moisture %:	64.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.85	817		P		03M2395L	12/12/03	12/12/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/10/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36501	Collected by:	Lisa B.
		Lab Sample ID:	03-6501-14	Received Date:	12/10/2003
Sample ID:	0023-S4-396	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	μg/L	5	1.1	B	P		03M2416L	12/16/03	12/16/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL; B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control; * - Duplicate analysis out of control; W - Post digestion spike for GFAA out of control; E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6501 (Level III and Level IV)

RECEIVED
MAR 26 2004

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-383	03-6501-1	Soil	X
0023-S4-384	03-6501-2	Soil	X
0023-S4-385	03-6501-3	Soil	X
0023-S4-386	03-6501-4	Soil	X
0023-S4-387	03-6501-5	Soil	X
0023-S4-388	03-6501-6	Soil	X
0023-S4-389	03-6501-7	Soil	X
0023-S4-390	03-6501-8	Soil	X
0023-S4-391	03-6501-9	Soil	X
0023-S4-392[1,2]	03-6501-10	Soil	X
0023-S4-393[2]	03-6501-11	Soil	X
0023-S4-394	03-6501-12	Soil	X
0023-S4-395	03-6501-13	Soil	X
0023-S4-396	03-6501-14	Soil	X

ORIGINAL

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit 3/15/04

Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6501 Inorganics

SAMPLES: 0023-S4-383, 0023-S4-384, 0023-S4-385, 0023-S4-386, 0023-S4-387, 0023-S4-388, 0023-S4-389, 0023-S4-390, 0023-S4-391, 0023-S4-392, 0023-S4-393, 0023-S4-394, 0023-S4-395, 0023-S4-396

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with one qualification. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Method Blanks:

Lead was detected at 6.74 ug/L in Continuing Calibration Blank CCB2. The positive result for lead in associated SDG sample 0023-S4-392, which was less than the action level of 5X the blank amount (6.74 mg/kg), was flagged as undetected (U). The positive results for the other associated SDG samples were greater than the action level, so no further action was required.

Lead was detected at 1.29 ug/L in Continuing Calibration Blank CCB4. Since the associated sample was an equipment rinsate blank, no action was required.

Equipment Blank:

Lead was detected at 1.1 ug/l in equipment blank 0023-S4-396. All positive results for lead in the SDG

samples were greater than the action level of 5X the blank amount (1.1 mg/kg), so no action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were submitted for this SDG. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (0023-S4-392 / 0023-S4-393) was identified for this SDG. Although the result for sample 0023-S4-392 was flagged as undetected based on suspected blank contamination, the Relative Percent Difference (RPD) was calculated for this comparison:

Duplicate Samples	RPD
0023-S4-392/ 0023-S4-393	54%

The RPD was within the 60% QC limit for soil samples. No action was required.

IX.) Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05440

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6540

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: KPA 6010B (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	KPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-397	12/11/03	0733	1	X		S	5 day	X		22A	0.5	–	REG
0023-S4-398	12/11/03	0735	1	X		S	5 day	X		22A	1.5	–	REG
0023-S4-399	12/11/03	0737	1	X		S	5 day	X		23A	0.5	–	REG
0023-S4-400	12/11/03	0739	1	X		S	5 day	X	Run MS/MSD	23A	1.5	–	REG
0023-S4-401	12/11/03	0741	1	X		S	5 day	X		24A	0.5	–	REG
0023-S4-402	12/11/03	0743	1	X		S	5 day	X		24A	1.5	–	REG
0023-S4-403	12/11/03	0746	1	X		S	5 day	X		25A	0.5	–	REG
0023-S4-404	12/11/03	0748	1	X		S	5 day	X		25A	1.5	–	REG
0023-S4-405	12/11/03	0750	1	X		S	5 day	X		26B	0.5	–	REG
0023-S4-406	12/11/03	0751	1		X	S	5 day	X		26B	0.5	–	FD
0023-S4-407	12/11/03	0752	1	X		S	5 day	X		26B	1.5	–	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/11/03	[signature]
COMPANY: HFWI	TIME: 1415	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6540R

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05441

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D.
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010B (Lead only)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6540

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-408	12/11/03	0753	1	X		S	5 day	X		26A	0.5	—	REG
0023-S4-409	12/11/03	0755	1	X		S	5 day	X		26A	1.5	—	REG
0023-S4-410	12/11/03	0757	1	X		S	5 day	X		27B	0.5	—	REG
0023-S4-411	12/11/03	0759	1	X		S	5 day	X		27B	1.5	—	REG
0023-S4-412	12/11/03	0801	1	X		S	5 day	X		27A	0.5	—	REG
0023-S4-413	12/11/03	0803	1	X		S	5 day	X		27A	1.5	—	REG
0023-S4-414	12/11/03	0805	1	X		S	5 day	X		28A	0.5	—	REG
0023-S4-415	12/11/03	0807	1	X		S	5 day	X		28A	1.5	—	REG
0023-S4-416	12/11/03	0809	1	X		S	5 day	X		29A	0.5	—	REG
0023-S4-417	12/11/03	0811	1		X	S	5 day	X		29A	1.5	—	REG
0023-S4-418	12/11/03	0812	1	X		S	5 day	X		29A	1.5	—	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	12/11/03	[signature]
COMPANY: FFWI	TIME: 1415	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6540

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-1	Received Date:	12/11/2003
Sample ID:	**0023-S4-397**	Sample Matrix	Soil	Moisture %:	70.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.0	360		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-2	Received Date:	12/11/2003
Sample ID:	**0023-S4-398**	Sample Matrix	Soil	Moisture %:	47.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.57	11.9		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-3	Received Date:	12/11/2003
Sample ID:	**0023-S4-399**	Sample Matrix	Soil	Moisture %:	69.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.97	69.6		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-4	Received Date:	12/11/2003
Sample ID:	**0023-S4-400**	Sample Matrix	Soil	Moisture %:	30.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	6.5		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-5	Received Date:	12/11/2003
Sample ID:	**0023-S4-401**	Sample Matrix	Soil	Moisture %:	35.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.47	18.8		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-6	Received Date:	12/11/2003
Sample ID:	**0023-S4-402**	Sample Matrix	Soil	Moisture %:	43.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.53	10.6		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-7	Received Date:	12/11/2003
Sample ID:	**0023-S4-403**	Sample Matrix	Soil	Moisture %:	65.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.86	88.5		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-8	Received Date:	12/11/2003
Sample ID:	**0023-S4-404**	Sample Matrix	Soil	Moisture %:	31.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	5.7		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-9	Received Date:	12/11/2003
Sample ID:	**0023-S4-405**	Sample Matrix	Soil	Moisture %:	32.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	5.5 J		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-10	Received Date:	12/11/2003
Sample ID:	**0023-S4-406**	Sample Matrix	Soil	Moisture %:	39.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.50	18.3		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL

Q Qualifier: N - Spike recovery out of control

W - Post digestion spike for GFAA out of control

M Qualifier: P - ICP A - FLAA F - GFAA

B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

* - Duplicate analysis out of control

E - Serial dilution difference out of control

CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-11	Received Date:	12/11/2003
Sample ID:	**0023-S4-407**	Sample Matrix	Soil	Moisture %:	34.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	11.1		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-12	Received Date:	12/11/2003
Sample ID:	**0023-S4-408**	Sample Matrix	Soil	Moisture %:	60.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.76	164		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-13	Received Date:	12/11/2003
Sample ID:	**0023-S4-409**	Sample Matrix	Soil	Moisture %:	33.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	9.8		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-14	Received Date:	12/11/2003
Sample ID:	**0023-S4-410**	Sample Matrix	Soil	Moisture %:	56.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.70	23.4		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-15	Received Date:	12/11/2003
Sample ID:	**0023-S4-411**	Sample Matrix	Soil	Moisture %:	38.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.49	11.3		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-16	Received Date:	12/11/2003
Sample ID:	**0023-S4-412**	Sample Matrix	Soil	Moisture %:	76.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.3	141		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-17	Received Date:	12/11/2003
Sample ID:	**0023-S4-413**	Sample Matrix	Soil	Moisture %:	38.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.49	11.8		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-18	Received Date:	12/11/2003
Sample ID:	**0023-S4-414**	Sample Matrix	Soil	Moisture %:	27.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	6.0		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-19	Received Date:	12/11/2003
Sample ID:	**0023-S4-415**	Sample Matrix	Soil	Moisture %:	28.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	5.8		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-20	Received Date:	12/11/2003
Sample ID:	**0023-S4-416**	Sample Matrix	Soil	Moisture %:	35.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.46	55.1		P		03M2424L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-21	Received Date:	12/11/2003
Sample ID:	**0023-S4-417**	Sample Matrix	Soil	Moisture %:	40.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.50	32.9		P		03M2403L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	NAVWPNSTA,Seal Beach,CA	Service ID:	36540	Collected by:	Lisa B.
		Lab Sample ID:	03-6540-22	Received Date:	12/11/2003
Sample ID:	**0023-S4-418**	Sample Matrix	Soil	Moisture %:	32.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	12.7		P		03M2403L	12/12/03	12/15/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6540 (Level III and Level IV)

RECEIVED
MAR 26 2004

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-397	03-6540-1	Soil	X
0023-S4-398	03-6540-2	Soil	X
0023-S4-399	03-6540-3	Soil	X
0023-S4-400	03-6540-4	Soil	X
0023-S4-401	03-6540-5	Soil	X
0023-S4-402	03-6540-6	Soil	X
0023-S4-403	03-6540-7	Soil	X
0023-S4-404	03-6540-8	Soil	X
0023-S4-405[2]	03-6540-9	Soil	X
0023-S4-406[1,2]	03-6540-10	Soil	X
0023-S4-407	03-6540-11	Soil	X
0023-S4-408	03-6540-12	Soil	X
0023-S4-409	03-6540-13	Soil	X
0023-S4-410	03-6540-14	Soil	X
0023-S4-411	03-6540-15	Soil	X
0023-S4-412	03-6540-16	Soil	X
0023-S4-413	03-6540-17	Soil	X
0023-S4-414	03-6540-18	Soil	X
0023-S4-415	03-6540-19	Soil	X

ORIGINAL

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-416[2]	03-6540-20	Soil	X
0023-S4-417[1,2]	03-6540-21	Soil	X
0023-S4-418	03-6540-22	Soil	X
0023-S4-400MD	03-6540-4MD	Soil	X
0023-S4-400MS	03-6540-4MS	Soil	X
0023-S4-400MSD	03-6540-4MSD	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6540 Inorganics

SAMPLES: 0023-S4-397, 0023-S4-398, 0023-S4-399, 0023-S4-400, 0023-S4-401, 0023-S4-402, 0023-S4-403, 0023-S4-404, 0023-S4-405, 0023-S4-406, 0023-S4-407, 0023-S4-408, 0023-S4-409, 0023-S4-410, 0023-S4-411, 0023-S4-412, 0023-S4-413, 0023-S4-414, 0023-S4-415, 0023-S4-416, 0023-S4-417, 0023-S4-418

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with one qualification. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was detected at 5.20 ug/L in Continuing Calibration Blank CCB2. All positive results for lead in the associated SDG samples were greater than the action level of 5X the blank amount (5.20 mg/kg), so no action was required.

Lead was reported at -5.51 ug/L in Continuing Calibration Blank CCB9. The positive result for lead in associated SDG sample 0023-S4-405, which was less than the action level of 5X the blank amount (5.51 mg/kg), was flagged as estimated (J). All results for lead in the other associated SDG samples were greater than the action level, so no further action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG samples 0023-S4-400. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-405 / 0023-S4-406 and 0023-S4-416 / 0023-S4-417) were identified for this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-405/ 0023-S4-406	108%
0023-S4-416 / 0023-S4-417	50%

The RPD for the first set exceeded the 60% QC limit for soil samples. Data qualification based on field duplicate criteria was not required, so no action was taken.

IX.) Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05442

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6541

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-419	12/11/03	0814	1	X		S	5 day	X		31A	0.5	–	REG
0023-S4-420	12/11/03	0816	1	X		S	5 day	X	Run MS/MSD	31A	1.5	–	REG
0023-S4-421	12/11/03	0818	1	X		S	5 day	X		32A B	0.5	–	REG
0023-S4-422	12/11/03	0820	1	X		S	5 day	X		32A B	1.5	–	REG
0023-S4-423	12/11/03	0823	1	X		S	5 day	X		32A	0.5	–	REG
0023-S4-424	12/11/03	0825	1	X		S	5 day	X		32A	1.5	–	REG
0023-S4-425	12/11/03	0827	1	X		S	5 day	X		33B	0.5	–	REG
0023-S4-426	12/11/03	0829	1	X		S	5 day	X		33B	1.5	–	REG
0023-S4-427	12/11/03	0832	1	X		S	5 day	X		33A	0.5	–	REG
0023-S4-428	12/11/03	0833	1		X	S	5 day	X		33A	0.5	–	FD
0023-S4-429	12/11/03	0835	1	X		S	5 day	X		33A	1.5	–	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	12/11/03	[signature]
COMPANY: T+T WT	TIME: 1415	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6541R

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05443

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010B (Lead only)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6541

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-SY-430	12/11/03	0837	1	X		S	5 day	X		34A	0.5	–	REG
0023-SY-431	12/11/03	0839	1	X		S	5 day	X		34A	1.5	–	REG
0023-SY-432	12/11/03	0843	1	X		S	5 day	X		34B	0.5	–	REG
0023-SY-433	12/11/03	0845	1	X		S	5 day	X		34B	1.5	–	REG
0023-SY-434	12/11/03	0848	1	X		S	5 day	X		35A	0.5	–	REG
0023-SY-435	12/11/03	0850	1	X		S	5 day	X		35A	1.5	–	REG
0023-SY-436	12/11/03	0854	1	X		S	5 day	X		36A	0.5	–	REG
0023-SY-437	12/11/03	0856	1	X		S	5 day	X		36A	1.5	–	REG
0023-SY-438	12/11/03	0859	1	X		S	5 day	X		36B	0.5	–	REG
0023-SY-439	12/11/03	0900	1		X	S	5 day	X		36B	1.5	–	REG
0023-SY-440	12/11/03	0901	1	X		S	5 day	X	Run 10/MSD	36B	1.5	–	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	12/11/03	[signature]
COMPANY: TAIWI	TIME: 1415	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6541

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-1	Received Date:	12/11/2003
Sample ID:	**0023-S4-419**	Sample Matrix	Soil	Moisture %:	31.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	70.1		P		03M2425L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-2	Received Date:	12/11/2003
Sample ID:	0023-S4-420	Sample Matrix	Soil	Moisture %:	30.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	5.3	J	P		03M2425L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AEH
3/03/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-3	Received Date:	12/11/2003
Sample ID:	**0023-S4-421**	Sample Matrix	Soil	Moisture %:	25.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	7.5		P		03M2425L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-4	Received Date:	12/11/2003
Sample ID:	**0023-S4-422**	Sample Matrix	Soil	Moisture %:	25.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	8.0		P		03M2425L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-5	Received Date:	12/11/2003
Sample ID:	**0023-S4-423**	Sample Matrix	Soil	Moisture %:	31.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	84.5		P		03M2425L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-6	Received Date:	12/11/2003
Sample ID:	**0023-S4-424**	Sample Matrix	Soil	Moisture %:	27.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	47.4		P		03M2425L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-7	Received Date:	12/11/2003
Sample ID:	0023-S4-425	Sample Matrix	Soil	Moisture %:	36.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.48	116		P		03M2425L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-8	Received Date:	12/11/2003
Sample ID:	0023-S4-426	Sample Matrix	Soil	Moisture %:	27.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	19.3		P		03M2425L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-9	Received Date:	12/11/2003
Sample ID:	**0023-S4-427**	Sample Matrix	Soil	Moisture %:	28.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	14.1		P		03M2425L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-10	Received Date:	12/11/2003
Sample ID:	0023-S4-428	Sample Matrix	Soil	Moisture %:	31.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	8.9		P		03M2425L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-11	Received Date:	12/11/2003
Sample ID:	0023-S4-429	Sample Matrix	Soil	Moisture %:	24.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	4.1 J		P		03M2425L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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3/03/04

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-12	Received Date:	12/11/2003
Sample ID:	**0023-S4-430**	Sample Matrix	Soil	Moisture %:	38.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.48	67.1		P		03M2425L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-13	Received Date:	12/11/2003
Sample ID:	0023-S4-431	Sample Matrix	Soil	Moisture %:	27.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	6.3		P		03M2425L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-14	Received Date:	12/11/2003
Sample ID:	0023-S4-432	Sample Matrix	Soil	Moisture %:	36.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	2.4	902		P		03M2425L	12/17/03	12/17/03	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-15	Received Date:	12/11/2003
Sample ID:	**0023-S4-433**	Sample Matrix	Soil	Moisture %:	28.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	14.2		P		03M2425L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-16	Received Date:	12/11/2003
Sample ID:	0023-S4-434	Sample Matrix	Soil	Moisture %:	39.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.50	65.6		P		03M2425L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-17	Received Date:	12/11/2003
Sample ID:	0023-S4-435	Sample Matrix	Soil	Moisture %:	29.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	22.3		P		03M2425L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-18	Received Date:	12/11/2003
Sample ID:	0023-S4-436	Sample Matrix	Soil	Moisture %:	41.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.52	35.9		P		03M2425L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-19	Received Date:	12/11/2003
Sample ID:	**0023-S4-437**	Sample Matrix	Soil	Moisture %:	35.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.46	16.3		P		03M2425L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-20	Received Date:	12/11/2003
Sample ID:	0023-S4-438	Sample Matrix	Soil	Moisture %:	31.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	8.1		P		03M2425L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-21	Received Date:	12/11/2003
Sample ID:	0023-S4-439	Sample Matrix	Soil	Moisture %:	30.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	9.1	J	P		03M2426L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36541	Collected by:	Lisa B.
		Lab Sample ID:	03-6541-22	Received Date:	12/11/2003
Sample ID:	**0023-S4-440**	Sample Matrix	Soil	Moisture %:	30.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	7.3 J		P		03M2426L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH 3/03/04

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Total Lead
SDG NUMBER:	03-6541 (Level III and Level IV)

RECEIVED
MAR 26 2004

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-419	03-6541-1	Soil	X
0023-S4-420	03-6541-2	Soil	X
0023-S4-421	03-6541-3	Soil	X
0023-S4-422	03-6541-4	Soil	X
0023-S4-423	03-6541-5	Soil	X
0023-S4-424	03-6541-6	Soil	X
0023-S4-425	03-6541-7	Soil	X
0023-S4-426	03-6541-8	Soil	X
0023-S4-427[2]	03-6541-9	Soil	X
0023-S4-428[1,2]	03-6541-10	Soil	X
0023-S4-429	03-6541-11	Soil	X
0023-S4-430	03-6541-12	Soil	X
0023-S4-431	03-6541-13	Soil	X
0023-S4-432	03-6541-14	Soil	X
0023-S4-433	03-6541-15	Soil	X
0023-S4-434	03-6541-16	Soil	X
0023-S4-435	03-6541-17	Soil	X
0023-S4-436	03-6541-18	Soil	X
0023-S4-437	03-6541-19	Soil	X
0023-S4-438	03-6541-20	Soil	X
0023-S4-439[1,2]	03-6541-21	Soil	X

ORIGINAL

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-440[2]	03-6541-22	Soil	X
0023-S4-420MD	03-6541-2MD	Soil	X
0023-S4-420MS	03-6541-2MS	Soil	X
0023-S4-420MSD	03-6541-2MSD	Soil	X
0023-S4-440MD	03-6541-22MD	Soil	X
0023-S4-440MS	03-6541-22MS	Soil	X
0023-S4-440MSD	03-6541-22MSD	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6541 Inorganics

SAMPLES: 0023-S4-419, 0023-S4-420, 0023-S4-421, 0023-S4-422, 0023-S4-423, 0023-S4-424, 0023-S4-425, 0023-S4-426, 0023-S4-427, 0023-S4-428, 0023-S4-429, 0023-S4-430, 0023-S4-431, 0023-S4-432, 0023-S4-433, 0023-S4-434, 0023-S4-435, 0023-S4-436, 0023-S4-437, 0023-S4-438, 0023-S4-439, 0023-S4-440

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was reported at -5.51 ug/L in Continuing Calibration Blank CCB9. The positive results for lead in associated SDG samples 0023-S4-420 and 0023-S4-429, which were less than the action level of 5X the blank amount (5.51 mg/kg), were flagged as estimated (J). All result for lead in the other associated SDG samples were greater than the action level, so no further action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG samples 0023-S4-420 and 0023-S4-440. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-427 / 0023-S4-428 and 0023-S4-439 / 0023-S4-440) were identified for this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-427/ 0023-S4-428	45%
0023-S4-439 / 0023-S4-440	22%

Both RPDs were within the 60% QC limit for soil samples. No action was required.

IX.) Serial Dilution Analysis:

The Percent Difference (%D) for lead was 23.5% for the batch Serial Dilution Analysis, which exceeded the 10% QC limit. The positive results for lead in associated SDG samples 0023-S4-439 and 0023-S4-440 were flagged as estimated (J).

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05444

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010 (Metals)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6542

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010 (Metals)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-441	12/11/03	0946	1	X		S	5 day	X		37A	0.5	–	RG
0023-S4-442	12/11/03	0949	1	X		S	5 day	X		37A	1.5	–	RG
0023-S4-443	12/11/03	0952	1	X		S	5 day	X		37B	0.5	–	RG
0023-S4-444	12/11/03	0954	1	X		S	5 day	X		37B	1.5	–	RG
0023-S4-445	12/11/03	0956	1	X		S	5 day	X		38A	0.5	–	RG
0023-S4-446	12/11/03	0958	1	X		S	5 day	X		38A	1.5	–	RG
0023-S4-447	12/11/03	1001	1	X		S	5 day	X		38B	0.5	–	RG
0023-S4-448	12/11/03	1003	1	X		S	5 day	X		38B	1.5	–	RG
0023-S4-449	12/11/03	1005	1	X		S	5 day	X		39A	0.5	–	RG
0023-S4-450	12/11/03	1006	1	~~X~~ X		S	5 day	X		39A	0.5	–	FD
0023-S4-451	12/11/03	1008	1	X		S	5 day	X		39A	1.5	–	RG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	12/11/03	[signature]
COMPANY: FFW	TIME: 1415	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6542R

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05445

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6542

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (Lead Only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead Only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-452	12/11/03	1012	1	X		S	5 day	X		39B	0.5	–	REG
0023-S4-453	12/11/03	1014	1	X		S	5 day	X		39B	1.5	–	REG
0023-S4-454	12/11/03	1019	1	X		S	5 day	X		40A	0.5	–	REG
0023-S4-455	12/11/03	1021	1	X		S	5 day	X		40A	1.5	–	REG
0023-S4-456	12/11/03	1023	1	X		S	5 day	X		41A	0.5	–	REG
0023-S4-457	12/11/03	1025	1	X	X	S	5 day	X		41A	1.5	–	REG
0023-S4-458	12/11/03	1026	1	X		S	5 day	X		41A	1.5	–	FD
0023-S4-459	12/11/03	1030	1	X		S	5 day	X		42A	0.5	–	REG
0023-S4-460	12/11/03	1031	1	X		S	5 day	X	Run MS/MSD	42A	0.5	–	FD
0023-S4-461	12/11/03	1034	1		X	S	5 day	X		42A	1.5	–	REG
0023-S4-462	12/11/03	1037	1	X		S	5 day	X		43A	0.5	–	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/11/03	[signature]
COMPANY: TFTWI	TIME: 1415	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6542

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-1	Received Date:	12/11/2003
Sample ID:	0023-S4-441	Sample Matrix	Soil	Moisture %:	38.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.48	60.9 J		P		03M2433M	12/17/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH 3/03/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-2	Received Date:	12/11/2003
Sample ID:	0023-S4-442	Sample Matrix	Soil	Moisture %:	32.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	9.3 J		P		03M2433M	12/17/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH 3/03/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-3	Received Date:	12/11/2003
Sample ID:	0023-S4-443	Sample Matrix	Soil	Moisture %:	37.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	2.4	1330 J		P		03M2433M	12/17/03	12/18/03	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

AH
3/03/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-4	Received Date:	12/11/2003
Sample ID:	0023-S4-444	Sample Matrix	Soil	Moisture %:	28.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	40.9 J		P		03M2433M	12/17/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AEH
3/03/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-5	Received Date:	12/11/2003
Sample ID:	0023-S4-445	Sample Matrix	Soil	Moisture %:	35.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.47	13.3 J		P		03M2433M	12/17/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

ALH 3/03/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-6	Received Date:	12/11/2003
Sample ID:	0023-S4-446	Sample Matrix	Soil	Moisture %:	35.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.46	15.6	J	P		03M2433M	12/17/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

3/03/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-7	Received Date:	12/11/2003
Sample ID:	0023-S4-447	Sample Matrix	Soil	Moisture %:	35.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.46	19.0 J		P		03M2433M	12/17/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

AH 3/03/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-8	Received Date:	12/11/2003
Sample ID:	0023-S4-448	Sample Matrix	Soil	Moisture %:	31.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	110 J		P		03M2433M	12/17/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

ALH
3/03/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-9	Received Date:	12/11/2003
Sample ID:	0023-S4-449	Sample Matrix	Soil	Moisture %:	33.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	14.1	J	P		03M2433M	12/17/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/03/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-10	Received Date:	12/11/2003
Sample ID:	0023-S4-450	Sample Matrix	Soil	Moisture %:	31.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	7.0 J		P		03M2433M	12/17/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/03/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-11	Received Date:	12/11/2003
Sample ID:	0023-S4-451	Sample Matrix	Soil	Moisture %:	31.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	8.6	J	P		03M2433M	12/17/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH 3/23/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-12	Received Date:	12/11/2003
Sample ID:	0023-S4-452	Sample Matrix	Soil	Moisture %:	32.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	29.9	J	P		03M2433M	12/17/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/03/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name: Foster Wheeler Environmental Corp
Project ID: IRP Site 4

Project No: 1990.023D
Service ID: 36542
Lab Sample ID: 03-6542-13
Sample Matrix Soil

Collection Date: 12/11/2003
Collected by: Lisa B.
Received Date: 12/11/2003
Moisture %: 34.9

Sample ID: 0023-S4-453
Sample Type: Field Sample

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.46	77.8 J		P		03M2433M	12/17/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/23/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-14	Received Date:	12/11/2003
Sample ID:	0023-S4-454	Sample Matrix	Soil	Moisture %:	24.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	16.7 J		P		03M2433M	12/17/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL

Q Qualifier: N - Spike recovery out of control

W - Post digestion spike for GFAA out of control

M Qualifier: P - ICP A - FLAA F - GFAA

B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

* - Duplicate analysis out of control

E - Serial dilution difference out of control

CV - Cold Vapor

MA
3/03/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-15	Received Date:	12/11/2003
Sample ID:	0023-S4-455	Sample Matrix	Soil	Moisture %:	36.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.47	11.4 J		P		03M2433M	12/17/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL

Q Qualifier: N - Spike recovery out of control

W - Post digestion spike for GFAA out of control

M Qualifier: P - ICP A - FLAA F - GFAA

B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

* - Duplicate analysis out of control

E - Serial dilution difference out of control

CV - Cold Vapor

LLH 3/03/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-16	Received Date:	12/11/2003
Sample ID:	0023-S4-456	Sample Matrix	Soil	Moisture %:	30.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	16.7 J		P		03M2433M	12/17/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/03/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-17	Received Date:	12/11/2003
Sample ID:	0023-S4-457	Sample Matrix	Soil	Moisture %:	38.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.49	11.9	J	P		03M2433M	12/17/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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3/03/01

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-18	Received Date:	12/11/2003
Sample ID:	0023-S4-458	Sample Matrix	Soil	Moisture %:	34.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.46	11.5 J		P		03M2433M	12/17/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL

Q Qualifier: N - Spike recovery out of control

W - Post digestion spike for GFAA out of control

M Qualifier: P - ICP A - FLAA F - GFAA

B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

* - Duplicate analysis out of control

E - Serial dilution difference out of control

CV - Cold Vapor

LLH 3/03/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-19	Received Date:	12/11/2003
Sample ID:	0023-S4-459	Sample Matrix	Soil	Moisture %:	30.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	17.7 J		P		03M2433M	12/17/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

3/03/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-20	Received Date:	12/11/2003
Sample ID:	0023-S4-460	Sample Matrix	Soil	Moisture %:	33.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	20.8	J	P		03M2433M	12/17/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL

Q Qualifier: N - Spike recovery out of control

W - Post digestion spike for GFAA out of control

M Qualifier: P - ICP A - FLAA F - GFAA

B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

* - Duplicate analysis out of control

E - Serial dilution difference out of control

CV - Cold Vapor

3/02/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-21	Received Date:	12/11/2003
Sample ID:	0023-S4-461	Sample Matrix	Soil	Moisture %:	37.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.48	13.3		P		03M2434M	12/18/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL; B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control; * - Duplicate analysis out of control; W - Post digestion spike for GFAA out of control; E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36542	Collected by:	Lisa B.
		Lab Sample ID:	03-6542-22	Received Date:	12/11/2003
Sample ID:	0023-S4-462	Sample Matrix	Soil	Moisture %:	21.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	33.0		P		03M2434M	12/18/03	12/18/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6542 (Level III and Level IV)

RECEIVED
MAR 26 2004

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-441	03-6542-1	Soil	X
0023-S4-442	03-6542-2	Soil	X
0023-S4-443	03-6542-3	Soil	X
0023-S4-444	03-6542-4	Soil	X
0023-S4-445	03-6542-5	Soil	X
0023-S4-446	03-6542-6	Soil	X
0023-S4-447	03-6542-7	Soil	X
0023-S4-448	03-6542-8	Soil	X
0023-S4-449[2]	03-6542-9	Soil	X
0023-S4-450[1,2]	03-6542-10	Soil	X
0023-S4-451	03-6542-11	Soil	X
0023-S4-452	03-6542-12	Soil	X
0023-S4-453	03-6542-13	Soil	X
0023-S4-454	03-6542-14	Soil	X
0023-S4-455	03-6542-15	Soil	X
0023-S4-456	03-6542-16	Soil	X
0023-S4-457[1,2]	03-6542-17	Soil	X
0023-S4-458[2]	03-6542-18	Soil	X
0023-S4-459[2]	03-6542-19	Soil	X
0023-S4-460[2]	03-6542-20	Soil	X

ORIGINAL

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-461[1]	03-6542-21	Soil	X
0023-S4-462[2]	03-6542-22	Soil	X
0023-S4-460MD	03-6542-20MD	Soil	X
0023-S4-460MS	03-6545-20MS	Soil	X
0023-S4-460MSD	03-6545-20MSD	Soil	X
0023-S4-440MD	03-6541-22MD	Soil	X
0023-S4-440MS	03-6541-22MS	Soil	X
0023-S4-440MSD	03-6541-22MSD	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6542 Inorganics

SAMPLES: 0023-S4-441, 0023-S4-442, 0023-S4-443, 0023-S4-444, 0023-S4-445, 0023-S4-446, 0023-S4-447, 0023-S4-448, 0023-S4-449, 0023-S4-450, 0023-S4-451, 0023-S4-452, 0023-S4-453, 0023-S4-454, 0023-S4-455, 0023-S4-456, 0023-S4-457, 0023-S4-458, 0023-S4-459, 0023-S4-460, 0023-S4-461, 0023-S4-462

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was detected at 3.14 ug/L in Continuing Calibration Blank CCB11. All positive results for lead in the SDG samples were greater than the action level of 5X the blank amount (3.14 mg/kg), so no action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-460. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Four sets of field duplicate samples [0023-S4-449 / 0023-S4-450, 0023-S4-457 / 0023-S4-458, 0023-S4-459 / 0023-S4-460 and 0023-S4-462 / 0023-S4-463 (part of SDG 03-6544)] were identified for this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-449 / 0023-S4-450	67%
0023-S4-457 / 0023-S4-458	3.4%
0023-S4-459 / 0023-S4-460	16%
0023-S4-462 / 0023-S4-463	44%

The RPD for the first set exceeded the 60% QC limit for soil samples. Data qualification based on field duplicate criteria was not required, so no action was taken.

IX.) Serial Dilution Analysis:

The Percent Difference (%D) for lead was 16.2% for the Serial Dilution Analysis sample 0023-S4-460, which exceeded the 10% QC limit. All positive results for lead in the associated SDG samples were flagged as estimated (J).

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05446

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010B (Lead)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6544

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-463	12/11/03	1038	1		X	S	5 day	X		43A	0.5	–	FD
0023-S4-464	12/11/03	1040	1	X		S	5 day	X		43A	1.5	–	REG
0023-S4-465	12/11/03	1044	1	X		S	5 day	X		44A	0.5	–	REG
0023-S4-466	12/11/03	1045	1	X		S	5 day	X		44A	0.5	–	FD
0023-S4-467	12/11/03	1047	1		X	S	5 day	X		44A	1.5	–	REG
0023-S4-468	12/11/03	1050	1	X		S	5 day	X		45A	0.5	–	REG
0023-S4-469	12/11/03	1052	1		X	S	5 day	X		45A	1.5	–	REG
0023-S4-470	12/11/03	1053	1	X		S	5 day	X		45A	1.5	–	FD
0023-S4-471	12/11/03	1057	1	X		S	5 day	X		46A	0.5	–	REG
0023-S4-472	12/11/03	1058	1	X		S	5 day	X		46A	0.5	–	FD
0023-S4-473	12/11/03	1100	1		X	S	5 day	X		46A	1.5	–	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/11/03	[illegible]
COMPANY: FWEC	TIME: 1415	COMPANY:
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: ____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6544R

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05447

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6544

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (Lead Analysis)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead Analysis)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-54-474	12/11/03	1105	1	X		S	5 day	X		47A	0.5	–	EG
0023-54-475	12/11/03	1107	1	X		S	5 day	X		47A	1.5	–	EG
0023-54-476	12/11/03	1120	1	X		W	5 day	X		EQ Rinsate	–	–	ER
~~0023-54-~~			1				5 day	X					
~~0023-54-~~			1				5 day	X					
~~0023-54-~~			1				5 day	X					
~~0023-54-~~			1				5 day	X					
~~0023-54-~~			1				5 day	X					
~~0023-54-~~			1				5 day	X					
~~0023-54-~~			1				5 day	X					
~~0023-54-~~			1				5 day	X					

12/11/03

12/11/03

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	12/11/03	[signature]
COMPANY: AFWI	TIME: 1415	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Pre-Excavation Grid Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6544R

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36544	Collected by:	Lisa B.
		Lab Sample ID:	03-6544-1	Received Date:	12/11/2003
Sample ID:	**0023-S4-463**	Sample Matrix	Soil	Moisture %:	21.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	21.1 J		P		03M2426L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LAH
3/4/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36544	Collected by:	Lisa B.
		Lab Sample ID:	03-6544-2	Received Date:	12/11/2003
Sample ID:	**0023-S4-464**	Sample Matrix	Soil	Moisture %:	32.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	50.9 J		P		03M2426L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36544	Collected by:	Lisa B.
		Lab Sample ID:	03-6544-3	Received Date:	12/11/2003
Sample ID:	**0023-S4-465**	Sample Matrix	Soil	Moisture %:	26.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	13.0 J		P		03M2426L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36544	Collected by:	Lisa B.
		Lab Sample ID:	03-6544-4	Received Date:	12/11/2003
Sample ID:	**0023-S4-466**	Sample Matrix	Soil	Moisture %:	47.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	2.9	999 J		P		03M2426L	12/17/03	12/17/03	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36544	Collected by:	Lisa B.
		Lab Sample ID:	03-6544-5	Received Date:	12/11/2003
Sample ID:	**0023-S4-467**	Sample Matrix	Soil	Moisture %:	34.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	10.2 J		P		03M2426L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36544	Collected by:	Lisa B.
		Lab Sample ID:	03-6544-6	Received Date:	12/11/2003
Sample ID:	**0023-S4-468**	Sample Matrix	Soil	Moisture %:	32.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	25.0 J		P		03M2426L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

1013

Alt 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36544	Collected by:	Lisa B.
		Lab Sample ID:	03-6544-7	Received Date:	12/11/2003
Sample ID:	**0023-S4-469**	Sample Matrix	Soil	Moisture %:	29.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	15.8	J	P		03M2426L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36544	Collected by:	Lisa B.
		Lab Sample ID:	03-6544-8	Received Date:	12/11/2003
Sample ID:	0023-S4-470	Sample Matrix	Soil	Moisture %:	28.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	6.9 J		P		03M2426L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LEH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36544	Collected by:	Lisa B.
		Lab Sample ID:	03-6544-9	Received Date:	12/11/2003
Sample ID:	**0023-S4-471**	Sample Matrix	Soil	Moisture %:	35.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.46	81.1	J	P		03M2426L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36544	Collected by:	Lisa B.
		Lab Sample ID:	03-6544-10	Received Date:	12/11/2003
Sample ID:	**0023-S4-472**	Sample Matrix	Soil	Moisture %:	32.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	18.4 J		P		03M2426L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LEH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36544	Collected by:	Lisa B.
		Lab Sample ID:	03-6544-11	Received Date:	12/11/2003
Sample ID:	**0023-S4-473**	Sample Matrix	Soil	Moisture %:	28.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	9.7 J		P		03M2426L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36544	Collected by:	Lisa B.
		Lab Sample ID:	03-6544-12	Received Date:	12/11/2003
Sample ID:	**0023-S4-474**	Sample Matrix	Soil	Moisture %:	30.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	48.9 J		P		03M2426L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36544	Collected by:	Lisa B.
		Lab Sample ID:	03-6544-13	Received Date:	12/11/2003
Sample ID:	**0023-S4-475**	Sample Matrix	Soil	Moisture %:	30.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	5.5 J		P		03M2426L	12/17/03	12/17/03	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH
3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36544	Collected by:	Lisa B.
		Lab Sample ID:	03-6544-14	Received Date:	12/11/2003
Sample ID:	0023-S4-476	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	μg/L	5	<5	U	P		03M2416L	12/16/03	12/16/03	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	03-6544 (Level III and Level IV)

RECEIVED
MAR 26 2004

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-463[1, 2]	03-6544-1	Soil	X
0023-S4-464	03-6544-2	Soil	X
0023-S4-465[2]	03-6544-3	Soil	X
0023-S4-466[2]	03-6544-4	Soil	X
0023-S4-467[1]	03-6544-5	Soil	X
0023-S4-468	03-6544-6	Soil	X
0023-S4-469[1,2]	03-6544-7	Soil	X
0023-S4-470[2]	03-6544-8	Soil	X
0023-S4-471[2]	03-6544-9	Soil	X
0023-S4-472[2]	03-6544-10	Soil	X
0023-S4-473[1]	03-6544-11	Soil	X
0023-S4-474	03-6544-12	Soil	X
0023-S4-475	03-6544-13	Soil	X
0023-S4-476	03-6544-14	Soil	X

ORIGINAL

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: 3/15/04

Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6544 Inorganics

SAMPLES: 0023-S4-463, 0023-S4-464, 0023-S4-465, 0023-S4-466, 0023-S4-467, 0023-S4-468, 0023-S4-469, 0023-S4-470, 0023-S4-471, 0023-S4-472, 0023-S4-473, 0023-S4-474, 0023-S4-475, 0023-S4-476

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Method Blanks:

Lead was detected at 1.29 ug/L in Continuing Calibration Blank CCB4. Since the associated sample was a field blank, no action was required.

Lead was reported at -5.51 ug/l in Continuing Calibration Blank CCB9. The positive result for lead in associated SDG sample 0023-S4-475, which was less than the action level of 5X the blank amount (5.51 mg/kg), was flagged as estimated (J).

Equipment Blanks:

There was no detection in the equipment blank 0023-S4-476 associated with this SDG. No action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were submitted for this SDG. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Four sets of field duplicate samples (0023-S4-462 (part of SDG 03-6542) / 0023-S4-463, 0023-S4-465 / 0023-S4-466, 0023-S4-469 / 0023-S4-470, and 0023-S4-471 / 0023-S4-472) were identified for this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-462 / 0023-S4-463	44%
0023-S4-465 / 0023-S4-466	195%
0023-S4-469 / 0023-S4-470	78%
0023-S4-471 / 0023-S4-472	126%

The RPDs for two sets exceeded the 60% QC limit for soil samples. Data qualification based on field duplicate criteria was not required, so no action was taken.

IX.) Serial Dilution Analysis:

The Percent Difference (%D) for lead was 23.5% for the batch Serial Dilution Analysis, which exceeded the 10% QC limit. All positive results for lead in the soil SDG samples were flagged as estimated (J).

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05453

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRP Site 4	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 03-6566

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B/7000 (Title 22 Metals)	EPA 8270C/SIM (PAHs)	EPA 8081A (Pesticides)	EPA 8082 (PCBs)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-477	12/11/03	1259	1	X		S	5 day	X	X	X	X		IRP Site 5 Stockpile	0.5'	—	REG
0023-S4-478	12/11/03	1301	1	X		S	5 day	X	X	X	X		IRP Site 5 Stockpile	2'	—	REG
0023-S4-479	12/11/03	1306	1	X		S	5 day	X	X	X	X		IRP Site 5 Stockpile	1.5'	—	REG
0023-S4-480	12/11/03	1310	1	X		S	5 day	X	X	X	X		IRP Site 5 Stockpile	1'	—	REG
0023-S4-481	12/11/03	1315	1	X		S	5 day	X	X	X	X		IRP Site 5 Stockpile	4'	—	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	12/11/03	[signature]
COMPANY: HFWI	TIME: 1415	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LAB
TEMPERATURE: _____ SAMPLE CONDI
COOLER SEAL: ☐ INTACT ☐ BROKEN

due Thurs 12/18
(Pesticides on line 43b misc.)
Accrued $ 2202
w/e 12/19/03
10 day TAT

SAMPLING COMMENT: IRP Site 5 Stockpile

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

03-6566R

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-1	Received Date:	12/11/2003
Sample ID:	**0023-S4-477**	Sample Matrix	Soil	Moisture %:	4.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: M
Anal. Method:	8270-SIM	Prep. Date:	12/17/03	Anal. Date:	12/17/03
Batch No:	03G5102	Prep. No:	1 of 1	Anal. Time:	16:08
Data File Name:	6566-01	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	5.0	0.6	J
2	ACENAPHTHYLENE	208-96-8	µg/kg	5.0	6.7	~~B~~
3	ANTHRACENE	120-12-7	µg/kg	5.0	10	
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	5.0	47	
5	BENZO(A)PYRENE	50-32-8	µg/kg	5.0	25	
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	5.0	84	
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	5.0	7.4	
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	5.0	89	
9	CHRYSENE	218-01-9	µg/kg	5.0	97	
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	5.0	43	J
11	FLUORANTHENE	206-44-0	µg/kg	5.0	55	
12	FLUORENE	86-73-7	µg/kg	5.0	0.7	J
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	5.0	8.4	J ~~B~~
14	2-METHYLNAPHTHALENE	91-57-6	µg/kg	5.0	1	
15	NAPHTHALENE	91-20-3	µg/kg	5.0	2	
16	PHENANTHRENE	85-01-8	µg/kg	5.0	7.6	
17	PYRENE	129-00-0	µg/kg	5.0	57	

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	76
2	NITROBENZENE-D5	4165-60-0	35-134	94
3	TERPHENYL-D14	1718-51-0	35-134	85
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	102
2	CHRYSENE-D12	1719-03-5	50-200	95
3	NAPHTHALENE-D8	1146-65-2	50-200	99
4	PERYLENE-D12	1520-96-3	50-200	108
5	PHENANTHRENE-D10	1517-22-2	50-200	98
# of out-of-control				0

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-2	Received Date:	12/11/2003
Sample ID:	**0023-S4-478**	Sample Matrix	Soil	Moisture %:	4.5
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: M
Anal. Method:	8270-SIM	Prep. Date:	12/17/03	Anal. Date:	12/17/03
Batch No:	03G5102	Prep. No:	1 of 1	Anal. Time:	16:43
Data File Name:	6566-02	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	5.0	<1.0	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	5.0	4.4	~~B~~
3	ANTHRACENE	120-12-7	μg/kg	5.0	5.7	
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	5.0	11	
5	BENZO(A)PYRENE	50-32-8	μg/kg	5.0	7.6	
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	5.0	28	
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	5.0	16	
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	5.0	19	
9	CHRYSENE	218-01-9	μg/kg	5.0	27	
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	5.0	13	J
11	FLUORANTHENE	206-44-0	μg/kg	5.0	14	
12	FLUORENE	86-73-7	μg/kg	5.0	0.5	J
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	5.0	15	J ~~B~~
14	2-METHYLNAPHTHALENE	91-57-6	μg/kg	5.0	1	
15	NAPHTHALENE	91-20-3	μg/kg	5.0	1	
16	PHENANTHRENE	85-01-8	μg/kg	5.0	4.2	
17	PYRENE	129-00-0	μg/kg	5.0	15	

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	70
2	NITROBENZENE-D5	4165-60-0	35-134	94
3	TERPHENYL-D14	1718-51-0	35-134	83
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	99
2	CHRYSENE-D12	1719-03-5	50-200	89
3	NAPHTHALENE-D8	1146-65-2	50-200	92
4	PERYLENE-D12	1520-96-3	50-200	99
5	PHENANTHRENE-D10	1517-22-2	50-200	94
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

MLA 3/10/04

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-3	Received Date:	12/11/2003
Sample ID:	**0023-S4-479**	Sample Matrix	Soil	Moisture %:	6.2
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270-SIM	Prep. Date:	12/17/03	Anal. Date:	12/17/03
Batch No:	03G5102	Prep. No:	1 of 1	Anal. Time:	18:27
Data File Name:	6566-03	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	5	17	J
2	ACENAPHTHYLENE	208-96-8	µg/kg	5	11	J
3	ANTHRACENE	120-12-7	µg/kg	5	58	
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	5	190	E
5	BENZO(A)PYRENE	50-32-8	µg/kg	5	72	J
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	5	300	J E
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	5	11	J J
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	5	210	J E
9	CHRYSENE	218-01-9	µg/kg	5	240	E
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	5	70	J
11	FLUORANTHENE	206-44-0	µg/kg	5	290	E
12	FLUORENE	86-73-7	µg/kg	5	10	J
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	5	82	J
14	2-METHYLNAPHTHALENE	91-57-6	µg/kg	5	<27	U
15	NAPHTHALENE	91-20-3	µg/kg	5	3	J
16	PHENANTHRENE	85-01-8	µg/kg	5	110	
17	PYRENE	129-00-0	µg/kg	5	370	E

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	83
2	NITROBENZENE-D5	4165-60-0	35-134	125
3	TERPHENYL-D14	1718-51-0	35-134	129
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	94
2	CHRYSENE-D12	1719-03-5	50-200	63
3	NAPHTHALENE-D8	1146-65-2	50-200	89
4	PERYLENE-D12	1520-96-3	50-200	40
5	PHENANTHRENE-D10	1517-22-2	50-200	88
# of out-of-control				1

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

LLH 3/10/04

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-3DL	Received Date:	12/11/2003
Sample ID:	**0023-S4-479**	Sample Matrix	Soil	Moisture %:	6.2
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC/MS: M
Anal. Method:	8270-SIM	Prep. Date:	12/17/03	Anal. Date:	12/18/03
Batch No:	03G5102	Prep. No:	1 of 1	Anal. Time:	12:00
Data File Name:	6566-03A	Sample Amount:	30.0 g	Dilution Factor:	4
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result		Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	20	20	J	J
2	ACENAPHTHYLENE	208-96-8	µg/kg	20	13		J
3	ANTHRACENE	120-12-7	µg/kg	20	69		J
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	20	270		D
5	BENZO(A)PYRENE	50-32-8	µg/kg	20	99	J	J
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	20	360	J	D
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	20	17	J	J
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	20	260	J	D
9	CHRYSENE	218-01-9	µg/kg	20	350		D
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	20	34	J	J
11	FLUORANTHENE	206-44-0	µg/kg	20	410		D
12	FLUORENE	86-73-7	µg/kg	20	12		J
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	20	100	J	
14	2-METHYLNAPHTHALENE	91-57-6	µg/kg	20	<110		U
15	NAPHTHALENE	91-20-3	µg/kg	20	<110		U
16	PHENANTHRENE	85-01-8	µg/kg	20	100		
17	PYRENE	129-00-0	µg/kg	20	440		D

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	102
2	NITROBENZENE-D5	4165-60-0	35-134	151
3	TERPHENYL-D14	1718-51-0	35-134	138
# of out-of-control				2

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	82
2	CHRYSENE-D12	1719-03-5	50-200	64
3	NAPHTHALENE-D8	1146-65-2	50-200	85
4	PERYLENE-D12	1520-96-3	50-200	49
5	PHENANTHRENE-D10	1517-22-2	50-200	75
# of out-of-control				1

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-4	Received Date:	12/11/2003
Sample ID:	**0023-S4-480**	Sample Matrix	Soil	Moisture %:	6.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: M
Anal. Method:	8270-SIM	Prep. Date:	12/17/03	Anal. Date:	12/17/03
Batch No:	03G5102	Prep. No:	1 of 1	Anal. Time:	17:18
Data File Name:	6566-04	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result		Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	5.0	2		
2	ACENAPHTHYLENE	208-96-8	µg/kg	5.0	7.0		~~B~~
3	ANTHRACENE	120-12-7	µg/kg	5.0	14		
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	5.0	57		
5	BENZO(A)PYRENE	50-32-8	µg/kg	5.0	31		
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	5.0	117		
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	5.0	6.5		
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	5.0	77		
9	CHRYSENE	218-01-9	µg/kg	5.0	91		
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	5.0	11	J	
11	FLUORANTHENE	206-44-0	µg/kg	5.0	61		
12	FLUORENE	86-73-7	µg/kg	5.0	1		
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	5.0	48	J	~~B~~
14	2-METHYLNAPHTHALENE	91-57-6	µg/kg	5.0	0.6		J
15	NAPHTHALENE	91-20-3	µg/kg	5.0	1		J
16	PHENANTHRENE	85-01-8	µg/kg	5.0	19		
17	PYRENE	129-00-0	µg/kg	5.0	65		

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	75
2	NITROBENZENE-D5	4165-60-0	35-134	103
3	TERPHENYL-D14	1718-51-0	35-134	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	98
2	CHRYSENE-D12	1719-03-5	50-200	87
3	NAPHTHALENE-D8	1146-65-2	50-200	94
4	PERYLENE-D12	1520-96-3	50-200	82
5	PHENANTHRENE-D10	1517-22-2	50-200	91
# of out-of-control				0

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-5	Received Date:	12/11/2003
Sample ID:	**0023-S4-481**	Sample Matrix	Soil	Moisture %:	9.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: M
Anal. Method:	8270-SIM	Prep. Date:	12/17/03	Anal. Date:	12/17/03
Batch No:	03G5102	Prep. No:	1 of 1	Anal. Time:	15:34
Data File Name:	6566-05	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	5.0	<1.1	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	5.0	<1.1	U
3	ANTHRACENE	120-12-7	µg/kg	5.0	0.9	J
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	5.0	1	J
5	BENZO(A)PYRENE	50-32-8	µg/kg	5.0	<1.1	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	5.0	2	
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	5.0	1	
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	5.0	2	
9	CHRYSENE	218-01-9	µg/kg	5.0	1	
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	5.0	8.8	J
11	FLUORANTHENE	206-44-0	µg/kg	5.0	2	
12	FLUORENE	86-73-7	µg/kg	5.0	<1.1	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	5.0	1	J ~~B~~
14	2-METHYLNAPHTHALENE	91-57-6	µg/kg	5.0	<1.1	U
15	NAPHTHALENE	91-20-3	µg/kg	5.0	0.7	J
16	PHENANTHRENE	85-01-8	µg/kg	5.0	0.9	J
17	PYRENE	129-00-0	µg/kg	5.0	1	

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	71
2	NITROBENZENE-D5	4165-60-0	35-134	74
3	TERPHENYL-D14	1718-51-0	35-134	79
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	97
2	CHRYSENE-D12	1719-03-5	50-200	98
3	NAPHTHALENE-D8	1146-65-2	50-200	92
4	PERYLENE-D12	1520-96-3	50-200	95
5	PHENANTHRENE-D10	1517-22-2	50-200	99
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-1	Received Date:	12/11/2003
Sample ID:	**0023-S4-477**	Sample Matrix	Soil	Moisture %:	4.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	12/18/03	Anal. Date:	12/19/03
Batch No:	03G5119	Prep. No:	1 of 1	Anal. Time:	10:28
Data File Name:	6566.101	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	1.8	<1.8	U
2	BETA BHC	319-85-7	µg/kg	1.8	<1.8	U
3	ALPHA BHC	319-84-6	µg/kg	1.8	<1.8	U
4	DELTA BHC	319-86-8	µg/kg	1.8	<1.8	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	1.8	<1.8	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.0	0.3	J
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.0	0.5	J
8	P,P'-DDD	72-54-8	µg/kg	3.1	1	J
9	P,P'-DDE	72-55-9	µg/kg	3.1	1	J
10	P,P'-DDT	50-29-3	µg/kg	3.1	4	
11	DIELDRIN	60-57-1	µg/kg	3.1	<3.1	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	1.8	<1.8	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.1	<3.1	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	5.2	<5.2	U
15	ENDRIN	72-20-8	µg/kg	3.1	<3.1	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.1	<3.1	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.1	<2.1	U
18	HEPTACHLOR	76-44-8	µg/kg	1.8	<1.8	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	1.8	<1.8	U
20	METHOXYCHLOR	72-43-5	µg/kg	10	<10	U
21	TOXAPHENE	8001-35-2	µg/kg	100	<100	U

Surrogates		Control Limit, %	Surro. Rec.%
1 DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	90
2 2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	86
# of out-of-control			0

Internal Standard		Control Limit, %	IS Rec.%
1 DIBUTYLCHLORENDATE	1770-80-5	50-200	88
# of out-of-control			0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-2	Received Date:	12/11/2003
Sample ID:	**0023-S4-478**	Sample Matrix	Soil	Moisture %:	4.5
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	12/18/03	Anal. Date:	12/19/03
Batch No:	03G5119	Prep. No:	1 of 1	Anal. Time:	10:53
Data File Name:	6566.102	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	1.8	<1.8	U
2	BETA BHC	319-85-7	µg/kg	1.8	<1.8	U
3	ALPHA BHC	319-84-6	µg/kg	1.8	<1.8	U
4	DELTA BHC	319-86-8	µg/kg	1.8	<1.8	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	1.8	<1.8	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.0	0.8	J
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.0	1	
8	P,P'-DDD	72-54-8	µg/kg	3.1	1	J
9	P,P'-DDE	72-55-9	µg/kg	3.1	1	J
10	P,P'-DDT	50-29-3	µg/kg	3.1	7.2	
11	DIELDRIN	60-57-1	µg/kg	3.1	<3.1	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	1.8	<1.8	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.1	<3.1	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	5.2	<5.2	U
15	ENDRIN	72-20-8	µg/kg	3.1	<3.1	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.1	<3.1	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.1	<2.1	U
18	HEPTACHLOR	76-44-8	µg/kg	1.8	<1.8	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	1.8	<1.8	U
20	METHOXYCHLOR	72-43-5	µg/kg	10	<10	U
21	TOXAPHENE	8001-35-2	µg/kg	100	<100	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	86
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	83
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	87
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-3	Received Date:	12/11/2003
Sample ID:	**0023-S4-479**	Sample Matrix	Soil	Moisture %:	6.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	12/18/03	Anal. Date:	12/19/03
Batch No:	03G5119	Prep. No:	1 of 1	Anal. Time:	11:18
Data File Name:	6566.103	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	1.8	<1.8	U
2	BETA BHC	319-85-7	µg/kg	1.8	<1.8	U
3	ALPHA BHC	319-84-6	µg/kg	1.8	<1.8	U
4	DELTA BHC	319-86-8	µg/kg	1.8	<1.8	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	1.8	<1.8	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.1	4.3	
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.1	3.5	
8	P,P'-DDD	72-54-8	µg/kg	3.2	16	
9	P,P'-DDE	72-55-9	µg/kg	3.2	14	
10	P,P'-DDT	50-29-3	µg/kg	3.2	46	
11	DIELDRIN	60-57-1	µg/kg	3.2	<3.2	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	1.8	<1.8	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.2	<3.2	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	5.3	<5.3	U
15	ENDRIN	72-20-8	µg/kg	3.2	<3.2	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.2	<3.2	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.1	<2.1	U
18	HEPTACHLOR	76-44-8	µg/kg	1.8	<1.8	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	1.8	<1.8	U
20	METHOXYCHLOR	72-43-5	µg/kg	11	<11	U
21	TOXAPHENE	8001-35-2	µg/kg	110	<110	U

Surrogates		Control Limit, %	Surro. Rec.%
1 DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	81
2 2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	88
# of out-of-control			0

Internal Standard		Control Limit, %	IS Rec.%
1 DIBUTYLCHLORENDATE	1770-80-5	50-200	87
# of out-of-control			0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-4	Received Date:	12/11/2003
Sample ID:	**0023-S4-480**	Sample Matrix	Soil	Moisture %:	6.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	12/18/03	Anal. Date:	12/19/03
Batch No:	03G5119	Prep. No:	1 of 1	Anal. Time:	11:43
Data File Name:	6566.104	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	1.8	<1.8	U
2	BETA BHC	319-85-7	µg/kg	1.8	<1.8	U
3	ALPHA BHC	319-84-6	µg/kg	1.8	<1.8	U
4	DELTA BHC	319-86-8	µg/kg	1.8	<1.8	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	1.8	<1.8	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.1	2	
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.1	2	
8	P,P'-DDD	72-54-8	µg/kg	3.2	5	
9	P,P'-DDE	72-55-9	µg/kg	3.2	3	
10	P,P'-DDT	50-29-3	µg/kg	3.2	15	
11	DIELDRIN	60-57-1	µg/kg	3.2	<3.2	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	1.8	<1.8	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.2	<3.2	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	5.3	<5.3	U
15	ENDRIN	72-20-8	µg/kg	3.2	<3.2	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.2	<3.2	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.1	<2.1	U
18	HEPTACHLOR	76-44-8	µg/kg	1.8	<1.8	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	1.8	<1.8	U
20	METHOXYCHLOR	72-43-5	µg/kg	11	<11	U
21	TOXAPHENE	8001-35-2	µg/kg	110	<110	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	90
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	97
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	77
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-5	Received Date:	12/11/2003
Sample ID:	0023-S4-481	Sample Matrix	Soil	Moisture %:	9.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	12/18/03	Anal. Date:	12/18/03
Batch No:	03G5119	Prep. No:	1 of 1	Anal. Time:	18:37
Data File Name:	6566.005	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	1.9	<1.9	U
2	BETA BHC	319-85-7	µg/kg	1.9	<1.9	U
3	ALPHA BHC	319-84-6	µg/kg	1.9	<1.9	U
4	DELTA BHC	319-86-8	µg/kg	1.9	<1.9	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	1.9	<1.9	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.1	<1.1	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.1	<1.1	U
8	P,P'-DDD	72-54-8	µg/kg	3.3	0.4	J
9	P,P'-DDE	72-55-9	µg/kg	3.3	2	J
10	P,P'-DDT	50-29-3	µg/kg	3.3	2	J
11	DIELDRIN	60-57-1	µg/kg	3.3	<3.3	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	1.9	<1.9	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.3	<3.3	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	5.5	<5.5	U
15	ENDRIN	72-20-8	µg/kg	3.3	<3.3	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.3	<3.3	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.2	<2.2	U
18	HEPTACHLOR	76-44-8	µg/kg	1.9	<1.9	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	1.9	<1.9	U
20	METHOXYCHLOR	72-43-5	µg/kg	11	<11	U
21	TOXAPHENE	8001-35-2	µg/kg	110	<110	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	84
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	79
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	96
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-1	Received Date:	12/11/2003
Sample ID:	**0023-S4-477**	Sample Matrix	Soil	Moisture %:	4.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	12/18/03	Anal. Date:	12/18/03
Batch No:	03G5120	Prep. No:	1 of 1	Anal. Time:	16:12
Data File Name:	6566.001	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	52	9[a]	J
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	100	<100	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	52	<52	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	52	<52	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	52	<52	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	26	<26	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	26	10[a]	J

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	104
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	93
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a] Sample might contain more than one PCB, result estimated.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-2	Received Date:	12/11/2003
Sample ID:	**0023-S4-478**	Sample Matrix	Soil	Moisture %:	4.5
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	12/18/03	Anal. Date:	12/18/03
Batch No:	03G5120	Prep. No:	1 of 1	Anal. Time:	16:37
Data File Name:	6566.002	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	52	<52	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	100	<100	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	52	<52	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	52	<52	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	52	<52	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	26	<26	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	26	7[a]	J

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	87
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	75
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a] Sample might contain more than one PCB, result estimated.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-3	Received Date:	12/11/2003
Sample ID:	**0023-S4-479**	Sample Matrix	Soil	Moisture %:	6.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	12/18/03	Anal. Date:	12/18/03
Batch No:	03G5120	Prep. No:	1 of 1	Anal. Time:	17:02
Data File Name:	6566.003	Sample Amount:	29.9 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	53	7[a]	J
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	110	<110	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	53	<53	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	53	<53	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	53	<53	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	27	<27	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	27	42[a]	

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	89
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	81
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a] Sample might contain more than one PCB, result estimated.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-4	Received Date:	12/11/2003
Sample ID:	**0023-S4-480**	Sample Matrix	Soil	Moisture %:	6.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	12/18/03	Anal. Date:	12/18/03
Batch No:	03G5120	Prep. No:	1 of 1	Anal. Time:	17:26
Data File Name:	6566.004	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	53	8[a]	J
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	110	<110	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	53	<53	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	53	<53	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	53	<53	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	27	<27	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	27	15[a]	J

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	79
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	76
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.
[a] Sample might contain more than one PCB, result estimated.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-5	Received Date:	12/11/2003
Sample ID:	**0023-S4-481**	Sample Matrix	Soil	Moisture %:	9.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	12/18/03	Anal. Date:	12/18/03
Batch No:	03G5120	Prep. No:	1 of 1	Anal. Time:	17:51
Data File Name:	6566.005	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	55	<55	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	110	<110	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	55	<55	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	55	<55	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	55	<55	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	28	<28	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	28	<28	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	99
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	95
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-1	Received Date:	12/11/2003
Sample ID:	**0023-S4-477**	Sample Matrix	Soil	Moisture %:	4.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.2	<5.2	U	P		03M2437L	12/18/03	12/18/03	1	6010B
ARSENIC	7440-38-2	mg/kg	0.31	3.0	J	P		03M2437L	12/18/03	12/18/03	1	6010B
BARIUM	7440-39-3	mg/kg	1.0	45.4		P		03M2437L	12/18/03	12/18/03	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.21	<0.21	U	P		03M2437L	12/18/03	12/18/03	1	6010B
CADMIUM	7440-43-9	mg/kg	0.21	<0.21	U	P		03M2437L	12/18/03	12/18/03	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.52	15.4		P		03M2437L	12/18/03	12/18/03	1	6010B
COBALT	7440-48-4	mg/kg	0.52	5.1		P		03M2437L	12/18/03	12/18/03	1	6010B
COPPER	7440-50-8	mg/kg	0.52	15.1		P		03M2437L	12/18/03	12/18/03	1	6010B
LEAD	7439-92-1	mg/kg	0.31	44.4	J	P		03M2437L	12/18/03	12/18/03	1	6010B
MERCURY	7439-97-6	mg/kg	0.21	0.057	J	CV		03M2417H	12/16/03	12/16/03	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.21	<0.21	U	P		03M2437L	12/18/03	12/18/03	1	6010B
NICKEL	7440-02-0	mg/kg	0.31	8.5		P		03M2437L	12/18/03	12/18/03	1	6010B
SELENIUM	7782-49-2	mg/kg	0.52	<0.52	U	P		03M2437L	12/18/03	12/18/03	1	6010B
SILVER	7440-22-4	mg/kg	0.52	0.16	~~U~~ J	P		03M2437L	12/18/03	12/18/03	1	6010B
THALLIUM	7440-28-0	mg/kg	0.52	<0.52	U	P		03M2437L	12/18/03	12/18/03	1	6010B
VANADIUM	7440-62-2	mg/kg	0.52	25.8		P		03M2437L	12/18/03	12/18/03	1	6010B
ZINC	7440-66-6	mg/kg	0.52	68.5		P		03M2437L	12/18/03	12/18/03	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AEH 3/10/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-2	Received Date:	12/11/2003
Sample ID:	**0023-S4-478**	Sample Matrix	Soil	Moisture %:	4.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.2	<5.2	U	P		03M2437L	12/18/03	12/18/03	1	6010B
ARSENIC	7440-38-2	mg/kg	0.31	3.0	J	P		03M2437L	12/18/03	12/18/03	1	6010B
BARIUM	7440-39-3	mg/kg	1.0	50.4		P		03M2437L	12/18/03	12/18/03	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.21	<0.21	U	P		03M2437L	12/18/03	12/18/03	1	6010B
CADMIUM	7440-43-9	mg/kg	0.21	<0.21	U	P		03M2437L	12/18/03	12/18/03	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.52	13.9		P		03M2437L	12/18/03	12/18/03	1	6010B
COBALT	7440-48-4	mg/kg	0.52	5.2		P		03M2437L	12/18/03	12/18/03	1	6010B
COPPER	7440-50-8	mg/kg	0.52	17.1		P		03M2437L	12/18/03	12/18/03	1	6010B
LEAD	7439-92-1	mg/kg	0.31	47.4	J	P		03M2437L	12/18/03	12/18/03	1	6010B
MERCURY	7439-97-6	mg/kg	0.21	0.062	J	CV		03M2417H	12/16/03	12/16/03	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.21	<0.21	U	P		03M2437L	12/18/03	12/18/03	1	6010B
NICKEL	7440-02-0	mg/kg	0.31	8.8		P		03M2437L	12/18/03	12/18/03	1	6010B
SELENIUM	7782-49-2	mg/kg	0.52	<0.52	U	P		03M2437L	12/18/03	12/18/03	1	6010B
SILVER	7440-22-4	mg/kg	0.52	1.2	J	P		03M2437L	12/18/03	12/18/03	1	6010B
THALLIUM	7440-28-0	mg/kg	0.52	<0.52	U	P		03M2437L	12/18/03	12/18/03	1	6010B
VANADIUM	7440-62-2	mg/kg	0.52	27.0		P		03M2437L	12/18/03	12/18/03	1	6010B
ZINC	7440-66-6	mg/kg	0.52	73.5		P		03M2437L	12/18/03	12/18/03	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/10/04

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-3	Received Date:	12/11/2003
Sample ID:	**0023-S4-479**	Sample Matrix	Soil	Moisture %:	6.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.3	<5.3	U	P		03M2437L	12/18/03	12/18/03	1	6010B
ARSENIC	7440-38-2	mg/kg	0.32	5.7		P		03M2437L	12/18/03	12/18/03	1	6010B
BARIUM	7440-39-3	mg/kg	1.1	72.3		P		03M2437L	12/18/03	12/18/03	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.21	<0.21	U	P		03M2437L	12/18/03	12/18/03	1	6010B
CADMIUM	7440-43-9	mg/kg	0.21	0.25	U	P		03M2437L	12/18/03	12/18/03	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.53	23.7		P		03M2437L	12/18/03	12/18/03	1	6010B
COBALT	7440-48-4	mg/kg	0.53	6.8		P		03M2437L	12/18/03	12/18/03	1	6010B
COPPER	7440-50-8	mg/kg	0.53	23.7		P		03M2437L	12/18/03	12/18/03	1	6010B
LEAD	7439-92-1	mg/kg	0.32	57.7	J	P		03M2437L	12/18/03	12/18/03	1	6010B
MERCURY	7439-97-6	mg/kg	0.21	0.060	J	CV		03M2417H	12/16/03	12/16/03	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.21	0.090	U ~~J~~	P		03M2437L	12/18/03	12/18/03	1	6010B
NICKEL	7440-02-0	mg/kg	0.32	11.9		P		03M2437L	12/18/03	12/18/03	1	6010B
SELENIUM	7782-49-2	mg/kg	0.53	<0.53	U	P		03M2437L	12/18/03	12/18/03	1	6010B
SILVER	7440-22-4	mg/kg	0.53	0.069	U ~~J~~	P		03M2437L	12/18/03	12/18/03	1	6010B
THALLIUM	7440-28-0	mg/kg	0.53	<0.53	U	P		03M2437L	12/18/03	12/18/03	1	6010B
VANADIUM	7440-62-2	mg/kg	0.53	32.1		P		03M2437L	12/18/03	12/18/03	1	6010B
ZINC	7440-66-6	mg/kg	0.53	132		P		03M2437L	12/18/03	12/18/03	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

LLH 3/10/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-4	Received Date:	12/11/2003
Sample ID:	**0023-S4-480**	Sample Matrix	Soil	Moisture %:	6.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.3	<5.3	U	P		03M2437L	12/18/03	12/18/03	1	6010B
ARSENIC	7440-38-2	mg/kg	0.32	3.7		P		03M2437L	12/18/03	12/18/03	1	6010B
BARIUM	7440-39-3	mg/kg	1.1	52.8		P		03M2437L	12/18/03	12/18/03	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.21	<0.21	U	P		03M2437L	12/18/03	12/18/03	1	6010B
CADMIUM	7440-43-9	mg/kg	0.21	0.033	UJ	P		03M2437L	12/18/03	12/18/03	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.53	14.0		P		03M2437L	12/18/03	12/18/03	1	6010B
COBALT	7440-48-4	mg/kg	0.53	5.4		P		03M2437L	12/18/03	12/18/03	1	6010B
COPPER	7440-50-8	mg/kg	0.53	20.0		P		03M2437L	12/18/03	12/18/03	1	6010B
LEAD	7439-92-1	mg/kg	0.32	30.9	J	P		03M2437L	12/18/03	12/18/03	1	6010B
MERCURY	7439-97-6	mg/kg	0.21	0.041	J	CV		03M2417H	12/16/03	12/16/03	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.21	<0.21	U	P		03M2437L	12/18/03	12/18/03	1	6010B
NICKEL	7440-02-0	mg/kg	0.32	8.8		P		03M2437L	12/18/03	12/18/03	1	6010B
SELENIUM	7782-49-2	mg/kg	0.53	<0.53	U	P		03M2437L	12/18/03	12/18/03	1	6010B
SILVER	7440-22-4	mg/kg	0.53	0.059	UJ	P		03M2437L	12/18/03	12/18/03	1	6010B
THALLIUM	7440-28-0	mg/kg	0.53	<0.53	U	P		03M2437L	12/18/03	12/18/03	1	6010B
VANADIUM	7440-62-2	mg/kg	0.53	26.0		P		03M2437L	12/18/03	12/18/03	1	6010B
ZINC	7440-66-6	mg/kg	0.53	104		P		03M2437L	12/18/03	12/18/03	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/10/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	12/11/2003
Project ID:	IRP Site 4	Service ID:	36566	Collected by:	Lisa B.
		Lab Sample ID:	03-6566-5	Received Date:	12/11/2003
Sample ID:	**0023-S4-481**	Sample Matrix	Soil	Moisture %:	9.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.5	<5.5	U	P		03M2437L	12/18/03	12/18/03	1	6010B
ARSENIC	7440-38-2	mg/kg	0.33	2.7		P		03M2437L	12/18/03	12/18/03	1	6010B
BARIUM	7440-39-3	mg/kg	1.1	94.5		P		03M2437L	12/18/03	12/18/03	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.22	<0.22	U	P		03M2437L	12/18/03	12/18/03	1	6010B
CADMIUM	7440-43-9	mg/kg	0.22	<0.22	U	P		03M2437L	12/18/03	12/18/03	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.55	20.4		P		03M2437L	12/18/03	12/18/03	1	6010B
COBALT	7440-48-4	mg/kg	0.55	10.0		P		03M2437L	12/18/03	12/18/03	1	6010B
COPPER	7440-50-8	mg/kg	0.55	17.9		P		03M2437L	12/18/03	12/18/03	1	6010B
LEAD	7439-92-1	mg/kg	0.33	12.7	J	P		03M2437L	12/18/03	12/18/03	1	6010B
MERCURY	7439-97-6	mg/kg	0.22	0.017	J	CV		03M2417H	12/16/03	12/16/03	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.22	<0.22	U	P		03M2437L	12/18/03	12/18/03	1	6010B
NICKEL	7440-02-0	mg/kg	0.33	12.9		P		03M2437L	12/18/03	12/18/03	1	6010B
SELENIUM	7782-49-2	mg/kg	0.55	<0.55	U	P		03M2437L	12/18/03	12/18/03	1	6010B
SILVER	7440-22-4	mg/kg	0.55	<0.55	U	P		03M2437L	12/18/03	12/18/03	1	6010B
THALLIUM	7440-28-0	mg/kg	0.55	<0.55	U	P		03M2437L	12/18/03	12/18/03	1	6010B
VANADIUM	7440-62-2	mg/kg	0.55	45.5		P		03M2437L	12/18/03	12/18/03	1	6010B
ZINC	7440-66-6	mg/kg	0.55	74.1		P		03M2437L	12/18/03	12/18/03	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH 3/10/04

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Site #4, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVEL:	EPA Level III
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1999; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994.
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Polynuclear Aromatic Hydrocarbons (PAH), Pesticides, Polychlorinated Biphenyls (PCB), Total Metals
SDG NUMBER:	03-6566 (Level III)

RECEIVED
MAR 26 2004

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	PAH	Pesticides
0023-S4-477	03-6566-1	Soil	X	X
0023-S4-478	03-6566-2	Soil	X	X
0023-S4-479	03-6566-3	Soil	X	X
0023-S4-479DL	03-6566-3DL	Soil	X	
0023-S4-480	03-6566-4	Soil	X	X
0023-S4-481	03-6466-5	Soil	X	X
0023-S4-477MS	03-6566-1MS	Soil	X	X
0023-S4-477MSD	03-6566-1MSD	Soil	X	X

ORIGINAL

Client Sample #	Lab Sample #	Matrix	PCB	Total Metals
0023-S4-477	03-6566-1	Soil	X	X
0023-S4-478	03-6566-2	Soil	X	X
0023-S4-479	03-6566-3	Soil	X	X
0023-S4-480	03-6566-4	Soil	X	X
0023-S4-481	03-6466-5	Soil	X	X
0023-S4-477MS	03-6566-1MS	Soil	X	
0023-S4-477MSD	03-6566-1MSD	Soil	X	

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE,
MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 03-6566 Organics & Inorganics

SAMPLES: 0023-S4-477, 0023-S4-478, 0023-S4-479, 0023-S4-480, 0023-S4-481

POLYNUCLEAR AROMATIC HYDROCARBONS (PAH)

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

Instrument Performance criteria were not required. No action was taken.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards analyzed on 12/17/03 at 12:40 on instrument M exceeded the 15% QC limit for the following compounds:

indeno(1,2,3-cd)pyrene	17.1%
dibenz(a,h)anthracene	18.2%

All positive and non-detect results for these compounds in the associated SDG samples were flagged as estimated (J) and (UJ). The associated samples were 0023-S4-477, 0023-S4-478, 0023-S4-479, 0023-S4-480 and 0023-S4-481.

The Percent Difference s (%D's) for the standards analyzed on 12/18/03 at 10:43 on instrument M exceeded the 15% QC limit for the following compounds:

indeno(1,2,3-cd)pyrene	16.5%
dibenz(a,h)anthracene	15.1%

The positive results for these compounds in associated SDG sample 0023-S4-479DL were flagged as estimated (J).

IV.) Blanks:

There were no detections in the method blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

The Percent Recoveries (%R's) of surrogate compounds exceeded their respective QC limits for the following samples:

Client Sample ID	Surrogate	%R	QC Limits
0023-S4-479DL	nitrobenzene-d5	151%	35-134%
	terphenyl-d14	138%	35-134%
0023-S4-477MS	nitrobenzene-d5	164%	35-134%
0023-S4-477MSD	nitrobenzene-d5	143%	35-134%

All positive results for sample 0023-S4-479DL were flagged as estimated (J). Since the other two samples were QC samples, no action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory. All LCS Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-477. The Percent Recovery (%R) of benzo(a)pyrene exceeded the QC limits. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Internal Standards Performance (ISTD):

The Percent Recoveries (%R's) of the ISTD compounds were below the 50-200% QC limits for the following compounds:

Client Sample ID	ISTD	%R
0023-S4-479	perylene-d12	39.8%
0023-S4-479DL	perylene-d12	49.0%
0023-S4-477MS	chrysene-d12	46.1%
	perylene-d12	31.5%
0023-S4-477MSD	perylene-d12	40.0%

All positive and non-detect results for the compounds quantitated against perylene-d12 in samples 0023-S4-479 and 0023-S4-479DL were flagged as estimated (J) and (UJ). Since the other listed samples were QC samples, no action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this SDG. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for six compounds in the initial analysis of sample 0023-S4-479 exceeded the linear calibration range. A dilution analysis was performed on this sample with all calibration criteria met. Since one ISTD was below the QC limits for both analyses, and two Surrogate %R's exceeded the QC limits for the dilution analyses, the results for the initial analysis were considered by the validator to be of preferable data quality. No action was required.

PESTICIDES

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviations (%RSD's) were 27.3% for endosulfan sulfate and 44.6% for methoxychlor in the standards runs on 11/21/03 on the secondary column, which exceeded the 20% QC limit. Since the exceedances were on the secondary column used for confirmation, no action was required.

Continuing Calibration:

All Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the associated method blanks. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this fraction of the SDG. All LCS Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 0023-S4-477. All MS / MSD criteria were met. No action was required.

VIII.) TCL Compound Identification:

All Compound Identification criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this SDG. No action was required.

X.) Pesticide Cleanup Check:

Florisil Cartridge Check:

Florisil data was not provided. No action was required.

Gel Permeation Chromatography (GPC):

GPC data was not provided. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

POLYCHLORINATED BIPHENYLS (PCBs)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the associated method blanks. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this fraction of the SDG. All LCS Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 0023-S4-477. All MS / MSD criteria were met. No action was required.

VIII.) TCL Compound Identification:

All Compound Identification criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this SDG. No action was required.

X.) Pesticide Cleanup Check:

Florisil Cartridge Check:

Florisil data was not provided. No action was required.

Gel Permeation Chromatography (GPC):

GPC data was not provided. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

TOTAL METALS

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

The following analytes were detected in the blanks associated with this SDG:

Blank ID	Analyte	Detection	Action Level
CCB5	antimony	6.22 ug/L	6.22 mg/kg
CCB3	barium	1.32 ug/L	1.32 mg/kg
CCB3	beryllium	0.17 ug/L	0.17 mg/kg
ICB	cadmium	0.5 ug/L	0.5 mg/kg
CCB5	chromium	0.46 ug/L	0.46 mg/kg
ICB	cobalt	0.68 ug/L	0.68 mg/kg
CCB5	copper	1.92 ug/L	1.92 mg/kg
CCB5	molybdenum	1.45 ug/L	1.45 mg/kg
CCB5	silver	1.80 ug/L	1.80 mg/kg
CCB2	thallium	2.75 ug/L	2.75 mg/kg
ICB	vanadium	0.55 ug/L	0.55 mg/kg
CCB2	zinc	3.96 ug/L	3.96 mg/kg

CCB = Continuing Calibration Blank, ICB = Initial Calibration Blank

All positive results for these analytes in the SDG samples less than the action level were flagged as undetected (U).

The following negative results were reported in the blanks associated with this SDG:

Blank ID	Analyte	Result	Action Level
CCB6	arsenic	-2.42 ug/L	2.42 mg/kg
CCB5	lead	-3.32 ug/L	3.32 mg/kg
CCB5	nickel	-1.18 ug/L	1.18 mg/kg

All positive results for these analytes in the SDG samples less than the action level and all non-detect results were flagged as estimated (J) and (UJ).

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All MS / MSD criteria were met using batch MS / MSD analyses. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Serial Dilution Analysis:

The Percent Differences (%D) for lead was 10.2% in the Serial Dilution Analysis, which exceeded the 10% QC limit. The sample used for this analysis was not one of the client's samples, therefore the matrix was not associable with this SDG. No action was taken.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 06016

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4 and 7	PURCHASE ORDER NO.: 20721 Task ~~16~~ 25
PROJECT LOCATION: NAV WPN STA, ~~Long~~ Seal Beach	PROJECT NO.: 1990.023
SAMPLER NAME: Nicholas Weinberger	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1044 (04-1179 for on hold samples)

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	VOC EPA 8260B	SVOC EPA 8270C/SIM	Pest. EPA 8081A	PCBs EPA 8082	Title 22 Metals	TPH-e EPA 8015B					COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-54-482	1/6/04	0934	5	X		S	5 day	X	X	X	X	X	X					Dredge Stockpile 12	0.5'	/	Reg
0023-54-483	1/6/04	0945	5	X		S	5 day	X	X	X	X	X	X					Dredge Stockpile 8	0.5'	/	Reg
0023-54-484	1/6/04	0950	5	X		S	5 day	X	X	X	X	X	X					Dredge Stockpile 6	0.5'	/	Reg
0023-54-485	1/6/04	1005	9	X		W	5 day	X	X	X	X	X	X					EQ Kinsate / Equip Kinse	/	/	Reg
0023-54-486	1/6/04	1030	5	X		S	5 day	X	X	X	X	X	X					Dredge Stockpile 3	1.5'	/	Reg
0023-54-487	1/6/04	1038	5	X		S	5 day	X	X	X	X	X	X					Dredge Stockpile 4	2.0'	/	Reg
0023-54-488	1/6/04	1051	5	X		S	5 day	X	X	X	X	X	X					Dredge Stockpile 9	2.5'	/	Reg
0023-54-489	1/6/04	1102	5		X	S	5 day	X	X	X	X	X	X					Dredge Stockpile 7	2.5'	/	Reg
0023-54-490	1/6/04	1110	5	X		S	5 day	X	X	X	X	X	X					Dredge Stockpile 5	3.0'	/	Reg
0023-54-491	1/6/04	1130	5	X		S	5 day	X	X	X	X	X	X					Dredge Stockpile 2	3.0'	/	Reg
0023-54-492	1/6/04	1135	5	X		S	5 day	X	X	X	X	X	X					Dredge Stockpile 1	3.0'	/	Reg

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	1/6/04	[signature]
COMPANY: TTFVI	TIME: 1500	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Dredge Material Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1044R / 04-0117

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 06006

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4 and 7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach	PROJECT NO.: 1990.023
SAMPLER NAME: Nicholas Weinberger	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1044, 04-1179 (for on hold samples)

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	VOC's EPA 8260B	SVOC's 8270C/SIM	PEST 8081A	PCB's 8082	Title 22 Metals	TPH-e 8015B	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-54-493	1/6/04	1150	5	X		S	5 day	X	X	X	X	X	X	Dredge Stockpile	11	3.0	/	Reg
0023-54-494	1/6/04	1200	5	X		S	5 day	X	X	X	X	X	X	Dredge Stockpile	10	2.0	/	Reg
0023-54-495	1/6/04	1212	5	X		S	5 day	X	X	X	X	X	X	~~Hold~~ Released 1/15/04; 5 day TAT Dredge Stockpile	16	3.5	/	Reg
0023-54-496	1/6/04	1224	5		X	S	5 day	X	X	X	X	X	X	~~Hold~~ Dredge Stockpile	13	3.0	/	Reg
0023-54-497	1/6/04	1234	5	X		S	5 day	X	X	X	X	X	X	~~Hold~~ Dredge Stockpile	14	2.0	/	Reg
0023-54-498	1/6/04	1245	5	X		S	5 day	X	X	X	X	X	X	~~Hold~~ Dredge Stockpile	17	2.5	/	Reg
0023-54-499	1/6/04	1256	5	X		S	5 day	X	X	X	X	X	X	~~Hold~~ Dredge Stockpile	15	2.0	/	Reg

[signature] 1/6/04

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	1/6/04	[signature]
COMPANY: TTFWI	TIME: 1500	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: Samples 0023-54-495, 496, 497, 498, 499 - Preserve EnCore Samples and Hold ~~all~~ Analysis ~~for~~ until authorized by Lisa Bienkowski

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Dredge Material Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1044R/04-0117

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberge
		Lab Sample ID:	04-1044-1	Received Date:	01/06/2004
Sample ID:	**0023-S4-482**	Sample Matrix	Soil	Moisture %:	6.6
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1034	Prep. No:	–	Anal. Time:	13:45
Data File Name:	1044-01	Sample Amount:	5.20 g	Dilution Factor:	0.96
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	51	<51	U J
2	BENZENE	71-43-2	µg/kg	5.1	<5.1	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.1	<5.1	U
4	BROMOFORM	75-25-2	µg/kg	5.1	<5.1	U
5	BROMOMETHANE	74-83-9	µg/kg	5.1	<5.1	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	51	<51	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.1	<5.1	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.1	<5.1	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.1	<5.1	U
10	CHLOROETHANE	75-00-3	µg/kg	5.1	<5.1	U
11	CHLOROFORM	67-66-3	µg/kg	5.1	<5.1	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.1	<5.1	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.1	<5.1	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.1	<5.1	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.1	<5.1	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.1	<5.1	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.1	<5.1	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.1	<5.1	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.1	<5.1	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.1	<5.1	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.1	<5.1	U
22	2-HEXANONE	591-78-6	µg/kg	51	<51	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.1	5.1 ~~2~~	~~J~~ U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	51	<51	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	10	<10	U
26	STYRENE	100-42-5	µg/kg	5.1	<5.1	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.1	<5.1	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.1	<5.1	U
29	TOLUENE	108-88-3	µg/kg	5.1	<5.1	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.1	<5.1	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.1	<5.1	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.1	<5.1	U
33	VINYL ACETATE	108-05-4	µg/kg	51	<51	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.1	<5.1	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.1	<5.1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	98
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	104

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	100
4	TOLUENE-D8	2037-26-5	80-120	91
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	111
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	121
3	FLUOROBENZENE	462-06-6	50-200	86
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberge
		Lab Sample ID:	04-1044-2	Received Date:	01/06/2004
Sample ID:	**0023-S4-483**	Sample Matrix	Soil	Moisture %:	11.9
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1034	Prep. No:	–	Anal. Time:	14:11
Data File Name:	1044-02	Sample Amount:	5.37 g	Dilution Factor:	0.93
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	53	<53	UJ
2	BENZENE	71-43-2	µg/kg	5.3	<5.3	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.3	<5.3	U
4	BROMOFORM	75-25-2	µg/kg	5.3	<5.3	U
5	BROMOMETHANE	74-83-9	µg/kg	5.3	<5.3	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	53	<53	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.3	<5.3	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.3	<5.3	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.3	<5.3	U
10	CHLOROETHANE	75-00-3	µg/kg	5.3	<5.3	U
11	CHLOROFORM	67-66-3	µg/kg	5.3	<5.3	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.3	<5.3	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.3	<5.3	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.3	<5.3	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.3	<5.3	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.3	<5.3	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.3	<5.3	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.3	<5.3	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.3	<5.3	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.3	<5.3	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.3	<5.3	U
22	2-HEXANONE	591-78-6	µg/kg	53	<53	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.3	5.3 ~~2~~	+U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	53	<53	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	11	<11	U
26	STYRENE	100-42-5	µg/kg	5.3	<5.3	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.3	<5.3	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.3	<5.3	U
29	TOLUENE	108-88-3	µg/kg	5.3	<5.3	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.3	<5.3	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.3	<5.3	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.3	<5.3	U
33	VINYL ACETATE	108-05-4	µg/kg	53	<53	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.3	<5.3	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.3	<5.3	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	99
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	106

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	101
4	TOLUENE-D8	2037-26-5	80-120	91
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	116
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	124
3	FLUOROBENZENE	462-06-6	50-200	88
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberge
		Lab Sample ID:	04-1044-3	Received Date:	01/06/2004
Sample ID:	**0023-S4-484**	Sample Matrix	Soil	Moisture %:	16.2
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1034	Prep. No:	–	Anal. Time:	14:38
Data File Name:	1044-03	Sample Amount:	5.11 g	Dilution Factor:	0.98
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	58	<58	UJ
2	BENZENE	71-43-2	µg/kg	5.8	<5.8	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.8	<5.8	U
4	BROMOFORM	75-25-2	µg/kg	5.8	<5.8	U
5	BROMOMETHANE	74-83-9	µg/kg	5.8	<5.8	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	58	<58	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.8	<5.8	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.8	<5.8	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.8	<5.8	U
10	CHLOROETHANE	75-00-3	µg/kg	5.8	<5.8	U
11	CHLOROFORM	67-66-3	µg/kg	5.8	<5.8	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.8	<5.8	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.8	<5.8	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.8	<5.8	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.8	<5.8	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.8	<5.8	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.8	<5.8	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.8	<5.8	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.8	<5.8	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.8	<5.8	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.8	<5.8	U
22	2-HEXANONE	591-78-6	µg/kg	58	<58	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.8	5.8 ~~2~~	JU
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	58	<58	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	12	<12	U
26	STYRENE	100-42-5	µg/kg	5.8	<5.8	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.8	<5.8	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.8	<5.8	U
29	TOLUENE	108-88-3	µg/kg	5.8	<5.8	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.8	<5.8	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.8	<5.8	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.8	<5.8	U
33	VINYL ACETATE	108-05-4	µg/kg	58	<58	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.8	<5.8	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.8	<5.8	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	100
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	106

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	101
4	TOLUENE-D8	2037-26-5	80-120	91
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	110
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	117
3	FLUOROBENZENE	462-06-6	50-200	83
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberge
		Lab Sample ID:	04-1044-4	Received Date:	01/06/2004
Sample ID:	**0023-S4-485**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030B	Instrument ID:	GC/MS: Q
Anal. Method:	8260B	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1035	Prep. No:	–	Anal. Time:	15:22
Data File Name:	1044-04	Sample Amount:	25 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/L	50	11	~~J~~ J
2	BENZENE	71-43-2	µg/L	5	<5	U
3	BROMODICHLOROMETHANE	75-27-4	µg/L	5	<5	U
4	BROMOFORM	75-25-2	µg/L	5	<5	U
5	BROMOMETHANE	74-83-9	µg/L	5	<5	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/L	50	<50	U
7	CARBON TETRACHLORIDE	56-23-5	µg/L	5	<5	U
8	CHLOROBENZENE	108-90-7	µg/L	5	<5	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/L	5	<5	U
10	CHLOROETHANE	75-00-3	µg/L	5	<5	U
11	CHLOROFORM	67-66-3	µg/L	5	<5	U
12	CHLOROMETHANE	74-87-3	µg/L	5	<5	U
13	1,1-DICHLOROETHANE	75-34-3	µg/L	5	<5	U
14	1,2-DICHLOROETHANE	107-06-2	µg/L	5	<5	U
15	1,1-DICHLOROETHENE	75-35-4	µg/L	5	<5	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/L	5	<5	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/L	5	<5	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/L	5	<5	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/L	5	<5	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/L	5	<5	U
21	ETHYLBENZENE	100-41-4	µg/L	5	<5	U
22	2-HEXANONE	591-78-6	µg/L	50	<50	U
23	METHYLENE CHLORIDE	75-09-2	µg/L	5	<5	U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/L	50	<50	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/L	10	<10	U
26	STYRENE	100-42-5	µg/L	5	<5	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/L	5	<5	U
28	TETRACHLOROETHENE	127-18-4	µg/L	5	<5	U
29	TOLUENE	108-88-3	µg/L	5	<5	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/L	5	<5	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/L	5	<5	U
32	TRICHLOROETHENE	79-01-6	µg/L	5	<5	U
33	VINYL ACETATE	108-05-4	µg/L	50	<50	U
34	VINYL CHLORIDE	75-01-4	µg/L	5	<5	U
35	XYLENES (TOTAL)	1330-20-7	µg/L	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	108
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	113

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	75-125	117
4	TOLUENE-D8	2037-26-5	80-120	106
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	115
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	109
3	FLUOROBENZENE	462-06-6	50-200	104
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberge
		Lab Sample ID:	04-1044-5	Received Date:	01/06/2004
Sample ID:	**0023-S4-486**	Sample Matrix	Soil	Moisture %:	14.4
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1034	Prep. No:	–	Anal. Time:	15:04
Data File Name:	1044-05	Sample Amount:	5.20 g	Dilution Factor:	0.96
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	56	<56	U J
2	BENZENE	71-43-2	µg/kg	5.6	<5.6	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.6	<5.6	U
4	BROMOFORM	75-25-2	µg/kg	5.6	<5.6	U
5	BROMOMETHANE	74-83-9	µg/kg	5.6	<5.6	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	56	<56	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.6	<5.6	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.6	<5.6	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.6	<5.6	U
10	CHLOROETHANE	75-00-3	µg/kg	5.6	<5.6	U
11	CHLOROFORM	67-66-3	µg/kg	5.6	<5.6	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.6	<5.6	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.6	<5.6	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.6	<5.6	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.6	<5.6	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.6	<5.6	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.6	<5.6	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.6	<5.6	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.6	<5.6	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.6	<5.6	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.6	<5.6	U
22	2-HEXANONE	591-78-6	µg/kg	56	<56	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.6	5.6 ~~2~~	~~J~~ U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	56	<56	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	11	<11	U
26	STYRENE	100-42-5	µg/kg	5.6	<5.6	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.6	<5.6	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.6	<5.6	U
29	TOLUENE	108-88-3	µg/kg	5.6	<5.6	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.6	<5.6	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.6	<5.6	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.6	<5.6	U
33	VINYL ACETATE	108-05-4	µg/kg	56	<56	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.6	<5.6	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.6	<5.6	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	99
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	105

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	99
4	TOLUENE-D8	2037-26-5	80-120	91
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	106
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	115
3	FLUOROBENZENE	462-06-6	50-200	80
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberge
		Lab Sample ID:	04-1044-6	Received Date:	01/06/2004
Sample ID:	**0023-S4-487**	Sample Matrix	Soil	Moisture %:	6.4
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1034	Prep. No:	–	Anal. Time:	15:30
Data File Name:	1044-06	Sample Amount:	4.61 g	Dilution Factor:	1.08
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	58	<58	U J
2	BENZENE	71-43-2	µg/kg	5.8	<5.8	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.8	<5.8	U
4	BROMOFORM	75-25-2	µg/kg	5.8	<5.8	U
5	BROMOMETHANE	74-83-9	µg/kg	5.8	<5.8	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	58	<58	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.8	<5.8	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.8	<5.8	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.8	<5.8	U
10	CHLOROETHANE	75-00-3	µg/kg	5.8	<5.8	U
11	CHLOROFORM	67-66-3	µg/kg	5.8	<5.8	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.8	<5.8	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.8	<5.8	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.8	<5.8	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.8	<5.8	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.8	<5.8	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.8	<5.8	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.8	<5.8	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.8	<5.8	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.8	<5.8	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.8	<5.8	U
22	2-HEXANONE	591-78-6	µg/kg	58	<58	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.8	5.8 ~~2~~	~~J~~ U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	58	<58	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	12	<12	U
26	STYRENE	100-42-5	µg/kg	5.8	<5.8	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.8	<5.8	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.8	<5.8	U
29	TOLUENE	108-88-3	µg/kg	5.8	<5.8	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.8	<5.8	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.8	<5.8	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.8	<5.8	U
33	VINYL ACETATE	108-05-4	µg/kg	58	<58	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.8	<5.8	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.8	<5.8	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	98
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	103

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	99
4	TOLUENE-D8	2037-26-5	80-120	91
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	109
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	119
3	FLUOROBENZENE	462-06-6	50-200	84
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberge
		Lab Sample ID:	04-1044-7	Received Date:	01/06/2004
Sample ID:	**0023-S4-488**	Sample Matrix	Soil	Moisture %:	5.3
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1034	Prep. No:	–	Anal. Time:	15:56
Data File Name:	1044-07	Sample Amount:	5.27 g	Dilution Factor:	0.95
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	50	<50	U J
2	BENZENE	71-43-2	µg/kg	5.0	<5.0	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.0	<5.0	U
4	BROMOFORM	75-25-2	µg/kg	5.0	<5.0	U
5	BROMOMETHANE	74-83-9	µg/kg	5.0	<5.0	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	50	<50	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.0	<5.0	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.0	<5.0	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.0	<5.0	U
10	CHLOROETHANE	75-00-3	µg/kg	5.0	<5.0	U
11	CHLOROFORM	67-66-3	µg/kg	5.0	<5.0	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.0	<5.0	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.0	<5.0	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.0	<5.0	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.0	<5.0	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.0	<5.0	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.0	<5.0	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.0	<5.0	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.0	<5.0	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.0	<5.0	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.0	<5.0	U
22	2-HEXANONE	591-78-6	µg/kg	50	<50	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.0	5.0 ~~2~~	~~J~~ U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	50	<50	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	10	<10	U
26	STYRENE	100-42-5	µg/kg	5.0	<5.0	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.0	<5.0	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.0	<5.0	U
29	TOLUENE	108-88-3	µg/kg	5.0	<5.0	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.0	<5.0	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.0	<5.0	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.0	<5.0	U
33	VINYL ACETATE	108-05-4	µg/kg	50	<50	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.0	<5.0	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.0	<5.0	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	99
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	103

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	98
4	TOLUENE-D8	2037-26-5	80-120	92
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	107
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	117
3	FLUOROBENZENE	462-06-6	50-200	83
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberge
		Lab Sample ID:	04-1044-8	Received Date:	01/06/2004
Sample ID:	0023-S4-489	Sample Matrix	Soil	Moisture %:	13.1
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1034	Prep. No:	–	Anal. Time:	16:22
Data File Name:	1044-08	Sample Amount:	5.16 g	Dilution Factor:	0.97
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	56	<56	UJ
2	BENZENE	71-43-2	µg/kg	5.6	<5.6	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.6	<5.6	U
4	BROMOFORM	75-25-2	µg/kg	5.6	<5.6	U
5	BROMOMETHANE	74-83-9	µg/kg	5.6	<5.6	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	56	<56	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.6	<5.6	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.6	<5.6	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.6	<5.6	U
10	CHLOROETHANE	75-00-3	µg/kg	5.6	<5.6	U
11	CHLOROFORM	67-66-3	µg/kg	5.6	<5.6	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.6	<5.6	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.6	<5.6	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.6	<5.6	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.6	<5.6	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.6	<5.6	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.6	<5.6	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.6	<5.6	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.6	<5.6	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.6	<5.6	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.6	<5.6	U
22	2-HEXANONE	591-78-6	µg/kg	56	<56	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.6	5.6 ~~2~~	JH
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	56	<56	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	11	<11	U
26	STYRENE	100-42-5	µg/kg	5.6	<5.6	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.6	<5.6	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.6	<5.6	U
29	TOLUENE	108-88-3	µg/kg	5.6	<5.6	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.6	<5.6	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.6	<5.6	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.6	<5.6	U
33	VINYL ACETATE	108-05-4	µg/kg	56	<56	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.6	<5.6	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.6	<5.6	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	99
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	104

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	100
4	TOLUENE-D8	2037-26-5	80-120	91
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	115
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	123
3	FLUOROBENZENE	462-06-6	50-200	87
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberge
		Lab Sample ID:	04-1044-9	Received Date:	01/06/2004
Sample ID:	**0023-S4-490**	Sample Matrix	Soil	Moisture %:	18.2
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1034	Prep. No:	–	Anal. Time:	16:48
Data File Name:	1044-09	Sample Amount:	5.30 g	Dilution Factor:	0.94
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	57	<57	U J
2	BENZENE	71-43-2	µg/kg	5.7	<5.7	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.7	<5.7	U
4	BROMOFORM	75-25-2	µg/kg	5.7	<5.7	U
5	BROMOMETHANE	74-83-9	µg/kg	5.7	<5.7	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	57	<57	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.7	<5.7	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.7	<5.7	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.7	<5.7	U
10	CHLOROETHANE	75-00-3	µg/kg	5.7	<5.7	U
11	CHLOROFORM	67-66-3	µg/kg	5.7	<5.7	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.7	<5.7	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.7	<5.7	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.7	<5.7	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.7	<5.7	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.7	<5.7	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.7	<5.7	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.7	<5.7	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.7	<5.7	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.7	<5.7	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.7	<5.7	U
22	2-HEXANONE	591-78-6	µg/kg	57	<57	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.7	5.7 ~~2~~	~~J~~ U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	57	<57	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	11	<11	U
26	STYRENE	100-42-5	µg/kg	5.7	<5.7	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.7	<5.7	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.7	<5.7	U
29	TOLUENE	108-88-3	µg/kg	5.7	<5.7	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.7	<5.7	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.7	<5.7	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.7	<5.7	U
33	VINYL ACETATE	108-05-4	µg/kg	57	<57	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.7	<5.7	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.7	<5.7	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	99
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	105

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	100
4	TOLUENE-D8	2037-26-5	80-120	92
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	107
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	116
3	FLUOROBENZENE	462-06-6	50-200	82
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberge
		Lab Sample ID:	04-1044-10	Received Date:	01/06/2004
Sample ID:	**0023-S4-491**	Sample Matrix	Soil	Moisture %:	4.7
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1034	Prep. No:	–	Anal. Time:	17:14
Data File Name:	1044-10	Sample Amount:	5.38 g	Dilution Factor:	0.93
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	49	<49	U J
2	BENZENE	71-43-2	µg/kg	4.9	<4.9	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	4.9	<4.9	U
4	BROMOFORM	75-25-2	µg/kg	4.9	<4.9	U
5	BROMOMETHANE	74-83-9	µg/kg	4.9	<4.9	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	49	<49	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	4.9	<4.9	U
8	CHLOROBENZENE	108-90-7	µg/kg	4.9	<4.9	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	4.9	<4.9	U
10	CHLOROETHANE	75-00-3	µg/kg	4.9	<4.9	U
11	CHLOROFORM	67-66-3	µg/kg	4.9	<4.9	U
12	CHLOROMETHANE	74-87-3	µg/kg	4.9	<4.9	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	4.9	<4.9	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	4.9	<4.9	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	4.9	<4.9	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	4.9	<4.9	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	4.9	<4.9	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	4.9	<4.9	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	4.9	<4.9	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	4.9	<4.9	U
21	ETHYLBENZENE	100-41-4	µg/kg	4.9	<4.9	U
22	2-HEXANONE	591-78-6	µg/kg	49	<49	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	4.9	4.9 ~~2~~	~~J~~ U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	49	<49	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	9.8	<9.8	U
26	STYRENE	100-42-5	µg/kg	4.9	<4.9	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	4.9	<4.9	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	4.9	<4.9	U
29	TOLUENE	108-88-3	µg/kg	4.9	<4.9	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	4.9	<4.9	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	4.9	<4.9	U
32	TRICHLOROETHENE	79-01-6	µg/kg	4.9	<4.9	U
33	VINYL ACETATE	108-05-4	µg/kg	49	<49	U
34	VINYL CHLORIDE	75-01-4	µg/kg	4.9	<4.9	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	4.9	<4.9	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	98
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	105

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	100
4	TOLUENE-D8	2037-26-5	80-120	91
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	113
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	122
3	FLUOROBENZENE	462-06-6	50-200	86
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberge
		Lab Sample ID:	04-1044-11	Received Date:	01/06/2004
Sample ID:	**0023-S4-492**	Sample Matrix	Soil	Moisture %:	16.9
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1034	Prep. No:	–	Anal. Time:	17:40
Data File Name:	1044-11	Sample Amount:	5.07 g	Dilution Factor:	0.99
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge:	(Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	60	<60	U J
2	BENZENE	71-43-2	µg/kg	6.0	<6.0	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.0	<6.0	U
4	BROMOFORM	75-25-2	µg/kg	6.0	<6.0	U
5	BROMOMETHANE	74-83-9	µg/kg	6.0	<6.0	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	60	<60	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.0	<6.0	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.0	<6.0	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.0	<6.0	U
10	CHLOROETHANE	75-00-3	µg/kg	6.0	<6.0	U
11	CHLOROFORM	67-66-3	µg/kg	6.0	<6.0	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.0	<6.0	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.0	<6.0	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.0	<6.0	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.0	<6.0	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.0	<6.0	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.0	<6.0	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.0	<6.0	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.0	<6.0	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.0	<6.0	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.0	<6.0	U
22	2-HEXANONE	591-78-6	µg/kg	60	<60	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.0	6.0 ~~2~~	~~J~~ U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	60	<60	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	12	<12	U
26	STYRENE	100-42-5	µg/kg	6.0	<6.0	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.0	<6.0	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.0	<6.0	U
29	TOLUENE	108-88-3	µg/kg	6.0	<6.0	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.0	<6.0	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.0	<6.0	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.0	<6.0	U
33	VINYL ACETATE	108-05-4	µg/kg	60	<60	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.0	<6.0	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.0	<6.0	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	97
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	103

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	99
4	TOLUENE-D8	2037-26-5	80-120	92
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	107
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	117
3	FLUOROBENZENE	462-06-6	50-200	82
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberge
		Lab Sample ID:	04-1044-12	Received Date:	01/06/2004
Sample ID:	**0023-S4-493**	Sample Matrix	Soil	Moisture %:	19.1
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1034	Prep. No:	–	Anal. Time:	18:06
Data File Name:	1044-12	Sample Amount:	5.12 g	Dilution Factor:	0.98
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	61	<61	U J
2	BENZENE	71-43-2	µg/kg	6.1	<6.1	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.1	<6.1	U
4	BROMOFORM	75-25-2	µg/kg	6.1	<6.1	U
5	BROMOMETHANE	74-83-9	µg/kg	6.1	<6.1	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	61	<61	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.1	<6.1	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.1	<6.1	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.1	<6.1	U
10	CHLOROETHANE	75-00-3	µg/kg	6.1	<6.1	U
11	CHLOROFORM	67-66-3	µg/kg	6.1	<6.1	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.1	<6.1	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.1	<6.1	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.1	<6.1	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.1	<6.1	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.1	<6.1	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.1	<6.1	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.1	<6.1	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.1	<6.1	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.1	<6.1	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.1	<6.1	U
22	2-HEXANONE	591-78-6	µg/kg	61	<61	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.1	6.1 ~~2~~	~~J~~ U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	61	<61	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	12	<12	U
26	STYRENE	100-42-5	µg/kg	6.1	<6.1	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.1	<6.1	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.1	<6.1	U
29	TOLUENE	108-88-3	µg/kg	6.1	<6.1	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.1	<6.1	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.1	<6.1	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.1	<6.1	U
33	VINYL ACETATE	108-05-4	µg/kg	61	<61	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.1	<6.1	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.1	<6.1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	100
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	106

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	102
4	TOLUENE-D8	2037-26-5	80-120	92
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	109
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	117
3	FLUOROBENZENE	462-06-6	50-200	82
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberge
		Lab Sample ID:	04-1044-13	Received Date:	01/06/2004
Sample ID:	**0023-S4-494**	Sample Matrix	Soil	Moisture %:	19.1
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1034	Prep. No:	–	Anal. Time:	18:32
Data File Name:	1044-13	Sample Amount:	5.55 g	Dilution Factor:	0.9
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge:	(Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	56	<56	UJ
2	BENZENE	71-43-2	µg/kg	5.6	<5.6	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.6	<5.6	U
4	BROMOFORM	75-25-2	µg/kg	5.6	<5.6	U
5	BROMOMETHANE	74-83-9	µg/kg	5.6	<5.6	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	56	<56	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.6	<5.6	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.6	<5.6	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.6	<5.6	U
10	CHLOROETHANE	75-00-3	µg/kg	5.6	<5.6	U
11	CHLOROFORM	67-66-3	µg/kg	5.6	<5.6	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.6	<5.6	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.6	<5.6	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.6	<5.6	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.6	<5.6	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.6	<5.6	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.6	<5.6	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.6	<5.6	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.6	<5.6	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.6	<5.6	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.6	<5.6	U
22	2-HEXANONE	591-78-6	µg/kg	56	<56	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.6	5.6 2	JU
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	56	<56	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	11	<11	U
26	STYRENE	100-42-5	µg/kg	5.6	<5.6	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.6	<5.6	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.6	<5.6	U
29	TOLUENE	108-88-3	µg/kg	5.6	<5.6	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.6	<5.6	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.6	<5.6	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.6	<5.6	U
33	VINYL ACETATE	108-05-4	µg/kg	56	<56	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.6	<5.6	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.6	<5.6	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	99
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	104

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	102
4	TOLUENE-D8	2037-26-5	80-120	91
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	123
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	131
3	FLUOROBENZENE	462-06-6	50-200	94
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-1	Received Date:	01/06/2004
Sample ID:	**0023-S4-482**	Sample Matrix	Soil	Moisture %:	6.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: D
Anal. Method:	8270C	Prep. Date:	01/08/04	Anal. Date:	01/12/04
Batch No:	04G1040	Prep. No:	1 of 1	Anal. Time:	23:00
Data File Name:	1044-01	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	350	<350	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	350	<350	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	350	<350	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	350	<350	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	350	<350	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	350	<350	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	350	<350	U
8	4-CHLOROANILINE	106-47-8	µg/kg	810	<810	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	350	<350	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	350	<350	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	350	<350	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	350	<350	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	350	<350	U
14	DIBENZOFURAN	132-64-9	µg/kg	350	<350	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	350	<350	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	350	<350	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	350	<350	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	710	<710	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	350	<350	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	350	<350	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	350	<350	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	350	<350	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1700	<1700	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1700	<1700	U
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	350	<350	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	350	<350	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	350	<350	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	350	<350	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1700	<1700	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	350	<350	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	350	<350	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	350	<350	U
33	2-NITROANILINE	88-74-4	µg/kg	1700	<1700	U
34	3-NITROANILINE	99-09-2	µg/kg	1700	<1700	U
35	4-NITROANILINE	100-01-6	µg/kg	1700	<1700	U
36	NITROBENZENE	98-95-3	µg/kg	350	<350	U
37	2-NITROPHENOL	88-75-5	µg/kg	350	<350	U
38	4-NITROPHENOL	100-02-7	µg/kg	1700	<1700	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	350	<350	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	710	<710	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	1700	<1700	U
42	PHENOL	108-95-2	µg/kg	350	<350	U
43	PYRIDINE	110-86-1	µg/kg	350	<350	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	350	<350	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	1700	<1700	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	350	<350	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	73
2	2-FLUOROPHENOL	367-12-4	30-120	82
3	NITROBENZENE-D5	4165-60-0	40-135	66
4	PHENOL-D5	4165-62-2	20-120	62
5	TERPHENYL-D14	1718-51-0	40-135	109
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	84
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	101
2	CHRYSENE-D12	1719-03-5	50-200	76
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	104
4	NAPHTHALENE-D8	1146-65-2	50-200	101
5	PERYLENE-D12	1520-96-3	50-200	83
6	PHENANTHRENE-D10	1517-22-2	50-200	96
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-2	Received Date:	01/06/2004
Sample ID:	**0023-S4-483**	Sample Matrix	Soil	Moisture %:	11.9
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: D
Anal. Method:	8270C	Prep. Date:	01/08/04	Anal. Date:	01/12/04
Batch No:	04G1040	Prep. No:	1 of 1	Anal. Time:	20:59
Data File Name:	1044-02	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	370	<370	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	370	<370	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	370	<370	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	370	<370	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	370	<370	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	370	<370	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	370	<370	U
8	4-CHLOROANILINE	106-47-8	µg/kg	860	<860	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	370	<370	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	370	<370	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	370	<370	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	370	<370	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	370	<370	U
14	DIBENZOFURAN	132-64-9	µg/kg	370	<370	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	370	<370	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	370	<370	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	370	<370	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	750	<750	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	370	<370	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	370	<370	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	370	<370	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	370	<370	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1800	<1800	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1800	<1800	U
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	370	<370	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	370	<370	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	370	<370	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	370	<370	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1800	<1800	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	370	<370	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	370	<370	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	370	<370	U
33	2-NITROANILINE	88-74-4	µg/kg	1800	<1800	U
34	3-NITROANILINE	99-09-2	µg/kg	1800	<1800	U
35	4-NITROANILINE	100-01-6	µg/kg	1800	<1800	U
36	NITROBENZENE	98-95-3	µg/kg	370	<370	U
37	2-NITROPHENOL	88-75-5	µg/kg	370	<370	U
38	4-NITROPHENOL	100-02-7	µg/kg	1800	<1800	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	370	<370	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	750	<750	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	μg/kg	1800	<1800	U
42	PHENOL	108-95-2	μg/kg	370	<370	U
43	PYRIDINE	110-86-1	μg/kg	370	<370	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	μg/kg	370	<370	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	μg/kg	1800	<1800	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	μg/kg	370	<370	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	59
2	2-FLUOROPHENOL	367-12-4	30-120	71
3	NITROBENZENE-D5	4165-60-0	40-135	60
4	PHENOL-D5	4165-62-2	20-120	51
5	TERPHENYL-D14	1718-51-0	40-135	76
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	54
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	106
2	CHRYSENE-D12	1719-03-5	50-200	83
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	107
4	NAPHTHALENE-D8	1146-65-2	50-200	104
5	PERYLENE-D12	1520-96-3	50-200	82
6	PHENANTHRENE-D10	1517-22-2	50-200	109
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-3	Received Date:	01/06/2004
Sample ID:	**0023-S4-484**	Sample Matrix	Soil	Moisture %:	16.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: D
Anal. Method:	8270C	Prep. Date:	01/08/04	Anal. Date:	01/12/04
Batch No:	04G1040	Prep. No:	1 of 1	Anal. Time:	21:39
Data File Name:	1044-03	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	390	<390	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	390	<390	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	390	<390	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	390	<390	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	390	<390	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	390	<390	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	390	<390	U
8	4-CHLOROANILINE	106-47-8	µg/kg	910	<910	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	390	<390	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	390	<390	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	390	<390	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	390	<390	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	390	<390	U
14	DIBENZOFURAN	132-64-9	µg/kg	390	<390	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	390	<390	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	390	<390	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	390	<390	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	790	<790	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	390	<390	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	390	<390	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	390	<390	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	390	<390	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1900	<1900	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1900	<1900	U
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	390	<390	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	390	<390	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	390	<390	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	390	<390	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1900	<1900	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	390	<390	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	390	<390	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	390	<390	U
33	2-NITROANILINE	88-74-4	µg/kg	1900	<1900	U
34	3-NITROANILINE	99-09-2	µg/kg	1900	<1900	U
35	4-NITROANILINE	100-01-6	µg/kg	1900	<1900	U
36	NITROBENZENE	98-95-3	µg/kg	390	<390	U
37	2-NITROPHENOL	88-75-5	µg/kg	390	<390	U
38	4-NITROPHENOL	100-02-7	µg/kg	1900	<1900	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	390	<390	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	790	<790	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	1900	<1900	U
42	PHENOL	108-95-2	µg/kg	390	<390	U
43	PYRIDINE	110-86-1	µg/kg	390	<390	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	390	<390	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	1900	<1900	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	390	<390	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	78
2	2-FLUOROPHENOL	367-12-4	30-120	91
3	NITROBENZENE-D5	4165-60-0	40-135	75
4	PHENOL-D5	4165-62-2	20-120	65
5	TERPHENYL-D14	1718-51-0	40-135	106
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	77
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	100
2	CHRYSENE-D12	1719-03-5	50-200	81
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	100
4	NAPHTHALENE-D8	1146-65-2	50-200	97
5	PERYLENE-D12	1520-96-3	50-200	80
6	PHENANTHRENE-D10	1517-22-2	50-200	101
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-4	Received Date:	01/06/2004
Sample ID:	**0023-S4-485**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510C	Instrument ID:	GC/MS: D
Anal. Method:	8270C	Prep. Date:	01/07/04	Anal. Date:	01/09/04
Batch No:	04G1022	Prep. No:	1 of 1	Anal. Time:	19:04
Data File Name:	1044-04A	Sample Amount:	1040 mL	Dilution Factor:	0.96
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/L	9.6	<9.6	U
2	ACENAPHTHYLENE	208-96-8	µg/L	9.6	<9.6	U
3	ANTHRACENE	120-12-7	µg/L	9.6	<9.6	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/L	9.6	<9.6	U
5	BENZO(A)PYRENE	50-32-8	µg/L	9.6	<9.6	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/L	9.6	<9.6	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/L	9.6	<9.6	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/L	9.6	<9.6	U
9	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/L	9.6	<9.6	U
10	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/L	9.6	<9.6	U
11	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/L	9.6	<9.6	U
12	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/L	9.6	<9.6	U
13	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/L	9.6	<9.6	U
14	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/L	9.6	<9.6	U
15	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/L	19	<19	U
16	4-CHLOROANILINE	106-47-8	µg/L	48	<48	U
17	2-CHLORONAPHTHALENE	91-58-7	µg/L	9.6	<9.6	U
18	2-CHLOROPHENOL	95-57-8	µg/L	9.6	<9.6	U
19	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/L	9.6	<9.6	U
20	CHRYSENE	218-01-9	µg/L	9.6	<9.6	U
21	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/L	9.6	<9.6	U
22	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/L	9.6	<9.6	U
23	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/L	9.6	<9.6	U
24	DIBENZOFURAN	132-64-9	µg/L	9.6	<9.6	U
25	1,2-DICHLOROBENZENE	95-50-1	µg/L	9.6	<9.6	U
26	1,3-DICHLOROBENZENE	541-73-1	µg/L	9.6	<9.6	U
27	1,4-DICHLOROBENZENE	106-46-7	µg/L	9.6	<9.6	U
28	3,3'-DICHLOROBENZIDINE	91-94-1	µg/L	19	<19	U
29	2,4-DICHLOROPHENOL	120-83-2	µg/L	9.6	<9.6	U
30	DIETHYL PHTHALATE (DEP)	84-66-2	µg/L	9.6	<9.6	U
31	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/L	9.6	<9.6	U
32	2,4-DIMETHYLPHENOL	105-67-9	µg/L	9.6	<9.6	U
33	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/L	48	<48	U
34	2,4-DINITROPHENOL	51-28-5	µg/L	48	<48	U
35	2,4-DINITROTOLUENE	121-14-2	µg/L	9.6	<9.6	U
36	2,6-DINITROTOLUENE	606-20-2	µg/L	9.6	<9.6	U
37	FLUORANTHENE	206-44-0	µg/L	9.6	<9.6	U
38	FLUORENE	86-73-7	µg/L	9.6	<9.6	U
39	HEXACHLOROBENZENE	118-74-1	µg/L	9.6	<9.6	U
40	HEXACHLOROBUTADIENE	87-68-3	µg/L	9.6	<9.6	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/L	48	<48	U
42	HEXACHLOROETHANE	67-72-1	µg/L	9.6	<9.6	U
43	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/L	9.6	<9.6	U
44	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/L	9.6	<9.6	U
45	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/L	9.6	<9.6	U
46	NAPHTHALENE	91-20-3	µg/L	9.6	<9.6	U
47	2-NITROANILINE	88-74-4	µg/L	48	<48	U
48	3-NITROANILINE	99-09-2	µg/L	48	<48	U
49	4-NITROANILINE	100-01-6	µg/L	48	<48	U
50	NITROBENZENE	98-95-3	µg/L	9.6	<9.6	U
51	2-NITROPHENOL	88-75-5	µg/L	9.6	<9.6	U
52	4-NITROPHENOL	100-02-7	µg/L	48	<48	U
53	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/L	9.6	<9.6	U
54	N-NITROSODIPHENYLAMINE	86-30-6	µg/L	48	<48	U
55	PENTACHLOROPHENOL (PCP)	87-86-5	µg/L	48	<48	U
56	PHENANTHRENE	85-01-8	µg/L	9.6	<9.6	U
57	PHENOL	108-95-2	µg/L	9.6	<9.6	U
58	PYRENE	129-00-0	µg/L	9.6	<9.6	U
59	PYRIDINE	110-86-1	µg/L	9.6	<9.6	U
60	1,2,4-TRICHLOROBENZENE	120-82-1	µg/L	9.6	<9.6	U
61	2,4,5-TRICHLOROPHENOL	95-95-4	µg/L	9.6	<9.6	U
62	2,4,6-TRICHLOROPHENOL	88-06-2	µg/L	9.6	<9.6	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-130	69
2	2-FLUOROPHENOL	367-12-4	20-130	47
3	NITROBENZENE-D5	4165-60-0	40-130	71
4	PHENOL-D5	4165-62-2	10-110	25
5	TERPHENYL-D14	1718-51-0	40-140	97
6	2,4,6-TRIBROMOPHENOL	118-79-6	20-130	51
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	62
2	CHRYSENE-D12	1719-03-5	50-200	54
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	64
4	NAPHTHALENE-D8	1146-65-2	50-200	59
5	PERYLENE-D12	1520-96-3	50-200	59
6	PHENANTHRENE-D10	1517-22-2	50-200	63
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-5	Received Date:	01/06/2004
Sample ID:	**0023-S4-486**	Sample Matrix	Soil	Moisture %:	14.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: D
Anal. Method:	8270C	Prep. Date:	01/08/04	Anal. Date:	01/12/04
Batch No:	04G1040	Prep. No:	1 of 1	Anal. Time:	18:55
Data File Name:	1044-05	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	390	<390	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	390	<390	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	390	<390	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	390	<390	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	390	<390	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	390	<390	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	390	<390	U
8	4-CHLOROANILINE	106-47-8	µg/kg	890	<890	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	390	<390	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	390	<390	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	390	<390	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	390	<390	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	390	<390	U
14	DIBENZOFURAN	132-64-9	µg/kg	390	<390	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	390	<390	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	390	<390	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	390	<390	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	770	<770	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	390	<390	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	390	<390	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	390	<390	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	390	<390	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1900	<1900	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1900	<1900	U
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	390	<390	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	390	<390	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	390	<390	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	390	<390	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1900	<1900	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	390	<390	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	390	<390	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	390	<390	U
33	2-NITROANILINE	88-74-4	µg/kg	1900	<1900	U
34	3-NITROANILINE	99-09-2	µg/kg	1900	<1900	U
35	4-NITROANILINE	100-01-6	µg/kg	1900	<1900	U
36	NITROBENZENE	98-95-3	µg/kg	390	<390	U
37	2-NITROPHENOL	88-75-5	µg/kg	390	<390	U
38	4-NITROPHENOL	100-02-7	µg/kg	1900	<1900	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	390	<390	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	770	<770	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	1900	<1900	U
42	PHENOL	108-95-2	µg/kg	390	<390	U
43	PYRIDINE	110-86-1	µg/kg	390	<390	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	390	<390	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	1900	<1900	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	390	<390	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	72
2	2-FLUOROPHENOL	367-12-4	30-120	80
3	NITROBENZENE-D5	4165-60-0	40-135	68
4	PHENOL-D5	4165-62-2	20-120	59
5	TERPHENYL-D14	1718-51-0	40-135	102
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	76
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	98
2	CHRYSENE-D12	1719-03-5	50-200	84
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	98
4	NAPHTHALENE-D8	1146-65-2	50-200	96
5	PERYLENE-D12	1520-96-3	50-200	85
6	PHENANTHRENE-D10	1517-22-2	50-200	102
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-6	Received Date:	01/06/2004
Sample ID:	**0023-S4-487**	Sample Matrix	Soil	Moisture %:	6.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: D
Anal. Method:	8270C	Prep. Date:	01/08/04	Anal. Date:	01/12/04
Batch No:	04G1040	Prep. No:	1 of 1	Anal. Time:	23:41
Data File Name:	1044-06	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	350	<350	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	350	<350	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	350	<350	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	350	<350	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	350	<350	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	350	<350	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	350	<350	U
8	4-CHLOROANILINE	106-47-8	µg/kg	810	<810	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	350	<350	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	350	<350	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	350	<350	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	350	<350	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	350	<350	U
14	DIBENZOFURAN	132-64-9	µg/kg	350	<350	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	350	<350	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	350	<350	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	350	<350	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	700	<700	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	350	<350	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	350	<350	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	350	<350	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	350	<350	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1700	<1700	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1700	<1700	U
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	350	<350	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	350	<350	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	350	<350	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	350	<350	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1700	<1700	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	350	<350	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	350	<350	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	350	<350	U
33	2-NITROANILINE	88-74-4	µg/kg	1700	<1700	U
34	3-NITROANILINE	99-09-2	µg/kg	1700	<1700	U
35	4-NITROANILINE	100-01-6	µg/kg	1700	<1700	U
36	NITROBENZENE	98-95-3	µg/kg	350	<350	U
37	2-NITROPHENOL	88-75-5	µg/kg	350	<350	U
38	4-NITROPHENOL	100-02-7	µg/kg	1700	<1700	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	350	<350	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	700	<700	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	1700	<1700	U
42	PHENOL	108-95-2	µg/kg	350	<350	U
43	PYRIDINE	110-86-1	µg/kg	350	<350	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	350	<350	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	1700	<1700	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	350	<350	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	74
2	2-FLUOROPHENOL	367-12-4	30-120	85
3	NITROBENZENE-D5	4165-60-0	40-135	69
4	PHENOL-D5	4165-62-2	20-120	61
5	TERPHENYL-D14	1718-51-0	40-135	94
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	70
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	84
2	CHRYSENE-D12	1719-03-5	50-200	60
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	99
4	NAPHTHALENE-D8	1146-65-2	50-200	91
5	PERYLENE-D12	1520-96-3	50-200	65
6	PHENANTHRENE-D10	1517-22-2	50-200	77
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-7	Received Date:	01/06/2004
Sample ID:	**0023-S4-488**	Sample Matrix	Soil	Moisture %:	5.3
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: D
Anal. Method:	8270C	Prep. Date:	01/08/04	Anal. Date:	01/13/04
Batch No:	04G1040	Prep. No:	1 of 1	Anal. Time:	01:01
Data File Name:	1044-07	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	350	<350	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	350	<350	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	350	<350	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	350	<350	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	350	<350	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	350	<350	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	350	<350	U
8	4-CHLOROANILINE	106-47-8	µg/kg	800	<800	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	350	<350	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	350	<350	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	350	<350	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	350	<350	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	350	<350	U
14	DIBENZOFURAN	132-64-9	µg/kg	350	<350	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	350	<350	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	350	<350	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	350	<350	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	700	<700	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	350	<350	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	350	<350	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	350	<350	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	350	<350	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1700	<1700	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1700	<1700	U
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	350	<350	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	350	<350	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	350	<350	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	350	<350	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1700	<1700	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	350	<350	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	350	<350	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	350	<350	U
33	2-NITROANILINE	88-74-4	µg/kg	1700	<1700	U
34	3-NITROANILINE	99-09-2	µg/kg	1700	<1700	U
35	4-NITROANILINE	100-01-6	µg/kg	1700	<1700	U
36	NITROBENZENE	98-95-3	µg/kg	350	<350	U
37	2-NITROPHENOL	88-75-5	µg/kg	350	<350	U
38	4-NITROPHENOL	100-02-7	µg/kg	1700	<1700	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	350	<350	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	700	<700	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	1700	<1700	U
42	PHENOL	108-95-2	µg/kg	350	<350	U
43	PYRIDINE	110-86-1	µg/kg	350	<350	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	350	<350	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	1700	<1700	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	350	<350	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	72
2	2-FLUOROPHENOL	367-12-4	30-120	75
3	NITROBENZENE-D5	4165-60-0	40-135	64
4	PHENOL-D5	4165-62-2	20-120	58
5	TERPHENYL-D14	1718-51-0	40-135	84
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	69
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	102
2	CHRYSENE-D12	1719-03-5	50-200	81
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	104
4	NAPHTHALENE-D8	1146-65-2	50-200	104
5	PERYLENE-D12	1520-96-3	50-200	70
6	PHENANTHRENE-D10	1517-22-2	50-200	91
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-8	Received Date:	01/06/2004
Sample ID:	**0023-S4-489**	Sample Matrix	Soil	Moisture %:	13.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: D
Anal. Method:	8270C	Prep. Date:	01/08/04	Anal. Date:	01/12/04
Batch No:	04G1040	Prep. No:	1 of 1	Anal. Time:	22:20
Data File Name:	1044-08	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	380	<380	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	380	<380	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	380	<380	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	380	<380	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	380	<380	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	380	<380	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	380	<380	U
8	4-CHLOROANILINE	106-47-8	µg/kg	870	<870	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	380	<380	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	380	<380	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	380	<380	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	380	<380	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	380	<380	U
14	DIBENZOFURAN	132-64-9	µg/kg	380	<380	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	380	<380	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	380	<380	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	380	<380	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	760	<760	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	380	<380	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	380	<380	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	380	<380	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	380	<380	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1800	<1800	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1800	<1800	U
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	380	<380	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	380	<380	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	380	<380	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	380	<380	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1800	<1800	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	380	<380	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	380	<380	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	380	<380	U
33	2-NITROANILINE	88-74-4	µg/kg	1800	<1800	U
34	3-NITROANILINE	99-09-2	µg/kg	1800	<1800	U
35	4-NITROANILINE	100-01-6	µg/kg	1800	<1800	U
36	NITROBENZENE	98-95-3	µg/kg	380	<380	U
37	2-NITROPHENOL	88-75-5	µg/kg	380	<380	U
38	4-NITROPHENOL	100-02-7	µg/kg	1800	<1800	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	380	<380	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	760	<760	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	1800	<1800	U
42	PHENOL	108-95-2	µg/kg	380	<380	U
43	PYRIDINE	110-86-1	µg/kg	380	<380	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	380	<380	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	1800	<1800	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	380	<380	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	74
2	2-FLUOROPHENOL	367-12-4	30-120	89
3	NITROBENZENE-D5	4165-60-0	40-135	76
4	PHENOL-D5	4165-62-2	20-120	65
5	TERPHENYL-D14	1718-51-0	40-135	103
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	75
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	102
2	CHRYSENE-D12	1719-03-5	50-200	81
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	100
4	NAPHTHALENE-D8	1146-65-2	50-200	97
5	PERYLENE-D12	1520-96-3	50-200	79
6	PHENANTHRENE-D10	1517-22-2	50-200	104
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-9	Received Date:	01/06/2004
Sample ID:	**0023-S4-490**	Sample Matrix	Soil	Moisture %:	18.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: D
Anal. Method:	8270C	Prep. Date:	01/08/04	Anal. Date:	01/12/04
Batch No:	04G1040	Prep. No:	1 of 1	Anal. Time:	18:14
Data File Name:	1044-09	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	400	<400	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	400	<400	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	400	<400	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	400	<400	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	400	<400	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	400	<400	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	400	<400	U
8	4-CHLOROANILINE	106-47-8	µg/kg	930	<930	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	400	<400	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	400	<400	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	400	<400	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	400	<400	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	400	<400	U
14	DIBENZOFURAN	132-64-9	µg/kg	400	<400	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	400	<400	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	400	<400	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	400	<400	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	810	<810	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	400	<400	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	400	<400	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	400	<400	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	400	<400	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	2000	<2000	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	2000	<2000	U
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	400	<400	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	400	<400	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	400	<400	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	400	<400	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	2000	<2000	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	400	<400	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	400	<400	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	400	<400	U
33	2-NITROANILINE	88-74-4	µg/kg	2000	<2000	U
34	3-NITROANILINE	99-09-2	µg/kg	2000	<2000	U
35	4-NITROANILINE	100-01-6	µg/kg	2000	<2000	U
36	NITROBENZENE	98-95-3	µg/kg	400	<400	U
37	2-NITROPHENOL	88-75-5	µg/kg	400	<400	U
38	4-NITROPHENOL	100-02-7	µg/kg	2000	<2000	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	400	<400	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	810	<810	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	μg/kg	2000	<2000	U
42	PHENOL	108-95-2	μg/kg	400	<400	U
43	PYRIDINE	110-86-1	μg/kg	400	<400	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	μg/kg	400	<400	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	μg/kg	2000	<2000	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	μg/kg	400	<400	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	74
2	2-FLUOROPHENOL	367-12-4	30-120	83
3	NITROBENZENE-D5	4165-60-0	40-135	71
4	PHENOL-D5	4165-62-2	20-120	61
5	TERPHENYL-D14	1718-51-0	40-135	101
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	73
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	99
2	CHRYSENE-D12	1719-03-5	50-200	88
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	98
4	NAPHTHALENE-D8	1146-65-2	50-200	95
5	PERYLENE-D12	1520-96-3	50-200	95
6	PHENANTHRENE-D10	1517-22-2	50-200	106
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-10	Received Date:	01/06/2004
Sample ID:	**0023-S4-491**	Sample Matrix	Soil	Moisture %:	4.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: D
Anal. Method:	8270C	Prep. Date:	01/22/04	Anal. Date:	01/22/04
Batch No:	04G1040	Prep. No:	1 of 1	Anal. Time:	22:36
Data File Name:	1044-10A	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	350	<350	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	350	<350	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	350	<350	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	350	<350	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	350	<350	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	350	<350	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	350	<350	U
8	4-CHLOROANILINE	106-47-8	µg/kg	800	<800	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	350	<350	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	350	<350	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	350	<350	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	350	<350	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	350	<350	U
14	DIBENZOFURAN	132-64-9	µg/kg	350	<350	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	350	<350	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	350	<350	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	350	<350	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	690	<690	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	350	<350	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	350	<350	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	350	<350	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	350	<350	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1700	<1700	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1700	<1700	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	350	<350	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	350	<350	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	350	<350	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	350	<350	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1700	<1700	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	350	<350	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	350	<350	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	350	<350	U
33	2-NITROANILINE	88-74-4	µg/kg	1700	<1700	U
34	3-NITROANILINE	99-09-2	µg/kg	1700	<1700	U
35	4-NITROANILINE	100-01-6	µg/kg	1700	<1700	U
36	NITROBENZENE	98-95-3	µg/kg	350	<350	U
37	2-NITROPHENOL	88-75-5	µg/kg	350	<350	U
38	4-NITROPHENOL	100-02-7	µg/kg	1700	<1700	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	350	<350	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	690	<690	U

3/10/04

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	1700	<1700	U
42	PHENOL	108-95-2	µg/kg	350	<350	U
43	PYRIDINE	110-86-1	µg/kg	350	<350	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	350	<350	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	1700	<1700	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	350	<350	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	59
2	2-FLUOROPHENOL	367-12-4	30-120	62
3	NITROBENZENE-D5	4165-60-0	40-135	56
4	PHENOL-D5	4165-62-2	20-120	50
5	TERPHENYL-D14	1718-51-0	40-135	82
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	67
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	95
2	CHRYSENE-D12	1719-03-5	50-200	72
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	93
4	NAPHTHALENE-D8	1146-65-2	50-200	92
5	PERYLENE-D12	1520-96-3	50-200	64
6	PHENANTHRENE-D10	1517-22-2	50-200	89
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-11	Received Date:	01/06/2004
Sample ID:	**0023-S4-492**	Sample Matrix	Soil	Moisture %:	16.9
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: D
Anal. Method:	8270C	Prep. Date:	01/08/04	Anal. Date:	01/12/04
Batch No:	04G1040	Prep. No:	1 of 1	Anal. Time:	20:18
Data File Name:	1044-11	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	400	<400	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	400	<400	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	400	<400	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	400	<400	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	400	<400	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	400	<400	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	400	<400	U
8	4-CHLOROANILINE	106-47-8	µg/kg	910	<910	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	400	<400	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	400	<400	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	400	<400	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	400	<400	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	400	<400	U
14	DIBENZOFURAN	132-64-9	µg/kg	400	<400	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	400	<400	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	400	<400	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	400	<400	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	790	<790	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	400	<400	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	400	<400	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	400	<400	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	400	<400	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1900	<1900	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1900	<1900	U
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	400	<400	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	400	<400	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	400	<400	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	400	<400	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1900	<1900	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	400	<400	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	400	<400	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	400	<400	U
33	2-NITROANILINE	88-74-4	µg/kg	1900	<1900	U
34	3-NITROANILINE	99-09-2	µg/kg	1900	<1900	U
35	4-NITROANILINE	100-01-6	µg/kg	1900	<1900	U
36	NITROBENZENE	98-95-3	µg/kg	400	<400	U
37	2-NITROPHENOL	88-75-5	µg/kg	400	<400	U
38	4-NITROPHENOL	100-02-7	µg/kg	1900	<1900	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	400	<400	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	790	<790	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	μg/kg	1900	<1900	U
42	PHENOL	108-95-2	μg/kg	400	<400	U
43	PYRIDINE	110-86-1	μg/kg	400	<400	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	μg/kg	400	<400	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	μg/kg	1900	<1900	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	μg/kg	400	<400	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	66
2	2-FLUOROPHENOL	367-12-4	30-120	74
3	NITROBENZENE-D5	4165-60-0	40-135	63
4	PHENOL-D5	4165-62-2	20-120	54
5	TERPHENYL-D14	1718-51-0	40-135	100
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	68
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	97
2	CHRYSENE-D12	1719-03-5	50-200	75
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	98
4	NAPHTHALENE-D8	1146-65-2	50-200	95
5	PERYLENE-D12	1520-96-3	50-200	77
6	PHENANTHRENE-D10	1517-22-2	50-200	99
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-12	Received Date:	01/06/2004
Sample ID:	**0023-S4-493**	Sample Matrix	Soil	Moisture %:	19.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: D
Anal. Method:	8270C	Prep. Date:	01/08/04	Anal. Date:	01/12/04
Batch No:	04G1040	Prep. No:	1 of 1	Anal. Time:	17:32
Data File Name:	1044-12	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	410	<410	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	410	<410	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	410	<410	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	410	<410	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	410	<410	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	410	<410	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	410	<410	U
8	4-CHLOROANILINE	106-47-8	µg/kg	940	<940	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	410	<410	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	410	<410	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	410	<410	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	410	<410	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	410	<410	U
14	DIBENZOFURAN	132-64-9	µg/kg	410	<410	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	410	<410	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	410	<410	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	410	<410	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	820	<820	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	410	<410	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	410	<410	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	410	<410	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	410	<410	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	2000	<2000	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	2000	<2000	U
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	410	<410	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	410	<410	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	410	<410	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	410	<410	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	2000	<2000	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	410	<410	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	410	<410	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	410	<410	U
33	2-NITROANILINE	88-74-4	µg/kg	2000	<2000	U
34	3-NITROANILINE	99-09-2	µg/kg	2000	<2000	U
35	4-NITROANILINE	100-01-6	µg/kg	2000	<2000	U
36	NITROBENZENE	98-95-3	µg/kg	410	<410	U
37	2-NITROPHENOL	88-75-5	µg/kg	410	<410	U
38	4-NITROPHENOL	100-02-7	µg/kg	2000	<2000	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	410	<410	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	820	<820	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	2000	< 2000	U
42	PHENOL	108-95-2	µg/kg	410	< 410	U
43	PYRIDINE	110-86-1	µg/kg	410	< 410	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	410	< 410	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	2000	< 2000	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	410	< 410	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	73
2	2-FLUOROPHENOL	367-12-4	30-120	84
3	NITROBENZENE-D5	4165-60-0	40-135	72
4	PHENOL-D5	4165-62-2	20-120	62
5	TERPHENYL-D14	1718-51-0	40-135	113
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	82
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	103
2	CHRYSENE-D12	1719-03-5	50-200	88
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	102
4	NAPHTHALENE-D8	1146-65-2	50-200	99
5	PERYLENE-D12	1520-96-3	50-200	89
6	PHENANTHRENE-D10	1517-22-2	50-200	110
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-13	Received Date:	01/06/2004
Sample ID:	**0023-S4-494**	Sample Matrix	Soil	Moisture %:	19.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: D
Anal. Method:	8270C	Prep. Date:	01/08/04	Anal. Date:	01/12/04
Batch No:	04G1040	Prep. No:	1 of 1	Anal. Time:	19:36
Data File Name:	1044-13	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	410	< 410	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	410	< 410	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	410	< 410	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	410	< 410	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	410	< 410	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	410	< 410	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	410	< 410	U
8	4-CHLOROANILINE	106-47-8	µg/kg	940	< 940	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	410	< 410	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	410	< 410	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	410	< 410	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	410	< 410	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	410	< 410	U
14	DIBENZOFURAN	132-64-9	µg/kg	410	< 410	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	410	< 410	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	410	< 410	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	410	< 410	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	820	< 820	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	410	< 410	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	410	< 410	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	410	< 410	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	410	< 410	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	2000	< 2000	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	2000	< 2000	U
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	410	< 410	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	410	< 410	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	410	< 410	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	410	< 410	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	2000	< 2000	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	410	< 410	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	410	< 410	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	410	< 410	U
33	2-NITROANILINE	88-74-4	µg/kg	2000	< 2000	U
34	3-NITROANILINE	99-09-2	µg/kg	2000	< 2000	U
35	4-NITROANILINE	100-01-6	µg/kg	2000	< 2000	U
36	NITROBENZENE	98-95-3	µg/kg	410	< 410	U
37	2-NITROPHENOL	88-75-5	µg/kg	410	< 410	U
38	4-NITROPHENOL	100-02-7	µg/kg	2000	< 2000	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	410	< 410	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	820	< 820	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	μg/kg	2000	<2000	U
42	PHENOL	108-95-2	μg/kg	410	<410	U
43	PYRIDINE	110-86-1	μg/kg	410	<410	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	μg/kg	410	<410	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	μg/kg	2000	<2000	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	μg/kg	410	<410	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	68
2	2-FLUOROPHENOL	367-12-4	30-120	83
3	NITROBENZENE-D5	4165-60-0	40-135	68
4	PHENOL-D5	4165-62-2	20-120	61
5	TERPHENYL-D14	1718-51-0	40-135	99
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	69
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	97
2	CHRYSENE-D12	1719-03-5	50-200	79
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	98
4	NAPHTHALENE-D8	1146-65-2	50-200	94
5	PERYLENE-D12	1520-96-3	50-200	80
6	PHENANTHRENE-D10	1517-22-2	50-200	100
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-1	Received Date:	01/06/2004
Sample ID:	**0023-S4-482**	Sample Matrix	Soil	Moisture %:	6.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/08/04	Anal. Date:	01/12/04
Batch No:	04G1036	Prep. No:	1 of 1	Anal. Time:	17:49
Data File Name:	1044-01	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	5.4	<5.4	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	5.4	<5.4	U
3	ANTHRACENE	120-12-7	μg/kg	5.4	<5.4	U
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	5.4	2	J
5	BENZO(A)PYRENE	50-32-8	μg/kg	5.4	3	J
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	5.4	2	J
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	5.4	11	
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	5.4	2	J
9	CHRYSENE	218-01-9	μg/kg	5.4	3	J
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	5.4	2	J
11	FLUORANTHENE	206-44-0	μg/kg	5.4	2	J
12	FLUORENE	86-73-7	μg/kg	5.4	<5.4	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	5.4	3	J
14	NAPHTHALENE	91-20-3	μg/kg	5.4	<5.4	U
15	PHENANTHRENE	85-01-8	μg/kg	5.4	<5.4	U J
16	PYRENE	129-00-0	μg/kg	5.4	3	J

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	63
2	NITROBENZENE-D5	4165-60-0	35-134	66
3	TERPHENYL-D14	1718-51-0	35-134	68
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	125
2	CHRYSENE-D12	1719-03-5	50-200	126
3	NAPHTHALENE-D8	1146-65-2	50-200	128
4	PERYLENE-D12	1520-96-3	50-200	150
5	PHENANTHRENE-D10	1517-22-2	50-200	121
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-2	Received Date:	01/06/2004
Sample ID:	**0023-S4-483**	Sample Matrix	Soil	Moisture %:	11.9
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/08/04	Anal. Date:	01/12/04
Batch No:	04G1036	Prep. No:	1 of 1	Anal. Time:	18:25
Data File Name:	1044-02	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	5.7	<5.7	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	5.7	<5.7	U
3	ANTHRACENE	120-12-7	μg/kg	5.7	<5.7	U
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	5.7	<5.7	U
5	BENZO(A)PYRENE	50-32-8	μg/kg	5.7	<5.7	U
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	5.7	<5.7	U
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	5.7	<5.7	U
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	5.7	<5.7	U
9	CHRYSENE	218-01-9	μg/kg	5.7	<5.7	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	5.7	<5.7	U
11	FLUORANTHENE	206-44-0	μg/kg	5.7	<5.7	U
12	FLUORENE	86-73-7	μg/kg	5.7	<5.7	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	5.7	<5.7	U
14	NAPHTHALENE	91-20-3	μg/kg	5.7	<5.7	U
15	PHENANTHRENE	85-01-8	μg/kg	5.7	<5.7	U J
16	PYRENE	129-00-0	μg/kg	5.7	<5.7	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	51
2	NITROBENZENE-D5	4165-60-0	35-134	53
3	TERPHENYL-D14	1718-51-0	35-134	59
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	133
2	CHRYSENE-D12	1719-03-5	50-200	133
3	NAPHTHALENE-D8	1146-65-2	50-200	132
4	PERYLENE-D12	1520-96-3	50-200	150
5	PHENANTHRENE-D10	1517-22-2	50-200	129
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-3	Received Date:	01/06/2004
Sample ID:	**0023-S4-484**	Sample Matrix	Soil	Moisture %:	16.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/08/04	Anal. Date:	01/12/04
Batch No:	04G1036	Prep. No:	1 of 1	Anal. Time:	19:02
Data File Name:	1044-03	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	6.0	<6.0	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	6.0	<6.0	U
3	ANTHRACENE	120-12-7	µg/kg	6.0	<6.0	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	6.0	<6.0	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	6.0	<6.0	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	6.0	<6.0	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	6.0	<6.0	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	6.0	<6.0	U
9	CHRYSENE	218-01-9	µg/kg	6.0	<6.0	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	6.0	<6.0	U
11	FLUORANTHENE	206-44-0	µg/kg	6.0	<6.0	U
12	FLUORENE	86-73-7	µg/kg	6.0	<6.0	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	6.0	<6.0	U
14	NAPHTHALENE	91-20-3	µg/kg	6.0	<6.0	U
15	PHENANTHRENE	85-01-8	µg/kg	6.0	<6.0	U J
16	PYRENE	129-00-0	µg/kg	6.0	<6.0	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	51
2	NITROBENZENE-D5	4165-60-0	35-134	54
3	TERPHENYL-D14	1718-51-0	35-134	63
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	127
2	CHRYSENE-D12	1719-03-5	50-200	127
3	NAPHTHALENE-D8	1146-65-2	50-200	126
4	PERYLENE-D12	1520-96-3	50-200	150
5	PHENANTHRENE-D10	1517-22-2	50-200	124
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-5	Received Date:	01/06/2004
Sample ID:	**0023-S4-486**	Sample Matrix	Soil	Moisture %:	14.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/08/04	Anal. Date:	01/12/04
Batch No:	04G1036	Prep. No:	1 of 1	Anal. Time:	19:38
Data File Name:	1044-05	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	5.8	<5.8	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	5.8	<5.8	U
3	ANTHRACENE	120-12-7	μg/kg	5.8	<5.8	U
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	5.8	<5.8	U
5	BENZO(A)PYRENE	50-32-8	μg/kg	5.8	<5.8	U
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	5.8	<5.8	U
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	5.8	<5.8	U
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	5.8	<5.8	U
9	CHRYSENE	218-01-9	μg/kg	5.8	<5.8	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	5.8	<5.8	U
11	FLUORANTHENE	206-44-0	μg/kg	5.8	<5.8	U
12	FLUORENE	86-73-7	μg/kg	5.8	<5.8	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	5.8	<5.8	U
14	NAPHTHALENE	91-20-3	μg/kg	5.8	<5.8	U
15	PHENANTHRENE	85-01-8	μg/kg	5.8	<5.8	U J
16	PYRENE	129-00-0	μg/kg	5.8	<5.8	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	49
2	NITROBENZENE-D5	4165-60-0	35-134	53
3	TERPHENYL-D14	1718-51-0	35-134	59
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	150
2	CHRYSENE-D12	1719-03-5	50-200	144
3	NAPHTHALENE-D8	1146-65-2	50-200	149
4	PERYLENE-D12	1520-96-3	50-200	172
5	PHENANTHRENE-D10	1517-22-2	50-200	144
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-6	Received Date:	01/06/2004
Sample ID:	**0023-S4-487**	Sample Matrix	Soil	Moisture %:	6.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/08/04	Anal. Date:	01/14/04
Batch No:	04G1036	Prep. No:	1 of 1	Anal. Time:	14:30
Data File Name:	1044-06A	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	5.3	<5.3	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	5.3	<5.3	U
3	ANTHRACENE	120-12-7	μg/kg	5.3	<5.3	U
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	5.3	<5.3	U
5	BENZO(A)PYRENE	50-32-8	μg/kg	5.3	8	
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	5.3	2	J
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	5.3	9	
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	5.3	<5.3	U
9	CHRYSENE	218-01-9	μg/kg	5.3	3	J
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	5.3	<5.3	U
11	FLUORANTHENE	206-44-0	μg/kg	5.3	<5.3	U
12	FLUORENE	86-73-7	μg/kg	5.3	<5.3	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	5.3	2	J
14	NAPHTHALENE	91-20-3	μg/kg	5.3	<5.3	U
15	PHENANTHRENE	85-01-8	μg/kg	5.3	<5.3	U J
16	PYRENE	129-00-0	μg/kg	5.3	2	J

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	47
2	NITROBENZENE-D5	4165-60-0	35-134	57
3	TERPHENYL-D14	1718-51-0	35-134	53
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	115
2	CHRYSENE-D12	1719-03-5	50-200	120
3	NAPHTHALENE-D8	1146-65-2	50-200	114
4	PERYLENE-D12	1520-96-3	50-200	96
5	PHENANTHRENE-D10	1517-22-2	50-200	116
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-7	Received Date:	01/06/2004
Sample ID:	**0023-S4-488**	Sample Matrix	Soil	Moisture %:	5.3
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/08/04	Anal. Date:	01/14/04
Batch No:	04G1036	Prep. No:	1 of 1	Anal. Time:	15:43
Data File Name:	1044-07A	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	5.3	<5.3	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	5.3	<5.3	U
3	ANTHRACENE	120-12-7	μg/kg	5.3	3	J
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	5.3	5	J
5	BENZO(A)PYRENE	50-32-8	μg/kg	5.3	43	
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	5.3	8	
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	5.3	47	
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	5.3	4	J
9	CHRYSENE	218-01-9	μg/kg	5.3	11	
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	5.3	6	
11	FLUORANTHENE	206-44-0	μg/kg	5.3	4	J
12	FLUORENE	86-73-7	μg/kg	5.3	<5.3	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	5.3	10	
14	NAPHTHALENE	91-20-3	μg/kg	5.3	<5.3	U
15	PHENANTHRENE	85-01-8	μg/kg	5.3	3	~~J~~ J
16	PYRENE	129-00-0	μg/kg	5.3	9	

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	52
2	NITROBENZENE-D5	4165-60-0	35-134	57
3	TERPHENYL-D14	1718-51-0	35-134	82
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	127
2	CHRYSENE-D12	1719-03-5	50-200	118
3	NAPHTHALENE-D8	1146-65-2	50-200	124
4	PERYLENE-D12	1520-96-3	50-200	62
5	PHENANTHRENE-D10	1517-22-2	50-200	128
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-8	Received Date:	01/06/2004
Sample ID:	**0023-S4-489**	Sample Matrix	Soil	Moisture %:	13.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/08/04	Anal. Date:	01/12/04
Batch No:	04G1036	Prep. No:	1 of 1	Anal. Time:	22:40
Data File Name:	1044-08	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	5.8	<5.8	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	5.8	<5.8	U
3	ANTHRACENE	120-12-7	μg/kg	5.8	<5.8	U
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	5.8	<5.8	U
5	BENZO(A)PYRENE	50-32-8	μg/kg	5.8	<5.8	U
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	5.8	<5.8	U
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	5.8	2	J
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	5.8	<5.8	U
9	CHRYSENE	218-01-9	μg/kg	5.8	<5.8	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	5.8	<5.8	U
11	FLUORANTHENE	206-44-0	μg/kg	5.8	<5.8	U
12	FLUORENE	86-73-7	μg/kg	5.8	<5.8	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	5.8	<5.8	U
14	NAPHTHALENE	91-20-3	μg/kg	5.8	<5.8	U
15	PHENANTHRENE	85-01-8	μg/kg	5.8	<5.8	U J
16	PYRENE	129-00-0	μg/kg	5.8	<5.8	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	44
2	NITROBENZENE-D5	4165-60-0	35-134	48
3	TERPHENYL-D14	1718-51-0	35-134	49
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	124
2	CHRYSENE-D12	1719-03-5	50-200	116
3	NAPHTHALENE-D8	1146-65-2	50-200	132
4	PERYLENE-D12	1520-96-3	50-200	134
5	PHENANTHRENE-D10	1517-22-2	50-200	118
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-9	Received Date:	01/06/2004
Sample ID:	**0023-S4-490**	Sample Matrix	Soil	Moisture %:	18.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/08/04	Anal. Date:	01/12/04
Batch No:	04G1036	Prep. No:	1 of 1	Anal. Time:	20:15
Data File Name:	1044-09	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	6.1	<6.1	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	6.1	<6.1	U
3	ANTHRACENE	120-12-7	µg/kg	6.1	<6.1	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	6.1	<6.1	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	6.1	<6.1	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	6.1	<6.1	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	6.1	<6.1	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	6.1	<6.1	U
9	CHRYSENE	218-01-9	µg/kg	6.1	<6.1	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	6.1	<6.1	U
11	FLUORANTHENE	206-44-0	µg/kg	6.1	<6.1	U
12	FLUORENE	86-73-7	µg/kg	6.1	<6.1	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	6.1	<6.1	U
14	NAPHTHALENE	91-20-3	µg/kg	6.1	<6.1	U
15	PHENANTHRENE	85-01-8	µg/kg	6.1	<6.1	U J
16	PYRENE	129-00-0	µg/kg	6.1	<6.1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	49
2	NITROBENZENE-D5	4165-60-0	35-134	55
3	TERPHENYL-D14	1718-51-0	35-134	52
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	142
2	CHRYSENE-D12	1719-03-5	50-200	135
3	NAPHTHALENE-D8	1146-65-2	50-200	143
4	PERYLENE-D12	1520-96-3	50-200	154
5	PHENANTHRENE-D10	1517-22-2	50-200	134
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-10	Received Date:	01/06/2004
Sample ID:	0023-S4-491	Sample Matrix	Soil	Moisture %:	4.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/08/04	Anal. Date:	01/14/04
Batch No:	04G1036	Prep. No:	1 of 1	Anal. Time:	15:06
Data File Name:	1044-10A	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	5.2	<5.2	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	5.2	<5.2	U
3	ANTHRACENE	120-12-7	μg/kg	5.2	3	J
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	5.2	5	J
5	BENZO(A)PYRENE	50-32-8	μg/kg	5.2	36	
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	5.2	7	
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	5.2	32	
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	5.2	5	J
9	CHRYSENE	218-01-9	μg/kg	5.2	10	
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	5.2	4	J
11	FLUORANTHENE	206-44-0	μg/kg	5.2	5	J
12	FLUORENE	86-73-7	μg/kg	5.2	<5.2	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	5.2	7	
14	NAPHTHALENE	91-20-3	μg/kg	5.2	<5.2	U
15	PHENANTHRENE	85-01-8	μg/kg	5.2	4	~~J~~ U
16	PYRENE	129-00-0	μg/kg	5.2	10	

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	52
2	NITROBENZENE-D5	4165-60-0	35-134	56
3	TERPHENYL-D14	1718-51-0	35-134	73
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	136
2	CHRYSENE-D12	1719-03-5	50-200	132
3	NAPHTHALENE-D8	1146-65-2	50-200	136
4	PERYLENE-D12	1520-96-3	50-200	88
5	PHENANTHRENE-D10	1517-22-2	50-200	134
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

AEH 2/10/04

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-11	Received Date:	01/06/2004
Sample ID:	**0023-S4-492**	Sample Matrix	Soil	Moisture %:	16.9
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/08/04	Anal. Date:	01/12/04
Batch No:	04G1036	Prep. No:	1 of 1	Anal. Time:	20:51
Data File Name:	1044-11	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	6.0	<6.0	U R
2	ACENAPHTHYLENE	208-96-8	μg/kg	6.0	<6.0	U
3	ANTHRACENE	120-12-7	μg/kg	6.0	<6.0	U
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	6.0	<6.0	U
5	BENZO(A)PYRENE	50-32-8	μg/kg	6.0	<6.0	U
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	6.0	<6.0	U
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	6.0	<6.0	U
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	6.0	<6.0	U
9	CHRYSENE	218-01-9	μg/kg	6.0	<6.0	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	6.0	<6.0	U
11	FLUORANTHENE	206-44-0	μg/kg	6.0	<6.0	U
12	FLUORENE	86-73-7	μg/kg	6.0	<6.0	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	6.0	<6.0	U
14	NAPHTHALENE	91-20-3	μg/kg	6.0	<6.0	U
15	PHENANTHRENE	85-01-8	μg/kg	6.0	<6.0	U
16	PYRENE	129-00-0	μg/kg	6.0	<6.0	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	15
2	NITROBENZENE-D5	4165-60-0	35-134	6
3	TERPHENYL-D14	1718-51-0	35-134	39
# of out-of-control				2

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	120
2	CHRYSENE-D12	1719-03-5	50-200	125
3	NAPHTHALENE-D8	1146-65-2	50-200	121
4	PERYLENE-D12	1520-96-3	50-200	147
5	PHENANTHRENE-D10	1517-22-2	50-200	119
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

ALH 3/10/04

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-11RE	Received Date:	01/06/2004
Sample ID:	**0023-S4-492**	Sample Matrix	Soil	Moisture %:	16.9
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/29/04	Anal. Date:	01/29/04
Batch No:	04G1219	Prep. No:	1 of 1	Anal. Time:	23:53
Data File Name:	1044-11B	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	6.0	<6.0	U J
2	ACENAPHTHYLENE	208-96-8	μg/kg	6.0	<6.0	U
3	ANTHRACENE	120-12-7	μg/kg	6.0	<6.0	U
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	6.0	<6.0	U
5	BENZO(A)PYRENE	50-32-8	μg/kg	6.0	<6.0	U
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	6.0	<6.0	U
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	6.0	<6.0	U
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	6.0	<6.0	U
9	CHRYSENE	218-01-9	μg/kg	6.0	<6.0	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	6.0	<6.0	U
11	FLUORANTHENE	206-44-0	μg/kg	6.0	<6.0	U
12	FLUORENE	86-73-7	μg/kg	6.0	<6.0	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	6.0	<6.0	U
14	NAPHTHALENE	91-20-3	μg/kg	6.0	5	~~J~~ J
15	PHENANTHRENE	85-01-8	μg/kg	6.0	<6.0	U J
16	PYRENE	129-00-0	μg/kg	6.0	<6.0	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	60
2	NITROBENZENE-D5	4165-60-0	35-134	71
3	TERPHENYL-D14	1718-51-0	35-134	71
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	75
2	CHRYSENE-D12	1719-03-5	50-200	75
3	NAPHTHALENE-D8	1146-65-2	50-200	73
4	PERYLENE-D12	1520-96-3	50-200	78
5	PHENANTHRENE-D10	1517-22-2	50-200	80
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-12	Received Date:	01/06/2004
Sample ID:	**0023-S4-493**	Sample Matrix	Soil	Moisture %:	19.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/08/04	Anal. Date:	01/12/04
Batch No:	04G1036	Prep. No:	1 of 1	Anal. Time:	21:28
Data File Name:	1044-12	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	6.2	<6.2	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	6.2	<6.2	U
3	ANTHRACENE	120-12-7	µg/kg	6.2	<6.2	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	6.2	<6.2	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	6.2	<6.2	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	6.2	<6.2	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	6.2	<6.2	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	6.2	<6.2	U
9	CHRYSENE	218-01-9	µg/kg	6.2	<6.2	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	6.2	<6.2	U
11	FLUORANTHENE	206-44-0	µg/kg	6.2	<6.2	U
12	FLUORENE	86-73-7	µg/kg	6.2	<6.2	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	6.2	<6.2	U
14	NAPHTHALENE	91-20-3	µg/kg	6.2	<6.2	U
15	PHENANTHRENE	85-01-8	µg/kg	6.2	<6.2	U J
16	PYRENE	129-00-0	µg/kg	6.2	<6.2	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	49
2	NITROBENZENE-D5	4165-60-0	35-134	59
3	TERPHENYL-D14	1718-51-0	35-134	58
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	121
2	CHRYSENE-D12	1719-03-5	50-200	115
3	NAPHTHALENE-D8	1146-65-2	50-200	123
4	PERYLENE-D12	1520-96-3	50-200	133
5	PHENANTHRENE-D10	1517-22-2	50-200	114
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-13	Received Date:	01/06/2004
Sample ID:	**0023-S4-494**	Sample Matrix	Soil	Moisture %:	19.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/08/04	Anal. Date:	01/12/04
Batch No:	04G1036	Prep. No:	1 of 1	Anal. Time:	22:04
Data File Name:	1044-13	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	6.2	<6.2	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	6.2	<6.2	U
3	ANTHRACENE	120-12-7	µg/kg	6.2	<6.2	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	6.2	<6.2	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	6.2	<6.2	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	6.2	<6.2	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	6.2	<6.2	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	6.2	<6.2	U
9	CHRYSENE	218-01-9	µg/kg	6.2	<6.2	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	6.2	<6.2	U
11	FLUORANTHENE	206-44-0	µg/kg	6.2	<6.2	U
12	FLUORENE	86-73-7	µg/kg	6.2	<6.2	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	6.2	<6.2	U
14	NAPHTHALENE	91-20-3	µg/kg	6.2	<6.2	U
15	PHENANTHRENE	85-01-8	µg/kg	6.2	<6.2	U J
16	PYRENE	129-00-0	µg/kg	6.2	<6.2	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	47
2	NITROBENZENE-D5	4165-60-0	35-134	52
3	TERPHENYL-D14	1718-51-0	35-134	51
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	120
2	CHRYSENE-D12	1719-03-5	50-200	121
3	NAPHTHALENE-D8	1146-65-2	50-200	118
4	PERYLENE-D12	1520-96-3	50-200	144
5	PHENANTHRENE-D10	1517-22-2	50-200	116
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

MH 3/10/04

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-1	Received Date:	01/06/2004
Sample ID:	**0023-S4-482**	Sample Matrix	Soil	Moisture %:	6.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1037	Prep. No:	1 of 1	Anal. Time:	21:27
Data File Name:	1044.001	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	1.8	<1.8	U
2	BETA BHC	319-85-7	µg/kg	1.8	<1.8	U
3	ALPHA BHC	319-84-6	µg/kg	1.8	<1.8	U
4	DELTA BHC	319-86-8	µg/kg	1.8	<1.8	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	1.8	<1.8	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.1	0.2	J
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.1	0.2	J
8	P,P'-DDD	72-54-8	µg/kg	3.2	0.9	J
9	P,P'-DDE	72-55-9	µg/kg	3.2	4	
10	P,P'-DDT	50-29-3	µg/kg	3.2	1	J
11	DIELDRIN	60-57-1	µg/kg	3.2	<3.2	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	1.8	<1.8	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.2	<3.2	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	5.4	<5.4	U
15	ENDRIN	72-20-8	µg/kg	3.2	<3.2	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.2	<3.2	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.1	<2.1	U
18	HEPTACHLOR	76-44-8	µg/kg	1.8	<1.8	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	1.8	<1.8	U
20	METHOXYCHLOR	72-43-5	µg/kg	11	<11	U
21	TOXAPHENE	8001-35-2	µg/kg	110	<110	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	78
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	78
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	125
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-2	Received Date:	01/06/2004
Sample ID:	**0023-S4-483**	Sample Matrix	Soil	Moisture %:	11.9
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1037	Prep. No:	1 of 1	Anal. Time:	23:56
Data File Name:	1044.102	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	1.9	<1.9	U
2	BETA BHC	319-85-7	µg/kg	1.9	<1.9	U
3	ALPHA BHC	319-84-6	µg/kg	1.9	<1.9	U
4	DELTA BHC	319-86-8	µg/kg	1.9	<1.9	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	1.9	<1.9	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.1	<1.1	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.1	<1.1	U
8	P,P'-DDD	72-54-8	µg/kg	3.4	2	J
9	P,P'-DDE	72-55-9	µg/kg	3.4	14	
10	P,P'-DDT	50-29-3	µg/kg	3.4	4	
11	DIELDRIN	60-57-1	µg/kg	3.4	<3.4	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	1.9	<1.9	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.4	<3.4	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	5.7	<5.7	U
15	ENDRIN	72-20-8	µg/kg	3.4	<3.4	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.4	<3.4	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.3	<2.3	U
18	HEPTACHLOR	76-44-8	µg/kg	1.9	<1.9	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	1.9	<1.9	U
20	METHOXYCHLOR	72-43-5	µg/kg	11	<11	U
21	TOXAPHENE	8001-35-2	µg/kg	110	<110	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	79
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	81
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	119
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-3	Received Date:	01/06/2004
Sample ID:	**0023-S4-484**	Sample Matrix	Soil	Moisture %:	16.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/08/04	Anal. Date:	01/09/04
Batch No:	04G1037	Prep. No:	1 of 1	Anal. Time:	00:21
Data File Name:	1044.103	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.0	<2.0	U
2	BETA BHC	319-85-7	µg/kg	2.0	<2.0	U
3	ALPHA BHC	319-84-6	µg/kg	2.0	<2.0	U
4	DELTA BHC	319-86-8	µg/kg	2.0	<2.0	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.0	<2.0	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.6	1	J
9	P,P'-DDE	72-55-9	µg/kg	3.6	11	
10	P,P'-DDT	50-29-3	µg/kg	3.6	3	J
11	DIELDRIN	60-57-1	µg/kg	3.6	<3.6	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.0	<2.0	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.6	<3.6	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.0	<6.0	U
15	ENDRIN	72-20-8	µg/kg	3.6	<3.6	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.6	<3.6	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.4	<2.4	U
18	HEPTACHLOR	76-44-8	µg/kg	2.0	<2.0	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.0	<2.0	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	74
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	77
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	123
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-4	Received Date:	01/06/2004
Sample ID:	**0023-S4-485**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510C	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/10/04	Anal. Date:	01/12/04
Batch No:	04G1053	Prep. No:	1 of 1	Anal. Time:	15:04
Data File Name:	1044.004	Sample Amount:	1040 mL	Dilution Factor:	0.96
Extract Vol.	10 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	μg/L	0.048	<0.048	U
2	BETA BHC	319-85-7	μg/L	0.048	<0.048	U
3	ALPHA BHC	319-84-6	μg/L	0.048	<0.048	U
4	DELTA BHC	319-86-8	μg/L	0.048	<0.048	U
5	GAMMA BHC (LINDANE)	58-89-9	μg/L	0.048	<0.048	U
6	ALPHA-CHLORDANE	5103-71-9	μg/L	0.048	<0.048	U
7	GAMMA-CHLORDANE	5103-74-2	μg/L	0.048	<0.048	U
8	P,P'-DDD	72-54-8	μg/L	0.096	<0.096	U
9	P,P'-DDE	72-55-9	μg/L	0.096	<0.096	U
10	P,P'-DDT	50-29-3	μg/L	0.096	<0.096	U
11	DIELDRIN	60-57-1	μg/L	0.096	<0.096	U
12	ALPHA ENDOSULFAN	959-98-8	μg/L	0.048	<0.048	U
13	BETA ENDOSULFAN	33213-65-9	μg/L	0.096	<0.096	U
14	ENDOSULFAN SULFATE	1031-07-8	μg/L	0.48	<0.48	U
15	ENDRIN	72-20-8	μg/L	0.096	<0.096	U
16	ENDRIN ALDEHYDE	7421-93-4	μg/L	0.096	<0.096	U
17	ENDRIN KETONE	53494-70-5	μg/L	0.096	<0.096	U
18	HEPTACHLOR	76-44-8	μg/L	0.048	<0.048	U
19	HEPTACHLOR EPOXIDE	1024-57-3	μg/L	0.048	<0.048	U
20	METHOXYCHLOR	72-43-5	μg/L	1.9	<1.9	U
21	TOXAPHENE	8001-35-2	μg/L	4.8	<4.8	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	77
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	42-130	74
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	102
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-5	Received Date:	01/06/2004
Sample ID:	**0023-S4-486**	Sample Matrix	Soil	Moisture %:	14.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/08/04	Anal. Date:	01/09/04
Batch No:	04G1037	Prep. No:	1 of 1	Anal. Time:	00:46
Data File Name:	1044.105	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.0	<2.0	U
2	BETA BHC	319-85-7	µg/kg	2.0	<2.0	U
3	ALPHA BHC	319-84-6	µg/kg	2.0	<2.0	U
4	DELTA BHC	319-86-8	µg/kg	2.0	<2.0	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.0	<2.0	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.5	1	J
9	P,P'-DDE	72-55-9	µg/kg	3.5	12	
10	P,P'-DDT	50-29-3	µg/kg	3.5	0.8	J
11	DIELDRIN	60-57-1	µg/kg	3.5	<3.5	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.0	<2.0	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.5	<3.5	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	5.8	<5.8	U
15	ENDRIN	72-20-8	µg/kg	3.5	<3.5	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.5	<3.5	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.3	<2.3	U
18	HEPTACHLOR	76-44-8	µg/kg	2.0	<2.0	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.0	<2.0	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	72
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	73
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	131
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-6	Received Date:	01/06/2004
Sample ID:	**0023-S4-487**	Sample Matrix	Soil	Moisture %:	6.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1037	Prep. No:	1 of 1	Anal. Time:	21:02
Data File Name:	1044.006	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	1.8	<1.8	U
2	BETA BHC	319-85-7	µg/kg	1.8	<1.8	U
3	ALPHA BHC	319-84-6	µg/kg	1.8	<1.8	U
4	DELTA BHC	319-86-8	µg/kg	1.8	<1.8	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	1.8	<1.8	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.1	0.2	J
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.1	0.3	J
8	P,P'-DDD	72-54-8	µg/kg	3.2	11	
9	P,P'-DDE	72-55-9	µg/kg	3.2	16	
10	P,P'-DDT	50-29-3	µg/kg	3.2	130 [a]	
11	DIELDRIN	60-57-1	µg/kg	3.2	1	J
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	1.8	0.7	J
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.2	<3.2	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	5.3	<5.3	U
15	ENDRIN	72-20-8	µg/kg	3.2	<3.2	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.2	<3.2	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.1	<2.1	U
18	HEPTACHLOR	76-44-8	µg/kg	1.8	<1.8	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	1.8	<1.8	U
20	METHOXYCHLOR	72-43-5	µg/kg	11	<11	U
21	TOXAPHENE	8001-35-2	µg/kg	110	<110	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	75
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	84
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	110
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a] Analyzed with a dilution factor of 10.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-7	Received Date:	01/06/2004
Sample ID:	**0023-S4-488**	Sample Matrix	Soil	Moisture %:	5.3
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1037	Prep. No:	1 of 1	Anal. Time:	21:52
Data File Name:	1044.007	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	1.8	<1.8	U
2	BETA BHC	319-85-7	µg/kg	1.8	<1.8	U
3	ALPHA BHC	319-84-6	µg/kg	1.8	<1.8	U
4	DELTA BHC	319-86-8	µg/kg	1.8	<1.8	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	1.8	<1.8	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.1	0.5	J
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.1	1	J
8	P,P'-DDD	72-54-8	µg/kg	3.2	0.7	J
9	P,P'-DDE	72-55-9	µg/kg	3.2	0.7	J
10	P,P'-DDT	50-29-3	µg/kg	3.2	0.7	J
11	DIELDRIN	60-57-1	µg/kg	3.2	<3.2	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	1.8	<1.8	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.2	<3.2	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	5.3	<5.3	U
15	ENDRIN	72-20-8	µg/kg	3.2	<3.2	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.2	<3.2	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.1	<2.1	U
18	HEPTACHLOR	76-44-8	µg/kg	1.8	<1.8	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	1.8	<1.8	U
20	METHOXYCHLOR	72-43-5	µg/kg	11	<11	U
21	TOXAPHENE	8001-35-2	µg/kg	110	<110	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	66
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	80
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	113
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-8	Received Date:	01/06/2004
Sample ID:	**0023-S4-489**	Sample Matrix	Soil	Moisture %:	13.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:.	GC: R
Anal. Method:	8081A	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1037	Prep. No:	1 of 1	Anal. Time:	22:17
Data File Name:	1044.008	Sample Amount:	29.9 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.0	<2.0	U
2	BETA BHC	319-85-7	µg/kg	2.0	<2.0	U
3	ALPHA BHC	319-84-6	µg/kg	2.0	<2.0	U
4	DELTA BHC	319-86-8	µg/kg	2.0	<2.0	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.0	<2.0	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.5	14	
9	P,P'-DDE	72-55-9	µg/kg	3.5	74	
10	P,P'-DDT	50-29-3	µg/kg	3.5	9.1	
11	DIELDRIN	60-57-1	µg/kg	3.5	<3.5	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.0	<2.0	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.5	<3.5	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	5.8	<5.8	U
15	ENDRIN	72-20-8	µg/kg	3.5	<3.5	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.5	<3.5	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.3	<2.3	U
18	HEPTACHLOR	76-44-8	µg/kg	2.0	<2.0	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.0	<2.0	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	85
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	80
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	118
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-9	Received Date:	01/06/2004
Sample ID:	**0023-S4-490**	Sample Matrix	Soil	Moisture %:	18.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1037	Prep. No:	1 of 1	Anal. Time:	22:42
Data File Name:	1044.009	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.1	<2.1	U
2	BETA BHC	319-85-7	µg/kg	2.1	<2.1	U
3	ALPHA BHC	319-84-6	µg/kg	2.1	<2.1	U
4	DELTA BHC	319-86-8	µg/kg	2.1	<2.1	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.1	<2.1	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.7	2	J
9	P,P'-DDE	72-55-9	µg/kg	3.7	20	
10	P,P'-DDT	50-29-3	µg/kg	3.7	6	
11	DIELDRIN	60-57-1	µg/kg	3.7	<3.7	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.1	<2.1	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.7	<3.7	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.1	<6.1	U
15	ENDRIN	72-20-8	µg/kg	3.7	<3.7	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.7	<3.7	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.4	<2.4	U
18	HEPTACHLOR	76-44-8	µg/kg	2.1	<2.1	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.1	<2.1	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	98
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	82
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	116
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-10	Received Date:	01/06/2004
Sample ID:	**0023-S4-491**	Sample Matrix	Soil	Moisture %:	4.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1037	Prep. No:	1 of 1	Anal. Time:	23:07
Data File Name:	1044.010	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	1.8	<1.8	U
2	BETA BHC	319-85-7	µg/kg	1.8	<1.8	U
3	ALPHA BHC	319-84-6	µg/kg	1.8	<1.8	U
4	DELTA BHC	319-86-8	µg/kg	1.8	<1.8	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	1.8	<1.8	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.0	0.5	J
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.0	<1.0	U
8	P,P'-DDD	72-54-8	µg/kg	3.1	0.7	J
9	P,P'-DDE	72-55-9	µg/kg	3.1	2	J
10	P,P'-DDT	50-29-3	µg/kg	3.1	2	J
11	DIELDRIN	60-57-1	µg/kg	3.1	0.5	J
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	1.8	<1.8	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.1	<3.1	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	5.2	<5.2	U
15	ENDRIN	72-20-8	µg/kg	3.1	<3.1	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.1	<3.1	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.1	<2.1	U
18	HEPTACHLOR	76-44-8	µg/kg	1.8	<1.8	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	1.8	<1.8	U
20	METHOXYCHLOR	72-43-5	µg/kg	10	<10	U
21	TOXAPHENE	8001-35-2	µg/kg	100	<100	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	80
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	77
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	107
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-11	Received Date:	01/06/2004
Sample ID:	**0023-S4-492**	Sample Matrix	Soil	Moisture %:	16.9
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1037	Prep. No:	1 of 1	Anal. Time:	23:31
Data File Name:	1044.011	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.0	<2.0	U
2	BETA BHC	319-85-7	µg/kg	2.0	<2.0	U
3	ALPHA BHC	319-84-6	µg/kg	2.0	<2.0	U
4	DELTA BHC	319-86-8	µg/kg	2.0	<2.0	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.0	<2.0	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.6	1	J
9	P,P'-DDE	72-55-9	µg/kg	3.6	9.7	
10	P,P'-DDT	50-29-3	µg/kg	3.6	1	J
11	DIELDRIN	60-57-1	µg/kg	3.6	<3.6	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.0	<2.0	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.6	<3.6	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.0	<6.0	U
15	ENDRIN	72-20-8	µg/kg	3.6	<3.6	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.6	<3.6	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.4	<2.4	U
18	HEPTACHLOR	76-44-8	µg/kg	2.0	<2.0	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.0	<2.0	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	86
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	85
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	113
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-12	Received Date:	01/06/2004
Sample ID:	**0023-S4-493**	Sample Matrix	Soil	Moisture %:	19.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/08/04	Anal. Date:	01/09/04
Batch No:	04G1037	Prep. No:	1 of 1	Anal. Time:	06:09
Data File Name:	1044.112	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.1	<2.1	U
2	BETA BHC	319-85-7	µg/kg	2.1	<2.1	U
3	ALPHA BHC	319-84-6	µg/kg	2.1	<2.1	U
4	DELTA BHC	319-86-8	µg/kg	2.1	<2.1	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.1	<2.1	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.7	3	J
9	P,P'-DDE	72-55-9	µg/kg	3.7	22	
10	P,P'-DDT	50-29-3	µg/kg	3.7	7	
11	DIELDRIN	60-57-1	µg/kg	3.7	<3.7	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.1	<2.1	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.7	<3.7	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.2	<6.2	U
15	ENDRIN	72-20-8	µg/kg	3.7	<3.7	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.7	<3.7	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.5	<2.5	U
18	HEPTACHLOR	76-44-8	µg/kg	2.1	<2.1	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.1	<2.1	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	73
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	78
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	124
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-13	Received Date:	01/06/2004
Sample ID:	0023-S4-494	Sample Matrix	Soil	Moisture %:	19.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1037	Prep. No:	1 of 1	Anal. Time:	17:18
Data File Name:	1044.013	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.1	<2.1	U
2	BETA BHC	319-85-7	µg/kg	2.1	<2.1	U
3	ALPHA BHC	319-84-6	µg/kg	2.1	<2.1	U
4	DELTA BHC	319-86-8	µg/kg	2.1	<2.1	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.1	<2.1	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.7	2	J
9	P,P'-DDE	72-55-9	µg/kg	3.7	24	
10	P,P'-DDT	50-29-3	µg/kg	3.7	3	J
11	DIELDRIN	60-57-1	µg/kg	3.7	<3.7	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.1	<2.1	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.7	<3.7	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.2	<6.2	U
15	ENDRIN	72-20-8	µg/kg	3.7	<3.7	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.7	<3.7	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.5	<2.5	U
18	HEPTACHLOR	76-44-8	µg/kg	2.1	<2.1	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.1	<2.1	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	75
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	74
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	132
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-1	Received Date:	01/06/2004
Sample ID:	**0023-S4-482**	Sample Matrix	Soil	Moisture %:	6.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1038	Prep. No:	1 of 1	Anal. Time:	14:06
Data File Name:	1044.001	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	35	<35	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	71	<71	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	35	<35	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	35	<35	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	35	<35	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	35	<35	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	35	<35	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	79
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	79
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-2	Received Date:	01/06/2004
Sample ID:	**0023-S4-483**	Sample Matrix	Soil	Moisture %:	11.9
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1038	Prep. No:	1 of 1	Anal. Time:	14:31
Data File Name:	1044.002	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	37	<37	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	75	<75	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	37	<37	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	37	<37	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	37	<37	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	37	<37	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	37	<37	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	79
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	81
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-3	Received Date:	01/06/2004
Sample ID:	**0023-S4-484**	Sample Matrix	Soil	Moisture %:	16.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1038	Prep. No:	1 of 1	Anal. Time:	14:55
Data File Name:	1044.003	Sample Amount:	29.9 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	39	<39	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	79	<79	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	39	<39	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	39	<39	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	39	<39	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	39	<39	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	39	<39	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	80
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	80
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-4	Received Date:	01/06/2004
Sample ID:	**0023-S4-485**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510C	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/12/04	Anal. Date:	01/12/04
Batch No:	04G1055	Prep. No:	1 of 1	Anal. Time:	21:40
Data File Name:	1044.004	Sample Amount:	1040 mL	Dilution Factor:	0.96
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/L	1.9	<1.9	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/L	4.8	<4.8	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/L	1.9	<1.9	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/L	1.9	<1.9	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/L	1.9	<1.9	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/L	0.96	<0.96	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/L	0.96	<0.96	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	83
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	85
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-5	Received Date:	01/06/2004
Sample ID:	**0023-S4-486**	Sample Matrix	Soil	Moisture %:	14.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1038	Prep. No:	1 of 1	Anal. Time:	15:20
Data File Name:	1044:005	Sample Amount:	29.9 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	39	<39	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	77	<77	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	39	<39	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	39	<39	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	39	<39	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	39	<39	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	39	<39	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	84
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	85
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-6	Received Date:	01/06/2004
Sample ID:	**0023-S4-487**	Sample Matrix	Soil	Moisture %:	6.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1038	Prep. No:	1 of 1	Anal. Time:	15:45
Data File Name:	1044.006	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	35	<35	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	70	<70	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	35	<35	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	35	<35	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	35	<35	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	35	<35	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	35	<35	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	74
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	71
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-7	Received Date:	01/06/2004
Sample ID:	**0023-S4-488**	Sample Matrix	Soil	Moisture %:	5.3
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1038	Prep. No:	1 of 1	Anal. Time:	16:10
Data File Name:	1044.007	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	µg/kg	35	<35	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	µg/kg	70	<70	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	µg/kg	35	<35	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	µg/kg	35	<35	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	µg/kg	35	<35	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	µg/kg	35	<35	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	µg/kg	35	5	J

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	85
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	80
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-8	Received Date:	01/06/2004
Sample ID:	**0023-S4-489**	Sample Matrix	Soil	Moisture %:	13.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1038	Prep. No:	1 of 1	Anal. Time:	16:35
Data File Name:	1044.008	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	38	<38	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	76	<76	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	38	<38	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	38	<38	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	38	<38	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	38	<38	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	38	<38	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	73
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	75
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-9	Received Date:	01/06/2004
Sample ID:	**0023-S4-490**	Sample Matrix	Soil	Moisture %:	18.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1038	Prep. No:	1 of 1	Anal. Time:	17:00
Data File Name:	1044.009	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	40	<40	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	81	<81	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	40	<40	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	40	<40	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	40	<40	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	40	<40	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	40	<40	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	85
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	85
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-10	Received Date:	01/06/2004
Sample ID:	**0023-S4-491**	Sample Matrix	Soil	Moisture %:	4.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1038	Prep. No:	1 of 1	Anal. Time:	17:25
Data File Name:	1044.010	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	35	<35	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	69	<69	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	35	<35	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	35	<35	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	35	<35	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	35	<35	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	35	5	J

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	86
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	84
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-11	Received Date:	01/06/2004
Sample ID:	**0023-S4-492**	Sample Matrix	Soil	Moisture %:	16.9
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1038	Prep. No:	1 of 1	Anal. Time:	19:13
Data File Name:	1044.011	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	40	<40	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	79	<79	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	40	<40	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	40	<40	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	40	<40	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	40	<40	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	40	<40	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	83
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	83
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-12	Received Date:	01/06/2004
Sample ID:	**0023-S4-493**	Sample Matrix	Soil	Moisture %:	19.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1038	Prep. No:	1 of 1	Anal. Time:	19:38
Data File Name:	1044.012	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	41	<41	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	82	<82	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	41	<41	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	41	<41	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	41	<41	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	41	<41	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	41	<41	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	87
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	83
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-13	Received Date:	01/06/2004
Sample ID:	**0023-S4-494**	Sample Matrix	Soil	Moisture %:	19.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/08/04	Anal. Date:	01/08/04
Batch No:	04G1038	Prep. No:	1 of 1	Anal. Time:	20:03
Data File Name:	1044.013	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	41	< 41	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	82	< 82	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	41	< 41	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	41	< 41	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	41	< 41	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	41	< 41	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	41	< 41	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	87
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	84
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-1	Received Date:	01/06/2004
Sample ID:	**0023-S4-482**	Sample Matrix	Soil	Moisture %:	6.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	01/08/04	Anal. Date:	01/09/04
Batch No:	04G1039	Prep. No:	1 of 1	Anal. Time:	02:10
Data File Name:	1044.001	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	11	<11	U
2	MOTOR OILS		mg/kg	11	25	

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	68
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-2	Received Date:	01/06/2004
Sample ID:	**0023-S4-483**	Sample Matrix	Soil	Moisture %:	11.9
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	01/08/04	Anal. Date:	01/09/04
Batch No:	04G1039	Prep. No:	1 of 1	Anal. Time:	02:34
Data File Name:	1044.002	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	11	<11	U
2	MOTOR OILS		mg/kg	11	12	

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	78
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-3	Received Date:	01/06/2004
Sample ID:	**0023-S4-484**	Sample Matrix	Soil	Moisture %:	16.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	01/08/04	Anal. Date:	01/09/04
Batch No:	04G1039	Prep. No:	1 of 1	Anal. Time:	02:59
Data File Name:	1044.003	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	<12	U
2	MOTOR OILS		mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	86
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-4	Received Date:	01/06/2004
Sample ID:	**0023-S4-485**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510C	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	01/09/04	Anal. Date:	01/09/04
Batch No:	04G1050	Prep. No:	1 of 1	Anal. Time:	23:00
Data File Name:	1044.004	Sample Amount:	1040 mL	Dilution Factor:	0.96
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/L	0.48	<0.48	U
2	MOTOR OILS		mg/L	0.48	<0.48	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-149	75
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-5	Received Date:	01/06/2004
Sample ID:	**0023-S4-486**	Sample Matrix	Soil	Moisture %:	14.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	01/08/04	Anal. Date:	01/09/04
Batch No:	04G1039	Prep. No:	1 of 1	Anal. Time:	03:24
Data File Name:	1044.005	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	<12	U
2	MOTOR OILS		mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	83
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-6	Received Date:	01/06/2004
Sample ID:	**0023-S4-487**	Sample Matrix	Soil	Moisture %:	6.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	01/08/04	Anal. Date:	01/09/04
Batch No:	04G1039	Prep. No:	1 of 1	Anal. Time:	03:48
Data File Name:	1044.006	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	11	<11	U
2	MOTOR OILS		mg/kg	11	32	

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	61
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-7	Received Date:	01/06/2004
Sample ID:	**0023-S4-488**	Sample Matrix	Soil	Moisture %:	5.3
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	01/08/04	Anal. Date:	01/09/04
Batch No:	04G1039	Prep. No:	1 of 1	Anal. Time:	08:57
Data File Name:	1044.007	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	11	19	
2	MOTOR OILS		mg/kg	11	150	

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	83
# of out-of-control				0

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-8	Received Date:	01/06/2004
Sample ID:	**0023-S4-489**	Sample Matrix	Soil	Moisture %:	13.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	01/08/04	Anal. Date:	01/09/04
Batch No:	04G1039	Prep. No:	1 of 1	Anal. Time:	09:22
Data File Name:	1044.008	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	<12	U
2	MOTOR OILS		mg/kg	12	17	

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	97
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-9	Received Date:	01/06/2004
Sample ID:	**0023-S4-490**	Sample Matrix	Soil	Moisture %:	18.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	01/08/04	Anal. Date:	01/09/04
Batch No:	04G1039	Prep. No:	1 of 1	Anal. Time:	09:47
Data File Name:	1044.009	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	<12	U
2	MOTOR OILS		mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	76
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-10	Received Date:	01/06/2004
Sample ID:	**0023-S4-491**	Sample Matrix	Soil	Moisture %:	4.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	01/08/04	Anal. Date:	01/09/04
Batch No:	04G1039	Prep. No:	1 of 1	Anal. Time:	10:11
Data File Name:	1044.010	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	10	19	
2	MOTOR OILS		mg/kg	10	95	

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	88
# of out-of-control				0

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-11	Received Date:	01/06/2004
Sample ID:	**0023-S4-492**	Sample Matrix	Soil	Moisture %:	16.9
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	01/08/04	Anal. Date:	01/09/04
Batch No:	04G1039	Prep. No:	1 of 1	Anal. Time:	10:37
Data File Name:	1044.011	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	<12	U
2	MOTOR OILS		mg/kg	12	21	

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	80
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-12	Received Date:	01/06/2004
Sample ID:	**0023-S4-493**	Sample Matrix	Soil	Moisture %:	19.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	01/08/04	Anal. Date:	01/09/04
Batch No:	04G1039	Prep. No:	1 of 1	Anal. Time:	11:02
Data File Name:	1044.012	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	<12	U
2	MOTOR OILS		mg/kg	12	18	

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	89
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-13	Received Date:	01/06/2004
Sample ID:	**0023-S4-494**	Sample Matrix	Soil	Moisture %:	19.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	01/08/04	Anal. Date:	01/09/04
Batch No:	04G1039	Prep. No:	1 of 1	Anal. Time:	11:26
Data File Name:	1044.013	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	<12	U
2	MOTOR OILS		mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	83
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-1	Received Date:	01/06/2004
Sample ID:	**0023-S4-482**	Sample Matrix	Soil	Moisture %:	6.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.4	<5.4	U	P		04M1016L	01/08/04	01/08/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.32	4.5		P		04M1016L	01/08/04	01/08/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.1	74.9		P		04M1016L	01/08/04	01/08/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.21	<0.21	U	P		04M1016L	01/08/04	01/08/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.21	<0.21	U	P		04M1016L	01/08/04	01/08/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.54	17.2		P		04M1016L	01/08/04	01/08/04	1	6010B
COBALT	7440-48-4	mg/kg	0.54	8.5		P		04M1016L	01/08/04	01/08/04	1	6010B
COPPER	7440-50-8	mg/kg	0.54	15.4		P		04M1016L	01/08/04	01/08/04	1	6010B
LEAD	7439-92-1	mg/kg	0.32	14.7	J	P		04M1016L	01/08/04	01/08/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.21	0.060	J	CV		04M1017H	01/08/04	01/08/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.21	0.19	~~J~~ U	P		04M1016L	01/08/04	01/08/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.32	12.0		P		04M1016L	01/08/04	01/08/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.43	<0.43	UJ	P		04M1016L	01/08/04	01/08/04	1	6010B
SILVER	7440-22-4	mg/kg	0.54	<0.54	UJ	P		04M1016L	01/08/04	01/08/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.54	<0.54	U	P		04M1016L	01/08/04	01/08/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.54	35.2		P		04M1016L	01/08/04	01/08/04	1	6010B
ZINC	7440-66-6	mg/kg	0.54	44.2		P		04M1016L	01/08/04	01/08/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL; B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control; * - Duplicate analysis out of control; W - Post digestion spike for GFAA out of control; E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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HH 3/10/04

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-2	Received Date:	01/06/2004
Sample ID:	**0023-S4-483**	Sample Matrix	Soil	Moisture %:	11.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.7	<5.7	U	P		04M1016L	01/08/04	01/08/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.34	6.8		P		04M1016L	01/08/04	01/08/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.1	140		P		04M1016L	01/08/04	01/08/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.23	<0.23	U	P		04M1016L	01/08/04	01/08/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.23	0.048	U ~~J~~	P		04M1016L	01/08/04	01/08/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.57	25.1		P		04M1016L	01/08/04	01/08/04	1	6010B
COBALT	7440-48-4	mg/kg	0.57	13.1		P		04M1016L	01/08/04	01/08/04	1	6010B
COPPER	7440-50-8	mg/kg	0.57	25.4		P		04M1016L	01/08/04	01/08/04	1	6010B
LEAD	7439-92-1	mg/kg	0.34	10.2	J	P		04M1016L	01/08/04	01/08/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.23	0.044	J	CV		04M1017H	01/08/04	01/08/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.23	0.54	~~J~~ U	P		04M1016L	01/08/04	01/08/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.34	17.9		P		04M1016L	01/08/04	01/08/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.45	<0.45	U J	P		04M1016L	01/08/04	01/08/04	1	6010B
SILVER	7440-22-4	mg/kg	0.57	0.056	~~J~~ J	P		04M1016L	01/08/04	01/08/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.57	<0.57	U	P		04M1016L	01/08/04	01/08/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.57	50.9		P		04M1016L	01/08/04	01/08/04	1	6010B
ZINC	7440-66-6	mg/kg	0.57	67.7		P		04M1016L	01/08/04	01/08/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/10/04

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-3	Received Date:	01/06/2004
Sample ID:	**0023-S4-484**	Sample Matrix	Soil	Moisture %:	16.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.0	< 6.0	U	P		04M1016L	01/08/04	01/08/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.36	6.3		P		04M1016L	01/08/04	01/08/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	143		P		04M1016L	01/08/04	01/08/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	< 0.24	U	P		04M1016L	01/08/04	01/08/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	0.13	U ~~J~~	P		04M1016L	01/08/04	01/08/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.60	20.7		P		04M1016L	01/08/04	01/08/04	1	6010B
COBALT	7440-48-4	mg/kg	0.60	10.4		P		04M1016L	01/08/04	01/08/04	1	6010B
COPPER	7440-50-8	mg/kg	0.60	21.3		P		04M1016L	01/08/04	01/08/04	1	6010B
LEAD	7439-92-1	mg/kg	0.36	9.8	J	P		04M1016L	01/08/04	01/08/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	0.029	J	CV		04M1017H	01/08/04	01/08/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.24	0.31	U	P		04M1016L	01/08/04	01/08/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.36	14.6		P		04M1016L	01/08/04	01/08/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.48	< 0.48	U J	P		04M1016L	01/08/04	01/08/04	1	6010B
SILVER	7440-22-4	mg/kg	0.60	0.076	~~J~~ J	P		04M1016L	01/08/04	01/08/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.60	< 0.60	U	P		04M1016L	01/08/04	01/08/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.60	42.2		P		04M1016L	01/08/04	01/08/04	1	6010B
ZINC	7440-66-6	mg/kg	0.60	53.7		P		04M1016L	01/08/04	01/08/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH 3/16/04

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-4	Received Date:	01/06/2004
Sample ID:	**0023-S4-485**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	μg/L	10	<10	U	P		04M1015L	01/08/04	01/08/04	1	6010B
ARSENIC	7440-38-2	μg/L	5	<5	U	P		04M1015L	01/08/04	01/08/04	1	6010B
BARIUM	7440-39-3	μg/L	10	1.8	J	P		04M1015L	01/08/04	01/08/04	1	6010B
BERYLLIUM	7440-41-7	μg/L	2	<2	U	P		04M1015L	01/08/04	01/08/04	1	6010B
CADMIUM	7440-43-9	μg/L	2	<2	U	P		04M1015L	01/08/04	01/08/04	1	6010B
CHROMIUM	7440-47-3	μg/L	5	1.4	J	P		04M1015L	01/08/04	01/08/04	1	6010B
COBALT	7440-48-4	μg/L	5	<5	U	P		04M1015L	01/08/04	01/08/04	1	6010B
COPPER	7440-50-8	μg/L	10	3.0	J	P		04M1015L	01/08/04	01/08/04	1	6010B
LEAD	7439-92-1	μg/L	5	<5	U	P		04M1015L	01/08/04	01/08/04	1	6010B
MERCURY	7439-97-6	μg/L	0.5	0.058	J	CV		04M1022H	01/09/04	01/09/04	1	7470A
MOLYBDENUM	7439-98-7	μg/L	5	<5	U	P		04M1015L	01/08/04	01/08/04	1	6010B
NICKEL	7440-02-0	μg/L	5	0.35	J	P		04M1015L	01/08/04	01/08/04	1	6010B
SELENIUM	7782-49-2	μg/L	10	<10	U	P		04M1015L	01/08/04	01/08/04	1	6010B
SILVER	7440-22-4	μg/L	10	<10	U	P		04M1015L	01/08/04	01/08/04	1	6010B
THALLIUM	7440-28-0	μg/L	10	<10	U	P		04M1015L	01/08/04	01/08/04	1	6010B
VANADIUM	7440-62-2	μg/L	10	<10	U	P		04M1015L	01/08/04	01/08/04	1	6010B
ZINC	7440-66-6	μg/L	10	6.9	J	P		04M1015L	01/08/04	01/08/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-5	Received Date:	01/06/2004
Sample ID:	**0023-S4-486**	Sample Matrix	Soil	Moisture %:	14.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.8	<5.8	U	P		04M1016L	01/08/04	01/08/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.35	7.2		P		04M1016L	01/08/04	01/08/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	130		P		04M1016L	01/08/04	01/08/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.23	<0.23	U	P		04M1016L	01/08/04	01/08/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.23	0.024	U ~~J~~	~~J~~ P		04M1016L	01/08/04	01/08/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.58	27.3		P		04M1016L	01/08/04	01/08/04	1	6010B
COBALT	7440-48-4	mg/kg	0.58	16.2		P		04M1016L	01/08/04	01/08/04	1	6010B
COPPER	7440-50-8	mg/kg	0.58	26.4		P		04M1016L	01/08/04	01/08/04	1	6010B
LEAD	7439-92-1	mg/kg	0.35	9.6	J	P		04M1016L	01/08/04	01/08/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.23	0.058	J	CV		04M1017H	01/08/04	01/08/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.23	<0.23	U	P		04M1016L	01/08/04	01/08/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.35	21.2		P		04M1016L	01/08/04	01/08/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.47	<0.47	U J	P		04M1016L	01/08/04	01/08/04	1	6010B
SILVER	7440-22-4	mg/kg	0.58	<0.58	U J	P		04M1016L	01/08/04	01/08/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.58	<0.58	U	P		04M1016L	01/08/04	01/08/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.58	57.2		P		04M1016L	01/08/04	01/08/04	1	6010B
ZINC	7440-66-6	mg/kg	0.58	80.1		P		04M1016L	01/08/04	01/08/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-6	Received Date:	01/06/2004
Sample ID:	**0023-S4-487**	Sample Matrix	Soil	Moisture %:	6.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.3	< 5.3	U	P		04M1016L	01/08/04	01/08/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.32	4.5		P		04M1016L	01/08/04	01/08/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.1	40.5		P		04M1016L	01/08/04	01/08/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.21	< 0.21	U	P		04M1016L	01/08/04	01/08/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.21	< 0.21	U	P		04M1016L	01/08/04	01/08/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.53	12.0		P		04M1016L	01/08/04	01/08/04	1	6010B
COBALT	7440-48-4	mg/kg	0.53	5.5		P		04M1016L	01/08/04	01/08/04	1	6010B
COPPER	7440-50-8	mg/kg	0.53	9.5		P		04M1016L	01/08/04	01/08/04	1	6010B
LEAD	7439-92-1	mg/kg	0.32	10.4	J	P		04M1016L	01/08/04	01/08/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.21	0.038	J	CV		04M1017H	01/08/04	01/08/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.21	0.057	U ~~J~~	P		04M1016L	01/08/04	01/08/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.32	8.1		P		04M1016L	01/08/04	01/08/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.43	< 0.43	UJ	P		04M1016L	01/08/04	01/08/04	1	6010B
SILVER	7440-22-4	mg/kg	0.53	< 0.53	UJ	P		04M1016L	01/08/04	01/08/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.53	< 0.53	U	P		04M1016L	01/08/04	01/08/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.53	26.2		P		04M1016L	01/08/04	01/08/04	1	6010B
ZINC	7440-66-6	mg/kg	0.53	29.0		P		04M1016L	01/08/04	01/08/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-7	Received Date:	01/06/2004
Sample ID:	**0023-S4-488**	Sample Matrix	Soil	Moisture %:	5.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.3	<5.3	U	P		04M1016L	01/08/04	01/08/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.32	3.7		P		04M1016L	01/08/04	01/08/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.1	49.9		P		04M1016L	01/08/04	01/08/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.21	<0.21	U	P		04M1016L	01/08/04	01/08/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.21	<0.21	U	P		04M1016L	01/08/04	01/08/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.53	16.0		P		04M1016L	01/08/04	01/08/04	1	6010B
COBALT	7440-48-4	mg/kg	0.53	5.8		P		04M1016L	01/08/04	01/08/04	1	6010B
COPPER	7440-50-8	mg/kg	0.53	12.7		P		04M1016L	01/08/04	01/08/04	1	6010B
LEAD	7439-92-1	mg/kg	0.32	45.9	J	P		04M1016L	01/08/04	01/08/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.21	0.14	J	CV		04M1017H	01/08/04	01/08/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.21	0.070	~~J~~ U	P		04M1016L	01/08/04	01/08/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.32	9.2		P		04M1016L	01/08/04	01/08/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.42	<0.42	UJ	P		04M1016L	01/08/04	01/08/04	1	6010B
SILVER	7440-22-4	mg/kg	0.53	<0.53	UJ	P		04M1016L	01/08/04	01/08/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.53	<0.53	U	P		04M1016L	01/08/04	01/08/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.53	26.1		P		04M1016L	01/08/04	01/08/04	1	6010B
ZINC	7440-66-6	mg/kg	0.53	33.5		P		04M1016L	01/08/04	01/08/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-8	Received Date:	01/06/2004
Sample ID:	**0023-S4-489**	Sample Matrix	Soil	Moisture %:	13.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.8	<5.8	U	P		04M1016L	01/08/04	01/08/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.35	8.0		P		04M1016L	01/08/04	01/08/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	136		P		04M1016L	01/08/04	01/08/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.23	<0.23	U	P		04M1016L	01/08/04	01/08/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.23	<0.23	U	P		04M1016L	01/08/04	01/08/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.58	26.1		P		04M1016L	01/08/04	01/08/04	1	6010B
COBALT	7440-48-4	mg/kg	0.58	14.9		P		04M1016L	01/08/04	01/08/04	1	6010B
COPPER	7440-50-8	mg/kg	0.58	25.8		P		04M1016L	01/08/04	01/08/04	1	6010B
LEAD	7439-92-1	mg/kg	0.35	9.8	J	P		04M1016L	01/08/04	01/08/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.23	0.024	J	CV		04M1017H	01/08/04	01/08/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.23	<0.23	U	P		04M1016L	01/08/04	01/08/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.35	19.8		P		04M1016L	01/08/04	01/08/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.46	<0.46	U J	P		04M1016L	01/08/04	01/08/04	1	6010B
SILVER	7440-22-4	mg/kg	0.58	<0.58	U J	P		04M1016L	01/08/04	01/08/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.58	<0.58	U	P		04M1016L	01/08/04	01/08/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.58	57.5		P		04M1016L	01/08/04	01/08/04	1	6010B
ZINC	7440-66-6	mg/kg	0.58	76.8		P		04M1016L	01/08/04	01/08/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-9	Received Date:	01/06/2004
Sample ID:	**0023-S4-490**	Sample Matrix	Soil	Moisture %:	18.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.1	<6.1	U	P		04M1016L	01/08/04	01/08/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.37	5.3		P		04M1016L	01/08/04	01/08/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	135		P		04M1016L	01/08/04	01/08/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		04M1016L	01/08/04	01/08/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	<0.24	U	P		04M1016L	01/08/04	01/08/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.61	29.6		P		04M1016L	01/08/04	01/08/04	1	6010B
COBALT	7440-48-4	mg/kg	0.61	15.4		P		04M1016L	01/08/04	01/08/04	1	6010B
COPPER	7440-50-8	mg/kg	0.61	28.4		P		04M1016L	01/08/04	01/08/04	1	6010B
LEAD	7439-92-1	mg/kg	0.37	8.9	J	P		04M1016L	01/08/04	01/08/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	0.031	J	CV		04M1017H	01/08/04	01/08/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.24	<0.24	U	P		04M1016L	01/08/04	01/08/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.37	20.9		P		04M1016L	01/08/04	01/08/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.49	<0.49	U J	P		04M1016L	01/08/04	01/08/04	1	6010B
SILVER	7440-22-4	mg/kg	0.61	<0.61	U J	P		04M1016L	01/08/04	01/08/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.61	<0.61	U	P		04M1016L	01/08/04	01/08/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.61	61.2		P		04M1016L	01/08/04	01/08/04	1	6010B
ZINC	7440-66-6	mg/kg	0.61	79.2		P		04M1016L	01/08/04	01/08/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-10	Received Date:	01/06/2004
Sample ID:	**0023-S4-491**	Sample Matrix	Soil	Moisture %:	4.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.2	<5.2	U	P		04M1016L	01/08/04	01/08/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.31	4.1		P		04M1016L	01/08/04	01/08/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.0	49.4		P		04M1016L	01/08/04	01/08/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.21	<0.21	U	P		04M1016L	01/08/04	01/08/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.21	<0.21	U	P		04M1016L	01/08/04	01/08/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.52	15.5		P		04M1016L	01/08/04	01/08/04	1	6010B
COBALT	7440-48-4	mg/kg	0.52	6.0		P		04M1016L	01/08/04	01/08/04	1	6010B
COPPER	7440-50-8	mg/kg	0.52	11.6		P		04M1016L	01/08/04	01/08/04	1	6010B
LEAD	7439-92-1	mg/kg	0.31	32.8	J	P		04M1016L	01/08/04	01/08/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.21	0.11	J	CV		04M1017H	01/08/04	01/08/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.21	0.062	U J	P		04M1016L	01/08/04	01/08/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.31	9.6		P		04M1016L	01/08/04	01/08/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.42	<0.42	U J	P		04M1016L	01/08/04	01/08/04	1	6010B
SILVER	7440-22-4	mg/kg	0.52	<0.52	U J	P		04M1016L	01/08/04	01/08/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.52	<0.52	U	P		04M1016L	01/08/04	01/08/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.52	26.5		P		04M1016L	01/08/04	01/08/04	1	6010B
ZINC	7440-66-6	mg/kg	0.52	33.3		P		04M1016L	01/08/04	01/08/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-11	Received Date:	01/06/2004
Sample ID:	**0023-S4-492**	Sample Matrix	Soil	Moisture %:	16.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.0	<6.0	U	P		04M1016L	01/08/04	01/08/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.36	5.5		P		04M1016L	01/08/04	01/08/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	188		P		04M1016L	01/08/04	01/08/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		04M1016L	01/08/04	01/08/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	0.11	U ~~J~~	P		04M1016L	01/08/04	01/08/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.60	19.1		P		04M1016L	01/08/04	01/08/04	1	6010B
COBALT	7440-48-4	mg/kg	0.60	9.8		P		04M1016L	01/08/04	01/08/04	1	6010B
COPPER	7440-50-8	mg/kg	0.60	20.9		P		04M1016L	01/08/04	01/08/04	1	6010B
LEAD	7439-92-1	mg/kg	0.36	7.5	J	P		04M1016L	01/08/04	01/08/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	0.037	J	CV		04M1017H	01/08/04	01/08/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.24	0.50	U	P		04M1016L	01/08/04	01/08/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.36	14.2		P		04M1016L	01/08/04	01/08/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.48	<0.48	U J	P		04M1016L	01/08/04	01/08/04	1	6010B
SILVER	7440-22-4	mg/kg	0.60	0.28	~~U~~ J	P		04M1016L	01/08/04	01/08/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.60	<0.60	U	P		04M1016L	01/08/04	01/08/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.60	39.0		P		04M1016L	01/08/04	01/08/04	1	6010B
ZINC	7440-66-6	mg/kg	0.60	51.1		P		04M1016L	01/08/04	01/08/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable. jd 3/12/04

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

HH 3/10/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-12	Received Date:	01/06/2004
Sample ID:	**0023-S4-493**	Sample Matrix	Soil	Moisture %:	19.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.2	<6.2	U	P		04M1016L	01/08/04	01/08/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.37	10.9		P		04M1016L	01/08/04	01/08/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	190		P		04M1016L	01/08/04	01/08/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1016L	01/08/04	01/08/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.028	U J	P		04M1016L	01/08/04	01/08/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.62	30.9		P		04M1016L	01/08/04	01/08/04	1	6010B
COBALT	7440-48-4	mg/kg	0.62	17.3		P		04M1016L	01/08/04	01/08/04	1	6010B
COPPER	7440-50-8	mg/kg	0.62	32.3		P		04M1016L	01/08/04	01/08/04	1	6010B
LEAD	7439-92-1	mg/kg	0.37	10.4	J	P		04M1016L	01/08/04	01/08/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.032	J	CV		04M1017H	01/08/04	01/08/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.25	0.67	U	P		04M1016L	01/08/04	01/08/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.37	24.6		P		04M1016L	01/08/04	01/08/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.49	<0.49	UJ	P		04M1016L	01/08/04	01/08/04	1	6010B
SILVER	7440-22-4	mg/kg	0.62	<0.62	UJ	P		04M1016L	01/08/04	01/08/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.62	<0.62	U	P		04M1016L	01/08/04	01/08/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.62	65.1		P		04M1016L	01/08/04	01/08/04	1	6010B
ZINC	7440-66-6	mg/kg	0.62	84.7		P		04M1016L	01/08/04	01/08/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL; B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control; * - Duplicate analysis out of control; W - Post digestion spike for GFAA out of control; E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AEH 3/10/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site4 and 7	Service ID:	41044	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1044-13	Received Date:	01/06/2004
Sample ID:	**0023-S4-494**	Sample Matrix	Soil	Moisture %:	19.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.2	<6.2	U	P		04M1016L	01/08/04	01/08/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.37	9.4		P		04M1016L	01/08/04	01/08/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	155		P		04M1016L	01/08/04	01/08/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1016L	01/08/04	01/08/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.18	U ~~J~~	P		04M1016L	01/08/04	01/08/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.62	30.6		P		04M1016L	01/08/04	01/08/04	1	6010B
COBALT	7440-48-4	mg/kg	0.62	19.1		P		04M1016L	01/08/04	01/08/04	1	6010B
COPPER	7440-50-8	mg/kg	0.62	36.2		P		04M1016L	01/08/04	01/08/04	1	6010B
LEAD	7439-92-1	mg/kg	0.37	13.2	J	P		04M1016L	01/08/04	01/08/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.063	J	CV		04M1017H	01/08/04	01/08/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.25	0.46	U	P		04M1016L	01/08/04	01/08/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.37	25.7		P		04M1016L	01/08/04	01/08/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.49	<0.49	U J	P		04M1016L	01/08/04	01/08/04	1	6010B
SILVER	7440-22-4	mg/kg	0.62	<0.62	U J	P		04M1016L	01/08/04	01/08/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.62	<0.62	U	P		04M1016L	01/08/04	01/08/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.62	62.5		P		04M1016L	01/08/04	01/08/04	1	6010B
ZINC	7440-66-6	mg/kg	0.62	95.9		P		04M1016L	01/08/04	01/08/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AZH 3/10/04

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Sites # 4 and 7, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1999; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994.
SAMPLE MATRICES:	Soil & Water
TYPES OF ANALYSES:	Volatile Organics, Semivolatile Organics (SVOA), Polynuclear Aromatic Hydrocarbons (PAH), Pesticides, Polychlorinated Biphenyls (PCB), Diesel & Motor Oil, Total Metals
SDG NUMBER:	04-1044 (Level III and Level IV)

RECEIVED
MAR 26 2004

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	SVOA	PAH
0023-S4-482	04-1044-1	Soil	X	X	X
0023-S4-483	04-1044-2	Soil	X	X	X
0023-S4-484	04-1044-3	Soil	X	X	X
0023-S4-485	04-1044-4	Water	X	X	X*
0023-S4-486	04-1044-5	Soil	X	X	X
0023-S4-487	04-1044-6	Soil	X	X	X
0023-S4-488	04-1044-7	Soil	X	X	X
0023-S4-489[1]	04-1044-8	Soil	X	X	X
0023-S4-490	04-1044-9	Soil	X	X	X
0023-S4-491	04-1044-10	Soil	X	X	X
0023-S4-492	04-1044-11	Soil	X	X	X
0023-S4-492RE	04-1044-11RE	Soil			X
0023-S4-493	04-1044-12	Soil	X	X	X
0023-S4-494	04-1044-13	Soil	X	X	X
0023-S4-482MS	04-1044-1MS	Soil	X		X
0023-S4-482MSD	04-1044-1MSD	Soil	X		X

ORIGINAL

Client Sample #	Lab Sample #	Matrix	VOA	SVOA	PAH
0023-S4-493MS	04-1044-12MS	Soil		X	
0023-S4-493MSD	04-1044-12MSD	Soil		X	

Client Sample #	Lab Sample #	Matrix	Pest	PCB
0023-S4-482	04-1044-1	Soil	X	X
0023-S4-483	04-1044-2	Soil	X	X
0023-S4-484	04-1044-3	Soil	X	X
0023-S4-485	04-1044-4	Water	X	X
0023-S4-486	04-1044-5	Soil	X	X
0023-S4-487	04-1044-6	Soil	X	X
0023-S4-488	04-1044-7	Soil	X	X
0023-S4-489[1]	04-1044-8	Soil	X	X
0023-S4-490	04-1044-9	Soil	X	X
0023-S4-491	04-1044-10	Soil	X	X
0023-S4-492	04-1044-11	Soil	X	X
0023-S4-493	04-1044-12	Soil	X	X
0023-S4-494	04-1044-13	Soil	X	X
0023-S4-489MS	04-1044-8MS	Soil	X	X
0023-S4-489MSD	04-1044-8MSD	Soil	X	X

Client Sample #	Lab Sample #	Matrix	Diesel / Motor Oil	Total Metals
0023-S4-482	04-1044-1	Soil	X	X
0023-S4-483	04-1044-2	Soil	X	X
0023-S4-484	04-1044-3	Soil	X	X
0023-S4-485	04-1044-4	Water	X	X
0023-S4-486	04-1044-5	Soil	X	X
0023-S4-487	04-1044-6	Soil	X	X
0023-S4-488	04-1044-7	Soil	X	X
0023-S4-489[1]	04-1044-8	Soil	X	X
0023-S4-490	04-1044-9	Soil	X	X
0023-S4-491	04-1044-10	Soil	X	X
0023-S4-492	04-1044-11	Soil	X	X
0023-S4-493	04-1044-12	Soil	X	X
0023-S4-494	04-1044-13	Soil	X	X
0023-S4-482MD	04-1044-1MD	Soil		X
0023-S4-482MS	04-1044-1MS	Soil		X
0023-S4-482MSD	04-1044-1MSD	Soil		X
0023-S4-493MS	04-1044-12MS	Soil	X	
0023-S4-493MSD	04-1044-12MSD	Soil	X	

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE,
MSD = MATRIX SPIKE DUPLICATE

Note 1: Sample was identified for Level IV validation.
* - The PAH compounds for this sample can be found on the SVOA form for this sample.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: 3/15/04

Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1044 Organics & Inorganics

SAMPLES: 0023-S4-482, 0023-S-483, 0023-S4-484, 0023-S4-485, 0023-S4-486, 0023-S4-487, 0023-S4-488, 0023-S4-489, 0023-S4-490, 0023-S4-491, 0023-S4-492, 0023-S4-493, 0023-S4-494

VOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

I.) Initial Calibration:

The Average Relative Response Factor (RRF) for acetone (0.036) in the standards analyzed on 1/05/04 on instrument Q was below the 0.050 QC limit. The positive result for acetone in associated sample 0023-S4-485 was flagged as estimated (J).

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria was met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviations (%RSDs) were 44.3% for acetone and 57.2% for methylene chloride in the standards analyzed on 1/05/04 on instrument Q, which exceeded the 20% QC limit. Since the associated sample was a field blank, no action was required.

Please also see the Major Issues section for this fraction of the SDG.

Continuing Calibration:

The Percent Difference (%D) for acetone was 17.3% in the standards run on 1/08/04 at 10:37 on instrument X, which exceeded the 15% QC limit. All positive and non-detect results for acetone in the associated SDG samples were flagged as estimated (J) and (UJ). The associated samples were 0023-S4-482, 0023-S-483, 0023-S4-484, 0023-S4-486, 0023-S4-487, 0023-S4-488, 0023-S4-489, 0023-S4-490, 0023-S4-491, 0023-S4-492, 0023-S4-493 and 0023-S4-494.

The Percent Differences (%D's) for the standards run on 1/08/04 at 10:58 on instrument Q exceeded the 15% QC limit for the following compounds:

acetone	56.4%
methylene chloride	29.4%
2-hexanone	25.2%

Since the associated sample was an equipment blank, no action was required.

IV.) Blanks:

Method Blanks:

Methylene chloride was detected at 2 ug/kg in method blank 04G134-MB-01. All positive results for methylene chloride in the soil SDG samples less than 10X the blank amount (20 ug/kg) were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL.

Equipment Blank:

Acetone was detected at 11 ug/L in equipment blank 0023-S4-485. Since there were no positive results for acetone in the soil SDG samples, no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory. All LCS Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-482. All MS / MSD criteria were met. No action was required.

VIII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this SDG. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) for 2,4-dinitrophenol was 20.6% for the standards run on 1/22/04 at 12:54 on instrument D, which exceeded the 15% QC limit. The non-detect result for 2,4-dinitrophenol in associated sample 0023-S4-491 was flagged as estimated (UJ).

The Percent Differences (%D's) for the standards run on 1/09/04 at 10:52 on instrument D exceeded the 15% QC limit for the following compounds:

hexachlorocyclopentadiene	16.8%
4-nitroaniline	16.3%

Since the associated sample was an equipment blank, no action was required.

IV.) Blanks:

There were no detections in the blanks associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Four LCSs were analyzed by the laboratory. The Percent Recoveries (%R's) for pyrene exceeded the QC limits for two of the LCS samples. Data qualification based on LCS Recovery criteria was not required. No action was taken.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-493. All MS / MSD criteria were met. No action was required.

VIII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this SDG. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

POLYNUCLEAR AROMATIC HYDROCARBONS (PAH)

SUMMARY

The reanalysis of sample 0023-S4-492 was considered by the validator to be of preferable data quality based on poor Surrogate Recovery for the initial analysis of this sample.

All results for sample 0023-S4-492, which were non-detects, were rejected (R) based on extremely low Surrogate Percent Recoveries. All other laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

I.) Surrogate Recoveries:

The Percent Recoveries (%R's) for sample 0023-S4-492 were below the QC limits for the following Surrogate compounds:

Surrogate	%R	QC Limits
2-fluorobiphenyl	15%	35-124%
nitrobenzene-d5	6%	35-134%

Since the Percent Recovery (%R) of nitrobenzene-d5 was less than 10%, all results for sample 0023-S4-492, which were non-detects, were rejected (R).

MINOR ISSUES

I.) Holding Times:

The 23 days between sampling date and preparation data for sample 0023-S4-492RE exceeded the 14 day QC limit. All positive and non-detect results for sample 0023-S4-492RE were flagged as estimated (J) and (UJ).

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) was 19.8% for phenanthrene in the standards run on 1/12/04 at 14:09 on instrument Y, which exceeded the 15% QC limit. All positive and non-detect results for phenanthrene in the soil SDG samples were flagged as estimated (J).

The Percent Differences (%D's) for the standards run on 1/29/04 at 15:22 on instrument Y exceeded the 15% QC limit for the following compounds:

benzo(b)fluoranthene	17.3%
benzo(k)fluoranthene	15.5%
benzo(a)pyrene	17.6%

The results for these compounds in associated sample 0023-S4-492RE were previously flagged based on Holding Time criteria, so no further action was required.

IV.) Blanks:

There were no detections in the method blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

Please see the Major Issues section for this fraction of the SDG.

VI.) Laboratory Control Samples (LCS):

Four LCSs were analyzed by the laboratory. All LCS Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-482 and on batch samples. A total of three Relative Percent Differences (RPDs) and 10 Percent Recoveries (%R's) were outside the QC limits. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this SDG. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

PESTICIDES

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviations (%RSD's) were 27.3% for endosulfan sulfate and 44.6% for methoxychlor in the standards runs on 11/21/03 on the secondary column which exceeded the 20% QC limit. Since the exceedances were on the secondary column used for confirmation, no action was required.

Continuing Calibration:

All Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the associated method and equipment blanks. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Four LCSs were analyzed for this fraction of the SDG. All LCS Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 0023-S4-489. All MS / MSD criteria were met. No action was required.

VIII.) TCL Compound Identification:

All Compound Identification criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this SDG. No action was required.

X.) Pesticide Cleanup Check:

Florisil Cartridge Check:

Florisil data was not provided. No action was required.

Gel Permeation Chromatography (GPC):

GPC data was not provided. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

POLYCHLORINATED BIPHENYLS (PCBs)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the associated method and equipment blanks. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Four LCSs were analyzed for this fraction of the SDG. All criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 0023-S4-489. All MS / MSD criteria were met. No

action was required.

VIII.) TCL Compound Identification:

All Compound Identification criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this SDG. No action was required.

X.) Pesticide Cleanup Check:

Florisil Cartridge Check:

Florisil data was not provided. No action was required.

Gel Permeation Chromatography (GPC):

GPC data was not provided. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

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SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

Instrument Performance criteria was not required. No action was taken.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the associated method and equipment blanks. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Four LCSs were analyzed for this fraction of the SDG. All LCS Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 0023-S4-493. All MS / MSD criteria were met. No action was required.

VIII.) TCL Compound Identification:

All Compound Identification criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this SDG. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

TOTAL METALS

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

The following analytes were detected in the blanks associated with this SDG:

Blank ID	Analyte	Detection	Action Level
CCB1	arsenic	2.16 ug/L	2.16 mg/kg
CCB7	barium	2.80 ug/L	2.80 mg/kg
ICB	beryllium	0.15 ug/L	0.15 mg/kg
CCB7	cadmium	0.46 ug/L	0.46 mg/kg
CCB3	chromium	0.25 ug/L	0.25 mg/kg
CCB7	cobalt	1.09 ug/L	1.09 mg/kg
CCB7	copper	2.81 ug/L	2.81 mg/kg
CCB7	molybdenum	1.48 ug/L	1.48 mg/kg
CCB7	nickel	1.34 ug/L	1.34 mg/kg
CCB3	thallium	3.19 ug/L	3.19 mg/kg
CCB6	vanadium	0.81 ug/L	0.81 mg/kg
CCB7	zinc	2.87 ug/L	2.87 mg/kg

All positive results for these analytes in the SDG samples less than the action level were flagged as undetected (U).

The following negative results were reported in the blanks associated with this SDG:

Blank ID	Analyte	Result	Action Level
CCB5	lead	-1.30 ug/L	1.30 mg/kg
CCB2	selenium	-3.70 ug/L	3.70 mg/kg
CCB3	silver	-0.93 ug/L	0.93 mg/kg

All positive results for these analytes in the SDG samples less than the action level and all non-detect results were flagged as estimated (J) and (UJ).

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-482. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Serial Dilution Analysis:

The Percent Differences (%D) for lead was 10.9% for the Serial Dilution Analysis, which exceeded the 10% QC limit. All positive results for lead in the SDG samples were flagged as estimated (J).

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-1	Received Date:	01/06/2004
Sample ID:	**0023-S4-495**	Sample Matrix	Soil	Moisture %:	17.0
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	01/16/04	Anal. Date:	01/16/04
Batch No:	04G1099	Prep. No:	–	Anal. Time:	20:37
Data File Name:	1179-01	Sample Amount:	5.8 g	Dilution Factor:	0.86
Methanol Vol.	–			–	
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	52	<52	U J
2	BENZENE	71-43-2	µg/kg	5.2	<5.2	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.2	<5.2	U
4	BROMOFORM	75-25-2	µg/kg	5.2	<5.2	U
5	BROMOMETHANE	74-83-9	µg/kg	5.2	<5.2	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	52	<52	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.2	<5.2	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.2	<5.2	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.2	<5.2	U
10	CHLOROETHANE	75-00-3	µg/kg	5.2	<5.2	U
11	CHLOROFORM	67-66-3	µg/kg	5.2	<5.2	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.2	<5.2	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.2	<5.2	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.2	<5.2	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.2	<5.2	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.2	<5.2	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.2	<5.2	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.2	<5.2	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.2	<5.2	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.2	<5.2	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.2	<5.2	U
22	2-HEXANONE	591-78-6	µg/kg	52	<52	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.2	5.2 ~~J~~	~~J~~ U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	52	<52	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	10	<10	U
26	STYRENE	100-42-5	µg/kg	5.2	<5.2	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.2	<5.2	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.2	<5.2	U
29	TOLUENE	108-88-3	µg/kg	5.2	<5.2	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.2	<5.2	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.2	<5.2	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.2	<5.2	U
33	VINYL ACETATE	108-05-4	µg/kg	52	<52	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.2	<5.2	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.2	<5.2	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	99
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	111

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	108
4	TOLUENE-D8	2037-26-5	80-120	87
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	125
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	136
3	FLUOROBENZENE	462-06-6	50-200	94
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-2	Received Date:	01/06/2004
Sample ID:	**0023-S4-496**	Sample Matrix	Soil	Moisture %:	19.0
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	01/16/04	Anal. Date:	01/16/04
Batch No:	04G1099	Prep. No:	–	Anal. Time:	21:03
Data File Name:	1179-02	Sample Amount:	4.89 g	Dilution Factor:	1.02
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	63	<63	~~UJ~~
2	BENZENE	71-43-2	µg/kg	6.3	<6.3	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.3	<6.3	U
4	BROMOFORM	75-25-2	µg/kg	6.3	<6.3	U
5	BROMOMETHANE	74-83-9	µg/kg	6.3	<6.3	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	63	<63	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.3	<6.3	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.3	<6.3	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.3	<6.3	U
10	CHLOROETHANE	75-00-3	µg/kg	6.3	<6.3	U
11	CHLOROFORM	67-66-3	µg/kg	6.3	<6.3	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.3	<6.3	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.3	<6.3	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.3	<6.3	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.3	<6.3	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.3	<6.3	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.3	<6.3	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.3	<6.3	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.3	<6.3	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.3	<6.3	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.3	<6.3	U
22	2-HEXANONE	591-78-6	µg/kg	63	<63	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.3	6.3 ~~2~~	~~J~~ U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	63	<63	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	13	<13	U
26	STYRENE	100-42-5	µg/kg	6.3	<6.3	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.3	<6.3	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.3	<6.3	U
29	TOLUENE	108-88-3	µg/kg	6.3	<6.3	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.3	<6.3	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.3	<6.3	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.3	<6.3	U
33	VINYL ACETATE	108-05-4	µg/kg	63	<63	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.3	<6.3	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.3	<6.3	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	100
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	107

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	108
4	TOLUENE-D8	2037-26-5	80-120	86
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	128
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	137
3	FLUOROBENZENE	462-06-6	50-200	98
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-3	Received Date:	01/06/2004
Sample ID:	**0023-S4-497**	Sample Matrix	Soil	Moisture %:	16.4
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	01/16/04	Anal. Date:	01/16/04
Batch No:	04G1099	Prep. No:	–	Anal. Time:	21:29
Data File Name:	1179-03	Sample Amount:	5.2 g	Dilution Factor:	0.96
Methanol Vol.	–			–	
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	57	<57	U J
2	BENZENE	71-43-2	µg/kg	5.7	<5.7	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.7	<5.7	U
4	BROMOFORM	75-25-2	µg/kg	5.7	<5.7	U
5	BROMOMETHANE	74-83-9	µg/kg	5.7	<5.7	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	57	<57	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.7	<5.7	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.7	<5.7	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.7	<5.7	U
10	CHLOROETHANE	75-00-3	µg/kg	5.7	<5.7	U
11	CHLOROFORM	67-66-3	µg/kg	5.7	<5.7	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.7	<5.7	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.7	<5.7	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.7	<5.7	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.7	<5.7	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.7	<5.7	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.7	<5.7	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.7	<5.7	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.7	<5.7	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.7	<5.7	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.7	<5.7	U
22	2-HEXANONE	591-78-6	µg/kg	57	<57	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.7	5.7 2-	~~U~~
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	57	<57	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	11	<11	U
26	STYRENE	100-42-5	µg/kg	5.7	<5.7	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.7	<5.7	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.7	<5.7	U
29	TOLUENE	108-88-3	µg/kg	5.7	<5.7	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.7	<5.7	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.7	<5.7	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.7	<5.7	U
33	VINYL ACETATE	108-05-4	µg/kg	57	<57	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.7	<5.7	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.7	<5.7	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	99
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	111

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	110
4	TOLUENE-D8	2037-26-5	80-120	86
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	125
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	135
3	FLUOROBENZENE	462-06-6	50-200	96
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-4	Received Date:	01/06/2004
Sample ID:	**0023-S4-498**	Sample Matrix	Soil	Moisture %:	23.0
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	01/16/04	Anal. Date:	01/16/04
Batch No:	04G1099	Prep. No:	–	Anal. Time:	21:56
Data File Name:	1179-04	Sample Amount:	5.1 g	Dilution Factor:	0.98
Methanol Vol.	–				–
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No.	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	64	<64	UJ
2	BENZENE	71-43-2	µg/kg	6.4	<6.4	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.4	<6.4	U
4	BROMOFORM	75-25-2	µg/kg	6.4	<6.4	U
5	BROMOMETHANE	74-83-9	µg/kg	6.4	<6.4	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	64	<64	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.4	<6.4	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.4	<6.4	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.4	<6.4	U
10	CHLOROETHANE	75-00-3	µg/kg	6.4	<6.4	U
11	CHLOROFORM	67-66-3	µg/kg	6.4	<6.4	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.4	<6.4	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.4	<6.4	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.4	<6.4	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.4	<6.4	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.4	<6.4	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.4	<6.4	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.4	<6.4	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.4	<6.4	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.4	<6.4	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.4	<6.4	U
22	2-HEXANONE	591-78-6	µg/kg	64	<64	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.4	6.4 ~~2~~	JU
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	64	<64	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	13	<13	U
26	STYRENE	100-42-5	µg/kg	6.4	<6.4	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.4	<6.4	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.4	<6.4	U
29	TOLUENE	108-88-3	µg/kg	6.4	<6.4	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.4	<6.4	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.4	<6.4	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.4	<6.4	U
33	VINYL ACETATE	108-05-4	µg/kg	64	<64	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.4	<6.4	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.4	<6.4	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	101
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	108

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	108
4	TOLUENE-D8	2037-26-5	80-120	86
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	120
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	128
3	FLUOROBENZENE	462-06-6	50-200	91
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-5	Received Date:	01/06/2004
Sample ID:	0023-S4-499	Sample Matrix	Soil	Moisture %:	10.8
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	01/16/04	Anal. Date:	01/16/04
Batch No:	04G1099	Prep. No:	–	Anal. Time:	22:22
Data File Name:	1179-05	Sample Amount:	5.15 g	Dilution Factor:	0.97
Methanol Vol.	–			–	
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	54	<54	UJ
2	BENZENE	71-43-2	µg/kg	5.4	<5.4	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.4	<5.4	U
4	BROMOFORM	75-25-2	µg/kg	5.4	<5.4	U
5	BROMOMETHANE	74-83-9	µg/kg	5.4	<5.4	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	54	<54	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.4	<5.4	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.4	<5.4	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.4	<5.4	U
10	CHLOROETHANE	75-00-3	µg/kg	5.4	<5.4	U
11	CHLOROFORM	67-66-3	µg/kg	5.4	<5.4	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.4	<5.4	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.4	<5.4	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.4	<5.4	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.4	<5.4	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.4	<5.4	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.4	<5.4	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.4	<5.4	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.4	<5.4	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.4	<5.4	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.4	<5.4	U
22	2-HEXANONE	591-78-6	µg/kg	54	<54	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.4	5.4 +	+U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	54	<54	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	11	<11	U
26	STYRENE	100-42-5	µg/kg	5.4	<5.4	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.4	<5.4	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.4	<5.4	U
29	TOLUENE	108-88-3	µg/kg	5.4	<5.4	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.4	<5.4	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.4	<5.4	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.4	<5.4	U
33	VINYL ACETATE	108-05-4	µg/kg	54	<54	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.4	<5.4	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.4	<5.4	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	102
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	111

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	108
4	TOLUENE-D8	2037-26-5	80-120	87
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	127
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	135
3	FLUOROBENZENE	462-06-6	50-200	95
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-1	Received Date:	01/06/2004
Sample ID:	**0023-S4-495**	Sample Matrix	Soil	Moisture %:	17.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	01/19/04	Anal. Date:	01/19/04
Batch No:	04G1114	Prep. No:	1 of 1	Anal. Time:	22:06
Data File Name:	1179-01	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	400	< 400	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	400	< 400	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	400	< 400	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	400	< 400	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	400	< 400	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	400	< 400	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	400	< 400	U
8	4-CHLOROANILINE	106-47-8	µg/kg	920	< 920	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	400	< 400	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	400	< 400	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	400	< 400	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	400	< 400	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	400	< 400	U
14	DIBENZOFURAN	132-64-9	µg/kg	400	< 400	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	400	< 400	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	400	< 400	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	400	< 400	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	800	< 800	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	400	< 400	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	400	< 400	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	400	< 400	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	400	< 400	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1900	< 1900	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1900	< 1900	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	400	< 400	U J
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	400	< 400	U J
27	HEXACHLOROBENZENE	118-74-1	µg/kg	400	< 400	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	400	< 400	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1900	< 1900	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	400	< 400	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	400	< 400	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	400	< 400	U
33	2-NITROANILINE	88-74-4	µg/kg	1900	< 1900	U
34	3-NITROANILINE	99-09-2	µg/kg	1900	< 1900	U
35	4-NITROANILINE	100-01-6	µg/kg	1900	< 1900	U
36	NITROBENZENE	98-95-3	µg/kg	400	< 400	U
37	2-NITROPHENOL	88-75-5	µg/kg	400	< 400	U J
38	4-NITROPHENOL	100-02-7	µg/kg	1900	< 1900	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	400	< 400	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	800	< 800	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	1900	< 1900	U
42	PHENOL	108-95-2	µg/kg	400	< 400	U
43	PYRIDINE	110-86-1	µg/kg	400	< 400	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	400	< 400	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	1900	< 1900	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	400	< 400	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	66
2	2-FLUOROPHENOL	367-12-4	30-120	73
3	NITROBENZENE-D5	4165-60-0	40-135	73
4	PHENOL-D5	4165-62-2	20-120	61
5	TERPHENYL-D14	1718-51-0	40-135	99
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	84
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	89
2	CHRYSENE-D12	1719-03-5	50-200	85
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	91
4	NAPHTHALENE-D8	1146-65-2	50-200	89
5	PERYLENE-D12	1520-96-3	50-200	82
6	PHENANTHRENE-D10	1517-22-2	50-200	86
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-2	Received Date:	01/06/2004
Sample ID:	**0023-S4-496**	Sample Matrix	Soil	Moisture %:	19.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	01/19/04	Anal. Date:	01/19/04
Batch No:	04G1114	Prep. No:	1 of 1	Anal. Time:	22:45
Data File Name:	1179-02	Sample Amount:	29.9 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	410	<410	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	410	<410	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	410	<410	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	410	<410	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	410	<410	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	410	<410	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	410	<410	U
8	4-CHLOROANILINE	106-47-8	µg/kg	940	<940	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	410	<410	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	410	<410	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	410	<410	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	410	<410	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	410	<410	U
14	DIBENZOFURAN	132-64-9	µg/kg	410	<410	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	410	<410	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	410	<410	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	410	<410	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	820	<820	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	410	<410	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	410	<410	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	410	<410	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	410	<410	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	2000	<2000	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	2000	<2000	UJ
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	410	<410	UJ
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	410	<410	UJ
27	HEXACHLOROBENZENE	118-74-1	µg/kg	410	<410	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	410	<410	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	2000	<2000	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	410	<410	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	410	<410	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	410	<410	U
33	2-NITROANILINE	88-74-4	µg/kg	2000	<2000	U
34	3-NITROANILINE	99-09-2	µg/kg	2000	<2000	U
35	4-NITROANILINE	100-01-6	µg/kg	2000	<2000	U
36	NITROBENZENE	98-95-3	µg/kg	410	<410	U
37	2-NITROPHENOL	88-75-5	µg/kg	410	<410	UJ
38	4-NITROPHENOL	100-02-7	µg/kg	2000	<2000	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	410	<410	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	820	<820	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	2000	<2000	U
42	PHENOL	108-95-2	µg/kg	410	<410	U
43	PYRIDINE	110-86-1	µg/kg	410	<410	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	410	<410	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	2000	<2000	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	410	<410	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	88
2	2-FLUOROPHENOL	367-12-4	30-120	91
3	NITROBENZENE-D5	4165-60-0	40-135	92
4	PHENOL-D5	4165-62-2	20-120	78
5	TERPHENYL-D14	1718-51-0	40-135	105
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	94
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	98
2	CHRYSENE-D12	1719-03-5	50-200	86
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	102
4	NAPHTHALENE-D8	1146-65-2	50-200	100
5	PERYLENE-D12	1520-96-3	50-200	84
6	PHENANTHRENE-D10	1517-22-2	50-200	92
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-3	Received Date:	01/06/2004
Sample ID:	**0023-S4-497**	Sample Matrix	Soil	Moisture %:	16.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	01/19/04	Anal. Date:	01/19/04
Batch No:	04G1114	Prep. No:	1 of 1	Anal. Time:	23:24
Data File Name:	1179-03	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	390	<390	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	390	<390	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	390	<390	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	390	<390	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	390	<390	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	390	<390	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	390	<390	U
8	4-CHLOROANILINE	106-47-8	µg/kg	910	<910	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	390	<390	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	390	<390	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	390	<390	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	390	<390	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	390	<390	U
14	DIBENZOFURAN	132-64-9	µg/kg	390	<390	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	390	<390	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	390	<390	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	390	<390	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	790	<790	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	390	<390	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	390	<390	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	390	<390	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	390	<390	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1900	<1900	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1900	<1900	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	390	<390	U J
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	390	<390	U J
27	HEXACHLOROBENZENE	118-74-1	µg/kg	390	<390	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	390	<390	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1900	<1900	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	390	<390	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	390	<390	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	390	<390	U
33	2-NITROANILINE	88-74-4	µg/kg	1900	<1900	U
34	3-NITROANILINE	99-09-2	µg/kg	1900	<1900	U
35	4-NITROANILINE	100-01-6	µg/kg	1900	<1900	U
36	NITROBENZENE	98-95-3	µg/kg	390	<390	U
37	2-NITROPHENOL	88-75-5	µg/kg	390	<390	U J
38	4-NITROPHENOL	100-02-7	µg/kg	1900	<1900	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	390	<390	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	790	<790	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	1900	<1900	U
42	PHENOL	108-95-2	µg/kg	390	<390	U
43	PYRIDINE	110-86-1	µg/kg	390	<390	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	390	<390	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	1900	<1900	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	390	<390	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	93
2	2-FLUOROPHENOL	367-12-4	30-120	95
3	NITROBENZENE-D5	4165-60-0	40-135	96
4	PHENOL-D5	4165-62-2	20-120	81
5	TERPHENYL-D14	1718-51-0	40-135	114
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	106
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	85
2	CHRYSENE-D12	1719-03-5	50-200	80
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	89
4	NAPHTHALENE-D8	1146-65-2	50-200	86
5	PERYLENE-D12	1520-96-3	50-200	78
6	PHENANTHRENE-D10	1517-22-2	50-200	83
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-4	Received Date:	01/06/2004
Sample ID:	0023-S4-498	Sample Matrix	Soil	Moisture %:	23.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	01/19/04	Anal. Date:	01/20/04
Batch No:	04G1114	Prep. No:	1 of 1	Anal. Time:	00:03
Data File Name:	1179-04	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	430	< 430	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	430	< 430	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	430	< 430	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	430	< 430	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	430	< 430	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	430	< 430	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	430	< 430	U
8	4-CHLOROANILINE	106-47-8	µg/kg	990	< 990	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	430	< 430	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	430	< 430	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	430	< 430	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	430	< 430	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	430	< 430	U
14	DIBENZOFURAN	132-64-9	µg/kg	430	< 430	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	430	< 430	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	430	< 430	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	430	< 430	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	860	< 860	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	430	< 430	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	430	< 430	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	430	< 430	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	430	< 430	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	2100	< 2100	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	2100	< 2100	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	430	< 430	U J
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	430	< 430	U J
27	HEXACHLOROBENZENE	118-74-1	µg/kg	430	< 430	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	430	< 430	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	2100	< 2100	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	430	< 430	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	430	< 430	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	430	< 430	U
33	2-NITROANILINE	88-74-4	µg/kg	2100	< 2100	U
34	3-NITROANILINE	99-09-2	µg/kg	2100	< 2100	U
35	4-NITROANILINE	100-01-6	µg/kg	2100	< 2100	U
36	NITROBENZENE	98-95-3	µg/kg	430	< 430	U
37	2-NITROPHENOL	88-75-5	µg/kg	430	< 430	U J
38	4-NITROPHENOL	100-02-7	µg/kg	2100	< 2100	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	430	< 430	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	860	< 860	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	2100	<2100	U
42	PHENOL	108-95-2	µg/kg	430	<430	U
43	PYRIDINE	110-86-1	µg/kg	430	<430	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	430	<430	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	2100	<2100	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	430	<430	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	90
2	2-FLUOROPHENOL	367-12-4	30-120	94
3	NITROBENZENE-D5	4165-60-0	40-135	95
4	PHENOL-D5	4165-62-2	20-120	80
5	TERPHENYL-D14	1718-51-0	40-135	108
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	97
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	84
2	CHRYSENE-D12	1719-03-5	50-200	79
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	88
4	NAPHTHALENE-D8	1146-65-2	50-200	85
5	PERYLENE-D12	1520-96-3	50-200	74
6	PHENANTHRENE-D10	1517-22-2	50-200	81
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-5	Received Date:	01/06/2004
Sample ID:	**0023-S4-499**	Sample Matrix	Soil	Moisture %:	10.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	01/19/04	Anal. Date:	01/20/04
Batch No:	04G1114	Prep. No:	1 of 1	Anal. Time:	00:42
Data File Name:	1179-05	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				–

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	370	<370	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	370	<370	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	370	<370	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	370	<370	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	370	<370	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	370	<370	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	370	<370	U
8	4-CHLOROANILINE	106-47-8	µg/kg	850	<850	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	370	<370	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	370	<370	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	370	<370	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	370	<370	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	370	<370	U
14	DIBENZOFURAN	132-64-9	µg/kg	370	<370	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	370	<370	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	370	<370	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	370	<370	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	740	<740	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	370	<370	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	370	<370	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	370	<370	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	370	<370	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1800	<1800	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1800	<1800	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	370	<370	U J
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	370	<370	U J
27	HEXACHLOROBENZENE	118-74-1	µg/kg	370	<370	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	370	<370	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1800	<1800	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	370	<370	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	370	<370	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	370	<370	U
33	2-NITROANILINE	88-74-4	µg/kg	1800	<1800	U
34	3-NITROANILINE	99-09-2	µg/kg	1800	<1800	U
35	4-NITROANILINE	100-01-6	µg/kg	1800	<1800	U
36	NITROBENZENE	98-95-3	µg/kg	370	<370	U
37	2-NITROPHENOL	88-75-5	µg/kg	370	<370	U J
38	4-NITROPHENOL	100-02-7	µg/kg	1800	<1800	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	370	<370	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	740	<740	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	μg/kg	1800	<1800	U
42	PHENOL	108-95-2	μg/kg	370	<370	U
43	PYRIDINE	110-86-1	μg/kg	370	<370	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	μg/kg	370	<370	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	μg/kg	1800	<1800	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	μg/kg	370	<370	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	94
2	2-FLUOROPHENOL	367-12-4	30-120	95
3	NITROBENZENE-D5	4165-60-0	40-135	97
4	PHENOL-D5	4165-62-2	20-120	82
5	TERPHENYL-D14	1718-51-0	40-135	115
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	104
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	83
2	CHRYSENE-D12	1719-03-5	50-200	79
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	90
4	NAPHTHALENE-D8	1146-65-2	50-200	86
5	PERYLENE-D12	1520-96-3	50-200	75
6	PHENANTHRENE-D10	1517-22-2	50-200	81
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-1	Received Date:	01/06/2004
Sample ID:	**0023-S4-495**	Sample Matrix	Soil	Moisture %:	17.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/19/04	Anal. Date:	01/20/04
Batch No:	04G1115	Prep. No:	1 of 1	Anal. Time:	14:24
Data File Name:	1179-01	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	6.0	<6.0	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	6.0	<6.0	U
3	ANTHRACENE	120-12-7	µg/kg	6.0	<6.0	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	6.0	<6.0	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	6.0	<6.0	U J
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	6.0	<6.0	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	6.0	<6.0	U J
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	6.0	<6.0	U
9	CHRYSENE	218-01-9	µg/kg	6.0	<6.0	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	6.0	<6.0	U
11	FLUORANTHENE	206-44-0	µg/kg	6.0	<6.0	U
12	FLUORENE	86-73-7	µg/kg	6.0	<6.0	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	6.0	<6.0	U
14	NAPHTHALENE	91-20-3	µg/kg	6.0	<6.0	U
15	PHENANTHRENE	85-01-8	µg/kg	6.0	<6.0	U
16	PYRENE	129-00-0	µg/kg	6.0	<6.0	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	62
2	NITROBENZENE-D5	4165-60-0	35-134	62
3	TERPHENYL-D14	1718-51-0	35-134	77
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	99
2	CHRYSENE-D12	1719-03-5	50-200	97
3	NAPHTHALENE-D8	1146-65-2	50-200	96
4	PERYLENE-D12	1520-96-3	50-200	109
5	PHENANTHRENE-D10	1517-22-2	50-200	100
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-2	Received Date:	01/06/2004
Sample ID:	**0023-S4-496**	Sample Matrix	Soil	Moisture %:	19.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/19/04	Anal. Date:	01/20/04
Batch No:	04G1115	Prep. No:	1 of 1	Anal. Time:	15:00
Data File Name:	1179-02	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	6.2	<6.2	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	6.2	<6.2	U
3	ANTHRACENE	120-12-7	µg/kg	6.2	<6.2	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	6.2	<6.2	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	6.2	<6.2	U J
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	6.2	<6.2	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	6.2	<6.2	U J
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	6.2	<6.2	U
9	CHRYSENE	218-01-9	µg/kg	6.2	<6.2	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	6.2	<6.2	U
11	FLUORANTHENE	206-44-0	µg/kg	6.2	<6.2	U
12	FLUORENE	86-73-7	µg/kg	6.2	<6.2	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	6.2	<6.2	U
14	NAPHTHALENE	91-20-3	µg/kg	6.2	<6.2	U
15	PHENANTHRENE	85-01-8	µg/kg	6.2	<6.2	U
16	PYRENE	129-00-0	µg/kg	6.2	<6.2	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	60
2	NITROBENZENE-D5	4165-60-0	35-134	65
3	TERPHENYL-D14	1718-51-0	35-134	70
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	101
2	CHRYSENE-D12	1719-03-5	50-200	101
3	NAPHTHALENE-D8	1146-65-2	50-200	99
4	PERYLENE-D12	1520-96-3	50-200	113
5	PHENANTHRENE-D10	1517-22-2	50-200	105
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

HH 3/10/04

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-3	Received Date:	01/06/2004
Sample ID:	**0023-S4-497**	Sample Matrix	Soil	Moisture %:	16.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/19/04	Anal. Date:	01/20/04
Batch No:	04G1115	Prep. No:	1 of 1	Anal. Time:	15:36
Data File Name:	1179-03	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	6.0	<6.0	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	6.0	<6.0	U
3	ANTHRACENE	120-12-7	µg/kg	6.0	<6.0	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	6.0	<6.0	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	6.0	<6.0	U J
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	6.0	<6.0	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	6.0	<6.0	U J
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	6.0	<6.0	U
9	CHRYSENE	218-01-9	µg/kg	6.0	2	J
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	6.0	<6.0	U
11	FLUORANTHENE	206-44-0	µg/kg	6.0	<6.0	U
12	FLUORENE	86-73-7	µg/kg	6.0	<6.0	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	6.0	<6.0	U
14	NAPHTHALENE	91-20-3	µg/kg	6.0	<6.0	U
15	PHENANTHRENE	85-01-8	µg/kg	6.0	<6.0	U
16	PYRENE	129-00-0	µg/kg	6.0	<6.0	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	77
2	NITROBENZENE-D5	4165-60-0	35-134	79
3	TERPHENYL-D14	1718-51-0	35-134	10
# of out-of-control				1

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	91
2	CHRYSENE-D12	1719-03-5	50-200	92
3	NAPHTHALENE-D8	1146-65-2	50-200	93
4	PERYLENE-D12	1520-96-3	50-200	98
5	PHENANTHRENE-D10	1517-22-2	50-200	92
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

MH 3/10/04

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-4	Received Date:	01/06/2004
Sample ID:	**0023-S4-498**	Sample Matrix	Soil	Moisture %:	23.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/19/04	Anal. Date:	01/20/04
Batch No:	04G1115	Prep. No:	1 of 1	Anal. Time:	16:13
Data File Name:	1179-04	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	6.5	<6.5	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	6.5	<6.5	U
3	ANTHRACENE	120-12-7	µg/kg	6.5	<6.5	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	6.5	<6.5	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	6.5	<6.5	UJ
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	6.5	<6.5	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	6.5	<6.5	UJ
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	6.5	<6.5	U
9	CHRYSENE	218-01-9	µg/kg	6.5	<6.5	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	6.5	<6.5	U
11	FLUORANTHENE	206-44-0	µg/kg	6.5	<6.5	U
12	FLUORENE	86-73-7	µg/kg	6.5	<6.5	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	6.5	<6.5	U
14	NAPHTHALENE	91-20-3	µg/kg	6.5	<6.5	U
15	PHENANTHRENE	85-01-8	µg/kg	6.5	<6.5	U
16	PYRENE	129-00-0	µg/kg	6.5	<6.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	72
2	NITROBENZENE-D5	4165-60-0	35-134	76
3	TERPHENYL-D14	1718-51-0	35-134	73
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	100
2	CHRYSENE-D12	1719-03-5	50-200	99
3	NAPHTHALENE-D8	1146-65-2	50-200	97
4	PERYLENE-D12	1520-96-3	50-200	106
5	PHENANTHRENE-D10	1517-22-2	50-200	101
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

AH 3/10/04

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-5	Received Date:	01/06/2004
Sample ID:	**0023-S4-499**	Sample Matrix	Soil	Moisture %:	10.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/19/04	Anal. Date:	01/20/04
Batch No:	04G1115	Prep. No:	1 of 1	Anal. Time:	16:49
Data File Name:	1179-05	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	5.6	<5.6	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	5.6	<5.6	U
3	ANTHRACENE	120-12-7	µg/kg	5.6	<5.6	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	5.6	<5.6	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	5.6	<5.6	U J
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	5.6	<5.6	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	5.6	3	~~J~~ J
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	5.6	<5.6	U
9	CHRYSENE	218-01-9	µg/kg	5.6	<5.6	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	5.6	<5.6	U
11	FLUORANTHENE	206-44-0	µg/kg	5.6	<5.6	U
12	FLUORENE	86-73-7	µg/kg	5.6	<5.6	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	5.6	<5.6	U
14	NAPHTHALENE	91-20-3	µg/kg	5.6	<5.6	U
15	PHENANTHRENE	85-01-8	µg/kg	5.6	<5.6	U
16	PYRENE	129-00-0	µg/kg	5.6	<5.6	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	48
2	NITROBENZENE-D5	4165-60-0	35-134	54
3	TERPHENYL-D14	1718-51-0	35-134	52
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	83
2	CHRYSENE-D12	1719-03-5	50-200	92
3	NAPHTHALENE-D8	1146-65-2	50-200	78
4	PERYLENE-D12	1520-96-3	50-200	112
5	PHENANTHRENE-D10	1517-22-2	50-200	85
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-1	Received Date:	01/06/2004
Sample ID:	**0023-S4-495**	Sample Matrix	Soil	Moisture %:	17.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/19/04	Anal. Date:	01/19/04
Batch No:	04G1112	Prep. No:	1 of 1	Anal. Time:	15:55
Data File Name:	1179.001	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.0	<2.0	U
2	BETA BHC	319-85-7	µg/kg	2.0	<2.0	U
3	ALPHA BHC	319-84-6	µg/kg	2.0	<2.0	U
4	DELTA BHC	319-86-8	µg/kg	2.0	<2.0	U
5	GAMMA BHC	58-89-9	µg/kg	2.0	<2.0	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.6	1	J
9	P,P'-DDE	72-55-9	µg/kg	3.6	12	
10	P,P'-DDT	50-29-3	µg/kg	3.6	3	J
11	DIELDRIN	60-57-1	µg/kg	3.6	<3.6	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.0	<2.0	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.6	<3.6	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.0	<6.0	U
15	ENDRIN	72-20-8	µg/kg	3.6	<3.6	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.6	<3.6	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.4	<2.4	U
18	HEPTACHLOR	76-44-8	µg/kg	2.0	<2.0	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.0	<2.0	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	74
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	73
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec. %
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	113
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-2	Received Date:	01/06/2004
Sample ID:	**0023-S4-496**	Sample Matrix	Soil	Moisture %:	19.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/19/04	Anal. Date:	01/19/04
Batch No:	04G1112	Prep. No:	1 of 1	Anal. Time:	16:20
Data File Name:	1179.002	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.1	<2.1	U
2	BETA BHC	319-85-7	µg/kg	2.1	<2.1	U
3	ALPHA BHC	319-84-6	µg/kg	2.1	<2.1	U
4	DELTA BHC	319-86-8	µg/kg	2.1	<2.1	U
5	GAMMA BHC	58-89-9	µg/kg	2.1	<2.1	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.7	0.5	J
9	P,P'-DDE	72-55-9	µg/kg	3.7	7	
10	P,P'-DDT	50-29-3	µg/kg	3.7	0.7	J
11	DIELDRIN	60-57-1	µg/kg	3.7	<3.7	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.1	<2.1	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.7	<3.7	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.2	<6.2	U
15	ENDRIN	72-20-8	µg/kg	3.7	<3.7	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.7	<3.7	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.5	<2.5	U
18	HEPTACHLOR	76-44-8	µg/kg	2.1	<2.1	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.1	<2.1	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	71
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	74
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	110
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range.
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-3	Received Date:	01/06/2004
Sample ID:	**0023-S4-497**	Sample Matrix	Soil	Moisture %:	16.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/19/04	Anal. Date:	01/19/04
Batch No:	04G1112	Prep. No:	1 of 1	Anal. Time:	16:42
Data File Name:	1179.003	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.0	<2.0	U
2	BETA BHC	319-85-7	µg/kg	2.0	<2.0	U
3	ALPHA BHC	319-84-6	µg/kg	2.0	<2.0	U
4	DELTA BHC	319-86-8	µg/kg	2.0	<2.0	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.0	<2.0	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.6	13	
9	P,P'-DDE	72-55-9	µg/kg	3.6	104 (J)	
10	P,P'-DDT	50-29-3	µg/kg	3.6	2	J
11	DIELDRIN	60-57-1	µg/kg	3.6	<3.6	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.0	<2.0	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.6	<3.6	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.0	<6.0	U
15	ENDRIN	72-20-8	µg/kg	3.6	<3.6	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.6	<3.6	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.4	<2.4	U
18	HEPTACHLOR	76-44-8	µg/kg	2.0	<2.0	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.0	<2.0	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	78
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	72
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	112
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

(J) Analyzed with a dilution factor of 5.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-4	Received Date:	01/06/2004
Sample ID:	**0023-S4-498**	Sample Matrix	Soil	Moisture %:	23.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/19/04	Anal. Date:	01/19/04
Batch No:	04G1112	Prep. No:	1 of 1	Anal. Time:	17:07
Data File Name:	1179.004	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.2	<2.2	U
2	BETA BHC	319-85-7	µg/kg	2.2	<2.2	U
3	ALPHA BHC	319-84-6	µg/kg	2.2	<2.2	U
4	DELTA BHC	319-86-8	µg/kg	2.2	<2.2	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.2	<2.2	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.3	<1.3	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.3	<1.3	U
8	P,P'-DDD	72-54-8	µg/kg	3.9	4	
9	P,P'-DDE	72-55-9	µg/kg	3.9	41	
10	P,P'-DDT	50-29-3	µg/kg	3.9	0.8	J
11	DIELDRIN	60-57-1	µg/kg	3.9	<3.9	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.2	<2.2	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.9	<3.9	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.5	<6.5	U
15	ENDRIN	72-20-8	µg/kg	3.9	<3.9	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.9	<3.9	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.6	<2.6	U
18	HEPTACHLOR	76-44-8	µg/kg	2.2	<2.2	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.2	<2.2	U
20	METHOXYCHLOR	72-43-5	µg/kg	13	<13	U
21	TOXAPHENE	8001-35-2	µg/kg	130	<130	U

Surrogates		Control Limit, %	Surro. Rec.%
1 DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	75
2 2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	75
# of out-of-control			0

Internal Standard		Control Limit, %	IS Rec.%
1 DIBUTYLCHLORENDATE	1770-80-5	50-200	108
# of out-of-control			0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-5	Received Date:	01/06/2004
Sample ID:	**0023-S4-499**	Sample Matrix	Soil	Moisture %:	10.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/19/04	Anal. Date:	01/19/04
Batch No:	04G1112	Prep. No:	1 of 1	Anal. Time:	17:32
Data File Name:	1179.005	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	1.9	<1.9	U
2	BETA BHC	319-85-7	µg/kg	1.9	<1.9	U
3	ALPHA BHC	319-84-6	µg/kg	1.9	<1.9	U
4	DELTA BHC	319-86-8	µg/kg	1.9	<1.9	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	1.9	<1.9	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.1	<1.1	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.1	<1.1	U
8	P,P'-DDD	72-54-8	µg/kg	3.4	2	J
9	P,P'-DDE	72-55-9	µg/kg	3.4	28	
10	P,P'-DDT	50-29-3	µg/kg	3.4	1	J
11	DIELDRIN	60-57-1	µg/kg	3.4	<3.4	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	1.9	<1.9	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.4	<3.4	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	5.6	<5.6	U
15	ENDRIN	72-20-8	µg/kg	3.4	<3.4	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.4	<3.4	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.2	<2.2	U
18	HEPTACHLOR	76-44-8	µg/kg	1.9	<1.9	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	1.9	<1.9	U
20	METHOXYCHLOR	72-43-5	µg/kg	11	<11	U
21	TOXAPHENE	8001-35-2	µg/kg	110	<110	U

Surrogates		Control Limit, %	Surro. Rec.%
1 DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	66
2 2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	67
# of out-of-control			0

Internal Standard		Control Limit, %	IS Rec.%
1 DIBUTYLCHLORENDATE	1770-80-5	50-200	115
# of out-of-control			0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-1	Received Date:	01/06/2004
Sample ID:	**0023-S4-495**	Sample Matrix	Soil	Moisture %:	17.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/19/04	Anal. Date:	01/19/04
Batch No:	04G1113	Prep. No:	1 of 1	Anal. Time:	14:58
Data File Name:	1179.001	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	40	<40	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	80	<80	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	40	<40	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	40	<40	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	40	<40	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	40	<40	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	40	3	J

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	70
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	73
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-2	Received Date:	01/06/2004
Sample ID:	**0023-S4-496**	Sample Matrix	Soil	Moisture %:	19.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/19/04	Anal. Date:	01/19/04
Batch No:	04G1113	Prep. No:	1 of 1	Anal. Time:	15:23
Data File Name:	1179.002	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				–

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	41	<41	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	82	<82	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	41	<41	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	41	<41	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	41	<41	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	41	<41	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	41	<41	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	68
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	75
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-3	Received Date:	01/06/2004
Sample ID:	**0023-S4-497**	Sample Matrix	Soil	Moisture %:	16.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/19/04	Anal. Date:	01/19/04
Batch No:	04G1113	Prep. No:	1 of 1	Anal. Time:	15:48
Data File Name:	1179.003	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	39	<39	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	79	<79	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	39	<39	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	39	<39	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	39	<39	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	39	<39	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	39	<39	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	71
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	74
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-4	Received Date:	01/06/2004
Sample ID:	**0023-S4-498**	Sample Matrix	Soil	Moisture %:	23.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/19/04	Anal. Date:	01/19/04
Batch No:	04G1113	Prep. No:	1 of 1	Anal. Time:	16:12
Data File Name:	1179.004	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	µg/kg	43	<43	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	µg/kg	86	<86	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	µg/kg	43	<43	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	µg/kg	43	<43	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	µg/kg	43	<43	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	µg/kg	43	<43.	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	µg/kg	43	<43	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	71
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	74
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-5	Received Date:	01/06/2004
Sample ID:	**0023-S4-499**	Sample Matrix	Soil	Moisture %:	10.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/19/04	Anal. Date:	01/19/04
Batch No:	04G1113	Prep. No:	1 of 1	Anal. Time:	16:37
Data File Name:	1179.005	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	37	<37	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	74	<74	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	37	<37	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	37	<37	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	37	<37	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	37	<37	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	37	3	J

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	67
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	68
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-1	Received Date:	01/06/2004
Sample ID:	**0023-S4-495**	Sample Matrix	Soil	Moisture %:	17.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	01/19/04	Anal. Date:	01/22/04
Batch No:	04G1110	Prep. No:	1 of 1	Anal. Time:	11:25
Data File Name:	1179.001	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	<12	U
2	MOTOR OILS		mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	82
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-2	Received Date:	01/06/2004
Sample ID:	**0023-S4-496**	Sample Matrix	Soil	Moisture %:	19.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	01/19/04	Anal. Date:	01/22/04
Batch No:	04G1110	Prep. No:	1 of 1	Anal. Time:	11:50
Data File Name:	1179.002	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	< 12	U
2	MOTOR OILS		mg/kg	12	< 12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	78
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-3	Received Date:	01/06/2004
Sample ID:	**0023-S4-497**	Sample Matrix	Soil	Moisture %:	16.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	01/19/04	Anal. Date:	01/22/04
Batch No:	04G1110	Prep. No:	1 of 1	Anal. Time:	12:15
Data File Name:	1179.003	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	<12	U
2	MOTOR OILS		mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	85
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-4	Received Date:	01/06/2004
Sample ID:	**0023-S4-498**	Sample Matrix	Soil	Moisture %:	23.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	01/19/04	Anal. Date:	01/22/04
Batch No:	04G1110	Prep. No:	1 of 1	Anal. Time:	12:40
Data File Name:	1179.004	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	13	< 13	U
2	MOTOR OILS		mg/kg	13	< 13	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	86
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-5	Received Date:	01/06/2004
Sample ID:	**0023-S4-499**	Sample Matrix	Soil	Moisture %:	10.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	01/19/04	Anal. Date:	01/22/04
Batch No:	04G1110	Prep. No:	1 of 1	Anal. Time:	13:05
Data File Name:	1179.005	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	2.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	11	<11	U
2	MOTOR OILS		mg/kg	11	28	

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	78
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-1	Received Date:	01/06/2004
Sample ID:	**0023-S4-495**	Sample Matrix	Soil	Moisture %:	17.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.0	<6.0	U	P		04M1051L	01/18/04	01/18/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.36	7.9		P		04M1051L	01/18/04	01/18/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	142		P		04M1051L	01/18/04	01/18/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		04M1051L	01/18/04	01/18/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	0.16	U J	P		04M1051L	01/18/04	01/18/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.60	25.9		P		04M1051L	01/18/04	01/18/04	1	6010B
COBALT	7440-48-4	mg/kg	0.60	14.8		P		04M1051L	01/18/04	01/18/04	1	6010B
COPPER	7440-50-8	mg/kg	0.60	29.4		P		04M1051L	01/18/04	01/18/04	1	6010B
LEAD	7439-92-1	mg/kg	0.36	10.9		P		04M1051L	01/18/04	01/18/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	0.054	J	CV		04M1074H	01/21/04	01/22/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.24	0.16	U J	P		04M1051L	01/18/04	01/18/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.36	19.7		P		04M1051L	01/18/04	01/18/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.48	<0.48	U	P		04M1051L	01/18/04	01/18/04	1	6010B
SILVER	7440-22-4	mg/kg	0.60	<0.60	U	P		04M1051L	01/18/04	01/18/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.60	<0.60	U	P		04M1051L	01/18/04	01/18/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.60	54.3		P		04M1051L	01/18/04	01/18/04	1	6010B
ZINC	7440-66-6	mg/kg	0.60	82.2		P		04M1051L	01/18/04	01/18/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH
3/10/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-2	Received Date:	01/06/2004
Sample ID:	**0023-S4-496**	Sample Matrix	Soil	Moisture %:	19.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.2	<6.2	U	P		04M1051L	01/18/04	01/18/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.37	8.2		P		04M1051L	01/18/04	01/18/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	124		P		04M1051L	01/18/04	01/18/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1051L	01/18/04	01/18/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.22	U +	P		04M1051L	01/18/04	01/18/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.62	27.8		P		04M1051L	01/18/04	01/18/04	1	6010B
COBALT	7440-48-4	mg/kg	0.62	16.7		P		04M1051L	01/18/04	01/18/04	1	6010B
COPPER	7440-50-8	mg/kg	0.62	28.9		P		04M1051L	01/18/04	01/18/04	1	6010B
LEAD	7439-92-1	mg/kg	0.37	11.6		P		04M1051L	01/18/04	01/18/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.076	J	CV		04M1074H	01/21/04	01/22/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.25	0.30	U	P		04M1051L	01/18/04	01/18/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.37	21.5		P		04M1051L	01/18/04	01/18/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.49	<0.49	U	P		04M1051L	01/18/04	01/18/04	1	6010B
SILVER	7440-22-4	mg/kg	0.62	<0.62	U	P		04M1051L	01/18/04	01/18/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.62	<0.62	U	P		04M1051L	01/18/04	01/18/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.62	58.4		P		04M1051L	01/18/04	01/18/04	1	6010B
ZINC	7440-66-6	mg/kg	0.62	90.2		P		04M1051L	01/18/04	01/18/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH
3/10/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-3	Received Date:	01/06/2004
Sample ID:	**0023-S4-497**	Sample Matrix	Soil	Moisture %:	16.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.0	<6.0	U	P		04M1051L	01/18/04	01/18/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.36	6.7		P		04M1051L	01/18/04	01/18/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	125		P		04M1051L	01/18/04	01/18/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		04M1051L	01/18/04	01/18/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	0.13	U +	P		04M1051L	01/18/04	01/18/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.60	28.8		P		04M1051L	01/18/04	01/18/04	1	6010B
COBALT	7440-48-4	mg/kg	0.60	16.2		P		04M1051L	01/18/04	01/18/04	1	6010B
COPPER	7440-50-8	mg/kg	0.60	30.5		P		04M1051L	01/18/04	01/18/04	1	6010B
LEAD	7439-92-1	mg/kg	0.36	15.1		P		04M1051L	01/18/04	01/18/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	0.042	J	CV		04M1074H	01/21/04	01/22/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.24	<0.24	U	P		04M1051L	01/18/04	01/18/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.36	22.8		P		04M1051L	01/18/04	01/18/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.48	<0.48	U	P		04M1051L	01/18/04	01/18/04	1	6010B
SILVER	7440-22-4	mg/kg	0.60	<0.60	U	P		04M1051L	01/18/04	01/18/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.60	<0.60	U	P		04M1051L	01/18/04	01/18/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.60	60.2		P		04M1051L	01/18/04	01/18/04	1	6010B
ZINC	7440-66-6	mg/kg	0.60	96.2		P		04M1051L	01/18/04	01/18/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7600

3/10/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-4	Received Date:	01/06/2004
Sample ID:	**0023-S4-498**	Sample Matrix	Soil	Moisture %:	23.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.5	<6.5	U	P		04M1051L	01/18/04	01/18/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.39	10		P		04M1051L	01/18/04	01/18/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	102		P		04M1051L	01/18/04	01/18/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.26	<0.26	U	P		04M1051L	01/18/04	01/18/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.26	<0.26	U	P		04M1051L	01/18/04	01/18/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.65	32.5		P		04M1051L	01/18/04	01/18/04	1	6010B
COBALT	7440-48-4	mg/kg	0.65	16.3		P		04M1051L	01/18/04	01/18/04	1	6010B
COPPER	7440-50-8	mg/kg	0.65	34.7		P		04M1051L	01/18/04	01/18/04	1	6010B
LEAD	7439-92-1	mg/kg	0.39	12.7		P		04M1051L	01/18/04	01/18/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.26	0.044	J	CV		04M1074H	01/21/04	01/22/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.26	<0.26	U	P		04M1051L	01/18/04	01/18/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.39	22.6		P		04M1051L	01/18/04	01/18/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.52	<0.52	U	P		04M1051L	01/18/04	01/18/04	1	6010B
SILVER	7440-22-4	mg/kg	0.65	<0.65	U	P		04M1051L	01/18/04	01/18/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.65	<0.65	U	P		04M1051L	01/18/04	01/18/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.65	51.1		P		04M1051L	01/18/04	01/18/04	1	6010B
ZINC	7440-66-6	mg/kg	0.65	97.8		P		04M1051L	01/18/04	01/18/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023	Collection Date:	01/06/2004
Project ID:	IR Site 4 and 7	Service ID:	41179	Collected by:	Nicholas W.
		Lab Sample ID:	04-1179-5	Received Date:	01/06/2004
Sample ID:	**0023-S4-499**	Sample Matrix	Soil	Moisture %:	10.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.6	<5.6	U	P		04M1051L	01/18/04	01/18/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.34	12.8		P		04M1051L	01/18/04	01/18/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.1	128		P		04M1051L	01/18/04	01/18/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.22	<0.22	U	P		04M1051L	01/18/04	01/18/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.22	0.048	U J	P		04M1051L	01/18/04	01/18/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.56	22.2		P		04M1051L	01/18/04	01/18/04	1	6010B
COBALT	7440-48-4	mg/kg	0.56	13.9		P		04M1051L	01/18/04	01/18/04	1	6010B
COPPER	7440-50-8	mg/kg	0.56	22.7		P		04M1051L	01/18/04	01/18/04	1	6010B
LEAD	7439-92-1	mg/kg	0.34	12.4		P		04M1051L	01/18/04	01/18/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.22	0.099	J	CV		04M1074H	01/21/04	01/22/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.22	0.70	U	P		04M1051L	01/18/04	01/18/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.34	17.3		P		04M1051L	01/18/04	01/18/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.45	<0.45	U	P		04M1051L	01/18/04	01/18/04	1	6010B
SILVER	7440-22-4	mg/kg	0.56	<0.56	U	P		04M1051L	01/18/04	01/18/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.56	<0.56	U	P		04M1051L	01/18/04	01/18/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.56	47.1		P		04M1051L	01/18/04	01/18/04	1	6010B
ZINC	7440-66-6	mg/kg	0.56	67.4		P		04M1051L	01/18/04	01/18/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/10/04

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Sites # 4 and 7, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1999; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994.
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Volatile Organics, Semivolatile Organics (SVOA), Polynuclear Aromatic Hydrocarbons (PAH), Pesticides, Polychlorinated Biphenyls (PCB), Diesel & Motor Oil, Total Metals
SDG NUMBER:	04-1179 (Level III and Level IV)

RECEIVED
MAR 26 2004

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	SVOA	PAH
0023-S4-495	04-1179-1	Soil	X	X	X
0023-S4-496[1]	04-1179-2	Soil	X	X	X
0023-S4-497	04-1179-3	Soil	X	X	X
0023-S4-498	04-1179-4	Soil	X	X	X
0023-S4-499	04-1179-5	Soil	X	X	X
0023-S4-497MS	04-1179-3MS	Soil		X	
0023-S4-479MSD	04-1179-3MSD	Soil		X	

ORIGINAL

Client Sample #	Lab Sample #	Matrix	Pesticides	PCB
0023-S4-495	04-1179-1	Soil	X	X
0023-S4-496[1]	04-1179-2	Soil	X	X
0023-S4-497	04-1179-3	Soil	X	X
0023-S4-498	04-1179-4	Soil	X	X
0023-S4-499	04-1179-5	Soil	X	X
0023-S4-499MS	04-1179-5MS	Soil	X	X
0023-S4-499MSD	04-1179-5MSD	Soil	X	X

Client Sample #	Lab Sample #	Matrix	Diesel / Motor Oil	Total Metals
0023-S4-495	04-1179-1	Soil	X	X
0023-S4-496[1]	04-1179-2	Soil	X	X
0023-S4-497	04-1179-3	Soil	X	X
0023-S4-498	04-1179-4	Soil	X	X
0023-S4-499	04-1179-5	Soil	X	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE,
MSD = MATRIX SPIKE DUPLICATE

Note 1: Sample was identified for Level IV validation.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1179 Organics & Inorganics

SAMPLES: 0023-S4-495, 0023-S-496, 0023-S4-497, 0023-S4-498, 0023-S4-499

VOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria was met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) for acetone was 16.1% in the standards run on 1/16/04 at 10:53 on instrument X, which exceeded the 15% QC limit. All results for acetone in the SDG samples, which consisted entirely of non-detects, were flagged as estimated (UJ).

IV.) Blanks:

Methylene chloride was detected at 2 ug/kg in method blank 04G1099-MB-01. All positive results for methylene chloride in the soil SDG samples less than the action level of 10X the blank amount (20 ug/kg) were flagged as undetected (U) with the results less than the CRQL being raised to the CRQL.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory. All LCS Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were submitted for this SDG. All MS / MSD criteria were met. No action was required.

VIII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this SDG. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) was 28.6% for 2,4-dinitrophenol in the standards analyzed on 1/07/04 on instrument Z, which exceeded the 20% QC limit. All results for 2,4-dinitrophenol in the SDG samples were non-detects, so no action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 1/19/04 at 17:32 on instrument Z exceeded the 15% QC limit for the following compounds:

2-nitrophenol	18.3%
2,6-dinitrotoluene	19.2%
2,4-dinitrophenol	45.7%
2,4-dinitrotoluene	22.4%

All results for these compounds in the SDG samples, which consisted entirely of non-detects, were flagged as estimated (UJ).

IV.) Blanks:

There were no detections in the blanks associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

The Percent Recovery (%R) of 2,4,6-tribromophenol was 128% in an LCS sample, which exceeded the 30-125% QC limits. Since the sample was a QC sample, no action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory. A total of four Percent Recoveries (%R's) exceeded the QC limits. Data qualification based on LCS Recovery criteria was not required. No action was taken.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-497. All MS / MSD criteria were met. No action was required.

VIII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this SDG. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

POLYNUCLEAR AROMATIC HYDROCARBONS (PAH)

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Differences (%D's) were 19.2% for benzo(a)pyrene and 15.3% for benzo(g,h,i)perylene in the standards run on 1/20/04 at 10:10 on instrument Y, which exceeded the 15% QC limit. All positive and non-detect results for benzo(a)pyrene and benzo(g,h,i)perylene in the SDG samples were flagged as estimated (J) and (UJ).

IV.) Blanks:

There were no detections in the method blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory. All Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were submitted for this SDG. A total of four Percent Recoveries (%R's) were outside the QC limits. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this SDG. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

PESTICIDES

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviations (%RSD's) were 27.3% for endosulfan sulfate and 44.6% for

methoxychlor in the standards runs on 11/21/03 on the secondary column which exceeded the 20% QC limit. Since the exceedances were on the secondary column used for confirmation, no action was required.

Continuing Calibration:

All Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the associated method and equipment blanks. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this fraction of the SDG. All LCS Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 0023-S4-499. All MS / MSD criteria were met. No action was required.

VIII.) TCL Compound Identification:

All Compound Identification criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this SDG. No action was required.

X.) Pesticide Cleanup Check:

Florisil Cartridge Check:

Florisil data was not provided. No action was required.

Gel Permeation Chromatography (GPC):

GPC data was not provided. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

POLYCHLORINATED BIPHENYLS (PCBs)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the associated method and equipment blanks. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this SDG fraction. All criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 0023-S4-499. All MS / MSD criteria were met. No action was required.

VIII.) TCL Compound Identification:

All Compound Identification criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this SDG. No action was required.

X.) Pesticide Cleanup Check:

Florisil Cartridge Check:

Florisil data was not provided. No action was required.

Gel Permeation Chromatography (GPC):

GPC data was not provided. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

DIESEL AND MOTOR OIL

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

Instrument Performance criteria was not required. No action was taken.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the associated method and equipment blanks. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this fraction of the SDG. All LCS Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were submitted for this SDG. The Percent Recoveries (%R's) exceeded the QC limits. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) TCL Compound Identification:

All Compound Identification criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this SDG. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

TOTAL METALS

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

The following analytes were detected in the continuing calibration blanks (CCB) associated with this SDG:

Blank ID	Analyte	Detection	Action Level
CCB2	arsenic	2.24 ug/L	2.24 mg/kg
CCB2	barium	2.35 ug/L	2.35 mg/kg
CCB2	beryllium	0.20 ug/L	0.20 mg/kg
CCB2	cadmium	0.52 ug/L	0.52 mg/kg
CCB2	chromium	0.37 ug/L	0.37 mg/kg
CCB2	cobalt	0.94 ug/L	0.94 mg/kg
CCB2	copper	3.74 ug/L	3.74 mg/kg
CCB2	molybdenum	1.61 ug/L	1.61 mg/kg
CCB2	nickel	1.09 ug/L	1.09 mg/kg
CCB2	selenium	4.08 ug/L	4.08 mg/kg
CCB6	thallium	2.49 ug/L	2.49 mg/kg
CCB2	vanadium	0.74 ug/L	0.74 mg/kg
CCB3	zinc	1.45 ug/L	1.45 mg/kg

All positive results for these analytes in the SDG samples less than the action level were flagged as undetected (U).

The following negative results were reported in the blanks associated with this SDG:

Blank ID	Analyte	Result	Action Level
CCB4	lead	-1.27 ug/L	1.27 mg/kg

All results for lead in the SDG samples were greater than the action level, so no action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All MS / MSD criteria were met using batch analyses. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 06019

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 447
PROJECT LOCATION: NAV WPN STA, Seal Beach, CA
SAMPLER NAME: Lisa Brenkowski
PROJECT CONTACT: Lisa Brenkowski
PURCHASE ORDER NO.: 20721 Task 25
PROJECT NO.: 1990.023D
SAMPLER SIGNATURE: Lisa Brenkowski
AIRBILL NUMBER: COURIER
LABORATORY NAME: APCL
LABORATORY ID (FOR LABORATORY): 04-1225

ANALYSES REQUIRED: EPA 6010B (Lead only)

Project Information Section
Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-500	1/20/04	0930	1	X		S	48 hr	X		107B N Sidewall	11"	—	REG
0023-S4-501	1/20/04	0932	1	X		S	48 hr	X		107B E Sidewall	11"	—	REG
0023-S4-502	1/20/04	0936	1	X		S	48 hr	X		107B S sidewall	11"	—	REG
0023-S4-503	1/20/04	0939	1	X		S	48 hr	X		107B Floor	12"	—	REG
0023-S4-504	1/20/04	0941	1	X		S	48 hr	X		106B N sidewall	5"	—	REG
0023-S4-505	1/20/04	0943	1	X		S	48 hr	X		106B S sidewall	11"	—	REG
0023-S4-506	1/20/04	0947	1	X		S	48 hr	X		106B Floor	12"	—	REG
0023-S4-507	1/20/04	0950	1	X		S	48 hr	X		105B N Sidewall	2"	—	REG
0023-S4-508	1/20/04	0953	1	X		S	48 hr	X		105B S sidewall	1"	—	REG
0023-S4-509	1/20/04	0956	1	X		S	48 hr	X		105B Floor	12"	—	REG
0023-S4-510	1/20/04	1000	1		X	S	48 hr	X		104B N Sidewall	3"	—	FD REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	1/20/04	[signature]
COMPANY: FWI	TIME: 1600	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 06020

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 447	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPN STA Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1225

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-511	1/20/04	1002	1	X		S	48 hr	X		104B S sidewall	1"	—	REG
0023-S4-512	1/20/04	1004	1	X		S	48 hr	X		104B Floor	12"	—	REG
0023-S4-513	1/20/04	1006	1	X		S	48 hr	X		103B N sidewall	20"	—	REG
0023-S4-514	1/20/04	1010	1	X		S	48 hr	X	Soil was rust-stained	103B E Sidewall	1"	—	REG
0023-S4-515	1/20/04	1012	1	X		S	48 hr	X	Soil was very rusty	103B S sidewall	15"	—	REG
0023-S4-516	1/20/04	1014	1	X		S	48 hr	X		103B W sidewall	6"	—	REG
0023-S4-517	1/20/04	1018	1	X		S	48 hr	X		103B Floor	24"	—	REG
0023-S4-518	1/20/04	1022	1	X		S	48 hr	X		101B N Sidewall	2"	—	REG
0023-S4-519	1/20/04	1024	1	X		S	48 hr	X	Run MS/MSD	101B E Sidewall	2"	—	REG
0023-S4-520	1/20/04	1026	1	X		S	48 hr	X		101B S sidewall	12"	—	REG
0023-S4-521	1/20/04	1029	1		X	S	48 hr	X		101B Floor	12"	—	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	1/20/04	[illegible]
COMPANY: TFWI	TIME: 1600	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-1	Received Date:	01/20/2004
Sample ID:	**0023-S4-500**	Sample Matrix	Soil	Moisture %:	5.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.6	1140	J	P		04M1076M	01/21/04	01/21/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AAH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-2	Received Date:	01/20/2004
Sample ID:	**0023-S4-501**	Sample Matrix	Soil	Moisture %:	4.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	218	J	P		04M1076M	01/21/04	01/21/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH
Walker

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-3	Received Date:	01/20/2004
Sample ID:	**0023-S4-502**	Sample Matrix	Soil	Moisture %:	4.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	294 J		P		04M1076M	01/21/04	01/21/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH 3/24/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-4	Received Date:	01/20/2004
Sample ID:	**0023-S4-503**	Sample Matrix	Soil	Moisture %:	4.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	6.3 J		P		04M1076M	01/21/04	01/21/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH
3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-5	Received Date:	01/20/2004
Sample ID:	**0023-S4-504**	Sample Matrix	Soil	Moisture %:	8.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	9.8	J	P		04M1076M	01/21/04	01/21/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

ALH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-6	Received Date:	01/20/2004
Sample ID:	**0023-S4-505**	Sample Matrix	Soil	Moisture %:	7.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	217 J		P		04M1076M	01/21/04	01/21/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-7	Received Date:	01/20/2004
Sample ID:	**0023-S4-506**	Sample Matrix	Soil	Moisture %:	9.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	590	J	P		04M1076M	01/21/04	01/21/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

2914

MH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-8	Received Date:	01/20/2004
Sample ID:	**0023-S4-507**	Sample Matrix	Soil	Moisture %:	4.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	5.8	U	P		04M1076M	01/21/04	01/21/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

ALH
3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-9	Received Date:	01/20/2004
Sample ID:	**0023-S4-508**	Sample Matrix	Soil	Moisture %:	13.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	9.0 J		P		04M1076M	01/21/04	01/21/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-10	Received Date:	01/20/2004
Sample ID:	0023-S4-509	Sample Matrix	Soil	Moisture %:	12.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	75.6	J	P		04M1076M	01/21/04	01/21/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-11	Received Date:	01/20/2004
Sample ID:	**0023-S4-510**	Sample Matrix	Soil	Moisture %:	6.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	45.0	J	P		04M1076M	01/21/04	01/21/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

2918

LLH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-12	Received Date:	01/20/2004
Sample ID:	**0023-S4-511**	Sample Matrix	Soil	Moisture %:	9.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	7.6	J	P		04M1076M	01/21/04	01/21/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-13	Received Date:	01/20/2004
Sample ID:	**0023-S4-512**	Sample Matrix	Soil	Moisture %:	7.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	225	J	P		04M1076M	01/21/04	01/21/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-14	Received Date:	01/20/2004
Sample ID:	**0023-S4-513**	Sample Matrix	Soil	Moisture %:	5.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	195	J	P		04M1076M	01/21/04	01/21/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

2921

LLH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-15	Received Date:	01/20/2004
Sample ID:	**0023-S4-514**	Sample Matrix	Soil	Moisture %:	9.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	14.6	J	P		04M1076M	01/21/04	01/21/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

2922

LLH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-16	Received Date:	01/20/2004
Sample ID:	**0023-S4-515**	Sample Matrix	Soil	Moisture %:	13.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	22.1	J	P		04M1076M	01/21/04	01/21/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-17	Received Date:	01/20/2004
Sample ID:	**0023-S4-516**	Sample Matrix	Soil	Moisture %:	10.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	40.5 J		P		04M1076M	01/21/04	01/21/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/01/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-18	Received Date:	01/20/2004
Sample ID:	**0023-S4-517**	Sample Matrix	Soil	Moisture %:	12.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	7.7	J	P		04M1076M	01/21/04	01/21/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

2925

MH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-19	Received Date:	01/20/2004
Sample ID:	**0023-S4-518**	Sample Matrix	Soil	Moisture %:	6.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	6.5 J		P		04M1076M	01/21/04	01/21/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AEH 2/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-20	Received Date:	01/20/2004
Sample ID:	**0023-S4-519**	Sample Matrix	Soil	Moisture %:	15.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	171	J	P		04M1076M	01/21/04	01/21/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-21	Received Date:	01/20/2004
Sample ID:	**0023-S4-520**	Sample Matrix	Soil	Moisture %:	12.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	8.4	J	P		04M1078L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

HH 3/04/01

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41225	Collected by:	Lisa B.
		Lab Sample ID:	04-1225-22	Received Date:	01/20/2004
Sample ID:	**0023-S4-521**	Sample Matrix	Soil	Moisture %:	7.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.6	377 J		P		04M1078L	01/22/04	01/22/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/24/04

RECEIVED
MAR 26 2004

VALIDATA
Chemical Services, Inc.
4070 Balleycastle Lane, Duluth, GA 30097
(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

ORIGINAL

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Sites # 4 and 7, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	04-1225 (Level III and Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-500	04-1225-1	Soil	X
0023-S4-501	04-1225-2	Soil	X
0023-S4-502	04-1225-3	Soil	X
0023-S4-503	04-1225-4	Soil	X
0023-S4-504	04-1225-5	Soil	X
0023-S4-505	04-1225-6	Soil	X
0023-S4-506	04-1225-7	Soil	X
0023-S4-507	04-1225-8	Soil	X
0023-S4-508	04-1225-9	Soil	X
0023-S4-509	04-1225-10	Soil	X
0023-S4-510[1]	04-1225-11	Soil	X
0023-S4-511	04-1225-12	Soil	X
0023-S4-512	04-1225-13	Soil	X
0023-S4-513	04-1225-14	Soil	X
0023-S4-514	04-1225-15	Soil	X
0023-S4-515	04-1225-16	Soil	X
0023-S4-516	04-1225-17	Soil	X
0023-S4-517	04-1225-18	Soil	X
0023-S4-518	04-1225-19	Soil	X
0023-S4-519	04-1225-20	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-520	04-1225-21	Soil	X
0023-S4-521[1]	04-1225-22	Soil	X
0023-S4-519MD	04-1225-20MD	Soil	X
0023-S4-519MS	04-1225-20MS	Soil	X
0023-S4-519MSD	04-1225-20MSD	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1225 Inorganics

SAMPLES: 0023-S4-500, 0023-S4-501, 0023-S4-502, 0023-S4-503, 0023-S4-504, 0023-S4-505, 0023-S4-506, 0023-S4-507, 0023-S4-508, 0023-S4-509, 0023-S4-510, 0023-S4-511, 0023-S4-512, 0023-S4-513, 0023-S4-514, 0023-S4-515, 0023-S4-516, 0023-S4-517, 0023-S4-518, 0023-S4-519, 0023-S4-520, 0023-S4-521

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was detected at 3.81 ug/L in Continuing Calibration Blank CCB4. All positive results for lead in the associated SDG samples were greater than the action level of 5X the blank amount (3.81 mg/kg), so no action was required.

Lead was detected at 6.08 ug/L in the Initial Calibration Blank. The positive result for lead in associated SDG sample 0023-S4-507, which was less than 5X the blank amount (6.08 mg/kg), was flagged as undetected (U). All positive results for lead in the other associated SDG samples were greater than the action level, so no further action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-519. The Percent Recoveries (%R's) of lead were 53% and 56%, respectively for the MS / MSD samples, which were below the 75-125% QC limits. All results for lead in the associated SDG samples were flagged as estimated (J). The associated samples were 0023-S4-500, 0023-S4-501, 0023-S4-502, 0023-S4-503, 0023-S4-504, 0023-S4-505, 0023-S4-506, 0023-S4-507, 0023-S4-508, 0023-S4-509, 0023-S4-510, 0023-S4-511, 0023-S4-512, 0023-S4-513, 0023-S4-514, 0023-S4-515, 0023-S4-516, 0023-S4-517, 0023-S4-518 and 0023-S4-519.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Serial Dilution Analysis:

The Percent Difference (%D) for lead was 17.8% in the batch Serial Dilution Analysis, which exceeded the 10% QC limit. The positive results for lead in associated SDG samples 0023-S4-520 and 0023-S4-521 were flagged as estimated (J).

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 06021

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4 & 7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1227

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-522	1/20/04	1031	1	X		S	48 hr	X		100B N sidewall	10"	–	REG
0023-S4-523	1/20/04	1032	1	X		S	48 hr	X		100B S sidewall	2"	–	REG
0023-S4-524	1/20/04	1034	1	X		S	48 hr	X		100B W sidewall	12"	–	REG
0023-S4-525	1/20/04	1036	1	X		S	48 hr	X		100B Floor	12"	–	REG
0023-S4-526	1/20/04	1049	1	X		S	48 hr	X		96B N Sidewall	4"	–	REG
0023-S4-527	1/20/04	1053	1	X		S	48 hr	X		96B E Sidewall	1"	–	REG
0023-S4-528	1/20/04	1054	1	X		S	48 hr	X		96B S sidewall	4"	–	REG
0023-S4-529	1/20/04	1055	1	X		S	48 hr	X		96B W sidewall	11"	–	REG
0023-S4-530	1/20/04	1057	1	X		S	48 hr	X		96B Floor	12"	–	REG
0023-S4-531	1/20/04	1100	1	X		S	48 hr	X		94B N sidewall	8"	–	REG
0023-S4-532	1/20/04	1101	1		X	S	48 hr	X		94B N sidewall	8"	–	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	1/20/04	[illegible]
COMPANY: HFWI	TIME: 1600	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1227

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 06022

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4 & 7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

ANALYSES REQUIRED: EPA 6010/6 (Lead only)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1227

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010/6 (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-533	1/20/04	1103	1	X		S	48 hr	X		94B E Sidewall	1"	—	REG
0023-S4-534	1/20/04	1104	1	X		S	48 hr	X		94B E Sidewall	1"	—	FD
0023-S4-535	1/20/04	1106	1	X		S	48 hr	X		94B S Sidewall	8"	—	REG
0023-S4-536	1/20/04	1108	1	X		S	48 hr	X		94B W Sidewall	7"	—	REG
0023-S4-537	1/20/04	1110	1	X		S	48 hr	X		94B Floor	12"	—	REG
0023-S4-538	1/20/04	1112	1	X		S	48 hr	X		94B Floor	12"	—	FD
0023-S4-539	1/20/04	1258	1	X		S	48 hr	X	Run MS/MSD	91-92 N Sidewall	2"	—	REG
0023-S4-540	1/20/04	1300	1	X		S	48 hr	X		91-92 E Sidewall	5"	—	REG
0023-S4-541	1/20/04	1301	1	X		S	48 hr	X		91-92 S Sidewall	5"	—	REG
0023-S4-542	1/20/04	1303	1	X		S	48 hr	X		91-92 W Sidewall	5"	—	REG
0023-S4-543	1/20/04	1304	1		X	S	48 hr	X		91-92 Floor	12"	—	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	1/20/04	[signature]
COMPANY: FFWI	TIME: 1600	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1227

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-1	Received Date:	01/20/2004
Sample ID:	**0023-S4-522**	Sample Matrix	Soil	Moisture %:	4.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.31	8.0	J	P		04M1077L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-2	Received Date:	01/20/2004
Sample ID:	**0023-S4-523**	Sample Matrix	Soil	Moisture %:	7.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	16.2	J	P		04M1077L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-3	Received Date:	01/20/2004
Sample ID:	**0023-S4-524**	Sample Matrix	Soil	Moisture %:	9.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	59.7	J	P		04M1077L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-4	Received Date:	01/20/2004
Sample ID:	**0023-S4-525**	Sample Matrix	Soil	Moisture %:	7.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	127	J	P		04M1077L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-5	Received Date:	01/20/2004
Sample ID:	**0023-S4-526**	Sample Matrix	Soil	Moisture %:	10.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	110	J	P		04M1077L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

HLH 3/31/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-6	Received Date:	01/20/2004
Sample ID:	**0023-S4-527**	Sample Matrix	Soil	Moisture %:	6.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	87.8 J		P		04M1077L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH 3/04/04

Applied P. & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-7	Received Date:	01/20/2004
Sample ID:	**0023-S4-528**	Sample Matrix	Soil	Moisture %:	7.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	6.2 J		P		04M1077L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

HH 3/24/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-8	Received Date:	01/20/2004
Sample ID:	**0023-S4-529**	Sample Matrix	Soil	Moisture %:	13.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.7	676	J	P		04M1077L	01/22/04	01/22/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-9	Received Date:	01/20/2004
Sample ID:	**0023-S4-530**	Sample Matrix	Soil	Moisture %:	13.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	5.2	1790	J	P		04M1077L	01/22/04	01/22/04	15	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-10	Received Date:	01/20/2004
Sample ID:	**0023-S4-531**	Sample Matrix	Soil	Moisture %:	13.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	5.2	1660	J	P		04M1077L	01/22/04	01/22/04	15	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

JLH 3/21/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-11	Received Date:	01/20/2004
Sample ID:	**0023-S4-532**	Sample Matrix	Soil	Moisture %:	13.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.7	452	J	P		04M1077L	01/22/04	01/22/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-12	Received Date:	01/20/2004
Sample ID:	**0023-S4-533**	Sample Matrix	Soil	Moisture %:	15.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	103	J	P		04M1077L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

MH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-13	Received Date:	01/20/2004
Sample ID:	**0023-S4-534**	Sample Matrix	Soil	Moisture %:	14.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.71	395	J	P		04M1077L	01/22/04	01/22/04	2	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-14	Received Date:	01/20/2004
Sample ID:	**0023-S4-535**	Sample Matrix	Soil	Moisture %:	14.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	18.6	J	P		04M1077L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-15	Received Date:	01/20/2004
Sample ID:	**0023-S4-536**	Sample Matrix	Soil	Moisture %:	18.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	7.4	1600	J	P		04M1077L	01/22/04	01/22/04	20	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

HH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-16	Received Date:	01/20/2004
Sample ID:	**0023-S4-537**	Sample Matrix	Soil	Moisture %:	12.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	34	4710	J	P		04M1077L	01/22/04	01/22/04	100	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-17	Received Date:	01/20/2004
Sample ID:	**0023-S4-538**	Sample Matrix	Soil	Moisture %:	12.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	6.9	1780	J	P		04M1077L	01/22/04	01/22/04	20	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-18	Received Date:	01/20/2004
Sample ID:	**0023-S4-539**	Sample Matrix	Soil	Moisture %:	17.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	14.9	J	P		04M1077L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AEH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-19	Received Date:	01/20/2004
Sample ID:	**0023-S4-540**	Sample Matrix	Soil	Moisture %:	12.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	6.9	1440	J	P		04M1077L	01/22/04	01/22/04	20	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-20	Received Date:	01/20/2004
Sample ID:	**0023-S4-541**	Sample Matrix	Soil	Moisture %:	15.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	153 J		P		04M1077L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-21	Received Date:	01/20/2004
Sample ID:	**0023-S4-542**	Sample Matrix	Soil	Moisture %:	14.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	3.5	1060	J	P		04M1078L	01/22/04	01/22/04	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LH 2/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR SIte 4 & 7	Service ID:	41227	Collected by:	Lisa B.
		Lab Sample ID:	04-1227-22	Received Date:	01/20/2004
Sample ID:	**0023-S4-543**	Sample Matrix	Soil	Moisture %:	19.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	5.1 J		P		04M1078L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/04/04

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DATA VALIDATION SUMMARY
REPORT

ORIGINAL

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Sites # 4 and 7, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	04-1227 (Level III and Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-522	04-1227-1	Soil	X
0023-S4-523	04-1227-2	Soil	X
0023-S4-524	04-1227-3	Soil	X
0023-S4-525	04-1227-4	Soil	X
0023-S4-526	04-1227-5	Soil	X
0023-S4-527	04-1227-6	Soil	X
0023-S4-528	04-1225-7	Soil	X
0023-S4-529	04-1227-8	Soil	X
0023-S4-530	04-1227-9	Soil	X
0023-S4-531[2]	04-1227-10	Soil	X
0023-S4-532[1,2]	04-1227-11	Soil	X
0023-S4-533[2]	04-1227-12	Soil	X
0023-S4-534[2]	04-1227-13	Soil	X
0023-S4-535	04-1227-14	Soil	X
0023-S4-536	04-1227-15	Soil	X
0023-S4-537[2]	04-1227-16	Soil	X
0023-S4-538[2]	04-1227-17	Soil	X
0023-S4-539	04-1227-18	Soil	X
0023-S4-540	04-1227-19	Soil	X
0023-S4-541	04-1227-20	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-542	04-1227-21	Soil	X
0023-S4-543[1,2]	04-1227-22	Soil	X
0023-S4-539MD	04-1227-18MD	Soil	X
0023-S4-539MS	04-1227-18MS	Soil	X
0023-S4-539MSD	04-1227-18MSD	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE,
MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit 8/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1227 Inorganics

SAMPLES: 0023-S4-522, 0023-S4-523, 0023-S4-524, 0023-S4-525, 0023-S4-526, 0023-S4-527, 0023-S4-528, 0023-S4-529, 0023-S4-530, 0023-S4-531, 0023-S4-532, 0023-S4-533, 0023-S4-534, 0023-S4-535, 0023-S4-536, 0023-S4-537, 0023-S4-538, 0023-S4-539, 0023-S4-540, 0023-S4-541, 0023-S4-542, 0023-S4-543

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was detected at 3.81 ug/L in Continuing Calibration Blank CCB4. All positive results for lead in the SDG samples were greater than the action level of 5X the blank amount (3.81 mg/kg), so no action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-539. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Four sets of field duplicate samples [0023-S4-531 / 0023-S4-532, 0023-S4-533 / 0023-S4-534, 0023-S4-537 / 0023-S4-538 and 0023-S4-543 / 0023-S4-544 (part of SDG 04-1228)] were identified for this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-531 / 0023-S4-532	114%
0023-S4-533 / 0023-S4-534	117%
0023-S4-537 / 0023-S4-538	90%
0023-S4-543 / 0023-S4-544	27%

Two of the RPDs exceeded the 60% QC limit for soil samples. Data qualification based on field duplicate criteria was not required, so no action was taken.

IX.) Serial Dilution Analysis:

The Percent Differences (%D) for lead were 14.4% and 17.8% for the Serial Dilution Analyses, which exceeded the 10% QC limit. All positive results for lead in the SDG samples were flagged as estimated (J).

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 06023

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: LR Site 447	PURCHASE ORDER NO.: 20921 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1228

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010 (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010 (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-54-546	1/20/04	1305	1	X		S	48 hr	X		91-92 Floor	12"	–	FD
0023-54-548	1/20/04	1402	1	X		S	48 hr	X		108B N Sidewall	11"	–	Reg
0023-54-549	1/20/04	1405	1	X		S	48 hr	X		108B E Sidewall	2"	–	Reg
0023-54-550	1/20/04	1407	1	X		S	48 hr	X		108B S Sidewall	12"	–	Reg
0023-54-551	1/20/04	1409	1	X		S	48 hr	X		108B W Sidewall	19"	–	Reg
0023-54-552	1/20/04	1411	1	X		S	48 hr	X		108B Floor	24"	–	Reg
0023-54-553	1/20/04	1523	1	X		S	48 hr	X		64B N Sidewall	7"	–	Reg
0023-54-554	1/20/04	1524	1	X		S	48 hr	X		64B E Sidewall	11"	–	Reg
0023-54-555	1/20/04	1527	1	X		S	48 hr	X		64B S Sidewall	4"	–	Reg
0023-54-556	1/20/04	1529	1	X		S	48 hr	X		64B W Sidewall	8"	–	Reg
0023-54-557	1/20/04	1531	1		X	S	48 hr	X		64B Floor	12"	–	Reg

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	1/20/04	S. Durham
COMPANY: FWI	TIME: 1600	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1228

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41228	Collected by:	Lisa B.
		Lab Sample ID:	04-1228-1	Received Date:	01/20/2004
Sample ID:	0023-S4-544	Sample Matrix	Soil	Moisture %:	19.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	3.9	J	P		04M1078L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LH 3/24/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41228	Collected by:	Lisa B.
		Lab Sample ID:	04-1228-2	Received Date:	01/20/2004
Sample ID:	**0023-S4-548**	Sample Matrix	Soil	Moisture %:	16.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	7.9 J		P		04M1078L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 2/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41228	Collected by:	Lisa B.
		Lab Sample ID:	04-1228-3	Received Date:	01/20/2004
Sample ID:	**0023-S4-549**	Sample Matrix	Soil	Moisture %:	18.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	12.2	J	P		04M1078L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AHH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41228	Collected by:	Lisa B.
		Lab Sample ID:	04-1228-4	Received Date:	01/20/2004
Sample ID:	**0023-S4-550**	Sample Matrix	Soil	Moisture %:	9.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.7	307 J		P		04M1078L	01/22/04	01/22/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

JLH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41228	Collected by:	Lisa B.
		Lab Sample ID:	04-1228-5	Received Date:	01/20/2004
Sample ID:	**0023-S4-551**	Sample Matrix	Soil	Moisture %:	8.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	16.2 J		P		04M1078L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

LLH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41228	Collected by:	Lisa B.
		Lab Sample ID:	04-1228-6	Received Date:	01/20/2004
Sample ID:	**0023-S4-552**	Sample Matrix	Soil	Moisture %:	19.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	7.0 J		P		04M1078L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41228	Collected by:	Lisa B.
		Lab Sample ID:	04-1228-7	Received Date:	01/20/2004
Sample ID:	**0023-S4-553**	Sample Matrix	Soil	Moisture %:	15.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.8	430 J		P		04M1078L	01/22/04	01/22/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

4H
3/04/01

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41228	Collected by:	Lisa B.
		Lab Sample ID:	04-1228-8	Received Date:	01/20/2004
Sample ID:	**0023-S4-554**	Sample Matrix	Soil	Moisture %:	5.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.6	575 J		P		04M1078L	01/22/04	01/22/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH 3/04/01

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41228	Collected by:	Lisa B.
		Lab Sample ID:	04-1228-9	Received Date:	01/20/2004
Sample ID:	**0023-S4-555**	Sample Matrix	Soil	Moisture %:	9.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	127 J		P		04M1078L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41228	Collected by:	Lisa B.
		Lab Sample ID:	04-1228-10	Received Date:	01/20/2004
Sample ID:	**0023-S4-556**	Sample Matrix	Soil	Moisture %:	11.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	13.2 J		P		04M1078L	01/22/04	01/22/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AEH 3/04/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41228	Collected by:	Lisa B.
		Lab Sample ID:	04-1228-11	Received Date:	01/20/2004
Sample ID:	**0023-S4-557**	Sample Matrix	Soil	Moisture %:	10.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	6.7	1690	J	P		04M1078L	01/22/04	01/22/04	20	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AJH 3/04/04

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

RECEIVED MAR 26 2004

DATA VALIDATION SUMMARY
REPORT

ORIGINAL

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Sites # 4 and 7, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	04-1228 (Level III and Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-544[2]	04-1228-1	Soil	X
0023-S4-548	04-1228-2	Soil	X
0023-S4-549	04-1228-3	Soil	X
0023-S4-550	04-1228-4	Soil	X
0023-S4-551	04-1228-5	Soil	X
0023-S4-552	04-1228-6	Soil	X
0023-S4-553	04-1228-7	Soil	X
0023-S4-554	04-1228-8	Soil	X
0023-S4-555	04-1228-9	Soil	X
0023-S4-556	04-1228-10	Soil	X
0023-S4-557[1]	04-1228-11	Soil	X
0023-S4-544MD	04-1228-1MD	Soil	X
0023-S4-544MS	04-1228-1MS	Soil	X
0023-S4-544MSD	04-1228-1MSD	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit 3/15/04
Date

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1228 Inorganics

SAMPLES: 0023-S4-544, 0023-S4-548, 0023-S4-549, 0023-S4-550, 0023-S4-551, 0023-S4-552, 0023-S4-553, 0023-S4-554, 0023-S4-555, 0023-S4-556, 0023-S4-557

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was detected at 3.81 ug/L in Continuing Calibration Blank CCB4. All positive results for lead in the SDG samples were greater than the action level of 5X the blank amount (3.81 mg/kg), so no action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-544. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (0023-S4-543 (part of SDG 04-1227) / 0023-S4-544) was identified for this SDG. The Relative Percent Difference (RPD) was:

Duplicate Samples	RPD
0023-S4-543 / 0023-S4-544	27%

The RPD was within the 60% QC limit for soil samples. No action was required.

IX.) Serial Dilution Analysis:

The Percent Differences (%D) for lead was 17.8% for the Serial Dilution Analysis, which exceeded the 10% QC limit. All positive results for lead in the SDG samples were flagged as estimated (J).

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 06024

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 447	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1229

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 8270C / STM only	EPA 8081A	EPA 8082	EPA 6010B/7000 (Tile/Zn)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-545	1/20/04	1331	1	X		S	72 hr	X	X	X	X		Import Fill	–	–	REG
0023-S4-546	1/20/04	1332	1	X		S	72 hr	X	X	X	X		Import Fill	–	–	FD
0023-S4-547	1/20/04	1335	3		X	S	72 hr	X	X	X	X	Run MS/MSD	Topsoil #1	–	–	REG

1/20/04

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	1/20/04	[signature]
COMPANY: HFWI	TIME: 1600	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A 72hr TAT

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Topsoil + Import Fill Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1229

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41229	Collected by:	Lisa B.
		Lab Sample ID:	04-1229-1	Received Date:	01/20/2004
Sample ID:	**0023-S4-545**	Sample Matrix	Soil	Moisture %:	5.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: D
Anal. Method:	8270C	Prep. Date:	01/21/04	Anal. Date:	01/22/04
Batch No:	04G1134	Prep. No:	1 of 1	Anal. Time:	19:14
Data File Name:	1229-01	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				–

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	350	<350	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	350	<350	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	350	<350	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	350	<350	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	350	<350	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	350	<350	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	350	<350	U
8	4-CHLOROANILINE	106-47-8	µg/kg	800	<800	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	350	<350	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	350	<350	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	350	<350	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	350	<350	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	350	<350	U
14	DIBENZOFURAN	132-64-9	µg/kg	350	<350	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	350	<350	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	350	<350	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	350	<350	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	700	<700	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	350	<350	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	350	1200	
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	350	<350	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	350	<350	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1700	<1700	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1700	<1700	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	350	<350	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	350	<350	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	350	<350	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	350	<350	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1700	<1700	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	350	<350	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	350	<350	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	350	<350	U
33	2-NITROANILINE	88-74-4	µg/kg	1700	<1700	U
34	3-NITROANILINE	99-09-2	µg/kg	1700	<1700	U
35	4-NITROANILINE	100-01-6	µg/kg	1700	<1700	U
36	NITROBENZENE	98-95-3	µg/kg	350	<350	U
37	2-NITROPHENOL	88-75-5	µg/kg	350	<350	U
38	4-NITROPHENOL	100-02-7	µg/kg	1700	<1700	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	350	<350	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	700	<700	U

AH 3/10/04

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	μg/kg	1700	<1700	U
42	PHENOL	108-95-2	μg/kg	350	<350	U
43	PYRIDINE	110-86-1	μg/kg	350	<350	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	μg/kg	350	<350	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	μg/kg	1700	<1700	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	μg/kg	350	<350	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	76
2	2-FLUOROPHENOL	367-12-4	30-120	77
3	NITROBENZENE-D5	4165-60-0	40-135	69
4	PHENOL-D5	4165-62-2	20-120	58
5	TERPHENYL-D14	1718-51-0	40-135	99
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	72
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	88
2	CHRYSENE-D12	1719-03-5	50-200	63
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	94
4	NAPHTHALENE-D8	1146-65-2	50-200	87
5	PERYLENE-D12	1520-96-3	50-200	66
6	PHENANTHRENE-D10	1517-22-2	50-200	89
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41229	Collected by:	Lisa B.
		Lab Sample ID:	04-1229-2	Received Date:	01/20/2004
Sample ID:	**0023-S4-546**	Sample Matrix	Soil	Moisture %:	5.3
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: D
Anal. Method:	8270C	Prep. Date:	01/21/04	Anal. Date:	01/22/04
Batch No:	04G1134	Prep. No:	1 of 1	Anal. Time:	19:55
Data File Name:	1229-02	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	350	<350	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	350	<350	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	350	<350	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	350	<350	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	350	<350	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	350	<350	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	350	<350	U
8	4-CHLOROANILINE	106-47-8	µg/kg	800	<800	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	350	<350	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	350	<350	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	350	<350	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	350	<350	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	350	<350	U
14	DIBENZOFURAN	132-64-9	µg/kg	350	<350	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	350	<350	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	350	<350	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	350	<350	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	700	<700	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	350	<350	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	350	<350	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	350	<350	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	350	<350	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1700	<1700	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1700	<1700	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	350	<350	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	350	<350	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	350	<350	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	350	<350	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1700	<1700	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	350	<350	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	350	<350	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	350	<350	U
33	2-NITROANILINE	88-74-4	µg/kg	1700	<1700	U
34	3-NITROANILINE	99-09-2	µg/kg	1700	<1700	U
35	4-NITROANILINE	100-01-6	µg/kg	1700	<1700	U
36	NITROBENZENE	98-95-3	µg/kg	350	<350	U
37	2-NITROPHENOL	88-75-5	µg/kg	350	<350	U
38	4-NITROPHENOL	100-02-7	µg/kg	1700	<1700	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	350	<350	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	700	<700	U

LLH 3/10/04

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	1700	<1700	U
42	PHENOL	108-95-2	µg/kg	350	<350	U
43	PYRIDINE	110-86-1	µg/kg	350	<350	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	350	<350	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	1700	<1700	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	350	<350	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	76
2	2-FLUOROPHENOL	367-12-4	30-120	80
3	NITROBENZENE-D5	4165-60-0	40-135	72
4	PHENOL-D5	4165-62-2	20-120	59
5	TERPHENYL-D14	1718-51-0	40-135	100
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	72
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	92
2	CHRYSENE-D12	1719-03-5	50-200	65
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	95
4	NAPHTHALENE-D8	1146-65-2	50-200	88
5	PERYLENE-D12	1520-96-3	50-200	66
6	PHENANTHRENE-D10	1517-22-2	50-200	92
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41229	Collected by:	Lisa B.
		Lab Sample ID:	04-1229-3	Received Date:	01/20/2004
Sample ID:	**0023-S4-547**	Sample Matrix	Soil	Moisture %:	14.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: D
Anal. Method:	8270C	Prep. Date:	01/21/04	Anal. Date:	01/22/04
Batch No:	04G1134	Prep. No:	1 of 1	Anal. Time:	20:35
Data File Name:	1229-03	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				–

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	380	<380	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	380	<380	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	380	<380	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	380	<380	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	380	<380	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	380	<380	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	380	<380	U
8	4-CHLOROANILINE	106-47-8	µg/kg	890	<890	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	380	<380	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	380	<380	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	380	<380	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	380	<380	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	380	<380	U
14	DIBENZOFURAN	132-64-9	µg/kg	380	<380	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	380	<380	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	380	<380	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	380	<380	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	770	<770	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	380	<380	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	380	<380	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	380	<380	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	380	<380	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1900	<1900	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1900	<1900	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	380	<380	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	380	<380	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	380	<380	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	380	<380	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1900	<1900	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	380	<380	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	380	<380	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	380	<380	U
33	2-NITROANILINE	88-74-4	µg/kg	1900	<1900	U
34	3-NITROANILINE	99-09-2	µg/kg	1900	<1900	U
35	4-NITROANILINE	100-01-6	µg/kg	1900	<1900	U
36	NITROBENZENE	98-95-3	µg/kg	380	<380	U
37	2-NITROPHENOL	88-75-5	µg/kg	380	<380	U
38	4-NITROPHENOL	100-02-7	µg/kg	1900	<1900	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	380	<380	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	770	<770	U

HH 3/10/04

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	μg/kg	1900	<1900	U
42	PHENOL	108-95-2	μg/kg	380	<380	U
43	PYRIDINE	110-86-1	μg/kg	380	<380	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	μg/kg	380	<380	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	μg/kg	1900	<1900	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	μg/kg	380	<380	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	50
2	2-FLUOROPHENOL	367-12-4	30-120	48
3	NITROBENZENE-D5	4165-60-0	40-135	45
4	PHENOL-D5	4165-62-2	20-120	38
5	TERPHENYL-D14	1718-51-0	40-135	63
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	49
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	98
2	CHRYSENE-D12	1719-03-5	50-200	71
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	104
4	NAPHTHALENE-D8	1146-65-2	50-200	96
5	PERYLENE-D12	1520-96-3	50-200	71
6	PHENANTHRENE-D10	1517-22-2	50-200	93
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41229	Collected by:	Lisa B.
		Lab Sample ID:	04-1229-1	Received Date:	01/20/2004
Sample ID:	**0023-S4-545**	Sample Matrix	Soil	Moisture %:	5.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/22/04	Anal. Date:	01/23/04
Batch No:	04G1141	Prep. No:	1 of 1	Anal. Time:	17:47
Data File Name:	1229-01	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	5.3	<5.3	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	5.3	<5.3	U
3	ANTHRACENE	120-12-7	µg/kg	5.3	<5.3	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	5.3	<5.3	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	5.3	<5.3	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	5.3	<5.3	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	5.3	<5.3	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	5.3	<5.3	U
9	CHRYSENE	218-01-9	µg/kg	5.3	<5.3	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	5.3	<5.3	U
11	FLUORANTHENE	206-44-0	µg/kg	5.3	<5.3	U
12	FLUORENE	86-73-7	µg/kg	5.3	<5.3	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	5.3	<5.3	U
14	NAPHTHALENE	91-20-3	µg/kg	5.3	<5.3	U
15	PHENANTHRENE	85-01-8	µg/kg	5.3	<5.3	U
16	PYRENE	129-00-0	µg/kg	5.3	<5.3	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	46
2	NITROBENZENE-D5	4165-60-0	35-134	52
3	TERPHENYL-D14	1718-51-0	35-134	58
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	128
2	CHRYSENE-D12	1719-03-5	50-200	127
3	NAPHTHALENE-D8	1146-65-2	50-200	123
4	PERYLENE-D12	1520-96-3	50-200	120
5	PHENANTHRENE-D10	1517-22-2	50-200	131
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41229	Collected by:	Lisa B.
		Lab Sample ID:	04-1229-2	Received Date:	01/20/2004
Sample ID:	**0023-S4-546**	Sample Matrix	Soil	Moisture %:	5.3
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/22/04	Anal. Date:	01/23/04
Batch No:	04G1141	Prep. No:	1 of 1	Anal. Time:	18:23
Data File Name:	1229-02	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	5.3	<5.3	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	5.3	<5.3	U
3	ANTHRACENE	120-12-7	μg/kg	5.3	<5.3	U
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	5.3	<5.3	U
5	BENZO(A)PYRENE	50-32-8	μg/kg	5.3	<5.3	U
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	5.3	<5.3	U
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	5.3	<5.3	U
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	5.3	<5.3	U
9	CHRYSENE	218-01-9	μg/kg	5.3	<5.3	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	5.3	<5.3	U
11	FLUORANTHENE	206-44-0	μg/kg	5.3	<5.3	U
12	FLUORENE	86-73-7	μg/kg	5.3	<5.3	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	5.3	<5.3	U
14	NAPHTHALENE	91-20-3	μg/kg	5.3	<5.3	U
15	PHENANTHRENE	85-01-8	μg/kg	5.3	<5.3	U
16	PYRENE	129-00-0	μg/kg	5.3	<5.3	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	70
2	NITROBENZENE-D5	4165-60-0	35-134	72
3	TERPHENYL-D14	1718-51-0	35-134	72
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	132
2	CHRYSENE-D12	1719-03-5	50-200	126
3	NAPHTHALENE-D8	1146-65-2	50-200	127
4	PERYLENE-D12	1520-96-3	50-200	121
5	PHENANTHRENE-D10	1517-22-2	50-200	130
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41229	Collected by:	Lisa B.
		Lab Sample ID:	04-1229-3	Received Date:	01/20/2004
Sample ID:	**0023-S4-547**	Sample Matrix	Soil	Moisture %:	14.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	01/22/04	Anal. Date:	01/23/04
Batch No:	04G1141	Prep. No:	1 of 1	Anal. Time:	18:59
Data File Name:	1229-03	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				–

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	5.8	<5.8	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	5.8	<5.8	U
3	ANTHRACENE	120-12-7	μg/kg	5.8	<5.8	U
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	5.8	<5.8	U
5	BENZO(A)PYRENE	50-32-8	μg/kg	5.8	<5.8	U
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	5.8	<5.8	U
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	5.8	<5.8	U
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	5.8	<5.8	U
9	CHRYSENE	218-01-9	μg/kg	5.8	3	J
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	5.8	<5.8	U
11	FLUORANTHENE	206-44-0	μg/kg	5.8	3	J
12	FLUORENE	86-73-7	μg/kg	5.8	<5.8	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	5.8	<5.8	U
14	NAPHTHALENE	91-20-3	μg/kg	5.8	<5.8	U
15	PHENANTHRENE	85-01-8	μg/kg	5.8	<5.8	U
16	PYRENE	129-00-0	μg/kg	5.8	3	J

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	51
2	NITROBENZENE-D5	4165-60-0	35-134	51
3	TERPHENYL-D14	1718-51-0	35-134	54
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	125
2	CHRYSENE-D12	1719-03-5	50-200	131
3	NAPHTHALENE-D8	1146-65-2	50-200	122
4	PERYLENE-D12	1520-96-3	50-200	111
5	PHENANTHRENE-D10	1517-22-2	50-200	128
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41229	Collected by:	Lisa B.
		Lab Sample ID:	04-1229-1	Received Date:	01/20/2004
Sample ID:	**0023-S4-545**	Sample Matrix	Soil	Moisture %:	5.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/21/04	Anal. Date:	01/21/04
Batch No:	04G1135	Prep. No:	1 of 1	Anal. Time:	19:18
Data File Name:	1229.001	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	1.8	<1.8	U
2	BETA BHC	319-85-7	µg/kg	1.8	<1.8	U
3	ALPHA BHC	319-84-6	µg/kg	1.8	<1.8	U
4	DELTA BHC	319-86-8	µg/kg	1.8	<1.8	U
5	GAMMA BHC	58-89-9	µg/kg	1.8	<1.8	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.1	<1.1	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.1	<1.1	U
8	P,P'-DDD	72-54-8	µg/kg	3.2	<3.2	U
9	P,P'-DDE	72-55-9	µg/kg	3.2	<3.2	U
10	P,P'-DDT	50-29-3	µg/kg	3.2	<3.2	U
11	DIELDRIN	60-57-1	µg/kg	3.2	<3.2	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	1.8	<1.8	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.2	<3.2	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	5.3	<5.3	U
15	ENDRIN	72-20-8	µg/kg	3.2	<3.2	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.2	<3.2	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.1	<2.1	U
18	HEPTACHLOR	76-44-8	µg/kg	1.8	<1.8	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	1.8	<1.8	U
20	METHOXYCHLOR	72-43-5	µg/kg	11	<11	U
21	TOXAPHENE	8001-35-2	µg/kg	110	<110	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	76
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	80
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	92
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41229	Collected by:	Lisa B.
		Lab Sample ID:	04-1229-2	Received Date:	01/20/2004
Sample ID:	**0023-S4-546**	Sample Matrix	Soil	Moisture %:	5.3
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/21/04	Anal. Date:	01/21/04
Batch No:	04G1135	Prep. No:	1 of 1	Anal. Time:	19:43
Data File Name:	1229.002	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				–

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	μg/kg	1.8	<1.8	U
2	BETA BHC	319-85-7	μg/kg	1.8	<1.8	U
3	ALPHA BHC	319-84-6	μg/kg	1.8	<1.8	U
4	DELTA BHC	319-86-8	μg/kg	1.8	<1.8	U
5	GAMMA BHC	58-89-9	μg/kg	1.8	<1.8	U
6	ALPHA-CHLORDANE	5103-71-9	μg/kg	1.1	<1.1	U
7	GAMMA-CHLORDANE	5103-74-2	μg/kg	1.1	<1.1	U
8	P,P'-DDD	72-54-8	μg/kg	3.2	<3.2	U
9	P,P'-DDE	72-55-9	μg/kg	3.2	<3.2	U
10	P,P'-DDT	50-29-3	μg/kg	3.2	<3.2	U
11	DIELDRIN	60-57-1	μg/kg	3.2	<3.2	U
12	ALPHA ENDOSULFAN	959-98-8	μg/kg	1.8	<1.8	U
13	BETA ENDOSULFAN	33213-65-9	μg/kg	3.2	<3.2	U
14	ENDOSULFAN SULFATE	1031-07-8	μg/kg	5.3	<5.3	U
15	ENDRIN	72-20-8	μg/kg	3.2	<3.2	U
16	ENDRIN ALDEHYDE	7421-93-4	μg/kg	3.2	<3.2	U
17	ENDRIN KETONE	53494-70-5	μg/kg	2.1	<2.1	U
18	HEPTACHLOR	76-44-8	μg/kg	1.8	<1.8	U
19	HEPTACHLOR EPOXIDE	1024-57-3	μg/kg	1.8	<1.8	U
20	METHOXYCHLOR	72-43-5	μg/kg	11	<11	U
21	TOXAPHENE	8001-35-2	μg/kg	110	<110	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	73
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	76
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	93
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41229	Collected by:	Lisa B.
		Lab Sample ID:	04-1229-3	Received Date:	01/20/2004
Sample ID:	**0023-S4-547**	Sample Matrix	Soil	Moisture %:	14.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	01/21/04	Anal. Date:	01/21/04
Batch No:	04G1135	Prep. No:	1 of 1	Anal. Time:	20:08
Data File Name:	1229.003	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				–

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.0	<2.0	U
2	BETA BHC	319-85-7	µg/kg	2.0	<2.0	U
3	ALPHA BHC	319-84-6	µg/kg	2.0	<2.0	U
4	DELTA BHC	319-86-8	µg/kg	2.0	<2.0	U
5	GAMMA BHC	58-89-9	µg/kg	2.0	<2.0	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	0.05	J
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	0.3	J
8	P,P'-DDD	72-54-8	µg/kg	3.5	2	J
9	P,P'-DDE	72-55-9	µg/kg	3.5	0.6	J
10	P,P'-DDT	50-29-3	µg/kg	3.5	<3.5	U
11	DIELDRIN	60-57-1	µg/kg	3.5	<3.5	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.0	<2.0	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.5	<3.5	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	5.8	<5.8	U
15	ENDRIN	72-20-8	µg/kg	3.5	<3.5	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.5	<3.5	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.3	<2.3	U
18	HEPTACHLOR	76-44-8	µg/kg	2.0	<2.0	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.0	<2.0	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	59
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	61
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	95
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41229	Collected by:	Lisa B.
		Lab Sample ID:	04-1229-1	Received Date:	01/20/2004
Sample ID:	**0023-S4-545**	Sample Matrix	Soil	Moisture %:	5.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/22/04	Anal. Date:	01/23/04
Batch No:	04G1142	Prep. No:	1 of 1	Anal. Time:	14:44
Data File Name:	1229.001	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	35	<35	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	70	<70	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	35	<35	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	35	<35	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	35	<35	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	35	<35	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	35	<35	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	70
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	78
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41229	Collected by:	Lisa B.
		Lab Sample ID:	04-1229-2	Received Date:	01/20/2004
Sample ID:	**0023-S4-546**	Sample Matrix	Soil	Moisture %:	5.3
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/22/04	Anal. Date:	01/23/04
Batch No:	04G1142	Prep. No:	1 of 1	Anal. Time:	15:09
Data File Name:	1229.002	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	35	<35	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	70	<70	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	35	<35	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	35	<35	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	35	<35	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	35	<35	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	35	<35	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	73
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	80
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41229	Collected by:	Lisa B.
		Lab Sample ID:	04-1229-3	Received Date:	01/20/2004
Sample ID:	**0023-S4-547**	Sample Matrix	Soil	Moisture %:	14.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	01/22/04	Anal. Date:	01/23/04
Batch No:	04G1142	Prep. No:	1 of 1	Anal. Time:	15:34
Data File Name:	1229.003	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	µg/kg	38	<38	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	µg/kg	77	<77	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	µg/kg	38	<38	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	µg/kg	38	<38	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	µg/kg	38	<38	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	µg/kg	38	<38	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	µg/kg	38	10	J

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	62
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	65
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41229	Collected by:	Lisa B.
		Lab Sample ID:	04-1229-1	Received Date:	01/20/2004
Sample ID:	**0023-S4-545**	Sample Matrix	Soil	Moisture %:	5.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.3	0.95	J ~~J~~	P		04M1082M	01/22/04	01/22/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.32	5.0	J	P		04M1082M	01/22/04	01/22/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.1	27.1		P		04M1082M	01/22/04	01/22/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.21	0.45		P		04M1082M	01/22/04	01/22/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.21	0.021	U ~~J~~	P		04M1082M	01/22/04	01/22/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.53	2.9		P		04M1082M	01/22/04	01/22/04	1	6010B
COBALT	7440-48-4	mg/kg	0.53	4.7		P		04M1082M	01/22/04	01/22/04	1	6010B
COPPER	7440-50-8	mg/kg	0.53	11.4		P		04M1082M	01/22/04	01/22/04	1	6010B
LEAD	7439-92-1	mg/kg	0.32	6.6		P		04M1082M	01/22/04	01/22/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.21	0.010	J	CV		04M1074H	01/21/04	01/22/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.21	<0.21	U	P		04M1082M	01/22/04	01/22/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.32	4.7	U	P		04M1082M	01/22/04	01/22/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.42	0.29	U ~~J~~	P		04M1082M	01/22/04	01/22/04	1	6010B
SILVER	7440-22-4	mg/kg	0.53	<0.53	U	P		04M1082M	01/22/04	01/22/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.53	<0.53	U	P		04M1082M	01/22/04	01/22/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.53	20.3		P		04M1082M	01/22/04	01/22/04	1	6010B
ZINC	7440-66-6	mg/kg	0.53	20.6		P		04M1082M	01/22/04	01/22/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/10/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41229	Collected by:	Lisa B.
		Lab Sample ID:	04-1229-2	Received Date:	01/20/2004
Sample ID:	**0023-S4-546**	Sample Matrix	Soil	Moisture %:	5.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.3	0.58	J J	P		04M1082M	01/22/04	01/22/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.32	4.0	J	P		04M1082M	01/22/04	01/22/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.1	27.0		P		04M1082M	01/22/04	01/22/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.21	0.39		P		04M1082M	01/22/04	01/22/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.21	0.028	U J	P		04M1082M	01/22/04	01/22/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.53	2.9		P		04M1082M	01/22/04	01/22/04	1	6010B
COBALT	7440-48-4	mg/kg	0.53	3.8		P		04M1082M	01/22/04	01/22/04	1	6010B
COPPER	7440-50-8	mg/kg	0.53	9.8		P		04M1082M	01/22/04	01/22/04	1	6010B
LEAD	7439-92-1	mg/kg	0.32	5.4		P		04M1082M	01/22/04	01/22/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.21	0.010	J	CV		04M1074H	01/21/04	01/22/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.21	<0.21	U	P		04M1082M	01/22/04	01/22/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.32	4.7	U	P		04M1082M	01/22/04	01/22/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.42	0.23	U J	P		04M1082M	01/22/04	01/22/04	1	6010B
SILVER	7440-22-4	mg/kg	0.53	<0.53	U	P		04M1082M	01/22/04	01/22/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.53	<0.53	U	P		04M1082M	01/22/04	01/22/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.53	18.3		P		04M1082M	01/22/04	01/22/04	1	6010B
ZINC	7440-66-6	mg/kg	0.53	18.4		P		04M1082M	01/22/04	01/22/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

LLH 3/10/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/20/2004
Project ID:	IR Site 4 & 7	Service ID:	41229	Collected by:	Lisa B.
		Lab Sample ID:	04-1229-3	Received Date:	01/20/2004
Sample ID:	**0023-S4-547**	Sample Matrix	Soil	Moisture %:	14.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.8	1.4	J ~~J~~	P		04M1082M	01/22/04	01/22/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.35	13.7	J	P		04M1082M	01/22/04	01/22/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	189		P		04M1082M	01/22/04	01/22/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.23	<0.23	U	P		04M1082M	01/22/04	01/22/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.23	0.053	U ~~J~~	P		04M1082M	01/22/04	01/22/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.58	19.2		P		04M1082M	01/22/04	01/22/04	1	6010B
COBALT	7440-48-4	mg/kg	0.58	15.5		P		04M1082M	01/22/04	01/22/04	1	6010B
COPPER	7440-50-8	mg/kg	0.58	39.9		P		04M1082M	01/22/04	01/22/04	1	6010B
LEAD	7439-92-1	mg/kg	0.35	8.4		P		04M1082M	01/22/04	01/22/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.23	0.14	J	CV		04M1074H	01/21/04	01/22/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.23	<0.23	U	P		04M1082M	01/22/04	01/22/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.35	18.8		P		04M1082M	01/22/04	01/22/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.47	0.49	U	P		04M1082M	01/22/04	01/22/04	1	6010B
SILVER	7440-22-4	mg/kg	0.58	<0.58	U	P		04M1082M	01/22/04	01/22/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.58	<0.58	U	P		04M1082M	01/22/04	01/22/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.58	45.4		P		04M1082M	01/22/04	01/22/04	1	6010B
ZINC	7440-66-6	mg/kg	0.58	74.1		P		04M1082M	01/22/04	01/22/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

AH 3/10/04

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

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MAR 26 2004

DATA VALIDATION SUMMARY
REPORT

ORIGINAL

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Sites # 4 and 7, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1999; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994.
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Semivolatile Organics (SVOA), Polynuclear Aromatic Hydrocarbons (PAH), Pesticides, Polychlorinated Biphenyls (PCB), Total Metals
SDG NUMBER:	04-1229 (Level III and Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	SVOA	PAH	Pesticides
0023-S4-545[2]	04-1229-1	Soil	X	X	X
0023-S4-546[2]	04-1229-2	Soil	X	X	X
0023-S4-547[1]	04-1229-3	Soil	X	X	X
0023-S4-547MS	04-1229-3MS	Soil	X	X	X
0023-S4-547MSD	04-1229-3MSD	Soil	X	X	X

Client Sample #	Lab Sample #	Matrix	PCB	Total Metals
0023-S4-545[2]	04-1229-1	Soil	X	X
0023-S4-546[2]	04-1229-2	Soil	X	X
0023-S4-547[1]	04-1229-3	Soil	X	X
0023-S4-547MD	04-1229-3MD	Soil		X
0023-S4-547MS	04-1229-3MS	Soil	X	X
0023-S4-547MSD	04-1229-3MSD	Soil	X	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE,
MSD = MATRIX SPIKE DUPLICATE

Note 1: Sample was identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1229 Organics & Inorganics

SAMPLES: 0023-S4-545, 0023-S-546, 0023-S4-547

SEMIVOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) was 20.6% for 2,4-dinitrophenol in the standards run on 1/22/04 at 12:54 on instrument D, which exceeded the 15% QC limit. All results for 2,4-dinitrophenol in the SDG samples, which were non-detects, were flagged as estimated (UJ).

IV.) Blanks:

There were no detections in the blanks associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory. The Percent Recoveries (%R's) of pyrene exceeded the QC limits. Data qualification based on LCS Recovery was not required. No action was taken.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-547. All MS / MSD criteria were met. No action was required.

VIII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

IX.) Field Duplicates:

One set of field duplicate samples (0023-S4-545 / 0023-S4-546) was identified in this SDG. Relative Percent Differences (RPDs) were not calculable. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

POLYNUCLEAR AROMATIC HYDROCARBONS (PAH)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the method blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory. All LCS Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-547. All MS / MSD criteria were met. No action was required.

VIII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

IX.) Field Duplicates:

One set of field duplicate samples (0023-S4-545 / 0023-S4-546) was identified in this SDG. Relative Percent Differences (RPDs) were not calculable. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

PESTICIDES

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviations (%RSDs) were 27.3% for endosulfan sulfate and 44.6% for methoxychlor in the standards run on 11/21/03 on the secondary column, which exceeded the 20% QC limit. Since the exceedances were on the secondary column used for confirmation, no action was required.

Continuing Calibration:

All Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the associated method blanks. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this fraction of the SDG. All LCS Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 0023-S4-547. All MS / MSD criteria were met. No action was required.

VIII.) TCL Compound Identification:

All Compound Identification criteria were met. No action was required.

IX.) Field Duplicates:

One set of field duplicate samples (0023-S4-545 / 0023-S4-546) was identified in this SDG. Relative Percent Differences (RPDs) were not calculable. No action was required.

X.) Pesticide Cleanup Check:

Florisil Cartridge Check:

Florisil data was not provided. No action was required.

Gel Permeation Chromatography (GPC):

GPC data was not provided. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

POLYCHLORINATED BIPHENYLS (PCB)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the associated method and equipment blanks. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this SDG fraction. All criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All MS / MSD criteria were met using SDG sample 0023-S4-547. No action was required.

VIII.) TCL Compound Identification:

All Compound Identification criteria were met. No action was required.

IX.) Field Duplicates:

One set of field duplicate samples (0023-S4-545 / 0023-S4-546) was identified in this SDG. Relative Percent Differences (RPDs) were not calculable. No action was required.

X.) Pesticide Cleanup Check:

Florisil Cartridge Check:

Florisil data was not provided. No action was required.

Gel Permeation Chromatography (GPC):

GPC data was not provided. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

TOTAL METALS

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

The following analytes were detected in the continuing calibration blanks associated with this SDG:

Blank ID	Analyte	Detection	Action Level
CCB9	arsenic	3.02 ug/L	3.02 mg/kg
CCB12	barium	3.98 ug/l	3.98 mg/kg
CCB12	beryllium	0.38 ug/L	0.38 mg/kg
CCB12	cadmium	0.89 ug/L	0.89 mg/kg
CCB9	chromium	1.55 ug/L	1.55 mg/kg
CCB9	cobalt	2.17 ug/L	2.17 mg/kg
CCB9	copper	3.36 ug/L	3.36 mg/kg
CCB6	lead	2.48 ug/L	2.48 mg/kg
CCB12	molybdenum	2.42 ug/L	2.42 mg/kg
CCB12	nickel	5.56 ug/L	5.56 mg/kg
CCB1	selenium	3.47 ug/L	3.47 mg/kg
CCB8	silver	0.93 ug/L	0.93 mg/kg
CCB12	thallium	2.88 ug/L	2.88 mg/kg
CCB8	vanadium	2.53 ug/L	2.53 mg/kg
CCB9	zinc	10.46 ug/L	10.46 mg/kg

All positive results for these analytes in the SDG samples less than the action level were flagged as undetected (U).

The following negative result was reported in the continuing calibration blanks for this SDG:

Blank ID	Analyte	Result	Action Level
CCB11	antimony	-3.17 ug/L	3.17 mg/kg

All positive results for these analytes in the SDG samples less than the action level and all non-detect results were flagged as estimated (J) and (UJ).

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-547. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (0023-S4-545 / 0023-S4-546) was identified in this SDG. The Relative Percent Differences (RPDs) were:

Analyte	0023-S4-545	0023-S4-546	RPD
arsenic	5.0 mg/kg	4.0 mg/kg	22%
barium	27.1 mg/kg	27.0 mg/kg	0.4%
beryllium	0.45 mg/kg	0.39 mg/kg	14%
chromium	2.9 mg/kg	2.9 mg/kg	0%
cobalt	4.7 mg/kg	3.8 mg/kg	21%
copper	11.4 mg/kg	9.8 mg/kg	15%
lead	6.6 mg/kg	5.4 mg/kg	20%
vanadium	20.3 mg/kg	18.3 mg/kg	10%
zinc	20.6 mg/kg	18.4 mg/kg	11%

All RPDs were within the 60% QC limit for soil samples. No action was required.

IX.) Serial Dilution Analysis:

The Percent Differences (%D) for arsenic (12.7%) and iron (11.0%) in the Serial Dilution Analysis exceeded the 10% QC limit. Iron results were not reported on the Form I's. All positive results for arsenic in the SDG samples were flagged as estimated (J).

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05283

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4+7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Nicholas Wenberg	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

ANALYSES REQUIRED: EPA 6010B (Lead only)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1357

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-558	1/29/04	~~0728~~ 1257	1	X		S	24 hr	X	1257, 6"	14B N Sidewall	6"	–	REG
0023-S4-559	1/29/04	0733	1	X		S		X		14B E Sidewall	11"	–	REG
0023-S4-560	1/29/04	0736	1	X		S		X		14B S Sidewall	10"	–	REG
0023-S4-561	1/29/04	0739	1	X		S		X		14B W Sidewall	7"	–	REG
0023-S4-562	1/29/04	0740	1	X		S		X		14B Floor	24"	–	REG
0023-S4-563	1/29/04	0822	1	X		S		X		34B N Sidewall	9"	–	REG
0023-S4-564	1/29/04	0825	1	X		S		X		34B E Sidewall	7"	–	REG
0023-S4-565	1/29/04	0827	1	X		S		X		34B S Sidewall	1"	–	REG
0023-S4-566	1/29/04	0830	1	X		S		X		34B W Sidewall	10"	–	REG
0023-S4-567	1/29/04	0833	1	X	X	S		X		34B Floor	12"	–	REG
0023-S4-568	1/29/04	0834	1		X	S		X		34B Floor	12"	–	FD

RELINQUISHED BY (Signature): [signature]	DATE: 1/29/04	RECEIVED BY (Signature): [signature]
COMPANY: TTFWI	TIME: 16:10	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-0357

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05284

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4 & 7	PURCHASE ORDER NO.: 20221 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Nicholas M Wenberg	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010B (Lead only)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1357

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-569	1/29/04	0838	1	X		S	24 hr	X		37B N Sidewall	5"	–	REG
0023-S4-570	1/29/04	0842	1	X		S		X		37B E Sidewall	4"	–	REG
0023-S4-571	1/29/04	0844	1	X		S		X		37B S Sidewall	6"	–	REG
0023-S4-572	1/29/04	0846	1	X		S		X		37B W Sidewall	7"	–	REG
0023-S4-573	1/29/04	0851	1	X		S		X		37B Floor	12"	–	REG
0023-S4-574	1/29/04	0856	1	X		S		X		40B N Sidewall	1"	–	REG
0023-S4-575	1/29/04	~~0857~~ 1310	1	X		S		X	1310 4"	40B E Sidewall	4"	–	REG
0023-S4-576	1/29/04	0901	1	X		S		X		40B S Sidewall	6"	–	REG
0023-S4-577	1/29/04	~~0904~~ 1314	1	X		S		X	1314 3"	40B W Sidewall	3"	–	REG
0023-S4-578	1/29/04	0907	1	X		S		X		40B Floor	4"	–	REG
0023-S4-579	1/29/04	0908	1		X	S		X		40B Floor	4"	–	FD

RELINQUISHED BY (Signature): [signature]	DATE: 1/29/04	RECEIVED BY (Signature): [signature]
COMPANY: TTFWL	TIME: 1610	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-01357

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-1	Received Date:	01/29/2004
Sample ID:	**0023-S4-558**	Sample Matrix	Soil	Moisture %:	44.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.54	30.2J		P		04M1129L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-2	Received Date:	01/29/2004
Sample ID:	**0023-S4-559**	Sample Matrix	Soil	Moisture %:	45.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.55	17.4 J		P		04M1129L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-3	Received Date:	01/29/2004
Sample ID:	**0023-S4-560**	Sample Matrix	Soil	Moisture %:	32.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	49.3 J		P		04M1129L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-4	Received Date:	01/29/2004
Sample ID:	**0023-S4-561**	Sample Matrix	Soil	Moisture %:	25.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	9.5 J		P		04M1129L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-5	Received Date:	01/29/2004
Sample ID:	**0023-S4-562**	Sample Matrix	Soil	Moisture %:	43.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.53	12.8 J		P		04M1129L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-6	Received Date:	01/29/2004
Sample ID:	**0023-S4-563**	Sample Matrix	Soil	Moisture %:	33.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	43.2 J		P		04M1129L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-7	Received Date:	01/29/2004
Sample ID:	**0023-S4-564**	Sample Matrix	Soil	Moisture %:	22.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	7.7	1380 J		P		04M1129L	01/30/04	01/30/04	20	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-8	Received Date:	01/29/2004
Sample ID:	**0023-S4-565**	Sample Matrix	Soil	Moisture %:	14.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	208 J		P		04M1129L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

3-12-04

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-9	Received Date:	01/29/2004
Sample ID:	**0023-S4-566**	Sample Matrix	Soil	Moisture %:	30.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	17.9 J		P		04M1129L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-10	Received Date:	01/29/2004
Sample ID:	**0023-S4-567**	Sample Matrix	Soil	Moisture %:	31.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	130 J		P		04M1129L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

3-12-04

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-11	Received Date:	01/29/2004
Sample ID:	**0023-S4-568**	Sample Matrix	Soil	Moisture %:	29.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	20.4 J		P		04M1129L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-12	Received Date:	01/29/2004
Sample ID:	**0023-S4-569**	Sample Matrix	Soil	Moisture %:	48.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	8.8	1340 J		P		04M1129L	01/30/04	01/30/04	15	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

3/12-04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-13	Received Date:	01/29/2004
Sample ID:	**0023-S4-570**	Sample Matrix	Soil	Moisture %:	74.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	6.0	2970 J		P		04M1129L	01/30/04	01/30/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-14	Received Date:	01/29/2004
Sample ID:	**0023-S4-571**	Sample Matrix	Soil	Moisture %:	20.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	36.5 J		P		04M1129L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

3-12-04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-15	Received Date:	01/29/2004
Sample ID:	**0023-S4-572**	Sample Matrix	Soil	Moisture %:	21.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	5.8	840 J		P		04M1129L	01/30/04	01/30/04	15	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

3-12-04

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-16	Received Date:	01/29/2004
Sample ID:	**0023-S4-573**	Sample Matrix	Soil	Moisture %:	39.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.49	22.7 J		P		04M1129L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-17	Received Date:	01/29/2004
Sample ID:	**0023-S4-574**	Sample Matrix	Soil	Moisture %:	35.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.46	17.6 J		P		04M1129L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-18	Received Date:	01/29/2004
Sample ID:	**0023-S4-575**	Sample Matrix	Soil	Moisture %:	36.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.47	28.5 J		P		04M1129L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 [illegible]
3/10/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-19	Received Date:	01/29/2004
Sample ID:	**0023-S4-576**	Sample Matrix	Soil	Moisture %:	19.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	18.1	J	P		04M1130M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

3-12-04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-20	Received Date:	01/29/2004
Sample ID:	**0023-S4-577**	Sample Matrix	Soil	Moisture %:	39.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.50	24.1 J		P		04M1130M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

3-12-04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-21	Received Date:	01/29/2004
Sample ID:	**0023-S4-578**	Sample Matrix	Soil	Moisture %:	33.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	10.9 J		P		04M1130M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

3-12-04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41357	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1357-22	Received Date:	01/29/2004
Sample ID:	**0023-S4-579**	Sample Matrix	Soil	Moisture %:	35.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.47	8.4		P		04M1130M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

JH 3-12-04

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	41357
Project ID:	IR Site 4 & 7	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	04M1130M		
MS Filename:	-	Date Analyzed:	013004	Time Analyzed:	18:14
MSD Filename:	-	Date Analyzed:	013004	Time Analyzed:	18:18
MS Sample No:	**NT288**	Sample Lab ID:	04-1371-1	Moisture, %	20.1

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	188	3.8	190	99	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	188	190	99	0	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	41357
Project ID:	IR Site 4 & 7	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	04M1129L		
MS Filename:	-	Date Analyzed:	013004	Time Analyzed:	17:17
MSD Filename:	-	Date Analyzed:	013004	Time Analyzed:	17:20
MS Sample No:	**0023-S4-599**	Sample Lab ID:	04-1358-20	Moisture, %	21.0

Spiked Components	Unit	Spike Added	Concentration Unspiked	MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	190	7.9	201	102	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	REC
LEAD	mg/kg	190	202	102	0	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

_____

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

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DATA VALIDATION SUMMARY
REPORT

ORIGINAL

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Sites # 4 and 7, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	04-1357 (Level III and Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-558	04-01357-1	Soil	X
0023-S4-559	04-01357-2	Soil	X
0023-S4-560	04-01357-3	Soil	X
0023-S4-561	04-01357-4	Soil	X
0023-S4-562	04-01357-5	Soil	X
0023-S4-563	04-01357-6	Soil	X
0023-S4-564	04-01357-7	Soil	X
0023-S4-565	04-01357-8	Soil	X
0023-S4-566	04-01357-9	Soil	X
0023-S4-567[2]	04-01357-10	Soil	X
0023-S4-568[1,2]	04-01357-11	Soil	X
0023-S4-569	04-01357-12	Soil	X
0023-S4-570	04-01357-13	Soil	X
0023-S4-571	04-01357-14	Soil	X
0023-S4-572	04-01357-15	Soil	X
0023-S4-5 73	04-01357-16	Soil	X
0023-S4-574	04-01357-17	Soil	X
0023-S4-575	04-01357-18	Soil	X
0023-S4-576	04-01357-19	Soil	X
0023-S4-577	04-01357-20	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-578[2]	04-01357-21	Soil	X
0023-S4-579[1,2]	04-01357-22	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Timothy H. Morris, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1357 Inorganics

SAMPLES: 0023-S4-558, 0023-S4-559, 0023-S4-560, 0023-S4-561, 0023-S4-562, 0023-S4-563, 0023-S4-564, 0023-S4-565, 0023-S4-566, 0023-S4-567, 0023-S4-568, 0023-S4-569, 0023-S4-570, 0023-S4-571, 0023-S4-572, 0023-S4-573, 0023-S4-574, 0023-S4-575, 0023-S4-576, 0023-S4-577, 0023-S4-578, 0023-S4-579

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

All Blank criteria were met. No action was taken.

IV.) Interference Check:

The following analyte had a negative result in the ICS soultion A, for instrument ICP-M, with an absolute value greater than the IDL:

lead	-0.05 mg/kg

There were no associated non-detect results in this SDG. No action was necessary.

The following interference response was observed in the ICS Solution A with magnitude greater than the IDL for instrument ICP-L:

lead	0.35 mg/kg

This analyte should not be present. Aluminum, calcium, iron and/or magnesium was detected in samples 0023-S4-558, 0023-S4-559, 0023-S4-561, 0023-S4-562, 0023-S4-566, 023-S4-568, 023-S4-573, 0023-S4-574 and 0023-S4-575 at a concentration comparable to the ICS standard. Results for lead in these samples were flagged as estimated (J). All remaining samples had reported results greater than 100X the interference level. In the professional judgement of the validator, the level of interference was not considered significant, so no further action was taken.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All MS / MSD criteria were met, therefore no action was necessary. One MS / MSD was associated from SDG 04-1358 as no specific MS / MSD was requested in this SDG.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required. One MD was associated from SDG 04-1358 as no specific MD was requested in this SDG.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-567 / 0023-S4-568 and 0023-S4-578 / 0023-S4-579) were identified in this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-567 / 0023-S4-568	146%
0023-S4-578 / 0023-S4-579	26%

One RPD was above the 60% QC limit for soil samples. Data qualification based on field duplicate RPD was not required; no action was taken.

IX.) Serial Dilution Analysis:

The Percent Difference (%D) for lead was 14% in the batch Serial Dilution Analysis (associated from SDG 04-1358), which exceeded the 10% QC limit. All positive results for lead in the SDG samples were flagged as estimated (J).

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05285

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4 & 7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Nicholas Weinberger	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1358

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
										44A N Sidewall			
0023-S1-580	1/29/04	0954	3x	X		S	24 hr	X	MS/MSD	~~MS/MSD~~	0	–	RS
0023-S1-581	1/29/04	0956	1	X		S		X		44A S Sidewall	8	–	RS
0023-S1-582	1/29/04	1001	1	X		S		X		44A W Sidewall	6	–	RS
0023-S1-583	1/29/04	1003	1	X		S		X		44A Floor	12"	–	RS
0023-S1-584	1/29/04	1005	1	X		S		X		45A N Sidewall	0"	–	RS
0023-S1-585	1/29/04	1006	1	X		S		X		45A E Sidewall	9"	–	RS
0023-S1-586	1/29/04	1010	1	X		S		X		45A S Sidewall	9"	–	RS
0023-S1-587	1/29/04	1012	1	X		S		X		45A Floor	12"	–	RS
0023-S1-588	1/29/04	1016	1	X		S		X		46B N Sidewall	5"	–	RS
0023-S1-589	1/29/04	1018	1	X		S		X		46B E Sidewall	9"	–	RS
0023-S1-590	1/29/04	1019	1		X	S		X		46B E Sidewall	9"	–	FD

RELINQUISHED BY (Signature): [signature]	DATE: 1/29/04	RECEIVED BY (Signature): [signature]
COMPANY: TTFWI	TIME: 1610	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-D1358

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05286

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4 & 7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.0230
SAMPLER NAME: Nicholas Weinberger	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1358

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 418.1 (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 418.1 (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S1-591	1/29/04	1020	1	X		S		X		46B S Sidewall	2"	-	Reg
0023-S1-592	1/29/04	1023	1	X		S		X		46B W Sidewall	2"	-	Reg
0023-S1-593	1/29/04	1025	1	X		S		X		46B Floor	12"	-	Reg
0023-S1-594	1/29/04	1029	1	X		S		X		48B N Sidewall	2"	-	Reg
0023-S1-595	1/29/04	1031	1	X		S		X		48B E Sidewall	6"	-	Reg
0023-S1-596	1/29/04	1033	1	X		S		X		48B S Sidewall	2"	-	Reg
0023-S1-597	1/29/04	1035	1	X		S		X		48B W Sidewall	12"	-	Reg
0023-S1-598	1/29/04	1039	1	X		S		X		48B Floor	12"	-	Reg
0023-S1-599	1/29/04	1115	3	X		S		X	MS/MSD	53A N Sidewall	11"	-	Reg
0023-S1-600	1/29/04	1119	1	X		S		X		53A E. Sidewall	10"	-	Reg
0023-S1-601	1/29/04	1120	1		X	S		X		53A E. Sidewall	10"	-	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	1/29/04	[signature]
COMPANY: TTFWI	TIME: 1610	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-01358

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-1	Received Date:	01/29/2004
Sample ID:	**0023-S4-580**	Sample Matrix	Soil	Moisture %:	20.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	13.7 J		P		04M1128L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 NM
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3/10/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-2	Received Date:	01/29/2004
Sample ID:	**0023-S4-581**	Sample Matrix	Soil	Moisture %:	22.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	17.1 J		P		04M1128L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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3/10/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-3	Received Date:	01/29/2004
Sample ID:	**0023-S4-582**	Sample Matrix	Soil	Moisture %:	43.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.53	83.1 J		P		04M1128L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

3-12-04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-4	Received Date:	01/29/2004
Sample ID:	**0023-S4-583**	Sample Matrix	Soil	Moisture %:	22.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	11.4 J		P		04M1128L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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3/10/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-5	Received Date:	01/29/2004
Sample ID:	**0023-S4-584**	Sample Matrix	Soil	Moisture %:	30.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	41.3 J		P		04M1128L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

3-12-04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-6	Received Date:	01/29/2004
Sample ID:	**0023-S4-585**	Sample Matrix	Soil	Moisture %:	37.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	9.6	1720 J		P		04M1128L	01/30/04	01/30/04	20	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

3-12-04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-7	Received Date:	01/29/2004
Sample ID:	**0023-S4-586**	Sample Matrix	Soil	Moisture %:	25.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	26.3 J		P		04M1128L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-9	Received Date:	01/29/2004
Sample ID:	**0023-S4-588**	Sample Matrix	Soil	Moisture %:	26.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	9.5 J		P		04M1128L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-10	Received Date:	01/29/2004
Sample ID:	**0023-S4-589**	Sample Matrix	Soil	Moisture %:	29.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	8.6	2030	J	P		04M1128L	01/30/04	01/30/04	20	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-11	Received Date:	01/29/2004
Sample ID:	**0023-S4-590**	Sample Matrix	Soil	Moisture %:	32.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	4.4	1100 J		P		04M1128L	01/30/04	01/30/04	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

3-12-04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-12	Received Date:	01/29/2004
Sample ID:	**0023-S4-591**	Sample Matrix	Soil	Moisture %:	10.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	5.1 J		P		04M1128L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-13	Received Date:	01/29/2004
Sample ID:	**0023-S4-592**	Sample Matrix	Soil	Moisture %:	30.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	24.4 J		P		04M1128L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-14	Received Date:	01/29/2004
Sample ID:	**0023-S4-593**	Sample Matrix	Soil	Moisture %:	34.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	10.8 J		P		04M1128L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-15	Received Date:	01/29/2004
Sample ID:	**0023-S4-594**	Sample Matrix	Soil	Moisture %:	38.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.49	95.1 J		P		04M1128L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-16	Received Date:	01/29/2004
Sample ID:	**0023-S4-595**	Sample Matrix	Soil	Moisture %:	12.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.69	287 J		P		04M1128L	01/30/04	01/30/04	2	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-17	Received Date:	01/29/2004
Sample ID:	**0023-S4-596**	Sample Matrix	Soil	Moisture %:	18.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	22.2 J		P		04M1128L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-18	Received Date:	01/29/2004
Sample ID:	**0023-S4-597**	Sample Matrix	Soil	Moisture %:	35.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	9.3	1560 J		P		04M1128L	01/30/04	01/30/04	20	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-19	Received Date:	01/29/2004
Sample ID:	**0023-S4-598**	Sample Matrix	Soil	Moisture %:	31.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.87	270 J		P		04M1128L	01/30/04	01/30/04	2	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-20	Received Date:	01/29/2004
Sample ID:	**0023-S4-599**	Sample Matrix	Soil	Moisture %:	21.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	7.9 J		P		04M1129L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-21	Received Date:	01/29/2004
Sample ID:	**0023-S4-600**	Sample Matrix	Soil	Moisture %:	25.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	20.7 J		P		04M1128L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41358	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1358-22	Received Date:	01/29/2004
Sample ID:	**0023-S4-601**	Sample Matrix	Soil	Moisture %:	24.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	18.2 J		P		04M1129L	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	41358
Project ID:	IR Site 4 & 7	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	04M1129L		
MS Filename:	-	Date Analyzed:	013004	Time Analyzed:	17:17
MSD Filename:	-	Date Analyzed:	013004	Time Analyzed:	17:20
MS Sample No:	**0023-S4-599**	Sample Lab ID:	04-1358-20	Moisture, %-	21.0

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	190	7.9	201 J	102	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	190	202	102 J	0	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

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FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	41358
Project ID:	IR Site 4 & 7	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	04M1128L		
MS Filename:	-	Date Analyzed:	013004	Time Analyzed:	15:37
MSD Filename:	-	Date Analyzed:	013004	Time Analyzed:	15:39
MS Sample No:	**0023-S4-580**	Sample Lab ID:	04-1358-1	Moisture, %	20.1

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	188	13.7	197 J	98	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	188	197 J	98	0	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

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VALIDATA

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(770) 232-5082 (Fax)
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DATA VALIDATION SUMMARY REPORT

ORIGINAL

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Sites # 4 and 7, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	04-1358 (Level III and Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-580	04-01358-1	Soil	X
0023-S4-580MD	04-01358-1MD	Soil	X
0023-S4-580MS	04-01358-1MS	Soil	X
0023-S4-580MSD	04-01358-1MSD	Soil	X
0023-S4-581	04-01358-2	Soil	X
0023-S4-582	04-01358-3	Soil	X
0023-S4-583	04-01358-4	Soil	X
0023-S4-584	04-01358-5	Soil	X
0023-S4-585	04-01358-6	Soil	X
0023-S4-586	04-01358-7	Soil	X
0023-S4-587	04-01358-8	Soil	X
0023-S4-588	04-01358-9	Soil	X
0023-S4-589[2]	04-01358-10	Soil	X
0023-S4-590[1,2]	04-01358-11	Soil	X
0023-S4-591	04-01358-12	Soil	X
0023-S4-592	04-01358-13	Soil	X
0023-S4-593	04-01358-14	Soil	X
0023-S4-594	04-01358-15	Soil	X
0023-S4-595	04-01358-16	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-596	04-01358-17	Soil	X
0023-S4-597	04-01358-18	Soil	X
0023-S4-598	04-01358-19	Soil	X
0023-S4-599	04-01358-20	Soil	X
0023-S4-599MD	04-01358-20MD	Soil	X
0023-S4-599MS	04-01358-20MS	Soil	X
0023-S4-599MSD	04-01358-20MSD	Soil	X
0023-S4-600[2]	04-01358-21	Soil	X
0023-S4-601[1,2]	04-01358-22	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE,
MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Timothy H. Morris, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1358 Inorganics

SAMPLES: 0023-S4-580, 0023-S4-581, 0023-S4-582, 0023-S4-583, 0023-S4-584, 0023-S4-585, 0023-S4-586, 0023-S4-587, 0023-S4-588, 0023-S4-589, 0023-S4-590, 0023-S4-591, 0023-S4-592, 0023-S4-593, 0023-S4-594, 0023-S4-595, 0023-S4-596, 0023-S4-597, 0023-S4-598, 0023-S4-599, 0023-S4-600, 0023-S4-601

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with qualification. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was detected at 0.11 mg/kg in the preparation blank for preparation batch 04M1128. All positive results for lead in the SDG were greater than the action level of 5X the blank amount (0.55 mg/kg) so no action was necessary.

Lead was detected at 2.95 ug/L in Continuing Calibration Blank CCB5 and at -2.93 ug/L in Continuing Calibration Blank CCB1. All positive results for lead in the SDG samples were greater than the action level of 5X the blank amounts (0.74 mg/kg) and (0.73 mg/kg) so no action was required.

IV.) Interference Check:

The following result was reported in the ICS Solution A with magnitude greater than the IDL:

lead	0.35 mg/kg

This analyte should not be present. Aluminum, calcium, iron and/or magnesium was detected in samples 0023-S4-580, 0023-S4-581, 0023-S4-583, 0023-S4-586, 0023-S4-587, 0023-S4-588, 0023-S4-591, 0023-S4-592, 0023-S4-593, 0023-S4-596, 0023-S4-599, 0023-S4-600, and 0023-S4-601 at a concentration comparable to the ICS standard. Results for lead in these samples were flagged as estimated (J). All remaining samples had reported results greater than 100X the interference level. In the professional judgement of the validator, the level of interference was not considered significant, so no further action was taken.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-700. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-589 / 0023-S4-590 and 0023-S4-600 / 0023-S4-601) were identified in this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-589 / 0023-S4-590	59%
0023-S4-600 / 0023-S4-601	18%

Both RPDs were within the 60% QC limit for soil samples. No action was required.

IX.) Serial Dilution Analysis:

The serial dilution for sample 0023-S4-599, preparation batch 04M1128L was 14.4%, which exceeds the 10% QC limit. All positve results for this SDG were flagged estimated (J).

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05287

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4 & 7	PURCHASE ORDER NO.: 20701 Task 25
PROJECT LOCATION: NAWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Nicholas Weinberger	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1359

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-602	1/29/04	1124	1	X		S	24 hr	X		53A S Sidewall	4'	–	
0023-S4-603	1/29/04	1127	1	X		S		X		53A W Sidewall	4'	–	
0023-S4-604	1/29/04	1131	1	X		S		X		53A Floor	24"	–	
0023-S4-605	1/29/04	1134	1	X		S		X		54B N Sidewall	4'	–	
0023-S4-606	1/29/04	1136	1	X		S		X		54B E Sidewall	10"	–	
0023-S4-607	1/29/04	1137	1	X		S		X		54B S Sidewall	10"	–	
0023-S4-608	1/29/04	1139	1	X		S		X		54B W Sidewall	0"	–	
0023-S4-609	1/29/04	1142	1	X		S		X		54B Floor	12"	–	
0023-S4-610	1/29/04	1342	1	X		S		X		58B N Sidewall	11"	–	
0023-S4-611	1/29/04	1343	1	X		S		X		58B S Sidewall	10"	–	
0023-S4-612	1/29/04	1344	1		X	S	↓	X		58B S Sidewall	10"	–	FD

RELINQUISHED BY (Signature): [signature]	DATE: 1-30-04	RECEIVED BY (Signature): [signature]
COMPANY: FWEC	TIME: 1600	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-01359

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05288

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRSite 4 #7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Nick Weinberger	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1359

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-613	1/29/04	1347	1	X		S	24 hr	X		58B W Sidewall	1"	-	REG
0023-S4-614	1/29/04	1349	1	X		S		X		58B Floor	12"	-	REG
0023-S4-615	1/29/04	1355	1	X		S		X		59B N Sidewall	2"	-	REG
0023-S4-616	1/29/04	1357	1	X		S		X		59B S Sidewall	8"	-	REG
0023-S4-617	1/29/04	1358	1	X		S		X		59B Floor	12"	-	REG
0023-S4-618	1/29/04	1404	1	X		S		X		60B N Sidewall	3"	-	REG
0023-S4-619	1/29/04	1407	1	X		S		X		60B E Sidewall	4"	-	REG
0023-S4-620	1/29/04	1409	3	X		S		X	MS/MSD	60B S Sidewall	3"	-	REG
0023-S4-621	1/29/04	1411	1	X		S		X		60B Floor	12"	-	REG
0023-S4-622	1/29/04	1425	1	X		S		X		71B N Sidewall	7"	-	REG
0023-S4-623	1/29/04	1426	1		X	S		X		71B N Sidewall	7"	-	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	1/29/04	[signature]
COMPANY: TEW	TIME: 1610	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-01359

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	
		Lab Sample ID:	04M1127-MB-01	Received Date:	01/30/2004
Sample ID:	**04M1127-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.3	<0.3	U	P		04M1127M	01/30/04	01/30/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	
		Lab Sample ID:	04M1126-MB-01	Received Date:	01/30/2004
Sample ID:	**04M1126-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.3	<0.3	U	P		04M1126M	01/30/04	01/30/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-1	Received Date:	01/29/2004
Sample ID:	**0023-S4-602**	Sample Matrix	Soil	Moisture %:	29.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	17.0		P		04M1127M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-2	Received Date:	01/29/2004
Sample ID:	**0023-S4-603**	Sample Matrix	Soil	Moisture %:	22.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	19.9		P		04M1127M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-3	Received Date:	01/29/2004
Sample ID:	**0023-S4-604**	Sample Matrix	Soil	Moisture %:	28.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	15.9		P		04M1127M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-4	Received Date:	01/29/2004
Sample ID:	**0023-S4-605**	Sample Matrix	Soil	Moisture %:	36.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.47	110		P		04M1127M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-5	Received Date:	01/29/2004
Sample ID:	**0023-S4-606**	Sample Matrix	Soil	Moisture %:	11.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.7	2140		P		04M1127M	01/30/04	01/30/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-6	Received Date:	01/29/2004
Sample ID:	**0023-S4-607**	Sample Matrix	Soil	Moisture %:	10.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.7	747		P		04M1127M	01/30/04	01/30/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-7	Received Date:	01/29/2004
Sample ID:	**0023-S4-608**	Sample Matrix	Soil	Moisture %:	18.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	383		P		04M1127M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-8	Received Date:	01/29/2004
Sample ID:	**0023-S4-609**	Sample Matrix	Soil	Moisture %:	33.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	23.8		P		04M1127M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-9	Received Date:	01/29/2004
Sample ID:	**0023-S4-610**	Sample Matrix	Soil	Moisture %:	31.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	328		P		04M1127M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-10	Received Date:	01/29/2004
Sample ID:	**0023-S4-611**	Sample Matrix	Soil	Moisture %:	6.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	49.9		P		04M1127M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-11	Received Date:	01/29/2004
Sample ID:	**0023-S4-612**	Sample Matrix	Soil	Moisture %:	6.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	73.1		P		04M1127M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-12	Received Date:	01/29/2004
Sample ID:	**0023-S4-613**	Sample Matrix	Soil	Moisture %:	28.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	358		P		04M1127M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-13	Received Date:	01/29/2004
Sample ID:	**0023-S4-614**	Sample Matrix	Soil	Moisture %:	21.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.9	1830		P		04M1127M	01/30/04	01/30/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-14	Received Date:	01/29/2004
Sample ID:	**0023-S4-615**	Sample Matrix	Soil	Moisture %:	35.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	2.3	966		P		04M1127M	01/30/04	01/30/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-15	Received Date:	01/29/2004
Sample ID:	**0023-S4-616**	Sample Matrix	Soil	Moisture %:	13.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	50.9		P		04M1127M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-16	Received Date:	01/29/2004
Sample ID:	**0023-S4-617**	Sample Matrix	Soil	Moisture %:	38.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.49	306		P		04M1127M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-17	Received Date:	01/29/2004
Sample ID:	**0023-S4-618**	Sample Matrix	Soil	Moisture %:	30.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	88.8		P		04M1127M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-18	Received Date:	01/29/2004
Sample ID:	**0023-S4-619**	Sample Matrix	Soil	Moisture %:	15.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	31.7		P		04M1127M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-19	Received Date:	01/29/2004
Sample ID:	**0023-S4-620**	Sample Matrix	Soil	Moisture %:	14.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	47.0		P		04M1127M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-20	Received Date:	01/29/2004
Sample ID:	**0023-S4-621**	Sample Matrix	Soil	Moisture %:	20.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	12.6		P		04M1127M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-21	Received Date:	01/29/2004
Sample ID:	**0023-S4-622**	Sample Matrix	Soil	Moisture %:	16.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	24.9		P		04M1126M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41359	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1359-22	Received Date:	01/29/2004
Sample ID:	**0023-S4-623**	Sample Matrix	Soil	Moisture %:	14.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	116		P		04M1126M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	41359
Project ID:	IR Site 4 & 7	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	04M1126M		
MS Filename:	-	Date Analyzed:	013004	Time Analyzed:	14:18
MSD Filename:	-	Date Analyzed:	013004	Time Analyzed:	14:21
MS Sample No:	**14/22-S-012**	Sample Lab ID:	04-1335-1	Moisture, %–	8.1

Spiked Components	Unit	Spike Added	Concentration Unspiked	MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	163	3.9	174	104	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	REC
LEAD	mg/kg	163	172	103	1	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	41359
Project ID:	IR Site 4 & 7	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	04M1127M		
MS Filename:	-	Date Analyzed:	013004	Time Analyzed:	16:01
MSD Filename:	-	Date Analyzed:	013004	Time Analyzed:	16:03
MS Sample No:	**0023-S4-620**	Sample Lab ID:	04-1359-19	Moisture, %	14.9

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	176	47.0	240	110	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	176	249	115	4	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

RECEIVED
MAR 26 2004

DATA VALIDATION SUMMARY
REPORT

ORIGINAL

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Sites # 4 and 7, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	04-1359 (Level III and Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-602	04-01359-1	Soil	X
0023-S4-603	04-01359-2	Soil	X
0023-S4-604	04-01359-3	Soil	X
0023-S4-605	04-01359-4	Soil	X
0023-S4-606	04-01359-5	Soil	X
0023-S4-607	04-01359-6	Soil	X
0023-S4-608	04-01359-7	Soil	X
0023-S4-609	04-01359-8	Soil	X
0023-S4-610	04-01359-9	Soil	X
0023-S4-611[2]	04-01359-10	Soil	X
0023-S4-612[1,2]	04-01359-11	Soil	X
0023-S4-613	04-01359-12	Soil	X
0023-S4-614	04-01359-13	Soil	X
0023-S4-615	04-01359-14	Soil	X
0023-S4-616	04-01359-15	Soil	X
0023-S4-617	04-01359-16	Soil	X
0023-S4-618	04-01359-17	Soil	X
0023-S4-619	04-01359-18	Soil	X
0023-S4-620	04-01359-19	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-620MD	04-01359-19MD	Soil	X
0023-S4-620MS	04-01359-19MS	Soil	X
0023-S4-620MSD	04-01359-19MSD	Soil	X
0023-S4-621	04-01359-21	Soil	X
0023-S4-622[2]	04-01359-22	Soil	X
0023-S4-623[1,2]	04-01359-23	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Timothy H. Morris, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1359 Inorganics

SAMPLES: 0023-S4-602, 0023-S4-603, 0023-S4-604, 0023-S4-605, 0023-S4-606, 0023-S4-607, 0023-S4-608, 0023-S4-609, 0023-S4-610, 0023-S4-611, 0023-S4-612, 0023-S4-613, 0023-S4-614, 0023-S4-615, 0023-S4-616, 0023-S4-617, 0023-S4-618, 0023-S4-619, 0023-S4-620, 0023-S4-621, 0023-S4-622, 0023-S4-623

TOTAL LEAD

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

All Blank criteria were met. No action was taken

IV.) Interference Check:

The ICS Recovery criterion was met. No action was required.

The following analyte had a negative response in the ICS soultion A with absolute value greater than the IDL:

lead	-0.05 mg/kg

There were no non-detect results within this SDG. No action was necessary.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All Matrix Spike / Matrix Spike Duplicate criteria were met, no action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-611 / 0023-S4-612 and 0023-S4-622 / 0023-S4-623) were identified in this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-611 / 0023-S4-612	38%
0023-S4-622 / 0023-S4-623	129%

The second RPD was above the 60% QC limit for soil samples. Data qualification was not required based on field duplicate results, so no action was taken

IX.) Serial Dilution Analysis:

All serial dilution criteria were met for this SDG, no action was required.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05289

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4 #7	PURCHASE ORDER NO.: 80721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach	PROJECT NO.: 1990.023D
SAMPLER NAME: Nicholas Weinberger	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010B (Lead only)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1360

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-624	1/29/04	1429	1	X		S	24 hr	X		71B E Sidewall	1"	–	REG
0023-S4-625	1/29/04	1432	1	X		S		X		71B S Sidewall	6"	–	REG
0023-S4-626	1/29/04	1434	1	X		S		X		71B W Sidewall	2"	–	REG
0023-S4-627	1/29/04	1436	1	X		S		X		71B Floor	12"	–	REG
0023-S4-628	1/29/04	1450	1	X		S		X		78B N Sidewall	8"	–	REG
0023-S4-629	1/29/04	1452	1	X		S		X		78B E Sidewall	11"	–	REG
0023-S4-630	1/29/04	1455	1	X		S		X		78B S Sidewall	7"	–	REG
0023-S4-631	1/29/04	1457	1	X		S		X		78B W Sidewall	1"	–	REG
0023-S4-632	1/29/04	1459	1	X		S		X		78B Floor	12"	–	REG
0023-S4-633	1/29/04	1500	1	X		S		X		78B Floor	12"	–	REG
0023-S4-634			1		X	S		X				–	FD

RELINQUISHED BY (Signature): [signature]	DATE: 1/29/04	RECEIVED BY (Signature): S. [signature]	LABORATORY INSTRUCTIONS/COMMENTS: N/A
COMPANY: TTFW	TIME: 1610	COMPANY: APCL	
RELINQUISHED BY (Signature):	DATE:	RECEIVED BY (Signature):	COMPOSITE DESCRIPTION: N/A
COMPANY:	TIME:	COMPANY:	
RELINQUISHED BY (Signature):	DATE:	RECEIVED BY (Signature):	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
COMPANY:	TIME:	COMPANY:	TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-01360

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41360	Collected by:	
		Lab Sample ID:	04M1126-MB-01	Received Date:	01/30/2004
Sample ID:	**04M1126-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.3	<0.3	U	P		04M1126M	01/30/04	01/30/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41360	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1360-1	Received Date:	01/29/2004
Sample ID:	**0023-S4-624**	Sample Matrix	Soil	Moisture %:	9.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	562		P		04M1126M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41360	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1360-2	Received Date:	01/29/2004
Sample ID:	**0023-S4-625**	Sample Matrix	Soil	Moisture %:	13.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	6.0		P		04M1126M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41360	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1360-3	Received Date:	01/29/2004
Sample ID:	**0023-S4-626**	Sample Matrix	Soil	Moisture %:	16.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	10.1		P		04M1126M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41360	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1360-4	Received Date:	01/29/2004
Sample ID:	**0023-S4-627**	Sample Matrix	Soil	Moisture %:	17.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	9.2		P		04M1126M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41360	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1360-5	Received Date:	01/29/2004
Sample ID:	**0023-S4-628**	Sample Matrix	Soil	Moisture %:	28.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	2.1	1730		P		04M1126M	01/30/04	01/30/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41360	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1360-6	Received Date:	01/29/2004
Sample ID:	**0023-S4-629**	Sample Matrix	Soil	Moisture %:	17.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	87.9		P		04M1126M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41360	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1360-7	Received Date:	01/29/2004
Sample ID:	**0023-S4-630**	Sample Matrix	Soil	Moisture %:	12.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	23.6		P		04M1126M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41360	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1360-8	Received Date:	01/29/2004
Sample ID:	**0023-S4-631**	Sample Matrix	Soil	Moisture %:	25.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	2.0	1230		P		04M1126M	01/30/04	01/30/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41360	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1360-9	Received Date:	01/29/2004
Sample ID:	**0023-S4-632**	Sample Matrix	Soil	Moisture %:	16.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	7.7		P		04M1126M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/29/2004
Project ID:	IR Site 4 & 7	Service ID:	41360	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1360-10	Received Date:	01/29/2004
Sample ID:	**0023-S4-633**	Sample Matrix	Soil	Moisture %:	14.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	4.9		P		04M1126M	01/30/04	01/30/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	41360
Project ID:	IR Site 4 & 7	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	04M1126M		
MS Filename:	-	Date Analyzed:	013004	Time Analyzed:	14:18
MSD Filename:	-	Date Analyzed:	013004	Time Analyzed:	14:21
MS Sample No:	**14/22-S-012**	Sample Lab ID:	04-1335-1	Moisture, %	8.1

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	163	3.9	174	104	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	163	172	103	1	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

VALIDATA
Chemical Services, Inc.
4070 Balleycastle Lane, Duluth, GA 30097
(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

RECEIVED
MAR 26 2004

DATA VALIDATION SUMMARY REPORT

ORIGINAL

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Sites # 4 and 7, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVEL:	EPA Level III
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	04-1360 (Level III)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-624	04-01360-1	Soil	X
0023-S4-625	04-01360-2	Soil	X
0023-S4-626	04-01360-3	Soil	X
0023-S4-627	04-01360-4	Soil	X
0023-S4-628	04-01360-5	Soil	X
0023-S4-629	04-01360-6	Soil	X
0023-S4-630	04-01360-7	Soil	X
0023-S4-631	04-01360-8	Soil	X
0023-S4-632[1]	04-01360-9	Soil	X
0023-S4-633[1]	04-01360-10	Soil	X

Note 1: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Timothy H. Morris, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1360 Inorganics

SAMPLES: 0023-S4-624, 0023-S4-625, 0023-S4-626, 0023-S4-627, 0023-S4-628, 0023-S4-629, 0023-S4-630, 0023-S4-631, 0023-S4-632, 0023-S4-633

TOTAL LEAD

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

All Blank criteria were met. No action was taken.

IV.) Interference Check:

The ICS Recovery criterion was met. No action was required.

The following analyte had a negative response in the ICS soultion A with absolute value greater than the IDL:

lead	-0.05 mg/kg

There were no non-detect results within this SDG. No action was necessary.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

The sample used for this analysis was not the client's sample, therefore the matrix was not associable with this SDG. No action taken.

VII.) Matrix Duplicate (MD):

The sample used for this analysis was not the client's sample, therefore the matrix was not associable with this SDG. No action taken.

VIII.) Field Duplicates:

One set of field duplicate samples (0023-S4-632 / 0023-S4-633) was identified in this SDG. The Relative Percent Difference (RPD) was:

Duplicate Samples	RPD
0023-S4-632 / 0023-S4-633	44%

The RPD was within the 60% QC limit for soil samples. No action was required.

IX.) Serial Dilution Analysis:

The sample used for this analysis was not the client's sample, therefore the matrix was not associable with this SDG. No action taken.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05292

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4 & 7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: MWWFNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Nicholas Weinberger	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1385

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 8010B (lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 8010B (lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-658	1/30/04	0926	1	X		S	24 hr	X		88B S Sidewall	4"	–	Reg
0023-S4-659	1/30/04	0929	1	X		S	24 hr	X		88B W Sidewall	1"	–	Reg
0023-S4-660	1/30/04	0930	1	X		S	24 hr	X		88B Floor	12"	–	Reg
0023-S4-661	1/30/04	0933	1	X		S	24 hr	X		89B N Sidewall	10"	–	Reg
0023-S4-662	1/30/04	0935	1	X		S	24 hr	X		89B S Sidewall	5"	–	Reg
0023-S4-663	1/30/04	0938	1	X		S	24 hr	X		89B Floor	10"	–	Reg
0023-S4-664	1/30/04	0942	1	X		S	24 hr	X		90B N Sidewall	0"	–	Reg
0023-S4-665	1/30/04	0944	1	X		S	24 hr	X		90B E Sidewall	2"	–	Reg
0023-S4-666	1/30/04	0946	1	X		S	24 hr	X		90B S Sidewall	5"	–	Reg
0023-S4-667	1/30/04	0949	1	X		S	24 hr	X		90B W Sidewall	7"	–	Reg
0023-S4-668	1/30/04	0950	1		X	S	24 hr	X		90B W Sidewall	7"	–	FD

RELINQUISHED BY (Signature): [signature]	DATE: 1/30/04	RECEIVED BY (Signature): [signature]	
COMPANY: TFWI	TIME: 1415	COMPANY: TFWI	
RELINQUISHED BY (Signature): [signature]	DATE: 1/30/04	RECEIVED BY (Signature): [signature]	
COMPANY: TFWI	TIME: 1500	COMPANY: APCL	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	
COMPANY	TIME	COMPANY	

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-01385

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05293

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4 & 7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Nicholas Weinberger	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010B (lead only)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1385

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-669	1/30/04	0953	1	X		S	24 hr	X		90B Floor	24"	—	Reg
0023-S4-670	1/30/04	1009	1	X		S	24 hr	X		91-92 E Sidewall OX	6"	—	Reg
0023-S4-671	1/30/04	1012	1	X		S	24 hr	X		91-92 W Sidewall OX	3"	—	Reg
0023-S4-672	1/30/04	1028	1	X		S	24 hr	X		94B N Sidewall OX	14"	—	Reg
0023-S4-673	1/30/04	1030	1	X		S	24 hr	X		94B W Sidewall OX	18"	—	Reg
0023-S4-674	1/30/04	1032	1	X		S	24 hr	X		94B Floor OX	18"	—	Reg
0023-S4-675	1/30/04	1035	1	X		S	24 hr	X		96BW Sidewall OX	18"	—	Reg
0023-S4-676	1/30/04	1037	1	X		S	24 hr	X		96B Floor OX	18"	—	Reg
0023-S4-677	1/30/04	1048	~~X~~ 3	X		S	24 hr	X	MS/MSD	107B N Sidewall OX	12"	—	Reg
0023-S4-678	1/30/04	1112	1	X		S	24 hr	X		64B Floor OX	18"	—	Reg
0023-S4-679	1/30/04	1115	1		X	S	24 hr	X		64B Floor OX	18"	—	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	1/30/04	[signature]
COMPANY: TFWI	TIME: 1415	COMPANY: TFWI
RELINQUISHED BY (Signature): [signature]	DATE: 1/30/04	RECEIVED BY (Signature): [signature]
COMPANY: TFWI	TIME: 1500	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-01385

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-1	Received Date:	01/30/2004
Sample ID:	**0023-S4-658**	Sample Matrix	Soil	Moisture %:	8.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.66	232		P		04M1136L	02/02/04	02/02/04	2	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-2	Received Date:	01/30/2004
Sample ID:	**0023-S4-659**	Sample Matrix	Soil	Moisture %:	9.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	11.4 J		P		04M1136L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Hm 3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-3	Received Date:	01/30/2004
Sample ID:	**0023-S4-660**	Sample Matrix	Soil	Moisture %:	8.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.66	226		P		04M1136L	02/02/04	02/07/04	2	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-4	Received Date:	01/30/2004
Sample ID:	**0023-S4-661**	Sample Matrix	Soil	Moisture %:	22.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.9	771		P		04M1136L	02/02/04	02/02/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-5	Received Date:	01/30/2004
Sample ID:	**0023-S4-662**	Sample Matrix	Soil	Moisture %:	6.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	109		P		04M1136L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-6	Received Date:	01/30/2004
Sample ID:	**0023-S4-663**	Sample Matrix	Soil	Moisture %:	12.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	14.3 J		P		04M1136L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-7	Received Date:	01/30/2004
Sample ID:	**0023-S4-664**	Sample Matrix	Soil	Moisture %:	20.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	7.4 J		P		04M1136L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-8	Received Date:	01/30/2004
Sample ID:	**0023-S4-665**	Sample Matrix	Soil	Moisture %:	16.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	47.5		P		04M1136L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-9	Received Date:	01/30/2004
Sample ID:	**0023-S4-666**	Sample Matrix	Soil	Moisture %:	9.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	24.0 J		P		04M1136L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Hm
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-10	Received Date:	01/30/2004
Sample ID:	**0023-S4-667**	Sample Matrix	Soil	Moisture %:	9.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	159		P		04M1136L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-11	Received Date:	01/30/2004
Sample ID:	**0023-S4-668**	Sample Matrix	Soil	Moisture %:	11.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	93.5		P		04M1136L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-12	Received Date:	01/30/2004
Sample ID:	**0023-S4-669**	Sample Matrix	Soil	Moisture %:	20.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	6.5 1		P		04M1136L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Hm
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-13	Received Date:	01/30/2004
Sample ID:	**0023-S4-670**	Sample Matrix	Soil	Moisture %:	8.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	207		P		04M1136L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-14	Received Date:	01/30/2004
Sample ID:	**0023-S4-671**	Sample Matrix	Soil	Moisture %:	14.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	19.4 J		P		04M1136L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-15	Received Date:	01/30/2004
Sample ID:	**0023-S4-672**	Sample Matrix	Soil	Moisture %:	12.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.7	470		P		04M1136L	02/02/04	02/02/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-16	Received Date:	01/30/2004
Sample ID:	**0023-S4-673**	Sample Matrix	Soil	Moisture %:	13.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	57.9		P		04M1136L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-17	Received Date:	01/30/2004
Sample ID:	**0023-S4-674**	Sample Matrix	Soil	Moisture %:	13.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	86.8		P		04M1136L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-18	Received Date:	01/30/2004
Sample ID:	**0023-S4-675**	Sample Matrix	Soil	Moisture %:	9.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	3.3	2460		P		04M1136L	02/02/04	02/07/04	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-19	Received Date:	01/30/2004
Sample ID:	**0023-S4-676**	Sample Matrix	Soil	Moisture %:	12.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	20.9 J		P		04M1136L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-20	Received Date:	01/30/2004
Sample ID:	**0023-S4-677**	Sample Matrix	Soil	Moisture %:	6.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.6	1030		P		04M1136L	02/02/04	02/02/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-21	Received Date:	01/30/2004
Sample ID:	**0023-S4-678**	Sample Matrix	Soil	Moisture %:	20.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	3.5 J		P		04M1135M	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41385	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1385-22	Received Date:	01/30/2004
Sample ID:	**0023-S4-679**	Sample Matrix	Soil	Moisture %:	21.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	2.9 J		P		04M1135M	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	41385
Project ID:	IR Site 4 & 7	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	04M1135M		
MS Filename:	-	Date Analyzed:	020204	Time Analyzed:	14:42
MSD Filename:	-	Date Analyzed:	020204	Time Analyzed:	14:45
MS Sample No:	**B80-021**	Sample Lab ID:	04-1325-1	Moisture, %→	20.9

Spiked Components	Unit	Spike Added	Concentration Unspiked	MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	190	28.3	211	96	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	REC
LEAD	mg/kg	190	216	99	3	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

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DATA VALIDATION SUMMARY REPORT

ORIGINAL

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Sites # 4 and 7, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	04-1385 (Level III and Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-658	04-01385-1	Soil	X
0023-S4-659	04-01385-2	Soil	X
0023-S4-660	04-01385-3	Soil	X
0023-S4-661	04-01385-4	Soil	X
0023-S4-662	04-01385-5	Soil	X
0023-S4-663	04-01385-6	Soil	X
0023-S4-664	04-01385-7	Soil	X
0023-S4-665	04-01385-8	Soil	X
0023-S4-666	04-01385-9	Soil	X
0023-S4-667[2]	04-01385-10	Soil	X
0023-S4-668[1,2]	04-01385-11	Soil	X
0023-S4-669	04-01385-12	Soil	X
0023-S4-670	04-01385-13	Soil	X
0023-S4-671	04-01385-14	Soil	X
0023-S4-672	04-01385-15	Soil	X
0023-S4-673	04-01385-16	Soil	X
0023-S4-674	04-01385-17	Soil	X
0023-S4-675	04-01385-18	Soil	X
0023-S4-676	04-01385-19	Soil	X
0023-S4-677	04-01385-20	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-677MD	04-01385-20MD	Soil	X
0023-S4-677MS	04-01385-20MS	Soil	X
0023-S4-677MSD	04-01385-20MSD	Soil	X
0023-S4-678[2]	04-01385-21	Soil	X
0023-S4-679[1,2]	04-01385-22	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE,
MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Timothy H. Morris, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1385 Inorganics

SAMPLES: 0023-S4-658, 0023-S4-659, 0023-S4-660, 0023-S4-661, 0023-S4-662, 0023-S4-663, 0023-S4-664, 0023-S4-665, 0023-S4-666, 0023-S4-667, 0023-S4-668, 0023-S4-669, 0023-S4-670, 0023-S4-671, 0023-S4-672, 0023-S4-673, 0023-S4-674, 0023-S4-675, 0023-S4-676, 0023-S4-677, 0023-S4-678, 0023-S4-679

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was detected at 5.50 ug/L in Continuing Calibration Blank CCB1 for intstrument ICP-L. All positive results for lead in the SDG samples were greater than the action level of 5X the blank amounts (1.4 mg/kg), so no action was required.

IV.) Interference Check:

The following interference response was observed in the ICS Solution A with magnitude greater than the IDL in instrument ICP-M:

lead	0.2 mg/kg

This analyte should not be present. Aluminum, calcium, iron and/or magnesium was detected in associated samples 0023-S4-678 and 0023-S4-679 at a concentration comparable to the ICS standard. Lead results for these two samples were flagged as estimated (J). All remaining associated samples analyzed on instrument ICP-M had reported results greater than 100X the interference level, so no action was taken.

The following interference response was observed in the ICS Solution A with magnitude greater than the IDL in instrument ICP-L:

lead	0.35 mg/kg

This analyte should not be present. Aluminum, calcium, iron and/or magnesium was detected in associated samples 0023-S4-659, 0023-S4-663, 0023-S4-664, 0023-S4-666, 0023-S4-669, 0023-S4-671, and 0023-S4-676 at a concentration comparable to the ICS standard. Results for lead in these samples were flagged as estimated (J). All remaining associated samples analyzed on instrument ICP-L had reported results greater than 100X the interference level, so no action was taken.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-677. The percent recoveries of 56% and 31% for the MS and MSD respectively exceeded QC limits of 75%-125%. The unspiked sample concentration was greater than 4X the spike amount, therefore no action was necessary.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-667 / 0023-S4-668 and 0023-S4-678 / 0023-S4-679) were identified in this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-667 / 0023-S4-668	52%
0023-S4-678 / 0023-S4-679	19%

Both RPDs were within the 60% QC limit for soil samples. No action was required.

IX.) Serial Dilution Analysis:

The client sample used for this analysis met all criteria, no action was required. The serial dilution for preparation batch 04M1135M was 15.9%, which exceeds the 10% QC limit. The sample used for this analysis was not the client's sample, therefore the matrix was not associable with this SDG. No action taken.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05290

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4 & 7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Nicholas Weinberger	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1386

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-635	1/30/04	0806	1	X		S	24 hr	X		81BN Sidewall	9"	–	Reg
0023-S4-636	1/30/04	0808	1	X		S	24 hr	X		81B S Sidewall	6"	–	Reg
0023-S4-637	1/30/04	0810	1	X		S	24 hr	X		81BW Sidewall	7"	–	Reg
0023-S4-638	1/30/04	0811	1	X		S	24 hr	X		81B Floor	~~12"~~	–	Reg
0023-S4-639	1/30/04	0815	1	X		S	24 hr	X		82BN Sidewall	10"	–	Reg
0023-S4-640	1/30/04	0816	1	X		S	24 hr	X		82B S Sidewall	7"	–	Reg
0023-S4-641	1/30/04	0818	1	X		S	24 hr	X		82B Floor	~~12"~~	–	Reg
0023-S4-642	1/30/04	0824	1	X		S	24 hr	X		83BN Sidewall	1"	–	Reg
0023-S4-643	1/30/04	0826	1	X		S	24 hr	X		83B E Sidewall	10"	–	Reg
0023-S4-644	1/30/04	0828	1	X		S	24 hr	X		~~87~~ 83B S Sidewall	9"	–	Reg
0023-S4-645	1/30/04	0829	1		X	S	24 hr	X		83B S Sidewall	9"	–	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	1/30/04	[signature]
COMPANY: HFWI	TIME: 1415	COMPANY: HFWI
RELINQUISHED BY (Signature): [signature]	DATE: 1/30/04	RECEIVED BY (Signature): [signature]
COMPANY: HFWI	TIME: 1500	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-01386

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05291

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4 & 7	PURCHASE ORDER NO.: 20721 TASK 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Nicholas Wernberger	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED: EPA 6010B (Lead only)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1386

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-646	1/30/04	0830	1	X		S	24 hr	X		83B Floor	12"	–	Reg
0023-S4-647	1/30/04	0835	1	X		S	24 hr	X		85B N Sidewall	11"	–	Reg
0023-S4-648	1/30/04	0837	1	X		S	24 hr	X		85B S Sidewall	11"	–	Reg
0023-S4-649	1/30/04	0839	1	X		S	24 hr	X		85B E Sidewall	5"	–	Reg
0023-S4-650	1/30/04	0842	1	X		S	24 hr	X		85B W Sidewall	0"	–	Reg
0023-S4-651	1/30/04	0843	1	X		S	24 hr	X		85B Floor	31"	–	Reg
0023-S4-652	1/30/04	0855	1	X		S	24 hr	X		86B N Sidewall	9"	–	Reg
0023-S4-653	1/30/04	0858	1	X		S	24 hr	X		86B E Sidewall	4"	–	Reg
0023-S4-655	1/30/04	0903	1	X		S	24 hr	X	0903	86B Floor	12"	–	Reg
0023-S4-656	1/30/04	0920	3	X		S	24 hr	X	MS/MSD	88B N Sidewall	8"	–	Reg
0023-S4-657	1/30/04	0924	1		X	S	24 hr	X		88B N Sidewall	8"	–	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	1/30/04	[signature]
COMPANY: AFWI	TIME: 1415	COMPANY: AFWI
RELINQUISHED BY (Signature): [signature]	DATE: 1/30/04	RECEIVED BY (Signature): [signature]
COMPANY: AFWI	TIME: 1500	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-61386

FOSTER WHEELER ENVIRONMENTAL CORPORATION

1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05297

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4 & 7	PURCHASE ORDER NO.: 020721 Task 23
PROJECT LOCATION: NAVWNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Nicholas Weinberger	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

ANALYSES REQUIRED

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1386

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead Only)									COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-654	1/30/04	0700	1	X		S	24 hr	X										86B5 Sidewall	7"	/	Reg

RELINQUISHED BY (Signature): [signature]	DATE: 1/30/04	RECEIVED BY (Signature): [signature]	LABORATORY INSTRUCTIONS/COMMENTS: NA
COMPANY: TFWI	TIME: 1415	COMPANY: TFWI	
RELINQUISHED BY (Signature): [signature]	DATE: 1/30/04	RECEIVED BY (Signature): [signature]	COMPOSITE DESCRIPTION: NA
COMPANY: TFWI	TIME: 1500	COMPANY: APCL	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
COMPANY	TIME	COMPANY	TEMPERATURE: ____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-01386

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-1	Received Date:	01/30/2004
Sample ID:	**0023-S4-635**	Sample Matrix	Soil	Moisture %:	26.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	13.0 J		P		04M1140L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Hm
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-2	Received Date:	01/30/2004
Sample ID:	**0023-S4-636**	Sample Matrix	Soil	Moisture %:	10.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	6.0 J		P		04M1140L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Hm
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-3	Received Date:	01/30/2004
Sample ID:	**0023-S4-637**	Sample Matrix	Soil	Moisture %:	22.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	7.7	5930		P		04M1140L	02/02/04	02/02/04	20	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-4	Received Date:	01/30/2004
Sample ID:	**0023-S4-638**	Sample Matrix	Soil	Moisture %:	20.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	18.9 J		P		04M1140L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

JHu
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-5	Received Date:	01/30/2004
Sample ID:	**0023-S4-639**	Sample Matrix	Soil	Moisture %:	24.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.40	44.8		P		04M1140L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-6	Received Date:	01/30/2004
Sample ID:	**0023-S4-640**	Sample Matrix	Soil	Moisture %:	9.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	73.0		P		04M1140L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-7	Received Date:	01/30/2004
Sample ID:	**0023-S4-641**	Sample Matrix	Soil	Moisture %:	21.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.76	409		P		04M1140L	02/02/04	02/02/04	2	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-8	Received Date:	01/30/2004
Sample ID:	**0023-S4-642**	Sample Matrix	Soil	Moisture %:	26.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.82	286		P		04M1140L	02/02/04	02/02/04	2	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-9	Received Date:	01/30/2004
Sample ID:	**0023-S4-643**	Sample Matrix	Soil	Moisture %:	26.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	4.1	4940		P		04M1140L	02/02/04	02/02/04	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-10	Received Date:	01/30/2004
Sample ID:	**0023-S4-644**	Sample Matrix	Soil	Moisture %:	14.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	44.3		P		04M1140L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-11	Received Date:	01/30/2004
Sample ID:	**0023-S4-645**	Sample Matrix	Soil	Moisture %:	17.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	11.1 J		P		04M1140L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-12	Received Date:	01/30/2004
Sample ID:	**0023-S4-646**	Sample Matrix	Soil	Moisture %:	26.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	2.0	1240		P		04M1140L	02/02/04	02/02/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-13	Received Date:	01/30/2004
Sample ID:	**0023-S4-647**	Sample Matrix	Soil	Moisture %:	29.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.42	7.1 J		P		04M1140L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Hm
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-14	Received Date:	01/30/2004
Sample ID:	**0023-S4-648**	Sample Matrix	Soil	Moisture %:	19.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	83.1		P		04M1140L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-15	Received Date:	01/30/2004
Sample ID:	**0023-S4-649**	Sample Matrix	Soil	Moisture %:	13.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	13.3 J		P		04M1140L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-16	Received Date:	01/30/2004
Sample ID:	**0023-S4-650**	Sample Matrix	Soil	Moisture %:	20.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	115		P		04M1140L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-17	Received Date:	01/30/2004
Sample ID:	**0023-S4-651**	Sample Matrix	Soil	Moisture %:	19.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	105		P		04M1140L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-18	Received Date:	01/30/2004
Sample ID:	**0023-S4-652**	Sample Matrix	Soil	Moisture %:	23.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	3.9	1950		P		04M1140L	02/02/04	02/02/04	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-19	Received Date:	01/30/2004
Sample ID:	**0023-S4-653**	Sample Matrix	Soil	Moisture %:	8.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	176		P		04M1140L	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-22	Received Date:	01/30/2004
Sample ID:	**0023-S4-656**	Sample Matrix	Soil	Moisture %:	19.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.9	897		P		04M1140L	02/02/04	02/02/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-23	Received Date:	01/30/2004
Sample ID:	**0023-S4-657**	Sample Matrix	Soil	Moisture %:	20.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	2410		P		04M1135M	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	41386
Project ID:	IR Site 4 & 7	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	04M1140L		
MS Filename:	-	Date Analyzed:	020204	Time Analyzed:	16:24
MSD Filename:	-	Date Analyzed:	020204	Time Analyzed:	16:27
MS Sample No:	**0023-S4-656**	Sample Lab ID:	04-1386-22	Moisture, %-	19.6

Spiked Components	Unit	Spike Added	Concentration Unspiked	MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	187	897	1060	87	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	REC
LEAD	mg/kg	187	1040	76	13	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-20	Received Date:	01/30/2004
Sample ID:	**0023-S4-654**	Sample Matrix	Soil	Moisture %:	14.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	17.3 J		P		04M1135M	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-21	Received Date:	01/30/2004
Sample ID:	**0023-S4-655**	Sample Matrix	Soil	Moisture %:	16.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	7.3 J		P		04M1135M	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

7 Hu
3/11/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-22	Received Date:	01/30/2004
Sample ID:	**0023-S4-656**	Sample Matrix	Soil	Moisture %:	19.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.9	897		P		04M1140L	02/02/04	02/02/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	01/30/2004
Project ID:	IR Site 4 & 7	Service ID:	41386	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1386-23	Received Date:	01/30/2004
Sample ID:	**0023-S4-657**	Sample Matrix	Soil	Moisture %:	20.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	2410		P		04M1135M	02/02/04	02/02/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	41386
Project ID:	IR Site 4 & 7	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	04M1135M		
MS Filename:	-	Date Analyzed:	020204	Time Analyzed:	14:42
MSD Filename:	-	Date Analyzed:	020204	Time Analyzed:	14:45
MS Sample No:	**B80-021**	Sample Lab ID:	04-1325-1	Moisture, %-	20.9

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	190	28.3	211	96	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	190	216	99	3	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

RECEIVED
MAY 26 2004

DATA VALIDATION SUMMARY REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Sites # 4 and 7, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	04-1386 (Level III and Level IV)

ORIGINAL

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-635	04-01386-1	Soil	X
0023-S4-636	04-01386-2	Soil	X
0023-S4-637	04-01386-3	Soil	X
0023-S4-638	04-01386-4	Soil	X
0023-S4-639	04-01386-5	Soil	X
0023-S4-640	04-01386-6	Soil	X
0023-S4-641	04-01386-7	Soil	X
0023-S4-642	04-01386-8	Soil	X
0023-S4-643	04-01386-9	Soil	X
0023-S4-644[2]	04-01386-10	Soil	X
0023-S4-645[1,2]	04-01386-11	Soil	X
0023-S4-646	04-01386-12	Soil	X
0023-S4-647	04-01386-13	Soil	X
0023-S4-648	04-01386-14	Soil	X
0023-S4-649	04-01386-15	Soil	X
0023-S4-650	04-01386-16	Soil	X
0023-S4-651	04-01386-17	Soil	X
0023-S4-652	04-01386-18	Soil	X
0023-S4-653	04-01386-19	Soil	X
0023-S4-654	04-01386-20	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-655	04-01386-21	Soil	X
0023-S4-656[2]	04-01386-22	Soil	X
0023-S4-656MD	04-01386-22MD	Soil	X
0023-S4-656MS	04-01386-22MS	Soil	X
0023-S4-656MSD	04-01386-22MSD	Soil	X
0023-S4-657[1,2]	04-01386-23	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE,
MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Timothy H. Morris, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit 3/15/04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1386 Inorganics

SAMPLES: 0023-S4-635, 0023-S4-636, 0023-S4-637, 0023-S4-638, 0023-S4-639, 0023-S4-640, 0023-S4-641, 0023-S4-642, 0023-S4-643, 0023-S4-644, 0023-S4-645, 0023-S4-646, 0023-S4-647, 0023-S4-648, 0023-S4-649, 0023-S4-650, 0023-S4-651, 0023-S4-652, 0023-S4-653, 0023-S4-654, 0023-S4-655, 0023-S4-656,0023-S4-657

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was detected at 0.22 mg/kg in the preparation blank 04M1140-MB-01. All positive results for lead in the SDG samples were greater than the action level of 5X the blank amounts (1.1mg/kg), so no action was necessary.

Lead was detected at 5.50 ug/L in Continuing Calibration Blank CCB1 for intstrument ICP-L. All positive results for lead in the SDG samples were greater than the action level of 5X the blank amounts (1.4 mg/kg), so no action was required.

IV.) Interference Check:

The following interference response was observed in the ICS Solution A with magnitude greater than the

IDL in instrument ICP-M:

lead	0.2 mg/kg

This analyte should not be present. Aluminum, calcium, iron and/or magnesium was detected in samples 0023-S4-654 and 0023-S4-655 at a concentration comparable to the ICS standard. Results for lead in these samples were flagged as estimated (J). All remaining samples had reported results greater than 100X the interference level. In the professional judgement of the validator, the level of interference was not considered significant, so no further action was taken.

The following interference responses were observed in the ICS Solution A with magnitude greater than the IDL in instrument ICP-L:

lead	0.35 mg/kg

These analytes should not be present. Aluminum, calcium, iron and/or magnesium was detected in samples 0023-S4-635, 0023-S4-636, 0023-S4-638, 0023-S4-645, 0023-S4-647, and 0023-S4-649 at a concentration comparable to the ICS standard. Results for lead in these samples were flagged as estimated (J). All remaining samples had reported results greater than 100X the interference level. In the professional judgement of the validator, the level of interference was not considered significant, so no further action was taken.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All MS/MSD criteria were met for this SDG. No action was required

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-644 / 0023-S4-645 and 0023-S4-656 / 0023-S4-657) were identified in this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-644 / 0023-S4-645	23%
0023-S4-656 / 0023-S4-657	3.0 %

Both RPDs were within the 60% QC limit for soil samples. No action was required.

IX.) Serial Dilution Analysis:

All serial dilution criteria were met for this SDG. No action was required

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05298

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Sites 4-17	PURCHASE ORDER NO.: 020721 Task 25
PROJECT LOCATION: Nav Wpn Sta Seal Beach	PROJECT NO.: 1990.0230
SAMPLER NAME: Nicholas Weinberger	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Brankowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1401 (04-1576 → 576/TCLP)

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	Title 22 Metals	STLC/TCLP Lead	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
1990023-SM-680	2/2/04	1350	5	X		S	5 day	X	X		Stockpile A1	—	—	Rg

RELINQUISHED BY (Signature): [signature]	DATE: 2/2/04	RECEIVED BY (Signature): [signature]	LABORATORY INSTRUCTIONS/COMMENTS
COMPANY: TFW	TIME: 1600	COMPANY: TFW	
RELINQUISHED BY (Signature): [signature]	DATE: 2/3/04	RECEIVED BY (Signature): [signature]	COMPOSITE DESCRIPTION
COMPANY: TFW	TIME: 0910	COMPANY: APCL	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
COMPANY	TIME	COMPANY	TEMPERATURE: ____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Stockpile #1 Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-01401

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/02/2004
Project ID:	IR Sites 4 & 7	Service ID:	41401	Collected by:	Nicholas Weinberger
		Lab Sample ID:	04-1401-1	Received Date:	02/03/2004
Sample ID:	**0023-S4-680**	Sample Matrix	Soil	Moisture %:	26.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.8	<6.8	U	P		04M1158L	02/04/04	02/04/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.41	9.1		P		04M1158L	02/04/04	02/04/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.4	212		P		04M1158L	02/04/04	02/04/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.27	<0.27	U	P		04M1158L	02/04/04	02/04/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.27	0.67		P		04M1158L	02/04/04	02/04/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.68	39.4		P		04M1158L	02/04/04	02/04/04	1	6010B
COBALT	7440-48-4	mg/kg	0.68	14.9		P		04M1158L	02/04/04	02/04/04	1	6010B
COPPER	7440-50-8	mg/kg	0.68	38.6		P		04M1158L	02/04/04	02/04/04	1	6010B
LEAD	7439-92-1	mg/kg	0.41	451		P		04M1158L	02/04/04	02/04/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.27	<0.27	U	CV		04M1156H	02/04/04	02/04/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.27	<0.27	U	P		04M1158L	02/04/04	02/04/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.41	21.4		P		04M1158L	02/04/04	02/04/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.54	0.35	J	P		04M1158L	02/04/04	02/04/04	1	6010B
SILVER	7440-22-4	mg/kg	0.68	<0.68	U	P		04M1158L	02/04/04	02/04/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.68	<0.68	U	P		04M1158L	02/04/04	02/04/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.68	54.2		P		04M1158L	02/04/04	02/04/04	1	6010B
ZINC	7440-66-6	mg/kg	0.68	205		P		04M1158L	02/04/04	02/04/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/02/2004
Project ID:	IR Sites 4 & 7	Service ID:	41576	Collected by:	LB/NW
		Lab Sample ID:	04-1576-1	Received Date:	02/06/2004
Sample ID:	**0023-S4-680**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD	7439-92-1	μg/L	10	411		P		04M1218M	02/17/04	02/17/04	2	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/02/2004
Project ID:	IR Sites 4 & 7	Service ID:	41576	Collected by:	LB/NW
		Lab Sample ID:	04-1576-1	Received Date:	02/06/2004
Sample ID:	**0023-S4-680**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC LEAD	7439-92-1	μg/L	25	13700		P		04M1219M	02/17/04	02/17/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05454

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Sites 4+7	PURCHASE ORDER NO.: 20101 Task 25
PROJECT LOCATION: NAVWANSTA Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Brentowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Brentowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1441

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EGA (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EGA (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-681	2/4/04	0730	1	X		S	48 hr	X		58B Floor OX	1.5'	—	REG
0023-S4-682	2/4/04	0752	1	X		S	48 hr	X		59B N Sidewall OX	6"	—	REG
0023-S4-683	2/4/04	0802	1	X		S	48 hr	X		71B E Sidewall OX	11"	—	REG
0023-S4-684	2/4/04	0815	1	X		S	48 hr	X		78B N Sidewall OX	12"	—	REG
0023-S4-685	2/4/04	0818	1	X		S	48 hr	X		78B W Sidewall OX	3"	—	REG
0023-S4-686	2/4/04	0826	1	X		S	48 hr	X		81B W Sidewall OX	5"	—	REG
0023-S4-687	2/4/04	0835	1	X		S	48 hr	X		83BE Sidewall OX	5"	—	REG
0023-S4-688	2/4/04	0836	1	X		S	48 hr	X		83B Floor OX	1.5'	—	REG
0023-S4-689	2/4/04	0845	1	X		S	48 hr	X		86B N Sidewall OX	6"	—	REG
0023-S4-690	2/4/04	0901	1	X		S	48 hr	X		88B N Sidewall OX	7"	—	REG
0023-S4-691	2/4/04	0902	1	~~X~~	X	S	48 hr	X		88B N Sidewall OX	7"	—	FD

RELINQUISHED BY (Signature): [signature]	DATE: 2/4/04	RECEIVED BY (Signature): [signature]	
COMPANY: FWEC	TIME: 1600	COMPANY: APCL	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	
COMPANY	TIME	COMPANY	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	
COMPANY	TIME	COMPANY	

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Overex Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-01441

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05455

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Sites 4 & 7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWRNSTA Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

ANALYSES REQUIRED: EPA 6010 (Lead only)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1441

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010 (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-692	2/4/04	0907	1	X		S	48 hr	X		89B N Sidewall OX	7"	–	REG
0023-S4-693	2/4/04	0918	1	X		S	48 hr	X		96B W Sidewall OX2	8"	–	REG
0023-S4-694	2/4/04	0930	1	X		S	48 hr	X		107B N Sidewall OX2	3"	–	REG
0023-S4-695	2/4/04	1015	1	X		S	48 hr	X		54B S Sidewall OX	6"	–	REG
0023-S4-696	2/4/04	1019	1	X		S	48 hr	X		51B E Sidewall OX	2"	–	REG
0023-S4-697	2/4/04	1034	1	X		S	48 hr	X		48B W Sidewall OX	9"	–	REG
0023-S4-698	2/4/04	1043	1	X		S	48 hr	X		46B E Sidewall OX	6"	–	REG
0023-S4-699	2/4/04	1049	1	X		S	48 hr	X		45A E Sidewall OX	10"	–	REG
0023-S4-700	2/4/04	1111	1	X		S	48 hr	X	Run MS/MSD	39B N Sidewall OX	3"	–	REG
0023-S4-701	2/4/04	1114	1	X		S	48 hr	X		37B E Sidewall OX	8"	–	REG
0023-S4-702	2/4/04	1115	1		X	S	48 hr	X		37B E Sidewall OX	8"	–	FD

RELINQUISHED BY (Signature): Lisa Bienkowski	DATE: 2/4/04	RECEIVED BY (Signature): [illegible]	
COMPANY: TTWI	TIME: 1600	COMPANY: APCL	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	
COMPANY	TIME	COMPANY	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	
COMPANY	TIME	COMPANY	

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Overex Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-01441

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05456

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Sites 4 & 7	PURCHASE ORDER NO.: 00721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1441

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-703	7/4/04	1118	1	X		S	48 hr	X		37B W Sidewall OX	1"	—	REG
0023-S4-704	7/4/04	1130	1	X		S	48 hr	X		34B E Sidewall OX	11"	—	REG

RELINQUISHED BY (Signature): Lisa Bienkowski	DATE: 7/4/04	RECEIVED BY (Signature): [illegible]	LABORATORY INSTRUCTIONS/COMMENTS: N/A
COMPANY: TAWI	TIME: 1600	COMPANY: APCL	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	COMPOSITE DESCRIPTION: N/A
COMPANY	TIME	COMPANY	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
COMPANY	TIME	COMPANY	TEMPERATURE: ____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Overex confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-0414(

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-1	Received Date:	02/04/2004
Sample ID:	**0023-S4-681**	Sample Matrix	Soil	Moisture %:	38.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	2.4	851		P		04M1166L	02/05/04	02/05/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-2	Received Date:	02/04/2004
Sample ID:	**0023-S4-682**	Sample Matrix	Soil	Moisture %:	30.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	38.7		P		04M1166L	02/05/04	02/05/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-3	Received Date:	02/04/2004
Sample ID:	**0023-S4-683**	Sample Matrix	Soil	Moisture %:	11.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.7	673		P		04M1166L	02/05/04	02/05/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-4	Received Date:	02/04/2004
Sample ID:	**0023-S4-684**	Sample Matrix	Soil	Moisture %:	26.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	2.0	1520		P		04M1166L	02/05/04	02/05/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-5	Received Date:	02/04/2004
Sample ID:	**0023-S4-685**	Sample Matrix	Soil	Moisture %:	24.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	4.0	2430		P		04M1166L	02/05/04	02/05/04	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-6	Received Date:	02/04/2004
Sample ID:	**0023-S4-686**	Sample Matrix	Soil	Moisture %:	27.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	2.1	1150		P		04M1166L	02/05/04	02/05/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-7	Received Date:	02/04/2004
Sample ID:	**0023-S4-687**	Sample Matrix	Soil	Moisture %:	5.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.64	370		P		04M1166L	02/05/04	02/05/04	2	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-8	Received Date:	02/04/2004
Sample ID:	**0023-S4-688**	Sample Matrix	Soil	Moisture %:	17.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	12.4 J		P		04M1166L	02/05/04	02/05/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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3/8/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-9	Received Date:	02/04/2004
Sample ID:	**0023-S4-689**	Sample Matrix	Soil	Moisture %:	27.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	2.1	1390		P		04M1166L	02/05/04	02/05/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-10	Received Date:	02/04/2004
Sample ID:	**0023-S4-690**	Sample Matrix	Soil	Moisture %:	24.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.79	457		P		04M1166L	02/05/04	02/05/04	2	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-11	Received Date:	02/04/2004
Sample ID:	**0023-S4-691**	Sample Matrix	Soil	Moisture %:	25.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.2	635		P		04M1166L	02/05/04	02/05/04	3	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-12	Received Date:	02/04/2004
Sample ID:	**0023-S4-692**	Sample Matrix	Soil	Moisture %:	20.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	317		P		04M1166L	02/05/04	02/05/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-13	Received Date:	02/04/2004
Sample ID:	**0023-S4-693**	Sample Matrix	Soil	Moisture %:	13.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	3.4	2620		P		04M1166L	02/05/04	02/05/04	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-14	Received Date:	02/04/2004
Sample ID:	**0023-S4-694**	Sample Matrix	Soil	Moisture %:	9.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	3.3	1420		P		04M1166L	02/05/04	02/05/04	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-15	Received Date:	02/04/2004
Sample ID:	**0023-S4-695**	Sample Matrix	Soil	Moisture %:	16.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.36	326		P		04M1166L	02/05/04	02/05/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-16	Received Date:	02/04/2004
Sample ID:	**0023-S4-696**	Sample Matrix	Soil	Moisture %:	19.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.9	1280		P		04M1166L	02/05/04	02/05/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-17	Received Date:	02/04/2004
Sample ID:	**0023-S4-697**	Sample Matrix	Soil	Moisture %:	44.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	54	18300		P		04M1166L	02/05/04	02/05/04	100	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-18	Received Date:	02/04/2004
Sample ID:	**0023-S4-698**	Sample Matrix	Soil	Moisture %:	32.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	8.9	4520		P		04M1166L	02/05/04	02/05/04	20	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-19	Received Date:	02/04/2004
Sample ID:	**0023-S4-699**	Sample Matrix	Soil	Moisture %:	52.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.3	990		P		04M1166L	02/05/04	02/05/04	2	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-20	Received Date:	02/04/2004
Sample ID:	**0023-S4-700**	Sample Matrix	Soil	Moisture %:	55.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.4	876		P		04M1166L	02/05/04	02/05/04	2	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-21	Received Date:	02/04/2004
Sample ID:	**0023-S4-701**	Sample Matrix	Soil	Moisture %:	23.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	16.9 J		P		04M1167L	02/05/04	02/05/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-22	Received Date:	02/04/2004
Sample ID:	**0023-S4-702**	Sample Matrix	Soil	Moisture %:	22.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	19.4 J		P		04M1167L	02/05/04	02/05/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-23	Received Date:	02/04/2004
Sample ID:	**0023-S4-703**	Sample Matrix	Soil	Moisture %:	43.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	5.3	1600		P		04M1167L	02/05/04	02/05/04	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/04/2004
Project ID:	IR Sites 4 & 7	Service ID:	41441	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1441-24	Received Date:	02/04/2004
Sample ID:	**0023-S4-704**	Sample Matrix	Soil	Moisture %:	31.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.44	18.7 J		P		04M1167L	02/05/04	02/05/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	41441
Project ID:	IR Sites 4 & 7	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	04M1167L		
MS Filename:	-	Date Analyzed:	020504	Time Analyzed:	17:08
MSD Filename:	-	Date Analyzed:	020504	Time Analyzed:	17:10
MS Sample No:	**NT319A,B,C,D**	Sample Lab ID:	04-1425-(5 to 8)	Moisture, %	

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	150	0.67	164	109	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	150	175	116	6	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits D - Spiked components diluted out

Comments: _____

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	41441
Project ID:	IR Sites 4 & 7	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	04M1166L		
MS Filename:	-	Date Analyzed:	020504	Time Analyzed:	15:45
MSD Filename:	-	Date Analyzed:	020504	Time Analyzed:	15:48
MS Sample No:	**0023-S4-700**	Sample Lab ID:	04-1441-20	Moisture, %	55.8

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	339	876	1220	101	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	339	1210	99	2	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits D - Spiked components diluted out

Comments: _____

VALIDATA
Chemical Services, Inc.
4070 Balleycastle Lane, Duluth, GA 30097
(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

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ORIGINAL

DATA VALIDATION SUMMARY REPORT

COMPANY:	Tetra Tech FW, Inc.
SITE NAME:	IR Sites # 4 and 7, CTO-23, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	04-1441 (Level III and Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-681	04-01441-1	Soil	X
0023-S4-682	04-01441-2	Soil	X
0023-S4-683	04-01441-3	Soil	X
0023-S4-684	04-01441-4	Soil	X
0023-S4-685	04-01441-5	Soil	X
0023-S4-686	04-01441-6	Soil	X
0023-S4-687	04-01441-7	Soil	X
0023-S4-688	04-01441-8	Soil	X
0023-S4-689	04-01441-9	Soil	X
0023-S4-690 [2]	04-01441-10	Soil	X
0023-S4-691 [1,2]	04-01441-11	Soil	X
0023-S4-692	04-01441-12	Soil	X
0023-S4-693	04-01441-13	Soil	X
0023-S4-694	04-01441-14	Soil	X
0023-S4-695	04-01441-15	Soil	X
0023-S4-696	04-01441-16	Soil	X
0023-S4-697	04-01441-17	Soil	X
0023-S4-698	04-01441-18	Soil	X
0023-S4-699	04-01441-19	Soil	X
0023-S4-700	04-01441-20	Soil	X

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-700MD	04-01441-20MD	Soil	X
0023-S4-700MS	04-01441-20MS	Soil	X
0023-S4-700MSD	04-01441-20MSD	Soil	X
0023-S4-701 [2]	04-01441-21	Soil	X
0023-S4-702 [1,2]	04-01441-22	Soil	X
0023-S4-703	04-01441-23	Soil	X
0023-S4-704	04-01441-24	Soil	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE,
MSD = MATRIX SPIKE DUPLICATE

Note 1: Samples were identified for Level IV validation.
Note 2: Samples were identified as field duplicate samples.

DATA REVIEWER(S): Timothy H. Morris, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit 3-15-04
Date

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1441 Inorganics

SAMPLES: 0023-S4-681, 0023-S4-682, 0023-S4-683, 0023-S4-684, 0023-S4-685, 0023-S4-686, 0023-S4-687, 0023-S4-688, 0023-S4-689, 0023-S4-690, 0023-S4-691, 0023-S4-692, 0023-S4-693, 0023-S4-694, 0023-S4-695, 0023-S4-696, 0023-S4-697, 0023-S4-698, 0023-S4-699, 0023-S4-700, 0023-S4-701, 0023-S4-702, 0023-S4-703, 0023-S4-704

TOTAL LEAD

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was detected at 1.46 ug/L in Continuing Calibration Blank CCB1 and at -8.59 ug/L in Continuing Calibration Blank CCB2. All positive results for lead in the SDG samples were greater than the action level of 5X the blank amounts (0.5 mg/kg and 2.15 mg/kg) so no action was required.

IV.) Interference Check:

The following interference responses were observed in the ICS Solution A with magnitudes greater than the IDL:

lead	0.3 mg/kg
lead	-0.05 mg/kg

These analytes should not be present. Aluminum, calcium, iron and/or magnesium was detected in samples 0023-S4-688, 0023-S4-701, 0023-S4-702 and 0023-S4-704 at a concentration comparable to the ICS standard. Results for these samples were flagged as estimated (J). All remaining samples had reported results greater than 100X the interference level. In the professional judgement of the validator, the level of interference was not considered significant, so no further action was taken.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-700. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

Two sets of field duplicate samples (0023-S4-690 / 0023-S4-691 and 0023-S4-701 / 0023-S4-702) were identified in this SDG. The Relative Percent Differences (RPDs) were:

Duplicate Samples	RPD
0023-S4-690 / 0023-S4-691	29%
0023-S4-701 / 0023-S4-702	14%

Both RPDs were within the 60% QC limit for soil samples. No action was required.

IX.) Serial Dilution Analysis:

All Serial Dilution Analysis criteria were met. No action was required.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05296

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: J IR Sites 4 & 7
PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach, CA
PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bentkowski
SAMPLER SIGNATURE: Lisa Bentkowski
PROJECT CONTACT: Lisa Bentkowski
AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL
LABORATORY ID (FOR LABORATORY): 04-1471 04-1576 (Stockpile)
COMMENTS: 04-1797 (TCLP SVOCs)

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	Title 22 Metals	EPA 8085/8082B	EPA 8270C	EPA 8081A	EPA 8082	STLC Pb	TCLP Pb	STLC Cr		TCLP SVOCs Added 2/24/04 72hr TAT	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-705	2/5/04	0738	5	X		S	5 day	X					X	X				Stockpile B1	—	—	RG
0023-S4-706	2/5/04	0830	9	X		S	5 day	X	X	X	X	X	X	X				Stockpile A2	—	—	RG
0023-S4-707	2/5/04	0915	5	X		S	5 day	X						X	X			Stockpile B2	—	—	RG
0023-S4-708	2/5/04	1010	5	X		S	5 day	X						X	X			Stockpile A3	—	—	RG
0023-S4-709	2/5/04	1049	9	X		S	5 day	X	X	X	X	X		X	X			Stockpile B3	—	—	RG
0023-S4-710	2/5/04	1140	5	X		S	5 day	X					X	X	X			Stockpile A4	—	—	RG
0023-S4-711	2/5/04	1300	5	X		S	5 day	X						X	X			Stockpile B4	—	—	RG
0023-S4-712	2/5/04	1350	9	X		S	5 day	X	X	X	X	X		X	X		X	Stockpile A5	—	—	RG
0023-S4-713	2/5/04	1430	5	X		S	5 day	X						X	X			Stockpile B5	—	—	RG

2/5/04

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bentkowski	2/6/04	[illegible]
COMPANY: FFWC	TIME: 1015	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: Composite all 5 jars per sample before analysis.

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Stockpile #1 Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1797 04-1471 04-1576

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-2	Received Date:	02/05/2004
Sample ID:	**0023-S4-706**	Sample Matrix	Soil	Moisture %:	19.5
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: C
Anal. Method:	8260B	Prep. Date:	02/07/04	Anal. Date:	02/07/04
Batch No:	04G1312	Prep. No:	–	Anal. Time:	03:35
Data File Name:	1471-02	Sample Amount:	4.67 g	Dilution Factor:	1.07
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	66	<66	U
2	BENZENE	71-43-2	µg/kg	6.6	<6.6	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.6	<6.6	U
4	BROMOFORM	75-25-2	µg/kg	6.6	<6.6	U
5	BROMOMETHANE	74-83-9	µg/kg	6.6	<6.6	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	66	<66	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.6	<6.6	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.6	<6.6	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.6	<6.6	U
10	CHLOROETHANE	75-00-3	µg/kg	6.6	<6.6	U
11	CHLOROFORM	67-66-3	µg/kg	6.6	<6.6	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.6	<6.6	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.6	<6.6	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.6	<6.6	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.6	<6.6	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.6	<6.6	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.6	<6.6	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.6	<6.6	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.6	<6.6	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.6	<6.6	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.6	<6.6	U
22	2-HEXANONE	591-78-6	µg/kg	66	<66	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.6	<6.6	U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	66	<66	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	13	<13	U
26	STYRENE	100-42-5	µg/kg	6.6	<6.6	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.6	<6.6	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.6	<6.6	U
29	TOLUENE	108-88-3	µg/kg	6.6	<6.6	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.6	<6.6	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.6	<6.6	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.6	<6.6	U
33	VINYL ACETATE	108-05-4	µg/kg	66	<66	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.6	<6.6	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.6	<6.6	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	103
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	111

Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	110
4	TOLUENE-D8	2037-26-5	80-120	95
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	111
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	116
3	FLUOROBENZENE	462-06-6	50-200	87
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-5	Received Date:	02/05/2004
Sample ID:	**0023-S4-709**	Sample Matrix	Soil	Moisture %:	21.4
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: C
Anal. Method:	8260B	Prep. Date:	02/07/04	Anal. Date:	02/07/04
Batch No:	04G1312	Prep. No:	–	Anal. Time:	04:02
Data File Name:	1471-05	Sample Amount:	5.32 g	Dilution Factor:	0.94
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	60	21	J
2	BENZENE	71-43-2	µg/kg	6.0	<6.0	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.0	<6.0	U
4	BROMOFORM	75-25-2	µg/kg	6.0	<6.0	U
5	BROMOMETHANE	74-83-9	µg/kg	6.0	<6.0	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	60	<60	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.0	<6.0	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.0	<6.0	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.0	<6.0	U
10	CHLOROETHANE	75-00-3	µg/kg	6.0	<6.0	U
11	CHLOROFORM	67-66-3	µg/kg	6.0	<6.0	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.0	<6.0	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.0	<6.0	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.0	<6.0	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.0	<6.0	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.0	10	
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.0	<6.0	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.0	<6.0	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.0	<6.0	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.0	<6.0	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.0	3	J
22	2-HEXANONE	591-78-6	µg/kg	60	<60	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.0	<6.0	U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	60	<60	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	12	<12	U
26	STYRENE	100-42-5	µg/kg	6.0	<6.0	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.0	<6.0	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.0	<6.0	U
29	TOLUENE	108-88-3	µg/kg	6.0	<6.0	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.0	<6.0	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.0	<6.0	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.0	3	J
33	VINYL ACETATE	108-05-4	µg/kg	60	<60	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.0	<6.0	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.0	3	J

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	105
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	118

Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	116
4	TOLUENE-D8	2037-26-5	80-120	96
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	123
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	126
3	FLUOROBENZENE	462-06-6	50-200	97
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-8	Received Date:	02/05/2004
Sample ID:	**0023-S4-712**	Sample Matrix	Soil	Moisture %:	18.6
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: C
Anal. Method:	8260B	Prep. Date:	02/07/04	Anal. Date:	02/07/04
Batch No:	04G1312	Prep. No:	–	Anal. Time:	04:29
Data File Name:	1471-08	Sample Amount:	4.85 g	Dilution Factor:	1.03
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	63	41	J
2	BENZENE	71-43-2	µg/kg	6.3	<6.3	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.3	<6.3	U
4	BROMOFORM	75-25-2	µg/kg	6.3	<6.3	U
5	BROMOMETHANE	74-83-9	µg/kg	6.3	<6.3	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	63	14	J
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.3	<6.3	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.3	<6.3	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.3	<6.3	U
10	CHLOROETHANE	75-00-3	µg/kg	6.3	<6.3	U
11	CHLOROFORM	67-66-3	µg/kg	6.3	<6.3	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.3	<6.3	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.3	<6.3	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.3	<6.3	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.3	<6.3	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.3	5	J
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.3	<6.3	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.3	<6.3	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.3	<6.3	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.3	<6.3	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.3	1	J
22	2-HEXANONE	591-78-6	µg/kg	63	<63	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.3	<6.3	U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	63	<63	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	13	<13	U
26	STYRENE	100-42-5	µg/kg	6.3	<6.3	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.3	<6.3	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.3	<6.3	U
29	TOLUENE	108-88-3	µg/kg	6.3	1	J
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.3	<6.3	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.3	<6.3	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.3	7	
33	VINYL ACETATE	108-05-4	µg/kg	63	<63	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.3	<6.3	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.3	3	J

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	105
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	114

Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	112
4	TOLUENE-D8	2037-26-5	80-120	94
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	117
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	120
3	FLUOROBENZENE	462-06-6	50-200	92
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-2	Received Date:	02/05/2004
Sample ID:	**0023-S4-706**	Sample Matrix	Soil	Moisture %:	19.5
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/09/04	Anal. Date:	02/18/04
Batch No:	04G1335	Prep. No:	1 of 1	Anal. Time:	03:14
Data File Name:	1471-02	Sample Amount:	30.0 g	Dilution Factor:	4
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	1600	<1600	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	1600	<1600	U
3	ANTHRACENE	120-12-7	µg/kg	1600	<1600	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	1600	<1600	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	1600	<1600	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	1600	<1600	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	1600	<1600	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	1600	<1600	U
9	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	1600	<1600	U
10	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	1600	<1600	U
11	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	1600	<1600	U
12	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	1600	<1600	U
13	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	1600	<1600	U
14	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	1600	<1600	U
15	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	1600	<1600	U
16	4-CHLOROANILINE	106-47-8	µg/kg	3800	<3800	U
17	2-CHLORONAPHTHALENE	91-58-7	µg/kg	1600	<1600	U
18	2-CHLOROPHENOL	95-57-8	µg/kg	1600	<1600	U
19	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	1600	<1600	U
20	CHRYSENE	218-01-9	µg/kg	1600	<1600	U
21	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	1600	<1600	U
22	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	1600	<1600	U
23	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	1600	<1600	U
24	DIBENZOFURAN	132-64-9	µg/kg	1600	<1600	U
25	1,2-DICHLOROBENZENE	95-50-1	µg/kg	1600	<1600	U
26	1,3-DICHLOROBENZENE	541-73-1	µg/kg	1600	<1600	U
27	1,4-DICHLOROBENZENE	106-46-7	µg/kg	1600	<1600	U
28	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	3300	<3300	U
29	2,4-DICHLOROPHENOL	120-83-2	µg/kg	1600	<1600	U
30	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	1600	<1600	U
31	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	1600	<1600	U
32	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	1600	<1600	U
33	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	7900	<7900	U
34	2,4-DINITROPHENOL	51-28-5	µg/kg	7900	<7900	U
35	2,4-DINITROTOLUENE	121-14-2	µg/kg	1600	<1600	U
36	2,6-DINITROTOLUENE	606-20-2	µg/kg	1600	<1600	U
37	FLUORANTHENE	206-44-0	µg/kg	1600	<1600	U
38	FLUORENE	86-73-7	µg/kg	1600	<1600	U
39	HEXACHLOROBENZENE	118-74-1	µg/kg	1600	<1600	U
40	HEXACHLOROBUTADIENE	87-68-3	µg/kg	1600	<1600	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	7900	<7900	U
42	HEXACHLOROETHANE	67-72-1	µg/kg	1600	<1600	U
43	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	1600	<1600	U
44	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	1600	<1600	U
45	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	1600	<1600	U
46	NAPHTHALENE	91-20-3	µg/kg	1600	<1600	U
47	2-NITROANILINE	88-74-4	µg/kg	7900	<7900	U
48	3-NITROANILINE	99-09-2	µg/kg	7900	<7900	U
49	4-NITROANILINE	100-01-6	µg/kg	7900	<7900	U
50	NITROBENZENE	98-95-3	µg/kg	1600	<1600	U
51	2-NITROPHENOL	88-75-5	µg/kg	1600	<1600	U
52	4-NITROPHENOL	100-02-7	µg/kg	7900	<7900	U
53	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	1600	<1600	U
54	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	3300	<3300	U
55	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	7900	<7900	U
56	PHENANTHRENE	85-01-8	µg/kg	1600	<1600	U
57	PHENOL	108-95-2	µg/kg	1600	<1600	U
58	PYRENE	129-00-0	µg/kg	1600	<1600	U
59	PYRIDINE	110-86-1	µg/kg	1600	<1600	U
60	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	1600	<1600	U
61	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	7900	<7900	U
62	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	1600	<1600	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	72
2	2-FLUOROPHENOL	367-12-4	30-120	73
3	NITROBENZENE-D5	4165-60-0	40-135	73
4	PHENOL-D5	4165-62-2	20-120	63
5	TERPHENYL-D14	1718-51-0	40-135	93
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	62
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	105
2	CHRYSENE-D12	1719-03-5	50-200	84
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	109
4	NAPHTHALENE-D8	1146-65-2	50-200	107
5	PERYLENE-D12	1520-96-3	50-200	60
6	PHENANTHRENE-D10	1517-22-2	50-200	102
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-5	Received Date:	02/05/2004
Sample ID:	**0023-S4-709**	Sample Matrix	Soil	Moisture %:	21.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/09/04	Anal. Date:	02/18/04
Batch No:	04G1335	Prep. No:	1 of 1	Anal. Time:	03:54
Data File Name:	1471-05	Sample Amount:	30.0 g	Dilution Factor:	4
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	1700	<1700	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	1700	<1700	U
3	ANTHRACENE	120-12-7	µg/kg	1700	<1700	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	1700	<1700	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	1700	<1700	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	1700	<1700	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	1700	<1700	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	1700	<1700	U
9	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	1700	<1700	U
10	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	1700	<1700	U
11	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	1700	<1700	U
12	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	1700	<1700	U
13	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	1700	<1700	U
14	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	1700	<1700	U
15	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	1700	<1700	U
16	4-CHLOROANILINE	106-47-8	µg/kg	3900	<3900	U
17	2-CHLORONAPHTHALENE	91-58-7	µg/kg	1700	<1700	U
18	2-CHLOROPHENOL	95-57-8	µg/kg	1700	<1700	U
19	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	1700	<1700	U
20	CHRYSENE	218-01-9	µg/kg	1700	<1700	U
21	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	1700	<1700	U
22	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	1700	<1700	U
23	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	1700	<1700	U
24	DIBENZOFURAN	132-64-9	µg/kg	1700	<1700	U
25	1,2-DICHLOROBENZENE	95-50-1	µg/kg	1700	<1700	U
26	1,3-DICHLOROBENZENE	541-73-1	µg/kg	1700	<1700	U
27	1,4-DICHLOROBENZENE	106-46-7	µg/kg	1700	<1700	U
28	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	3400	<3400	U
29	2,4-DICHLOROPHENOL	120-83-2	µg/kg	1700	<1700	U
30	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	1700	<1700	U
31	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	1700	<1700	U
32	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	1700	<1700	U
33	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	8100	<8100	U
34	2,4-DINITROPHENOL	51-28-5	µg/kg	8100	<8100	U
35	2,4-DINITROTOLUENE	121-14-2	µg/kg	1700	<1700	U
36	2,6-DINITROTOLUENE	606-20-2	µg/kg	1700	<1700	U
37	FLUORANTHENE	206-44-0	µg/kg	1700	<1700	U
38	FLUORENE	86-73-7	µg/kg	1700	<1700	U
39	HEXACHLOROBENZENE	118-74-1	µg/kg	1700	<1700	U
40	HEXACHLOROBUTADIENE	87-68-3	µg/kg	1700	<1700	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	8100	<8100	U
42	HEXACHLOROETHANE	67-72-1	µg/kg	1700	<1700	U
43	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	1700	<1700	U
44	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	1700	<1700	U
45	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	1700	<1700	U
46	NAPHTHALENE	91-20-3	µg/kg	1700	<1700	U
47	2-NITROANILINE	88-74-4	µg/kg	8100	<8100	U
48	3-NITROANILINE	99-09-2	µg/kg	8100	<8100	U
49	4-NITROANILINE	100-01-6	µg/kg	8100	<8100	U
50	NITROBENZENE	98-95-3	µg/kg	1700	<1700	U
51	2-NITROPHENOL	88-75-5	µg/kg	1700	<1700	U
52	4-NITROPHENOL	100-02-7	µg/kg	8100	<8100	U
53	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	1700	<1700	U
54	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	3400	<3400	U
55	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	8100	<8100	U
56	PHENANTHRENE	85-01-8	µg/kg	1700	<1700	U
57	PHENOL	108-95-2	µg/kg	1700	<1700	U
58	PYRENE	129-00-0	µg/kg	1700	<1700	U
59	PYRIDINE	110-86-1	µg/kg	1700	<1700	U
60	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	1700	<1700	U
61	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	8100	<8100	U
62	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	1700	<1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	59
2	2-FLUOROPHENOL	367-12-4	30-120	58
3	NITROBENZENE-D5	4165-60-0	40-135	61
4	PHENOL-D5	4165-62-2	20-120	50
5	TERPHENYL-D14	1718-51-0	40-135	77
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	50
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	112
2	CHRYSENE-D12	1719-03-5	50-200	84
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	116
4	NAPHTHALENE-D8	1146-65-2	50-200	115
5	PERYLENE-D12	1520-96-3	50-200	60
6	PHENANTHRENE-D10	1517-22-2	50-200	109
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-8	Received Date:	02/05/2004
Sample ID:	**0023-S4-712**	Sample Matrix	Soil	Moisture %:	18.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/09/04	Anal. Date:	02/18/04
Batch No:	04G1335	Prep. No:	1 of 1	Anal. Time:	04:34
Data File Name:	1471-08	Sample Amount:	30.0 g	Dilution Factor:	8
Extract Vol.	2.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	3200	<3200	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	3200	<3200	U
3	ANTHRACENE	120-12-7	µg/kg	3200	<3200	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	3200	<3200	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	3200	<3200	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	3200	<3200	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	3200	<3200	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	3200	<3200	U
9	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	3200	<3200	U
10	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	3200	<3200	U
11	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	3200	<3200	U
12	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	3200	<3200	U
13	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	3200	<3200	U
14	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	3200	<3200	U
15	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	3200	<3200	U
16	4-CHLOROANILINE	106-47-8	µg/kg	7500	<7500	U
17	2-CHLORONAPHTHALENE	91-58-7	µg/kg	3200	<3200	U
18	2-CHLOROPHENOL	95-57-8	µg/kg	3200	<3200	U
19	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	3200	<3200	U
20	CHRYSENE	218-01-9	µg/kg	3200	<3200	U
21	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	3200	<3200	U
22	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	3200	<3200	U
23	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	3200	<3200	U
24	DIBENZOFURAN	132-64-9	µg/kg	3200	<3200	U
25	1,2-DICHLOROBENZENE	95-50-1	µg/kg	3200	<3200	U
26	1,3-DICHLOROBENZENE	541-73-1	µg/kg	3200	<3200	U
27	1,4-DICHLOROBENZENE	106-46-7	µg/kg	3200	<3200	U
28	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	6500	<6500	U
29	2,4-DICHLOROPHENOL	120-83-2	µg/kg	3200	<3200	U
30	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	3200	<3200	U
31	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	3200	<3200	U
32	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	3200	<3200	U
33	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	16000	<16000	U
34	2,4-DINITROPHENOL	51-28-5	µg/kg	16000	<16000	U
35	2,4-DINITROTOLUENE	121-14-2	µg/kg	3200	<3200	U
36	2,6-DINITROTOLUENE	606-20-2	µg/kg	3200	<3200	U
37	FLUORANTHENE	206-44-0	µg/kg	3200	<3200	U
38	FLUORENE	86-73-7	µg/kg	3200	<3200	U
39	HEXACHLOROBENZENE	118-74-1	µg/kg	3200	<3200	U
40	HEXACHLOROBUTADIENE	87-68-3	µg/kg	3200	<3200	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	16000	<16000	U
42	HEXACHLOROETHANE	67-72-1	µg/kg	3200	<3200	U
43	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	3200	<3200	U
44	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	3200	<3200	U
45	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	3200	<3200	U
46	NAPHTHALENE	91-20-3	µg/kg	3200	<3200	U
47	2-NITROANILINE	88-74-4	µg/kg	16000	<16000	U
48	3-NITROANILINE	99-09-2	µg/kg	16000	<16000	U
49	4-NITROANILINE	100-01-6	µg/kg	16000	<16000	U
50	NITROBENZENE	98-95-3	µg/kg	3200	<3200	U
51	2-NITROPHENOL	88-75-5	µg/kg	3200	<3200	U
52	4-NITROPHENOL	100-02-7	µg/kg	16000	<16000	U
53	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	3200	<3200	U
54	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	6500	<6500	U
55	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	16000	<16000	U
56	PHENANTHRENE	85-01-8	µg/kg	3200	<3200	U
57	PHENOL	108-95-2	µg/kg	3200	<3200	U
58	PYRENE	129-00-0	µg/kg	3200	190	J
59	PYRIDINE	110-86-1	µg/kg	3200	<3200	U
60	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	3200	<3200	U
61	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	16000	<16000	U
62	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	3200	<3200	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	47
2	2-FLUOROPHENOL	367-12-4	30-120	42
3	NITROBENZENE-D5	4165-60-0	40-135	48
4	PHENOL-D5	4165-62-2	20-120	39
5	TERPHENYL-D14	1718-51-0	40-135	69
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	40
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	116
2	CHRYSENE-D12	1719-03-5	50-200	85
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	117
4	NAPHTHALENE-D8	1146-65-2	50-200	117
5	PERYLENE-D12	1520-96-3	50-200	56
6	PHENANTHRENE-D10	1517-22-2	50-200	114
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-2	Received Date:	02/05/2004
Sample ID:	**0023-S4-706**	Sample Matrix	Soil	Moisture %:	19.5
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/11/04
Batch No:	04G1357	Prep. No:	1 of 1	Anal. Time:	15:30
Data File Name:	1471.002	Sample Amount:	30.0 g	Dilution Factor:	10
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	21	<21	U
2	BETA BHC	319-85-7	µg/kg	21	<21	U
3	ALPHA BHC	319-84-6	µg/kg	21	<21	U
4	DELTA BHC	319-86-8	µg/kg	21	<21	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	21	<21	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	12	<12	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	12	<12	U
8	P,P'-DDD	72-54-8	µg/kg	37	4	J
9	P,P'-DDE	72-55-9	µg/kg	37	<37	U
10	P,P'-DDT	50-29-3	µg/kg	37	<37	U
11	DIELDRIN	60-57-1	µg/kg	37	<37	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	21	<21	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	37	<37	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	62	<62	U
15	ENDRIN	72-20-8	µg/kg	37	<37	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	37	<37	U
17	ENDRIN KETONE	53494-70-5	µg/kg	25	<25	U
18	HEPTACHLOR	76-44-8	µg/kg	21	<21	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	21	<21	U
20	METHOXYCHLOR	72-43-5	µg/kg	120	<120	U
21	TOXAPHENE	8001-35-2	µg/kg	1200	<1200	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	120
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	78
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	93
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-5	Received Date:	02/05/2004
Sample ID:	**0023-S4-709**	Sample Matrix	Soil	Moisture %:	21.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/11/04
Batch No:	04G1357	Prep. No:	1 of 1	Anal. Time:	15:55
Data File Name:	1471.005	Sample Amount:	30.0 g	Dilution Factor:	10
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	22	<22	U
2	BETA BHC	319-85-7	µg/kg	22	<22	U
3	ALPHA BHC	319-84-6	µg/kg	22	<22	U
4	DELTA BHC	319-86-8	µg/kg	22	<22	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	22	<22	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	13	<13	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	13	<13	U
8	P,P'-DDD	72-54-8	µg/kg	38	2	J
9	P,P'-DDE	72-55-9	µg/kg	38	<38	U
10	P,P'-DDT	50-29-3	µg/kg	38	23	J
11	DIELDRIN	60-57-1	µg/kg	38	<38	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	22	<22	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	38	<38	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	64	<64	U
15	ENDRIN	72-20-8	µg/kg	38	<38	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	38	<38	U
17	ENDRIN KETONE	53494-70-5	µg/kg	25	<25	U
18	HEPTACHLOR	76-44-8	µg/kg	22	<22	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	22	<22	U
20	METHOXYCHLOR	72-43-5	µg/kg	130	<130	U
21	TOXAPHENE	8001-35-2	µg/kg	1300	<1300	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	76
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	95
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	89
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-8	Received Date:	02/05/2004
Sample ID:	**0023-S4-712**	Sample Matrix	Soil	Moisture %:	18.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/11/04
Batch No:	04G1357	Prep. No:	1 of 1	Anal. Time:	16:20
Data File Name:	1471.008	Sample Amount:	30.0 g	Dilution Factor:	10
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	21	<21	U
2	BETA BHC	319-85-7	µg/kg	21	<21	U
3	ALPHA BHC	319-84-6	µg/kg	21	<21	U
4	DELTA BHC	319-86-8	µg/kg	21	<21	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	21	<21	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	12	<12	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	12	<12	U
8	P,P'-DDD	72-54-8	µg/kg	37	7	J
9	P,P'-DDE	72-55-9	µg/kg	37	<37	U
10	P,P'-DDT	50-29-3	µg/kg	37	30	J
11	DIELDRIN	60-57-1	µg/kg	37	<37	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	21	<21	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	37	<37	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	61	<61	U
15	ENDRIN	72-20-8	µg/kg	37	<37	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	37	<37	U
17	ENDRIN KETONE	53494-70-5	µg/kg	25	<25	U
18	HEPTACHLOR	76-44-8	µg/kg	21	<21	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	21	<21	U
20	METHOXYCHLOR	72-43-5	µg/kg	120	<120	U
21	TOXAPHENE	8001-35-2	µg/kg	1200	<1200	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	65
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	83
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	89
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-2	Received Date:	02/05/2004
Sample ID:	**0023-S4-706**	Sample Matrix	Soil	Moisture %:	19.5
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/09/04	Anal. Date:	02/10/04
Batch No:	04G1329	Prep. No:	1 of 1	Anal. Time:	23:46
Data File Name:	1471.102	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	41	<41	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	82	<82	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	41	<41	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	41	<41	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	41	<41	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	41	84 [c]	
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	41	75 [c]	

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	70
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	64
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[c] Sample contained more than one PCB, result estimated.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-5	Received Date:	02/05/2004
Sample ID:	**0023-S4-709**	Sample Matrix	Soil	Moisture %:	21.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/09/04	Anal. Date:	02/11/04
Batch No:	04G1329	Prep. No:	1 of 1	Anal. Time:	00:10
Data File Name:	1471.105	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	42	<42	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	84	<84	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	42	<42	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	42	<42	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	42	<42	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	42	200 [c]	
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	42	100 [c]	

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	89
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	78
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[c] Sample contained more than one PCB, result estimated.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-8	Received Date:	02/05/2004
Sample ID:	**0023-S4-712**	Sample Matrix	Soil	Moisture %:	18.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/09/04	Anal. Date:	02/11/04
Batch No:	04G1329	Prep. No:	1 of 1	Anal. Time:	00:35
Data File Name:	1471.108	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	41	< 41	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	81	< 81	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	41	< 41	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	41	< 41	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	41	< 41	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	41	270 [c]	
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	41	130 [c]	

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	98
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	61
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[c] Sample contained more than one PCB, result estimated.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-1	Received Date:	02/05/2004
Sample ID:	**0023-S4-705**	Sample Matrix	Soil	Moisture %:	21.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.4	1.4	J	P		04M1180M	02/09/04	02/09/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.38	5.6		P		04M1180M	02/09/04	02/09/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	155		P		04M1180M	02/09/04	02/09/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1180M	02/09/04	02/09/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.45		P		04M1180M	02/09/04	02/09/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.64	33.3		P		04M1180M	02/09/04	02/09/04	1	6010B
COBALT	7440-48-4	mg/kg	0.64	13.8		P		04M1180M	02/09/04	02/09/04	1	6010B
COPPER	7440-50-8	mg/kg	0.64	34.2		P		04M1180M	02/09/04	02/09/04	1	6010B
LEAD	7439-92-1	mg/kg	0.38	302		P		04M1180M	02/09/04	02/09/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.23	J	CV		04M1183H	02/09/04	02/09/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.25	0.50		P		04M1180M	02/09/04	02/09/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.38	17.6		P		04M1180M	02/09/04	02/09/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.51	0.46	J	P		04M1180M	02/09/04	02/09/04	1	6010B
SILVER	7440-22-4	mg/kg	0.64	<0.64	U	P		04M1180M	02/09/04	02/09/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.64	<0.64	U	P		04M1180M	02/09/04	02/09/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.64	53.9		P		04M1180M	02/09/04	02/09/04	1	6010B
ZINC	7440-66-6	mg/kg	0.64	157		P		04M1180M	02/09/04	02/09/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-2	Received Date:	02/05/2004
Sample ID:	**0023-S4-706**	Sample Matrix	Soil	Moisture %:	19.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.2	2.2	J	P		04M1180M	02/09/04	02/09/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.37	5.7		P		04M1180M	02/09/04	02/09/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	194		P		04M1180M	02/09/04	02/09/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1180M	02/09/04	02/09/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.31		P		04M1180M	02/09/04	02/09/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.62	35.9		P		04M1180M	02/09/04	02/09/04	1	6010B
COBALT	7440-48-4	mg/kg	0.62	13.2		P		04M1180M	02/09/04	02/09/04	1	6010B
COPPER	7440-50-8	mg/kg	0.62	29.3		P		04M1180M	02/09/04	02/09/04	1	6010B
LEAD	7439-92-1	mg/kg	0.37	446		P		04M1180M	02/09/04	02/09/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.26		CV		04M1183H	02/09/04	02/09/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.25	0.13	J	P		04M1180M	02/09/04	02/09/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.37	16.4		P		04M1180M	02/09/04	02/09/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.50	0.25	J	P		04M1180M	02/09/04	02/09/04	1	6010B
SILVER	7440-22-4	mg/kg	0.62	<0.62	U	P		04M1180M	02/09/04	02/09/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.62	<0.62	U	P		04M1180M	02/09/04	02/09/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.62	51.4		P		04M1180M	02/09/04	02/09/04	1	6010B
ZINC	7440-66-6	mg/kg	0.62	154		P		04M1180M	02/09/04	02/09/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-3	Received Date:	02/05/2004
Sample ID:	**0023-S4-707**	Sample Matrix	Soil	Moisture %:	20.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.2	3.4	J	P		04M1180M	02/09/04	02/09/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.37	8.4		P		04M1180M	02/09/04	02/09/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	379		P		04M1180M	02/09/04	02/09/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1180M	02/09/04	02/09/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.42		P		04M1180M	02/09/04	02/09/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.62	60.0		P		04M1180M	02/09/04	02/09/04	1	6010B
COBALT	7440-48-4	mg/kg	0.62	14.3		P		04M1180M	02/09/04	02/09/04	1	6010B
COPPER	7440-50-8	mg/kg	0.62	43.0		P		04M1180M	02/09/04	02/09/04	1	6010B
LEAD	7439-92-1	mg/kg	0.37	1390		P		04M1180M	02/09/04	02/09/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.58		CV		04M1183H	02/09/04	02/09/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.25	0.18	J	P		04M1180M	02/09/04	02/09/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.37	19.1		P		04M1180M	02/09/04	02/09/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.50	<0.50	U	P		04M1180M	02/09/04	02/09/04	1	6010B
SILVER	7440-22-4	mg/kg	0.62	<0.62	U	P		04M1180M	02/09/04	02/09/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.62	<0.62	U	P		04M1180M	02/09/04	02/09/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.62	56.4		P		04M1180M	02/09/04	02/09/04	1	6010B
ZINC	7440-66-6	mg/kg	0.62	313		P		04M1180M	02/09/04	02/09/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-4	Received Date:	02/05/2004
Sample ID:	**0023-S4-708**	Sample Matrix	Soil	Moisture %:	24.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.6	2.7	J	P		04M1180M	02/09/04	02/09/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.40	8.1		P		04M1180M	02/09/04	02/09/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	445		P		04M1180M	02/09/04	02/09/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.26	<0.26	U	P		04M1180M	02/09/04	02/09/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.26	0.51		P		04M1180M	02/09/04	02/09/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.66	63.3		P		04M1180M	02/09/04	02/09/04	1	6010B
COBALT	7440-48-4	mg/kg	0.66	14.8		P		04M1180M	02/09/04	02/09/04	1	6010B
COPPER	7440-50-8	mg/kg	0.66	45.9		P		04M1180M	02/09/04	02/09/04	1	6010B
LEAD	7439-92-1	mg/kg	0.40	1710		P		04M1180M	02/09/04	02/09/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.26	0.60		CV		04M1183H	02/09/04	02/09/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.26	0.27		P		04M1180M	02/09/04	02/09/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.40	20.4		P		04M1180M	02/09/04	02/09/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.53	1.1		P		04M1180M	02/09/04	02/09/04	1	6010B
SILVER	7440-22-4	mg/kg	0.66	<0.66	U	P		04M1180M	02/09/04	02/09/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.66	<0.66	U	P		04M1180M	02/09/04	02/09/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.66	58.0		P		04M1180M	02/09/04	02/09/04	1	6010B
ZINC	7440-66-6	mg/kg	0.66	350		P		04M1180M	02/09/04	02/09/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-5	Received Date:	02/05/2004
Sample ID:	**0023-S4-709**	Sample Matrix	Soil	Moisture %:	21.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.4	3.0	J	P		04M1180M	02/09/04	02/09/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.38	7.7		P		04M1180M	02/09/04	02/09/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	359		P		04M1180M	02/09/04	02/09/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1180M	02/09/04	02/09/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.52		P		04M1180M	02/09/04	02/09/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.64	57.4		P		04M1180M	02/09/04	02/09/04	1	6010B
COBALT	7440-48-4	mg/kg	0.64	13.9		P		04M1180M	02/09/04	02/09/04	1	6010B
COPPER	7440-50-8	mg/kg	0.64	43.0		P		04M1180M	02/09/04	02/09/04	1	6010B
LEAD	7439-92-1	mg/kg	0.38	1250		P		04M1180M	02/09/04	02/09/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.84		CV		04M1183H	02/09/04	02/09/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.25	<0.25	U	P		04M1180M	02/09/04	02/09/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.38	18.5		P		04M1180M	02/09/04	02/09/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.51	0.39	J	P		04M1180M	02/09/04	02/09/04	1	6010B
SILVER	7440-22-4	mg/kg	0.64	<0.64	U	P		04M1180M	02/09/04	02/09/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.64	<0.64	U	P		04M1180M	02/09/04	02/09/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.64	53.2		P		04M1180M	02/09/04	02/09/04	1	6010B
ZINC	7440-66-6	mg/kg	0.64	298		P		04M1180M	02/09/04	02/09/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-6	Received Date:	02/05/2004
Sample ID:	**0023-S4-710**	Sample Matrix	Soil	Moisture %:	18.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.1	1.7	J	P		04M1180M	02/09/04	02/09/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.37	8.8		P		04M1180M	02/09/04	02/09/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	314		P		04M1180M	02/09/04	02/09/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		04M1180M	02/09/04	02/09/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	0.46		P		04M1180M	02/09/04	02/09/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.61	50.6		P		04M1180M	02/09/04	02/09/04	1	6010B
COBALT	7440-48-4	mg/kg	0.61	13.5		P		04M1180M	02/09/04	02/09/04	1	6010B
COPPER	7440-50-8	mg/kg	0.61	36.7		P		04M1180M	02/09/04	02/09/04	1	6010B
LEAD	7439-92-1	mg/kg	0.37	987		P		04M1180M	02/09/04	02/09/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	0.66		CV		04M1183H	02/09/04	02/09/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.24	0.12	J	P		04M1180M	02/09/04	02/09/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.37	17.7		P		04M1180M	02/09/04	02/09/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.49	<0.49	U	P		04M1180M	02/09/04	02/09/04	1	6010B
SILVER	7440-22-4	mg/kg	0.61	<0.61	U	P		04M1180M	02/09/04	02/09/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.61	<0.61	U	P		04M1180M	02/09/04	02/09/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.61	51.3		P		04M1180M	02/09/04	02/09/04	1	6010B
ZINC	7440-66-6	mg/kg	0.61	240		P		04M1180M	02/09/04	02/09/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-7	Received Date:	02/05/2004
Sample ID:	**0023-S4-711**	Sample Matrix	Soil	Moisture %:	20.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.3	3.9	J	P		04M1180M	02/09/04	02/09/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.38	8.2		P		04M1180M	02/09/04	02/09/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	422		P		04M1180M	02/09/04	02/09/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1180M	02/09/04	02/09/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.49		P		04M1180M	02/09/04	02/09/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.63	86.3		P		04M1180M	02/09/04	02/09/04	1	6010B
COBALT	7440-48-4	mg/kg	0.63	13.6		P		04M1180M	02/09/04	02/09/04	1	6010B
COPPER	7440-50-8	mg/kg	0.63	46.7		P		04M1180M	02/09/04	02/09/04	1	6010B
LEAD	7439-92-1	mg/kg	0.38	1340		P		04M1180M	02/09/04	02/09/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	1.5		CV		04M1183H	02/09/04	02/09/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.25	0.083	J	P		04M1180M	02/09/04	02/09/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.38	18.7		P		04M1180M	02/09/04	02/09/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.50	0.28	J	P		04M1180M	02/09/04	02/09/04	1	6010B
SILVER	7440-22-4	mg/kg	0.63	<0.63	U	P		04M1180M	02/09/04	02/09/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.63	<0.63	U	P		04M1180M	02/09/04	02/09/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.63	51.7		P		04M1180M	02/09/04	02/09/04	1	6010B
ZINC	7440-66-6	mg/kg	0.63	305		P		04M1180M	02/09/04	02/09/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-8	Received Date:	02/05/2004
Sample ID:	**0023-S4-712**	Sample Matrix	Soil	Moisture %:	18.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.1	2.3	J	P		04M1180M	02/09/04	02/09/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.37	8.7		P		04M1180M	02/09/04	02/09/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	444		P		04M1180M	02/09/04	02/09/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1180M	02/09/04	02/09/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.63		P		04M1180M	02/09/04	02/09/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.61	59.6		P		04M1180M	02/09/04	02/09/04	1	6010B
COBALT	7440-48-4	mg/kg	0.61	13.6		P		04M1180M	02/09/04	02/09/04	1	6010B
COPPER	7440-50-8	mg/kg	0.61	41.8		P		04M1180M	02/09/04	02/09/04	1	6010B
LEAD	7439-92-1	mg/kg	0.37	1750		P		04M1180M	02/09/04	02/09/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.64		CV		04M1183H	02/09/04	02/09/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.25	0.15	J	P		04M1180M	02/09/04	02/09/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.37	18.8		P		04M1180M	02/09/04	02/09/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.49	<0.49	U	P		04M1180M	02/09/04	02/09/04	1	6010B
SILVER	7440-22-4	mg/kg	0.61	<0.61	U	P		04M1180M	02/09/04	02/09/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.61	<0.61	U	P		04M1180M	02/09/04	02/09/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.61	52.4		P		04M1180M	02/09/04	02/09/04	1	6010B
ZINC	7440-66-6	mg/kg	0.61	373		P		04M1180M	02/09/04	02/09/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/05/2004
Project ID:	IR Sites 4 & 7	Service ID:	41471	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1471-9	Received Date:	02/05/2004
Sample ID:	**0023-S4-713**	Sample Matrix	Soil	Moisture %:	18.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.1	2.5	J	P		04M1180M	02/09/04	02/09/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.37	9.0		P		04M1180M	02/09/04	02/09/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	431		P		04M1180M	02/09/04	02/09/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		04M1180M	02/09/04	02/09/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	0.55		P		04M1180M	02/09/04	02/09/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.61	60.2		P		04M1180M	02/09/04	02/09/04	1	6010B
COBALT	7440-48-4	mg/kg	0.61	14.2		P		04M1180M	02/09/04	02/09/04	1	6010B
COPPER	7440-50-8	mg/kg	0.61	43.1		P		04M1180M	02/09/04	02/09/04	1	6010B
LEAD	7439-92-1	mg/kg	0.37	1580		P		04M1180M	02/09/04	02/09/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	0.49		CV		04M1183H	02/09/04	02/09/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.24	0.29		P		04M1180M	02/09/04	02/09/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.37	19.3		P		04M1180M	02/09/04	02/09/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.49	1.2		P		04M1180M	02/09/04	02/09/04	1	6010B
SILVER	7440-22-4	mg/kg	0.61	<0.61	U	P		04M1180M	02/09/04	02/09/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.61	<0.61	U	P		04M1180M	02/09/04	02/09/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.61	55.8		P		04M1180M	02/09/04	02/09/04	1	6010B
ZINC	7440-66-6	mg/kg	0.61	366		P		04M1180M	02/09/04	02/09/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05299

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Sites 4 + 7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWENSTA Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Brenkowski	SAMPLER SIGNATURE: Lisa Brenkowski
PROJECT CONTACT: Lisa Brenkowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1489 (04-1576-STLC/TCLP)

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	THU 22 Metals	EPA 8270C	EPA 8270C	EPA 8081A	EPA 8082	STLC Chromium	TCLP lead	STLC Lead	TCLP lead	TCLP SVOCs	COMMENTS 04-1797 (TCLP SVOCs)	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-714	2/6/04	0725	5	X		S	5 day	X					X	X					Stockpile A6	—	—	REG
0023-S4-715	2/6/04	0815	9	X		S	5 day	X	X	X	X	X	X	X			X		Stockpile B6	—	—	REG
0023-S4-716	2/6/04	0916	5	X		S	5 day	X					X	X					Stockpile A7	—	—	REG
0023-S4-717	2/6/04	1032	5	X		S	5 day	X					X	X					Stockpile B7	—	—	REG
0023-S4-718	2/6/04	1053	9	X		S	5 day	X	X	X	X	X	X	X	X	X	X		Stockpile A8	—	—	REG
0023-S4-719	2/6/04	1129	5	X		S	5 day	X						X					Stockpile B8	—	—	REG
0023-S4-720	2/6/04	1302	5	X		S	5 day	X						X					Stockpile A9	—	—	REG
0023-S4-721	2/6/04	1330	9	X		S	5 day	X	X	X	X	X	X	X			X		Stockpile B9	—	—	REG

2/6/04

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Brenkowski	2/6/04	[signature]
COMPANY: TFWI	TIME: 1530	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: Composite all 5 jars per sample before analysis.

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Stockpile #1 Sampling

04-1576
04-1489 04-17

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-2	Received Date:	02/06/2004
Sample ID:	**0023-S4-715**	Sample Matrix	Soil	Moisture %:	21.1
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: C
Anal. Method:	8260B	Prep. Date:	02/07/04	Anal. Date:	02/07/04
Batch No:	04G1312	Prep. No:	–	Anal. Time:	09:51
Data File Name:	1489-02	Sample Amount:	4.18 g	Dilution Factor:	1.2
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	76	77	
2	BENZENE	71-43-2	µg/kg	7.6	<7.6	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	7.6	<7.6	U
4	BROMOFORM	75-25-2	µg/kg	7.6	<7.6	U
5	BROMOMETHANE	74-83-9	µg/kg	7.6	<7.6	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	76	<76	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	7.6	<7.6	U
8	CHLOROBENZENE	108-90-7	µg/kg	7.6	<7.6	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	7.6	<7.6	U
10	CHLOROETHANE	75-00-3	µg/kg	7.6	<7.6	U
11	CHLOROFORM	67-66-3	µg/kg	7.6	<7.6	U
12	CHLOROMETHANE	74-87-3	µg/kg	7.6	<7.6	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	7.6	<7.6	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	7.6	<7.6	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	7.6	<7.6	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	7.6	<7.6	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	7.6	<7.6	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	7.6	<7.6	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	7.6	<7.6	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	7.6	<7.6	U
21	ETHYLBENZENE	100-41-4	µg/kg	7.6	<7.6	U
22	2-HEXANONE	591-78-6	µg/kg	76	<76	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	7.6	<7.6	U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	76	<76	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	15	<15	U
26	STYRENE	100-42-5	µg/kg	7.6	<7.6	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	7.6	<7.6	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	7.6	<7.6	U
29	TOLUENE	108-88-3	µg/kg	7.6	<7.6	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	7.6	<7.6	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	7.6	<7.6	U
32	TRICHLOROETHENE	79-01-6	µg/kg	7.6	<7.6	U
33	VINYL ACETATE	108-05-4	µg/kg	76	<76	U
34	VINYL CHLORIDE	75-01-4	µg/kg	7.6	<7.6	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	7.6	<7.6	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	103
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	116

Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	115
4	TOLUENE-D8	2037-26-5	80-120	94
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	111
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	117
3	FLUOROBENZENE	462-06-6	50-200	86
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-5	Received Date:	02/06/2004
Sample ID:	**0023-S4-718**	Sample Matrix	Soil	Moisture %:	15.6
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: C
Anal. Method:	8260B	Prep. Date:	02/07/04	Anal. Date:	02/07/04
Batch No:	04G1312	Prep. No:	–	Anal. Time:	10:17
Data File Name:	1489-05	Sample Amount:	4.58 g	Dilution Factor:	1.09
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	65	49	J
2	BENZENE	71-43-2	µg/kg	6.5	<6.5	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.5	<6.5	U
4	BROMOFORM	75-25-2	µg/kg	6.5	<6.5	U
5	BROMOMETHANE	74-83-9	µg/kg	6.5	<6.5	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	65	14	J
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.5	<6.5	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.5	<6.5	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.5	<6.5	U
10	CHLOROETHANE	75-00-3	µg/kg	6.5	<6.5	U
11	CHLOROFORM	67-66-3	µg/kg	6.5	<6.5	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.5	<6.5	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.5	<6.5	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.5	<6.5	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.5	<6.5	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.5	<6.5	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.5	<6.5	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.5	<6.5	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.5	<6.5	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.5	<6.5	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.5	0.9	J
22	2-HEXANONE	591-78-6	µg/kg	65	<65	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.5	<6.5	U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	65	<65	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	13	<13	U
26	STYRENE	100-42-5	µg/kg	6.5	<6.5	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.5	<6.5	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.5	<6.5	U
29	TOLUENE	108-88-3	µg/kg	6.5	<6.5	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.5	<6.5	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.5	<6.5	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.5	<6.5	U
33	VINYL ACETATE	108-05-4	µg/kg	65	<65	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.5	<6.5	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.5	<6.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	104
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	114

Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	112
4	TOLUENE-D8	2037-26-5	80-120	94
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	108
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	112
3	FLUOROBENZENE	462-06-6	50-200	82
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-8	Received Date:	02/06/2004
Sample ID:	**0023-S4-721**	Sample Matrix	Soil	Moisture %:	15.0
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: C
Anal. Method:	8260B	Prep. Date:	02/07/04	Anal. Date:	02/07/04
Batch No:	04G1312	Prep. No:	–	Anal. Time:	10:44
Data File Name:	1489-08	Sample Amount:	4.71 g	Dilution Factor:	1.06
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	62	52	J
2	BENZENE	71-43-2	µg/kg	6.2	<6.2	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.2	<6.2	U
4	BROMOFORM	75-25-2	µg/kg	6.2	<6.2	U
5	BROMOMETHANE	74-83-9	µg/kg	6.2	<6.2	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	62	14	J
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.2	<6.2	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.2	<6.2	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.2	<6.2	U
10	CHLOROETHANE	75-00-3	µg/kg	6.2	<6.2	U
11	CHLOROFORM	67-66-3	µg/kg	6.2	<6.2	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.2	<6.2	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.2	<6.2	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.2	<6.2	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.2	<6.2	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.2	<6.2	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.2	<6.2	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.2	<6.2	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.2	<6.2	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.2	<6.2	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.2	<6.2	U
22	2-HEXANONE	591-78-6	µg/kg	62	<62	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.2	<6.2	U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	62	0.8	J
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	12	<12	U
26	STYRENE	100-42-5	µg/kg	6.2	<6.2	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.2	<6.2	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.2	<6.2	U
29	TOLUENE	108-88-3	µg/kg	6.2	<6.2	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.2	<6.2	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.2	<6.2	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.2	<6.2	U
33	VINYL ACETATE	108-05-4	µg/kg	62	<62	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.2	<6.2	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.2	<6.2	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	104
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	113

Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	109
4	TOLUENE-D8	2037-26-5	80-120	94
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	109
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	112
3	FLUOROBENZENE	462-06-6	50-200	85
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-2	Received Date:	02/06/2004
Sample ID:	**0023-S4-715**	Sample Matrix	Soil	Moisture %:	21.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/09/04	Anal. Date:	02/18/04
Batch No:	04G1335	Prep. No:	1 of 1	Anal. Time:	01:16
Data File Name:	1489-02	Sample Amount:	30.0 g	Dilution Factor:	20 (b)
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	8400	<8400	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	8400	<8400	U
3	ANTHRACENE	120-12-7	µg/kg	8400	<8400	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	8400	<8400	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	8400	<8400	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	8400	<8400	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	8400	<8400	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	8400	<8400	U
9	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	8400	<8400	U
10	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	8400	<8400	U
11	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	8400	<8400	U
12	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	8400	<8400	U
13	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	8400	<8400	U
14	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	8400	<8400	U
15	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	8400	<8400	U
16	4-CHLOROANILINE	106-47-8	µg/kg	19000	<19000	U
17	2-CHLORONAPHTHALENE	91-58-7	µg/kg	8400	<8400	U
18	2-CHLOROPHENOL	95-57-8	µg/kg	8400	<8400	U
19	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	8400	<8400	U
20	CHRYSENE	218-01-9	µg/kg	8400	<8400	U
21	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	8400	<8400	U
22	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	8400	<8400	U
23	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	8400	<8400	U
24	DIBENZOFURAN	132-64-9	µg/kg	8400	<8400	U
25	1,2-DICHLOROBENZENE	95-50-1	µg/kg	8400	<8400	U
26	1,3-DICHLOROBENZENE	541-73-1	µg/kg	8400	<8400	U
27	1,4-DICHLOROBENZENE	106-46-7	µg/kg	8400	<8400	U
28	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	17000	<17000	U
29	2,4-DICHLOROPHENOL	120-83-2	µg/kg	8400	<8400	U
30	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	8400	<8400	U
31	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	8400	<8400	U
32	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	8400	<8400	U
33	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	41000	<41000	U
34	2,4-DINITROPHENOL	51-28-5	µg/kg	41000	<41000	U
35	2,4-DINITROTOLUENE	121-14-2	µg/kg	8400	<8400	U
36	2,6-DINITROTOLUENE	606-20-2	µg/kg	8400	<8400	U
37	FLUORANTHENE	206-44-0	µg/kg	8400	<8400	U
38	FLUORENE	86-73-7	µg/kg	8400	<8400	U
39	HEXACHLOROBENZENE	118-74-1	µg/kg	8400	<8400	U
40	HEXACHLOROBUTADIENE	87-68-3	µg/kg	8400	<8400	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	41000	<41000	U
42	HEXACHLOROETHANE	67-72-1	µg/kg	8400	<8400	U
43	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	8400	<8400	U
44	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	8400	<8400	U
45	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	8400	<8400	U
46	NAPHTHALENE	91-20-3	µg/kg	8400	<8400	U
47	2-NITROANILINE	88-74-4	µg/kg	41000	<41000	U
48	3-NITROANILINE	99-09-2	µg/kg	41000	<41000	U
49	4-NITROANILINE	100-01-6	µg/kg	41000	<41000	U
50	NITROBENZENE	98-95-3	µg/kg	8400	<8400	U
51	2-NITROPHENOL	88-75-5	µg/kg	8400	<8400	U
52	4-NITROPHENOL	100-02-7	µg/kg	41000	<41000	U
53	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	8400	<8400	U
54	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	17000	<17000	U
55	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	41000	<41000	U
56	PHENANTHRENE	85-01-8	µg/kg	8400	<8400	U
57	PHENOL	108-95-2	µg/kg	8400	<8400	U
58	PYRENE	129-00-0	µg/kg	8400	<8400	U
59	PYRIDINE	110-86-1	µg/kg	8400	<8400	U
60	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	8400	<8400	U
61	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	41000	<41000	U
62	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	8400	<8400	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	60
2	2-FLUOROPHENOL	367-12-4	30-120	62
3	NITROBENZENE-D5	4165-60-0	40-135	57
4	PHENOL-D5	4165-62-2	20-120	52
5	TERPHENYL-D14	1718-51-0	40-135	70
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	41
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	107
2	CHRYSENE-D12	1719-03-5	50-200	92
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	107
4	NAPHTHALENE-D8	1146-65-2	50-200	109
5	PERYLENE-D12	1520-96-3	50-200	74
6	PHENANTHRENE-D10	1517-22-2	50-200	105
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[b]Sample extract was dark and viscous, dilution was necessary.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-5	Received Date:	02/06/2004
Sample ID:	**0023-S4-718**	Sample Matrix	Soil	Moisture %:	15.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/09/04	Anal. Date:	02/18/04
Batch No:	04G1335	Prep. No:	1 of 1	Anal. Time:	01:55
Data File Name:	1489-05	Sample Amount:	29.9 g	Dilution Factor:	20 (b)
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	7800	<7800	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	7800	<7800	U
3	ANTHRACENE	120-12-7	µg/kg	7800	<7800	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	7800	<7800	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	7800	<7800	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	7800	<7800	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	7800	<7800	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	7800	<7800	U
9	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	7800	<7800	U
10	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	7800	<7800	U
11	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	7800	<7800	U
12	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	7800	<7800	U
13	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	7800	<7800	U
14	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	7800	<7800	U
15	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	7800	<7800	U
16	4-CHLOROANILINE	106-47-8	µg/kg	18000	<18000	U
17	2-CHLORONAPHTHALENE	91-58-7	µg/kg	7800	<7800	U
18	2-CHLOROPHENOL	95-57-8	µg/kg	7800	<7800	U
19	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	7800	<7800	U
20	CHRYSENE	218-01-9	µg/kg	7800	<7800	U
21	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	7800	<7800	U
22	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	7800	<7800	U
23	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	7800	<7800	U
24	DIBENZOFURAN	132-64-9	µg/kg	7800	<7800	U
25	1,2-DICHLOROBENZENE	95-50-1	µg/kg	7800	<7800	U
26	1,3-DICHLOROBENZENE	541-73-1	µg/kg	7800	<7800	U
27	1,4-DICHLOROBENZENE	106-46-7	µg/kg	7800	<7800	U
28	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	16000	<16000	U
29	2,4-DICHLOROPHENOL	120-83-2	µg/kg	7800	<7800	U
30	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	7800	<7800	U
31	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	7800	<7800	U
32	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	7800	<7800	U
33	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	38000	<38000	U
34	2,4-DINITROPHENOL	51-28-5	µg/kg	38000	<38000	U
35	2,4-DINITROTOLUENE	121-14-2	µg/kg	7800	<7800	U
36	2,6-DINITROTOLUENE	606-20-2	µg/kg	7800	<7800	U
37	FLUORANTHENE	206-44-0	µg/kg	7800	<7800	U
38	FLUORENE	86-73-7	µg/kg	7800	<7800	U
39	HEXACHLOROBENZENE	118-74-1	µg/kg	7800	<7800	U
40	HEXACHLOROBUTADIENE	87-68-3	µg/kg	7800	<7800	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	38000	<38000	U
42	HEXACHLOROETHANE	67-72-1	µg/kg	7800	<7800	U
43	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	7800	<7800	U
44	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	7800	<7800	U
45	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	7800	<7800	U
46	NAPHTHALENE	91-20-3	µg/kg	7800	<7800	U
47	2-NITROANILINE	88-74-4	µg/kg	38000	<38000	U
48	3-NITROANILINE	99-09-2	µg/kg	38000	<38000	U
49	4-NITROANILINE	100-01-6	µg/kg	38000	<38000	U
50	NITROBENZENE	98-95-3	µg/kg	7800	<7800	U
51	2-NITROPHENOL	88-75-5	µg/kg	7800	<7800	U
52	4-NITROPHENOL	100-02-7	µg/kg	38000	<38000	U
53	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	7800	<7800	U
54	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	16000	<16000	U
55	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	38000	<38000	U
56	PHENANTHRENE	85-01-8	µg/kg	7800	<7800	U
57	PHENOL	108-95-2	µg/kg	7800	<7800	U
58	PYRENE	129-00-0	µg/kg	7800	<7800	U
59	PYRIDINE	110-86-1	µg/kg	7800	<7800	U
60	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	7800	<7800	U
61	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	38000	<38000	U
62	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	7800	<7800	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	61
2	2-FLUOROPHENOL	367-12-4	30-120	63
3	NITROBENZENE-D5	4165-60-0	40-135	60
4	PHENOL-D5	4165-62-2	20-120	52
5	TERPHENYL-D14	1718-51-0	40-135	71
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	43
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	111
2	CHRYSENE-D12	1719-03-5	50-200	94
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	113
4	NAPHTHALENE-D8	1146-65-2	50-200	114
5	PERYLENE-D12	1520-96-3	50-200	75
6	PHENANTHRENE-D10	1517-22-2	50-200	108
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[b]Sample extract was dark and viscous, dilution was necessary.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-8	Received Date:	02/06/2004
Sample ID:	**0023-S4-721**	Sample Matrix	Soil	Moisture %:	15.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/09/04	Anal. Date:	02/18/04
Batch No:	04G1335	Prep. No:	1 of 1	Anal. Time:	02:34
Data File Name:	1489-08	Sample Amount:	30.0 g	Dilution Factor:	20 (b)
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	7800	<7800	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	7800	<7800	U
3	ANTHRACENE	120-12-7	µg/kg	7800	<7800	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	7800	<7800	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	7800	<7800	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	7800	<7800	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	7800	<7800	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	7800	<7800	U
9	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	7800	<7800	U
10	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	7800	<7800	U
11	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	7800	<7800	U
12	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	7800	<7800	U
13	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	7800	<7800	U
14	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	7800	<7800	U
15	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	7800	<7800	U
16	4-CHLOROANILINE	106-47-8	µg/kg	18000	<18000	U
17	2-CHLORONAPHTHALENE	91-58-7	µg/kg	7800	<7800	U
18	2-CHLOROPHENOL	95-57-8	µg/kg	7800	<7800	U
19	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	7800	<7800	U
20	CHRYSENE	218-01-9	µg/kg	7800	<7800	U
21	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	7800	<7800	U
22	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	7800	<7800	U
23	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	7800	<7800	U
24	DIBENZOFURAN	132-64-9	µg/kg	7800	<7800	U
25	1,2-DICHLOROBENZENE	95-50-1	µg/kg	7800	<7800	U
26	1,3-DICHLOROBENZENE	541-73-1	µg/kg	7800	<7800	U
27	1,4-DICHLOROBENZENE	106-46-7	µg/kg	7800	<7800	U
28	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	16000	<16000	U
29	2,4-DICHLOROPHENOL	120-83-2	µg/kg	7800	<7800	U
30	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	7800	<7800	U
31	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	7800	<7800	U
32	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	7800	<7800	U
33	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	38000	<38000	U
34	2,4-DINITROPHENOL	51-28-5	µg/kg	38000	<38000	U
35	2,4-DINITROTOLUENE	121-14-2	µg/kg	7800	<7800	U
36	2,6-DINITROTOLUENE	606-20-2	µg/kg	7800	<7800	U
37	FLUORANTHENE	206-44-0	µg/kg	7800	<7800	U
38	FLUORENE	86-73-7	µg/kg	7800	<7800	U
39	HEXACHLOROBENZENE	118-74-1	µg/kg	7800	<7800	U
40	HEXACHLOROBUTADIENE	87-68-3	µg/kg	7800	<7800	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	38000	<38000	U
42	HEXACHLOROETHANE	67-72-1	µg/kg	7800	<7800	U
43	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	7800	<7800	U
44	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	7800	<7800	U
45	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	7800	<7800	U
46	NAPHTHALENE	91-20-3	µg/kg	7800	<7800	U
47	2-NITROANILINE	88-74-4	µg/kg	38000	<38000	U
48	3-NITROANILINE	99-09-2	µg/kg	38000	<38000	U
49	4-NITROANILINE	100-01-6	µg/kg	38000	<38000	U
50	NITROBENZENE	98-95-3	µg/kg	7800	<7800	U
51	2-NITROPHENOL	88-75-5	µg/kg	7800	<7800	U
52	4-NITROPHENOL	100-02-7	µg/kg	38000	<38000	U
53	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	7800	<7800	U
54	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	16000	<16000	U
55	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	38000	<38000	U
56	PHENANTHRENE	85-01-8	µg/kg	7800	<7800	U
57	PHENOL	108-95-2	µg/kg	7800	<7800	U
58	PYRENE	129-00-0	µg/kg	7800	<7800	U
59	PYRIDINE	110-86-1	µg/kg	7800	<7800	U
60	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	7800	<7800	U
61	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	38000	<38000	U
62	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	7800	<7800	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	61
2	2-FLUOROPHENOL	367-12-4	30-120	64
3	NITROBENZENE-D5	4165-60-0	40-135	63
4	PHENOL-D5	4165-62-2	20-120	48
5	TERPHENYL-D14	1718-51-0	40-135	78
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	46
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	116
2	CHRYSENE-D12	1719-03-5	50-200	94
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	121
4	NAPHTHALENE-D8	1146-65-2	50-200	120
5	PERYLENE-D12	1520-96-3	50-200	73
6	PHENANTHRENE-D10	1517-22-2	50-200	112
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[b]Sample extract was dark and viscous, dilution was necessary.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-2	Received Date:	02/06/2004
Sample ID:	**0023-S4-715**	Sample Matrix	Soil	Moisture %:	21.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/11/04
Batch No:	04G1357	Prep. No:	1 of 1	Anal. Time:	14:15
Data File Name:	1489.002	Sample Amount:	30.0 g	Dilution Factor:	10
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	22	<22	U
2	BETA BHC	319-85-7	µg/kg	22	<22	U
3	ALPHA BHC	319-84-6	µg/kg	22	<22	U
4	DELTA BHC	319-86-8	µg/kg	22	<22	U
5	GAMMA BHC	58-89-9	µg/kg	22	<22	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	13	<13	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	13	<13	U
8	P,P'-DDD	72-54-8	µg/kg	38	<38	U
9	P,P'-DDE	72-55-9	µg/kg	38	<38	U
10	P,P'-DDT	50-29-3	µg/kg	38	30	J
11	DIELDRIN	60-57-1	µg/kg	38	<38	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	22	<22	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	38	<38	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	63	<63	U
15	ENDRIN	72-20-8	µg/kg	38	<38	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	38	<38	U
17	ENDRIN KETONE	53494-70-5	µg/kg	25	<25	U
18	HEPTACHLOR	76-44-8	µg/kg	22	<22	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	22	<22	U
20	METHOXYCHLOR	72-43-5	µg/kg	130	<130	U
21	TOXAPHENE	8001-35-2	µg/kg	1300	<1300	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	103
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	50
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	95
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-5	Received Date:	02/06/2004
Sample ID:	**0023-S4-718**	Sample Matrix	Soil	Moisture %:	15.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/11/04
Batch No:	04G1357	Prep. No:	1 of 1	Anal. Time:	14:40
Data File Name:	1489.005	Sample Amount:	30.0 g	Dilution Factor:	10
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	20	<20	U
2	BETA BHC	319-85-7	µg/kg	20	<20	U
3	ALPHA BHC	319-84-6	µg/kg	20	<20	U
4	DELTA BHC	319-86-8	µg/kg	20	<20	U
5	GAMMA BHC	58-89-9	µg/kg	20	<20	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	12	<12	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	12	<12	U
8	P,P'-DDD	72-54-8	µg/kg	36	<36	U
9	P,P'-DDE	72-55-9	µg/kg	36	<36	U
10	P,P'-DDT	50-29-3	µg/kg	36	20	J
11	DIELDRIN	60-57-1	µg/kg	36	<36	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	20	<20	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	36	<36	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	59	<59	U
15	ENDRIN	72-20-8	µg/kg	36	<36	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	36	<36	U
17	ENDRIN KETONE	53494-70-5	µg/kg	24	<24	U
18	HEPTACHLOR	76-44-8	µg/kg	20	<20	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	20	<20	U
20	METHOXYCHLOR	72-43-5	µg/kg	120	<120	U
21	TOXAPHENE	8001-35-2	µg/kg	1200	<1200	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	50
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	60
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	94
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-8	Received Date:	02/06/2004
Sample ID:	**0023-S4-721**	Sample Matrix	Soil	Moisture %:	15.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/11/04
Batch No:	04G1357	Prep. No:	1 of 1	Anal. Time:	15:05
Data File Name:	1489.008	Sample Amount:	30.0 g	Dilution Factor:	10
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	20	<20	U
2	BETA BHC	319-85-7	µg/kg	20	<20	U
3	ALPHA BHC	319-84-6	µg/kg	20	<20	U
4	DELTA BHC	319-86-8	µg/kg	20	<20	U
5	GAMMA BHC	58-89-9	µg/kg	20	<20	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	12	<12	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	12	<12	U
8	P,P'-DDD	72-54-8	µg/kg	35	<35	U
9	P,P'-DDE	72-55-9	µg/kg	35	<35	U
10	P,P'-DDT	50-29-3	µg/kg	35	16	J
11	DIELDRIN	60-57-1	µg/kg	35	<35	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	20	<20	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	35	<35	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	59	<59	U
15	ENDRIN	72-20-8	µg/kg	35	<35	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	35	<35	U
17	ENDRIN KETONE	53494-70-5	µg/kg	24	<24	U
18	HEPTACHLOR	76-44-8	µg/kg	20	<20	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	20	<20	U
20	METHOXYCHLOR	72-43-5	µg/kg	120	<120	U
21	TOXAPHENE	8001-35-2	µg/kg	1200	<1200	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	44
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	55
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	87
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-2	Received Date:	02/06/2004
Sample ID:	**0023-S4-715**	Sample Matrix	Soil	Moisture %:	21.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/09/04	Anal. Date:	02/10/04
Batch No:	04G1329	Prep. No:	1 of 1	Anal. Time:	22:31
Data File Name:	1489.102	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	µg/kg	42	<42	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	µg/kg	84	<84	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	µg/kg	42	<42	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	µg/kg	42	<42	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	µg/kg	42	<42	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	µg/kg	42	200 [c]	
7	AROCLOR-1260 (PCB-1260)	11096-82-5	µg/kg	42	75 [c]	

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	76
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	65
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.
[c]Sample contained more than one PCB, result estimated.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-5	Received Date:	02/06/2004
Sample ID:	**0023-S4-718**	Sample Matrix	Soil	Moisture %:	15.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/09/04	Anal. Date:	02/10/04
Batch No:	04G1329	Prep. No:	1 of 1	Anal. Time:	22:56
Data File Name:	1489.105	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	µg/kg	39	<39	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	µg/kg	78	<78	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	µg/kg	39	<39	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	µg/kg	39	<39	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	µg/kg	39	<39	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	µg/kg	39	180 [c]	
7	AROCLOR-1260 (PCB-1260)	11096-82-5	µg/kg	39	83 [c]	

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	87
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	72
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[c] Sample contained more than one PCB, result estimated.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-8	Received Date:	02/06/2004
Sample ID:	**0023-S4-721**	Sample Matrix	Soil	Moisture %:	15.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/09/04	Anal. Date:	02/10/04
Batch No:	04G1329	Prep. No:	1 of 1	Anal. Time:	23:21
Data File Name:	1489.108	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	µg/kg	39	<39	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	µg/kg	78	<78	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	µg/kg	39	<39	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	µg/kg	39	<39	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	µg/kg	39	<39	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	µg/kg	39	180 [c]	
7	AROCLOR-1260 (PCB-1260)	11096-82-5	µg/kg	39	94 [c]	

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	87
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	63
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[c] Sample contained more than one PCB, result estimated.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-1	Received Date:	02/06/2004
Sample ID:	**0023-S4-714**	Sample Matrix	Soil	Moisture %:	20.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.3	3.1	J	P		04M1191M	02/11/04	02/11/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.38	11.2		P		04M1191M	02/11/04	02/11/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	297		P		04M1191M	02/11/04	02/11/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1191M	02/11/04	02/11/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.50		P		04M1191M	02/11/04	02/11/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.63	50.9		P		04M1191M	02/11/04	02/11/04	1	6010B
COBALT	7440-48-4	mg/kg	0.63	15.0		P		04M1191M	02/11/04	02/11/04	1	6010B
COPPER	7440-50-8	mg/kg	0.63	48.2		P		04M1191M	02/11/04	02/11/04	1	6010B
LEAD	7439-92-1	mg/kg	0.38	1120		P		04M1191M	02/11/04	02/11/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.43		CV		04M1187H	02/10/04	02/10/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.25	1.0		P		04M1191M	02/11/04	02/11/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.38	19.7		P		04M1191M	02/11/04	02/11/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.50	1.1		P		04M1191M	02/11/04	02/11/04	1	6010B
SILVER	7440-22-4	mg/kg	0.63	<0.63	U	P		04M1191M	02/11/04	02/11/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.63	<0.63	U	P		04M1191M	02/11/04	02/11/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.63	52.7		P		04M1191M	02/11/04	02/11/04	1	6010B
ZINC	7440-66-6	mg/kg	0.63	287		P		04M1191M	02/11/04	02/11/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-2	Received Date:	02/06/2004
Sample ID:	**0023-S4-715**	Sample Matrix	Soil	Moisture %:	21.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.3	2.9	J	P		04M1191M	02/11/04	02/11/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.38	9.1		P		04M1191M	02/11/04	02/11/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	407		P		04M1191M	02/11/04	02/11/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1191M	02/11/04	02/11/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.64		P		04M1191M	02/11/04	02/11/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.63	66.4		P		04M1191M	02/11/04	02/11/04	1	6010B
COBALT	7440-48-4	mg/kg	0.63	13.9		P		04M1191M	02/11/04	02/11/04	1	6010B
COPPER	7440-50-8	mg/kg	0.63	51.2		P		04M1191M	02/11/04	02/11/04	1	6010B
LEAD	7439-92-1	mg/kg	0.38	1790		P		04M1191M	02/11/04	02/11/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.42		CV		04M1187H	02/10/04	02/10/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.25	0.41		P		04M1191M	02/11/04	02/11/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.38	21.1		P		04M1191M	02/11/04	02/11/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.51	0.90		P		04M1191M	02/11/04	02/11/04	1	6010B
SILVER	7440-22-4	mg/kg	0.63	<0.63	U	P		04M1191M	02/11/04	02/11/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.63	<0.63	U	P		04M1191M	02/11/04	02/11/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.63	50.9		P		04M1191M	02/11/04	02/11/04	1	6010B
ZINC	7440-66-6	mg/kg	0.63	373		P		04M1191M	02/11/04	02/11/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-3	Received Date:	02/06/2004
Sample ID:	**0023-S4-716**	Sample Matrix	Soil	Moisture %:	23.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.5	4.6	J	P		04M1191M	02/11/04	02/11/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.39	9.3		P		04M1191M	02/11/04	02/11/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	655		P		04M1191M	02/11/04	02/11/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.26	<0.26	U	P		04M1191M	02/11/04	02/11/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.26	0.79		P		04M1191M	02/11/04	02/11/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.65	90.1		P		04M1191M	02/11/04	02/11/04	1	6010B
COBALT	7440-48-4	mg/kg	0.65	14.8		P		04M1191M	02/11/04	02/11/04	1	6010B
COPPER	7440-50-8	mg/kg	0.65	55.1		P		04M1191M	02/11/04	02/11/04	1	6010B
LEAD	7439-92-1	mg/kg	0.39	3070		P		04M1191M	02/11/04	02/11/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.26	1.7		CV		04M1187H	02/10/04	02/10/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.26	0.28		P		04M1191M	02/11/04	02/11/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.39	21.1		P		04M1191M	02/11/04	02/11/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.52	0.27	J	P		04M1191M	02/11/04	02/11/04	1	6010B
SILVER	7440-22-4	mg/kg	0.65	<0.65	U	P		04M1191M	02/11/04	02/11/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.65	<0.65	U	P		04M1191M	02/11/04	02/11/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.65	50.0		P		04M1191M	02/11/04	02/11/04	1	6010B
ZINC	7440-66-6	mg/kg	0.65	605		P		04M1191M	02/11/04	02/11/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-4	Received Date:	02/06/2004
Sample ID:	**0023-S4-717**	Sample Matrix	Soil	Moisture %:	16.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.0	3.2	J	P		04M1191M	02/11/04	02/11/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.36	7.1		P		04M1191M	02/11/04	02/11/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	351		P		04M1191M	02/11/04	02/11/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		04M1191M	02/11/04	02/11/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	0.50		P		04M1191M	02/11/04	02/11/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.60	51.7		P		04M1191M	02/11/04	02/11/04	1	6010B
COBALT	7440-48-4	mg/kg	0.60	12.8		P		04M1191M	02/11/04	02/11/04	1	6010B
COPPER	7440-50-8	mg/kg	0.60	39.4		P		04M1191M	02/11/04	02/11/04	1	6010B
LEAD	7439-92-1	mg/kg	0.36	1320		P		04M1191M	02/11/04	02/11/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	0.75		CV		04M1187H	02/10/04	02/10/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.24	<0.24	U	P		04M1191M	02/11/04	02/11/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.36	17.3		P		04M1191M	02/11/04	02/11/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.48	<0.48	U	P		04M1191M	02/11/04	02/11/04	1	6010B
SILVER	7440-22-4	mg/kg	0.60	<0.60	U	P		04M1191M	02/11/04	02/11/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.60	<0.60	U	P		04M1191M	02/11/04	02/11/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.60	44.1		P		04M1191M	02/11/04	02/11/04	1	6010B
ZINC	7440-66-6	mg/kg	0.60	290		P		04M1191M	02/11/04	02/11/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-5	Received Date:	02/06/2004
Sample ID:	**0023-S4-718**	Sample Matrix	Soil	Moisture %:	15.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.9	2.7	J	P		04M1191M	02/11/04	02/11/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.36	9.0		P		04M1191M	02/11/04	02/11/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	295		P		04M1191M	02/11/04	02/11/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		04M1191M	02/11/04	02/11/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	0.51		P		04M1191M	02/11/04	02/11/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.59	52.8		P		04M1191M	02/11/04	02/11/04	1	6010B
COBALT	7440-48-4	mg/kg	0.59	13.3		P		04M1191M	02/11/04	02/11/04	1	6010B
COPPER	7440-50-8	mg/kg	0.59	36.5		P		04M1191M	02/11/04	02/11/04	1	6010B
LEAD	7439-92-1	mg/kg	0.36	984		P		04M1191M	02/11/04	02/11/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	0.73		CV		04M1187H	02/10/04	02/10/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.24	<0.24	U	P		04M1191M	02/11/04	02/11/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.36	18.7		P		04M1191M	02/11/04	02/11/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.47	<0.47	U	P		04M1191M	02/11/04	02/11/04	1	6010B
SILVER	7440-22-4	mg/kg	0.59	<0.59	U	P		04M1191M	02/11/04	02/11/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.59	<0.59	U	P		04M1191M	02/11/04	02/11/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.59	47.1		P		04M1191M	02/11/04	02/11/04	1	6010B
ZINC	7440-66-6	mg/kg	0.59	270		P		04M1191M	02/11/04	02/11/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-6	Received Date:	02/06/2004
Sample ID:	**0023-S4-719**	Sample Matrix	Soil	Moisture %:	16.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.0	2.1	J	P		04M1191M	02/11/04	02/11/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.36	6.9		P		04M1191M	02/11/04	02/11/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	294		P		04M1191M	02/11/04	02/11/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		04M1191M	02/11/04	02/11/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	0.40		P		04M1191M	02/11/04	02/11/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.60	45.3		P		04M1191M	02/11/04	02/11/04	1	6010B
COBALT	7440-48-4	mg/kg	0.60	12.2		P		04M1191M	02/11/04	02/11/04	1	6010B
COPPER	7440-50-8	mg/kg	0.60	33.6		P		04M1191M	02/11/04	02/11/04	1	6010B
LEAD	7439-92-1	mg/kg	0.36	1000		P		04M1191M	02/11/04	02/11/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	0.70		CV		04M1187H	02/10/04	02/10/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.24	<0.24	U	P		04M1191M	02/11/04	02/11/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.36	16.6		P		04M1191M	02/11/04	02/11/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.48	<0.48	U	P		04M1191M	02/11/04	02/11/04	1	6010B
SILVER	7440-22-4	mg/kg	0.60	<0.60	U	P		04M1191M	02/11/04	02/11/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.60	<0.60	U	P		04M1191M	02/11/04	02/11/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.60	41.5		P		04M1191M	02/11/04	02/11/04	1	6010B
ZINC	7440-66-6	mg/kg	0.60	241		P		04M1191M	02/11/04	02/11/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-7	Received Date:	02/06/2004
Sample ID:	**0023-S4-720**	Sample Matrix	Soil	Moisture %:	17.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.1	2.6	J	P		04M1191M	02/11/04	02/11/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.36	5.4		P		04M1191M	02/11/04	02/11/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	302		P		04M1191M	02/11/04	02/11/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		04M1191M	02/11/04	02/11/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	0.43		P		04M1191M	02/11/04	02/11/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.61	44.0		P		04M1191M	02/11/04	02/11/04	1	6010B
COBALT	7440-48-4	mg/kg	0.61	12.1		P		04M1191M	02/11/04	02/11/04	1	6010B
COPPER	7440-50-8	mg/kg	0.61	33.5		P		04M1191M	02/11/04	02/11/04	1	6010B
LEAD	7439-92-1	mg/kg	0.36	1240		P		04M1191M	02/11/04	02/11/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	0.78		CV		04M1187H	02/10/04	02/10/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.24	0.10	J	P		04M1191M	02/11/04	02/11/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.36	16.1		P		04M1191M	02/11/04	02/11/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.49	<0.49	U	P		04M1191M	02/11/04	02/11/04	1	6010B
SILVER	7440-22-4	mg/kg	0.61	<0.61	U	P		04M1191M	02/11/04	02/11/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.61	<0.61	U	P		04M1191M	02/11/04	02/11/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.61	41.6		P		04M1191M	02/11/04	02/11/04	1	6010B
ZINC	7440-66-6	mg/kg	0.61	277		P		04M1191M	02/11/04	02/11/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Sites 4 & 7	Service ID:	41489	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1489-8	Received Date:	02/06/2004
Sample ID:	**0023-S4-721**	Sample Matrix	Soil	Moisture %:	15.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.9	3.6	J	P		04M1191M	02/11/04	02/11/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.35	10.1		P		04M1191M	02/11/04	02/11/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	346		P		04M1191M	02/11/04	02/11/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		04M1191M	02/11/04	02/11/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	0.54		P		04M1191M	02/11/04	02/11/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.59	53.3		P		04M1191M	02/11/04	02/11/04	1	6010B
COBALT	7440-48-4	mg/kg	0.59	14.4		P		04M1191M	02/11/04	02/11/04	1	6010B
COPPER	7440-50-8	mg/kg	0.59	38.8		P		04M1191M	02/11/04	02/11/04	1	6010B
LEAD	7439-92-1	mg/kg	0.35	1080		P		04M1191M	02/11/04	02/11/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	0.46		CV		04M1187H	02/10/04	02/10/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.24	0.11	J	P		04M1191M	02/11/04	02/11/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.35	20.2		P		04M1191M	02/11/04	02/11/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.47	<0.47	U	P		04M1191M	02/11/04	02/11/04	1	6010B
SILVER	7440-22-4	mg/kg	0.59	<0.59	U	P		04M1191M	02/11/04	02/11/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.59	<0.59	U	P		04M1191M	02/11/04	02/11/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.59	50.6		P		04M1191M	02/11/04	02/11/04	1	6010B
ZINC	7440-66-6	mg/kg	0.59	272		P		04M1191M	02/11/04	02/11/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Site 4 & 7	Service ID:	41797	Collected by:	AJ/LB
		Lab Sample ID:	04-1797-2	Received Date:	02/11/2004
Sample ID:	**0023-S4-715**[a]	Sample Matrix	Soil	Moisture %:	
Sample Type:	Field Sample	Prep. Method:	3510C	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/26/04	Anal. Date:	02/26/04
Batch No:	04G1526	Prep. No:	1 of 1	Anal. Time:	22:26
Data File Name:	1797-02	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL	Leach Method:	TCLP		

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	2,4-DINITROTOLUENE	121-14-2	μg/L	10	<10	U
2	HEXACHLOROBENZENE	118-74-1	μg/L	10	<10	U
3	HEXACHLOROBUTADIENE	87-68-3	μg/L	10	<10	U
4	HEXACHLOROETHANE	67-72-1	μg/L	10	<10	U
5	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	μg/L	10	<10	U
6	2-METHYLPHENOL (O-CRESOL)	95-48-7	μg/L	10	<10	U
7	NITROBENZENE	98-95-3	μg/L	10	<10	U
8	PENTACHLOROPHENOL	87-86-5	μg/L	50	<50	U
9	PYRIDINE	110-86-1	μg/L	10	<10	U
10	2,4,5-TRICHLOROPHENOL	95-95-4	μg/L	10	<10	U
11	2,4,6-TRICHLOROPHENOL	88-06-2	μg/L	10	<10	U
12	1,4-DICHLOROBENZENE	106-46-7	μg/L	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	55-114	69
2	2-FLUOROPHENOL	367-12-4	20-104	57
3	NITROBENZENE-D5	4165-60-0	46-132	76
4	PHENOL-D5	4165-62-2	20-118	32
5	TERPHENYL-D14	1718-51-0	44-133	71
6	2,4,6-TRIBROMOPHENOL	118-79-6	20-134	69
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	130
2	CHRYSENE-D12	1719-03-5	50-200	139
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	122
4	NAPHTHALENE-D8	1146-65-2	50-200	128
5	PERYLENE-D12	1520-96-3	50-200	137
6	PHENANTHRENE-D10	1517-22-2	50-200	141
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a] Additional analysis for 04-1471,1489,1517, and 1558 requested on 02/24/04.Sample duplicates were composited before analysis.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Site 4 & 7	Service ID:	41797	Collected by:	AJ/LB
		Lab Sample ID:	04-1797-3	Received Date:	02/11/2004
Sample ID:	**0023-S4-718**[a]	Sample Matrix	Soil	Moisture %:	
Sample Type:	Field Sample	Prep. Method:	3510C	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/26/04	Anal. Date:	02/26/04
Batch No:	04G1526	Prep. No:	1 of 1	Anal. Time:	23:05
Data File Name:	1797-03	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL	Leach Method:	TCLP		

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	2,4-DINITROTOLUENE	121-14-2	μg/L	10	<10	U
2	HEXACHLOROBENZENE	118-74-1	μg/L	10	<10	U
3	HEXACHLOROBUTADIENE	87-68-3	μg/L	10	<10	U
4	HEXACHLOROETHANE	67-72-1	μg/L	10	<10	U
5	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	μg/L	10	<10	U
6	2-METHYLPHENOL (O-CRESOL)	95-48-7	μg/L	10	<10	U
7	NITROBENZENE	98-95-3	μg/L	10	<10	U
8	PENTACHLOROPHENOL	87-86-5	μg/L	50	<50	U
9	PYRIDINE	110-86-1	μg/L	10	<10	U
10	2,4,5-TRICHLOROPHENOL	95-95-4	μg/L	10	<10	U
11	2,4,6-TRICHLOROPHENOL	88-06-2	μg/L	10	<10	U
12	1,4-DICHLOROBENZENE	106-46-7	μg/L	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	55-114	65
2	2-FLUOROPHENOL	367-12-4	20-104	55
3	NITROBENZENE-D5	4165-60-0	46-132	71
4	PHENOL-D5	4165-62-2	20-118	32
5	TERPHENYL-D14	1718-51-0	44-133	71
6	2,4,6-TRIBROMOPHENOL	118-79-6	20-134	71
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	124
2	CHRYSENE-D12	1719-03-5	50-200	126
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	116
4	NAPHTHALENE-D8	1146-65-2	50-200	121
5	PERYLENE-D12	1520-96-3	50-200	111
6	PHENANTHRENE-D10	1517-22-2	50-200	131
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a]Additional analysis for 04-1471,1489,1517, and 1558 requested on 02/24/04.Sample duplicates were composited before analysis.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/06/2004
Project ID:	IR Site 4 & 7	Service ID:	41797	Collected by:	AJ/LB
		Lab Sample ID:	04-1797-4	Received Date:	02/11/2004
Sample ID:	**0023-S4-721**[a]	Sample Matrix	Soil	Moisture %:	
Sample Type:	Field Sample	Prep. Method:	3510C	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/26/04	Anal. Date:	02/26/04
Batch No:	04G1526	Prep. No:	1 of 1	Anal. Time:	23:45
Data File Name:	1797-04	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL	Leach Method:	TCLP		

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	2,4-DINITROTOLUENE	121-14-2	μg/L	10	<10	U
2	HEXACHLOROBENZENE	118-74-1	μg/L	10	<10	U
3	HEXACHLOROBUTADIENE	87-68-3	μg/L	10	<10	U
4	HEXACHLOROETHANE	67-72-1	μg/L	10	<10	U
5	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	μg/L	10	<10	U
6	2-METHYLPHENOL (O-CRESOL)	95-48-7	μg/L	10	<10	U
7	NITROBENZENE	98-95-3	μg/L	10	<10	U
8	PENTACHLOROPHENOL	87-86-5	μg/L	50	<50	U
9	PYRIDINE	110-86-1	μg/L	10	<10	U
10	2,4,5-TRICHLOROPHENOL	95-95-4	μg/L	10	<10	U
11	2,4,6-TRICHLOROPHENOL	88-06-2	μg/L	10	<10	U
12	1,4-DICHLOROBENZENE	106-46-7	μg/L	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	55-114	77
2	2-FLUOROPHENOL	367-12-4	20-104	66
3	NITROBENZENE-D5	4165-60-0	46-132	83
4	PHENOL-D5	4165-62-2	20-118	42
5	TERPHENYL-D14	1718-51-0	44-133	83
6	2,4,6-TRIBROMOPHENOL	118-79-6	20-134	84
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	116
2	CHRYSENE-D12	1719-03-5	50-200	122
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	108
4	NAPHTHALENE-D8	1146-65-2	50-200	113
5	PERYLENE-D12	1520-96-3	50-200	101
6	PHENANTHRENE-D10	1517-22-2	50-200	125
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a]Additional analysis for 04-1471,1489,1517, and 1558 requested on 02/24/04.Sample duplicates were composited before analysis.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05457

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4 & 7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Amanda Johnson	SAMPLER SIGNATURE: Amanda Johnson
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1517 (04-1797-SCLPSVOCs)

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	Title 22 Metals	EPA 5035/8260B	EPA 8270C	EPA 8081A	EPA 8082	SLC Cr	TCLP Pb (Added 2/18/04 72hr TAT)	SCLP Cr		TCLP SVOCs (Added 2/24/04 72hr TAT)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-722	2/9/04	0752	5	X		S	5 day	X					X	X					Stockpile A10	–	–	Reg
0023-S4-723	2/9/04	0832	5	X		S	5 day	X					X	X				Run MS/MSD	Stockpile B10	–	–	Reg
0023-S4-724	2/9/04	0915	9	X		S	5 day	X	X	X	X	X	X	X	X		X		Stockpile A11	–	–	Reg
0023-S4-725	2/9/04	1018	5	X		S	5 day	X					X	X					Stockpile B11	–	–	Reg
0023-S4-726	2/9/04	1103	5	X		S	5 day	X						X					Stockpile A12	–	–	Reg

AJ 2/9/04

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Amanda Johnson	2/9/04	[signature]
COMPANY: HFWI	TIME: 1604	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: Composite all 5 jars per sample before analysis

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Stockpile #1 Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1797
04-1517

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41517	Collected by:	
		Lab Sample ID:	04-1517-3	Received Date:	02/09/2004
Sample ID:	**0023-S4-724**	Sample Matrix	Soil	Moisture %:	19.0
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/11/04	Anal. Date:	02/11/04
Batch No:	04G1353	Prep. No:	–	Anal. Time:	16:08
Data File Name:	1517-03	Sample Amount:	5.30 g	Dilution Factor:	0.94
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	58	<58	U
2	BENZENE	71-43-2	µg/kg	5.8	<5.8	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.8	<5.8	U
4	BROMOFORM	75-25-2	µg/kg	5.8	<5.8	U
5	BROMOMETHANE	74-83-9	µg/kg	5.8	<5.8	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	58	<58	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.8	<5.8	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.8	<5.8	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.8	<5.8	U
10	CHLOROETHANE	75-00-3	µg/kg	5.8	<5.8	U
11	CHLOROFORM	67-66-3	µg/kg	5.8	<5.8	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.8	<5.8	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.8	<5.8	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.8	<5.8	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.8	<5.8	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.8	<5.8	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.8	<5.8	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.8	<5.8	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.8	<5.8	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.8	<5.8	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.8	<5.8	U
22	2-HEXANONE	591-78-6	µg/kg	58	<58	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.8	<5.8	U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	58	<58	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	12	<12	U
26	STYRENE	100-42-5	µg/kg	5.8	<5.8	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.8	<5.8	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.8	<5.8	U
29	TOLUENE	108-88-3	µg/kg	5.8	<5.8	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.8	<5.8	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.8	<5.8	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.8	<5.8	U
33	VINYL ACETATE	108-05-4	µg/kg	58	<58	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.8	<5.8	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.8	<5.8	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	109
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	112

Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	117
4	TOLUENE-D8	2037-26-5	80-120	121
# of out-of-control				1

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	81
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	90
3	FLUOROBENZENE	462-06-6	50-200	73
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41517	Collected by:	
		Lab Sample ID:	04-1517-3	Received Date:	02/09/2004
Sample ID:	**0023-S4-724**	Sample Matrix	Soil	Moisture %:	19.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/11/04	Anal. Date:	02/18/04
Batch No:	04G1359	Prep. No:	1 of 1	Anal. Time:	21:51
Data File Name:	1517-03	Sample Amount:	30.0 g	Dilution Factor:	16
Extract Vol.	4.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	6500	<6500	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	6500	<6500	U
3	ANTHRACENE	120-12-7	µg/kg	6500	<6500	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	6500	<6500	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	6500	<6500	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	6500	<6500	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	6500	<6500	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	6500	<6500	U
9	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	6500	<6500	U
10	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	6500	<6500	U
11	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	6500	<6500	U
12	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	6500	<6500	U
13	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	6500	<6500	U
14	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	6500	<6500	U
15	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	6500	<6500	U
16	4-CHLOROANILINE	106-47-8	µg/kg	15000	<15000	U
17	2-CHLORONAPHTHALENE	91-58-7	µg/kg	6500	<6500	U
18	2-CHLOROPHENOL	95-57-8	µg/kg	6500	<6500	U
19	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	6500	<6500	U
20	CHRYSENE	218-01-9	µg/kg	6500	<6500	U
21	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	6500	<6500	U
22	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	6500	<6500	U
23	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	6500	<6500	U
24	DIBENZOFURAN	132-64-9	µg/kg	6500	<6500	U
25	1,2-DICHLOROBENZENE	95-50-1	µg/kg	6500	<6500	U
26	1,3-DICHLOROBENZENE	541-73-1	µg/kg	6500	<6500	U
27	1,4-DICHLOROBENZENE	106-46-7	µg/kg	6500	<6500	U
28	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	13000	<13000	U
29	2,4-DICHLOROPHENOL	120-83-2	µg/kg	6500	<6500	U
30	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	6500	<6500	U
31	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	6500	<6500	U
32	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	6500	<6500	U
33	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	32000	<32000	U
34	2,4-DINITROPHENOL	51-28-5	µg/kg	32000	<32000	U
35	2,4-DINITROTOLUENE	121-14-2	µg/kg	6500	<6500	U
36	2,6-DINITROTOLUENE	606-20-2	µg/kg	6500	<6500	U
37	FLUORANTHENE	206-44-0	µg/kg	6500	<6500	U
38	FLUORENE	86-73-7	µg/kg	6500	<6500	U
39	HEXACHLOROBENZENE	118-74-1	µg/kg	6500	<6500	U
40	HEXACHLOROBUTADIENE	87-68-3	µg/kg	6500	<6500	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	32000	<32000	U
42	HEXACHLOROETHANE	67-72-1	µg/kg	6500	<6500	U
43	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	6500	<6500	U
44	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	6500	<6500	U
45	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	6500	<6500	U
46	NAPHTHALENE	91-20-3	µg/kg	6500	<6500	U
47	2-NITROANILINE	88-74-4	µg/kg	32000	<32000	U
48	3-NITROANILINE	99-09-2	µg/kg	32000	<32000	U
49	4-NITROANILINE	100-01-6	µg/kg	32000	<32000	U
50	NITROBENZENE	98-95-3	µg/kg	6500	<6500	U
51	2-NITROPHENOL	88-75-5	µg/kg	6500	<6500	U
52	4-NITROPHENOL	100-02-7	µg/kg	32000	<32000	U
53	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	6500	<6500	U
54	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	13000	<13000	U
55	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	32000	<32000	U
56	PHENANTHRENE	85-01-8	µg/kg	6500	<6500	U
57	PHENOL	108-95-2	µg/kg	6500	<6500	U
58	PYRENE	129-00-0	µg/kg	6500	<6500	U
59	PYRIDINE	110-86-1	µg/kg	6500	<6500	U
60	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	6500	<6500	U
61	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	32000	<32000	U
62	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	6500	<6500	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	65
2	2-FLUOROPHENOL	367-12-4	30-120	62
3	NITROBENZENE-D5	4165-60-0	40-135	66
4	PHENOL-D5	4165-62-2	20-120	47
5	TERPHENYL-D14	1718-51-0	40-135	84
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	48
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	115
2	CHRYSENE-D12	1719-03-5	50-200	114
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	131
4	NAPHTHALENE-D8	1146-65-2	50-200	124
5	PERYLENE-D12	1520-96-3	50-200	78
6	PHENANTHRENE-D10	1517-22-2	50-200	127
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41517	Collected by:	
		Lab Sample ID:	04-1517-3	Received Date:	02/09/2004
Sample ID:	**0023-S4-724**	Sample Matrix	Soil	Moisture %:	19.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1356	Prep. No:	1 of 1	Anal. Time:	00:49
Data File Name:	1517.103	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.1	<2.1	U
2	BETA BHC	319-85-7	µg/kg	2.1	<2.1	U
3	ALPHA BHC	319-84-6	µg/kg	2.1	<2.1	U
4	DELTA BHC	319-86-8	µg/kg	2.1	<2.1	U
5	GAMMA BHC	58-89-9	µg/kg	2.1	<2.1	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.7	4	
9	P,P'-DDE	72-55-9	µg/kg	3.7	<3.7	U
10	P,P'-DDT	50-29-3	µg/kg	3.7	25	
11	DIELDRIN	60-57-1	µg/kg	3.7	<3.7	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.1	<2.1	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.7	<3.7	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.2	<6.2	U
15	ENDRIN	72-20-8	µg/kg	3.7	<3.7	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.7	<3.7	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.5	<2.5	U
18	HEPTACHLOR	76-44-8	µg/kg	2.1	<2.1	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.1	<2.1	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	64
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	66
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	117
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41517	Collected by:	
		Lab Sample ID:	04-1517-3	Received Date:	02/09/2004
Sample ID:	**0023-S4-724**	Sample Matrix	Soil	Moisture %:	19.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1358	Prep. No:	1 of 1	Anal. Time:	08:37
Data File Name:	1517.003	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	41	<41	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	82	<82	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	41	<41	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	41	<41	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	41	<41	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	41	<41	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	41	140 [d]	

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	87
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	72
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[d] Sample might containe more than one PCB. Result estimated.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41517	Collected by:	
		Lab Sample ID:	04-1517-1	Received Date:	02/09/2004
Sample ID:	**0023-S4-722**	Sample Matrix	Soil	Moisture %:	16.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.9	2.5	J	P		04M1191M	02/11/04	02/11/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.36	7.5		P		04M1191M	02/11/04	02/11/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	296		P		04M1191M	02/11/04	02/11/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		04M1191M	02/11/04	02/11/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	0.62		P		04M1191M	02/11/04	02/11/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.59	50.2		P		04M1191M	02/11/04	02/11/04	1	6010B
COBALT	7440-48-4	mg/kg	0.59	12.0		P		04M1191M	02/11/04	02/11/04	1	6010B
COPPER	7440-50-8	mg/kg	0.59	37.6		P		04M1191M	02/11/04	02/11/04	1	6010B
LEAD	7439-92-1	mg/kg	0.36	1140		P		04M1191M	02/11/04	02/11/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	0.85		CV		04M1205H	02/13/04	02/13/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.24	0.054	J	P		04M1191M	02/11/04	02/11/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.36	16.6		P		04M1191M	02/11/04	02/11/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.48	0.40	J	P		04M1191M	02/11/04	02/11/04	1	6010B
SILVER	7440-22-4	mg/kg	0.59	<0.59	U	P		04M1191M	02/11/04	02/11/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.59	<0.59	U	P		04M1191M	02/11/04	02/11/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.59	43.8		P		04M1191M	02/11/04	02/11/04	1	6010B
ZINC	7440-66-6	mg/kg	0.59	217		P		04M1191M	02/11/04	02/11/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41517	Collected by:	
		Lab Sample ID:	04-1517-1	Received Date:	02/09/2004
Sample ID:	**0023-S4-722**	Sample Matrix	Soil	Moisture %:	16.0
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	μg/L	10	1310		P		04M1236M	02/20/04	02/20/04	2	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41517	Collected by:	
		Lab Sample ID:	04-1517-1	Received Date:	02/09/2004
Sample ID:	**0023-S4-722**	Sample Matrix	Soil	Moisture %:	16.0
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC CHROMIUM [b]	7440-47-3	μg/L	25	640		P		04M1237M	02/20/04	02/20/04	5	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41517	Collected by:	
		Lab Sample ID:	04-1517-2	Received Date:	02/09/2004
Sample ID:	**0023-S4-723**	Sample Matrix	Soil	Moisture %:	15.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.9	4.1	J	P		04M1191M	02/11/04	02/11/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.35	13.9		P		04M1191M	02/11/04	02/11/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	661		P		04M1191M	02/11/04	02/11/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		04M1191M	02/11/04	02/11/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	0.89		P		04M1191M	02/11/04	02/11/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.59	76.6		P		04M1191M	02/11/04	02/11/04	1	6010B
COBALT	7440-48-4	mg/kg	0.59	12.7		P		04M1191M	02/11/04	02/11/04	1	6010B
COPPER	7440-50-8	mg/kg	0.59	51.3		P		04M1191M	02/11/04	02/11/04	1	6010B
LEAD	7439-92-1	mg/kg	0.35	2970		P		04M1191M	02/11/04	02/11/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	0.83		CV		04M1205H	02/13/04	02/13/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.24	0.64		P		04M1191M	02/11/04	02/11/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.35	20.5		P		04M1191M	02/11/04	02/11/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.47	0.61		P		04M1191M	02/11/04	02/11/04	1	6010B
SILVER	7440-22-4	mg/kg	0.59	<0.59	U	P		04M1191M	02/11/04	02/11/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.59	<0.59	U	P		04M1191M	02/11/04	02/11/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.59	44.3		P		04M1191M	02/11/04	02/11/04	1	6010B
ZINC	7440-66-6	mg/kg	0.59	396		P		04M1191M	02/11/04	02/11/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41517	Collected by:	
		Lab Sample ID:	04-1517-2	Received Date:	02/09/2004
Sample ID:	**0023-S4-723**	Sample Matrix	Soil	Moisture %:	15.4
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	μg/L	10	953		P		04M1236M	02/20/04	02/20/04	2	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41517	Collected by:	
		Lab Sample ID:	04-1517-2	Received Date:	02/09/2004
Sample ID:	**0023-S4-723**	Sample Matrix	Soil	Moisture %:	15.4
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC CHROMIUM [b]	7440-47-3	μg/L	25	1030		P		04M1237M	02/20/04	02/20/04	5	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41517	Collected by:	
		Lab Sample ID:	04-1517-3	Received Date:	02/09/2004
Sample ID:	**0023-S4-724**	Sample Matrix	Soil	Moisture %:	19.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.2	4.7	J	P		04M1191M	02/11/04	02/11/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.37	10.1		P		04M1191M	02/11/04	02/11/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	681		P		04M1191M	02/11/04	02/11/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1191M	02/11/04	02/11/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.88		P		04M1191M	02/11/04	02/11/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.62	101		P		04M1191M	02/11/04	02/11/04	1	6010B
COBALT	7440-48-4	mg/kg	0.62	12.2		P		04M1191M	02/11/04	02/11/04	1	6010B
COPPER	7440-50-8	mg/kg	0.62	45.8		P		04M1191M	02/11/04	02/11/04	1	6010B
LEAD	7439-92-1	mg/kg	0.37	2900		P		04M1191M	02/11/04	02/11/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	1.5		CV		04M1205H	02/13/04	02/13/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.25	0.31		P		04M1191M	02/11/04	02/11/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.37	19.2		P		04M1191M	02/11/04	02/11/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.49	<0.49	U	P		04M1191M	02/11/04	02/11/04	1	6010B
SILVER	7440-22-4	mg/kg	0.62	<0.62	U	P		04M1191M	02/11/04	02/11/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.62	<0.62	U	P		04M1191M	02/11/04	02/11/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.62	43.1		P		04M1191M	02/11/04	02/11/04	1	6010B
ZINC	7440-66-6	mg/kg	0.62	388		P		04M1191M	02/11/04	02/11/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41517	Collected by:	
		Lab Sample ID:	04-1517-3	Received Date:	02/09/2004
Sample ID:	**0023-S4-724**	Sample Matrix	Soil	Moisture %:	19.0
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	µg/L	10	674		P		04M1236M	02/20/04	02/20/04	2	6010B
TCLP CHROMIUM [b]	7440-47-3	µg/L	10	3.5	J	P		04M1236M	02/20/04	02/20/04	2	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41517	Collected by:	
		Lab Sample ID:	04-1517-3	Received Date:	02/09/2004
Sample ID:	**0023-S4-724**	Sample Matrix	Soil	Moisture %:	19.0
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC CHROMIUM [b]	7440-47-3	μg/L	25	717		P		04M1237M	02/20/04	02/20/04	5	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41517	Collected by:	
		Lab Sample ID:	04-1517-4	Received Date:	02/09/2004
Sample ID:	**0023-S4-725**	Sample Matrix	Soil	Moisture %:	18.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.1	4.1	J	P		04M1191M	02/11/04	02/11/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.37	8.3		P		04M1191M	02/11/04	02/11/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	326		P		04M1191M	02/11/04	02/11/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		04M1191M	02/11/04	02/11/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	0.51		P		04M1191M	02/11/04	02/11/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.61	62.1		P		04M1191M	02/11/04	02/11/04	1	6010B
COBALT	7440-48-4	mg/kg	0.61	13.5		P		04M1191M	02/11/04	02/11/04	1	6010B
COPPER	7440-50-8	mg/kg	0.61	41.0		P		04M1191M	02/11/04	02/11/04	1	6010B
LEAD	7439-92-1	mg/kg	0.37	1100		P		04M1191M	02/11/04	02/11/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	1.5		CV		04M1205H	02/13/04	02/13/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.24	0.070	J	P		04M1191M	02/11/04	02/11/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.37	18.7		P		04M1191M	02/11/04	02/11/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.49	0.50		P		04M1191M	02/11/04	02/11/04	1	6010B
SILVER	7440-22-4	mg/kg	0.61	<0.61	U	P		04M1191M	02/11/04	02/11/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.61	<0.61	U	P		04M1191M	02/11/04	02/11/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.61	47.7		P		04M1191M	02/11/04	02/11/04	1	6010B
ZINC	7440-66-6	mg/kg	0.61	251		P		04M1191M	02/11/04	02/11/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41517	Collected by:	
		Lab Sample ID:	04-1517-4	Received Date:	02/09/2004
Sample ID:	**0023-S4-725**	Sample Matrix	Soil	Moisture %:	18.2
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	μg/L	10	617		P		04M1236M	02/20/04	02/20/04	2	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41517	Collected by:	
		Lab Sample ID:	04-1517-4	Received Date:	02/09/2004
Sample ID:	**0023-S4-725**	Sample Matrix	Soil	Moisture %:	18.2
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC CHROMIUM [b]	7440-47-3	μg/L	25	597		P		04M1237M	02/20/04	02/20/04	5	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41517	Collected by:	
		Lab Sample ID:	04-1517-5	Received Date:	02/09/2004
Sample ID:	**0023-S4-726**	Sample Matrix	Soil	Moisture %:	17.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.1	1.9	J	P		04M1191M	02/11/04	02/11/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.36	6.9		P		04M1191M	02/11/04	02/11/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	316		P		04M1191M	02/11/04	02/11/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		04M1191M	02/11/04	02/11/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	0.43		P		04M1191M	02/11/04	02/11/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.61	47.4		P		04M1191M	02/11/04	02/11/04	1	6010B
COBALT	7440-48-4	mg/kg	0.61	12.7		P		04M1191M	02/11/04	02/11/04	1	6010B
COPPER	7440-50-8	mg/kg	0.61	36.8		P		04M1191M	02/11/04	02/11/04	1	6010B
LEAD	7439-92-1	mg/kg	0.36	1090		P		04M1191M	02/11/04	02/11/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	0.67		CV		04M1205H	02/13/04	02/13/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.24	0.27		P		04M1191M	02/11/04	02/11/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.36	17.1		P		04M1191M	02/11/04	02/11/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.49	<0.49	U	P		04M1191M	02/11/04	02/11/04	1	6010B
SILVER	7440-22-4	mg/kg	0.61	<0.61	U	P		04M1191M	02/11/04	02/11/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.61	<0.61	U	P		04M1191M	02/11/04	02/11/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.61	43.8		P		04M1191M	02/11/04	02/11/04	1	6010B
ZINC	7440-66-6	mg/kg	0.61	226		P		04M1191M	02/11/04	02/11/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41517	Collected by:	
		Lab Sample ID:	04-1517-5	Received Date:	02/09/2004
Sample ID:	**0023-S4-726**	Sample Matrix	Soil	Moisture %:	17.6
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	μg/L	10	566		P		04M1236M	02/20/04	02/20/04	2	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	IR Site 4 & 7	Service ID:	41797	Collected by:	AJ/LB
		Lab Sample ID:	04-1797-5	Received Date:	02/11/2004
Sample ID:	**0023-S4-724**[a]	Sample Matrix	Soil	Moisture %:	
Sample Type:	Field Sample	Prep. Method:	3510C	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/26/04	Anal. Date:	02/27/04
Batch No:	04G1526	Prep. No:	1 of 1	Anal. Time:	00:24
Data File Name:	1797-05	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL	Leach Method:	TCLP		

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	2,4-DINITROTOLUENE	121-14-2	μg/L	10	<10	U
2	HEXACHLOROBENZENE	118-74-1	μg/L	10	<10	U
3	HEXACHLOROBUTADIENE	87-68-3	μg/L	10	<10	U
4	HEXACHLOROETHANE	67-72-1	μg/L	10	<10	U
5	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	μg/L	10	<10	U
6	2-METHYLPHENOL (O-CRESOL)	95-48-7	μg/L	10	<10	U
7	NITROBENZENE	98-95-3	μg/L	10	<10	U
8	PENTACHLOROPHENOL	87-86-5	μg/L	50	<50	U
9	PYRIDINE	110-86-1	μg/L	10	<10	U
10	2,4,5-TRICHLOROPHENOL	95-95-4	μg/L	10	<10	U
11	2,4,6-TRICHLOROPHENOL	88-06-2	μg/L	10	<10	U
12	1,4-DICHLOROBENZENE	106-46-7	μg/L	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	55-114	76
2	2-FLUOROPHENOL	367-12-4	20-104	63
3	NITROBENZENE-D5	4165-60-0	46-132	83
4	PHENOL-D5	4165-62-2	20-118	35
5	TERPHENYL-D14	1718-51-0	44-133	81
6	2,4,6-TRIBROMOPHENOL	118-79-6	20-134	77
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	122
2	CHRYSENE-D12	1719-03-5	50-200	129
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	114
4	NAPHTHALENE-D8	1146-65-2	50-200	119
5	PERYLENE-D12	1520-96-3	50-200	114
6	PHENANTHRENE-D10	1517-22-2	50-200	134
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a]Additional analysis for 04-1471,1489,1517, and 1558 requested on 02/24/04.Sample duplicates were composited before analysis.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05300

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Sites 4 + 7	PURCHASE ORDER NO.: 80721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Amanda Johnson	SAMPLER SIGNATURE: Amanda Johnson
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1510

ANALYSES REQUIRED: EPA 1010 B (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 1010 B (Lead only)	COMMENTS
0023-S4-727	2/9/04	1308	1	X		S	48 hr	X	
0023-S4-728	2/9/04	1312	1	X		S	48 hr	X	
0023-S4-729	2/9/04	1318	1	X		S	48 hr	X	
0023-S4-730	2/9/04	1328	1	X		S	48 hr	X	
0023-S4-731	2/9/04	1329	1	X		S	48 hr	X	
0023-S4-732	2/9/04	1341	1	X		S	48 hr	X	
0023-S4-733	2/9/04	1349	1	X		S	48 hr	X	
0023-S4-734	2/9/04	1405	1	X		S	48 hr	X	
0023-S4-735	2/9/04	1415	1	X		S	48 hr	X	
0023-S4-736	2/9/04	1418	1	X		S	48 hr	X	
0023-S4-737	2/9/04	1419	1	X	X	S	48 hr	X	

Project Information Section
Do not submit to Laboratory

LOCATION	DEPTH START	DEPTH END	QC
0X2 45A E Side wall	2"	-	Reg
46B E Side wall 0X2	11"	-	Reg
48B W side wall 0X2	6"	-	Reg
54B E side wall 0X2	2"	-	Reg
58B Floor 0X2	24"	-	Reg
107B N Side wall 0X2	6"	-	Reg
46B W side wall 0X2	2"	-	Reg
81B W side wall 0X2	5"	-	Reg
78B N side wall 0X2	1"	-	Reg
78B W side wall 0X2	2"	-	Reg
78B W side wall 0X2	2"	-	FD

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Amanda Johnson	2/9/04	[illegible]
COMPANY: FEWI	TIME: 1604	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Overex Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05458

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4 & 7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Amanda Johnson	SAMPLER SIGNATURE: Amanda Johnson
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): APCL 04-1510

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-738	2/9/04	1429	1	X		S	48 hr	X		71B E Side Wall OX2	9"	–	Reg
0023-S4-739	2/9/04	1449	1	X		S	48 hr	X		37B N Side Wall OX2	7"	–	Reg
0023-S4-740	2/9/04	1454	1	X		S	48 hr	X		37B W Side Wall OX2	6"	–	Reg
0023-S4-741	2/9/04	1533	1	X		S	48 hr	X		88B N Side Wall OX2	4"	–	Reg
0023-S4-742	2/9/04	1538	1	X		S	48 hr	X	Run MS/MSD	86B N Side Wall OX2	4"	–	Reg

AJ 2/9/04

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Amanda Johnson	2/9/04	[signature]
COMPANY: T+FWI	TIME: 1604	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Overex Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1510

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41510	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1510-1	Received Date:	02/09/2004
Sample ID:	**0023-S4-727**	Sample Matrix	Soil	Moisture %:	41.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.51	214		P	.	04M1188L	02/11/04	02/11/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41510	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1510-2	Received Date:	02/09/2004
Sample ID:	**0023-S4-728**	Sample Matrix	Soil	Moisture %:	34.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	23	14600		P		04M1188L	02/11/04	02/11/04	50	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41510	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1510-3	Received Date:	02/09/2004
Sample ID:	**0023-S4-729**	Sample Matrix	Soil	Moisture %:	23.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	153		P		04M1188L	02/11/04	02/11/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41510	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1510-4	Received Date:	02/09/2004
Sample ID:	**0023-S4-730**	Sample Matrix	Soil	Moisture %:	32.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	4.4	3500		P		04M1188L	02/11/04	02/11/04	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41510	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1510-5	Received Date:	02/09/2004
Sample ID:	**0023-S4-731**	Sample Matrix	Soil	Moisture %:	27.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	16.4 J		P		04M1188L	02/11/04	02/11/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

4/12/04
MAB

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41510	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1510-6	Received Date:	02/09/2004
Sample ID:	**0023-S4-732**	Sample Matrix	Soil	Moisture %:	6.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.6	979		P		04M1188L	02/11/04	02/11/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41510	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1510-7	Received Date:	02/09/2004
Sample ID:	**0023-S4-733**	Sample Matrix	Soil	Moisture %:	7.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	240		P		04M1188L	02/11/04	02/11/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41510	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1510-8	Received Date:	02/09/2004
Sample ID:	**0023-S4-734**	Sample Matrix	Soil	Moisture %:	11.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	159		P		04M1188L	02/11/04	02/11/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41510	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1510-9	Received Date:	02/09/2004
Sample ID:	**0023-S4-735**	Sample Matrix	Soil	Moisture %:	22.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	37.2 J		P		04M1188L	02/11/04	02/11/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

4/12/04
MAB

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41510	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1510-10	Received Date:	02/09/2004
Sample ID:	**0023-S4-736**	Sample Matrix	Soil	Moisture %:	18.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.8	768		P		04M1188L	02/11/04	02/11/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41510	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1510-11	Received Date:	02/09/2004
Sample ID:	**0023-S4-737**	Sample Matrix	Soil	Moisture %:	18.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.73	551		P		04M1188L	02/11/04	02/11/04	2	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41510	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1510-12	Received Date:	02/09/2004
Sample ID:	**0023-S4-738**	Sample Matrix	Soil	Moisture %:	14.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	3.5	2490		P		04M1188L	02/11/04	02/11/04	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41510	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1510-13	Received Date:	02/09/2004
Sample ID:	**0023-S4-739**	Sample Matrix	Soil	Moisture %:	52.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.63	479		P		04M1188L	02/11/04	02/11/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41510	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1510-14	Received Date:	02/09/2004
Sample ID:	**0023-S4-740**	Sample Matrix	Soil	Moisture %:	26.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.81	612		P		04M1188L	02/11/04	02/11/04	2	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41510	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1510-15	Received Date:	02/09/2004
Sample ID:	**0023-S4-741**	Sample Matrix	Soil	Moisture %:	21.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	20.0	J	P		04M1188L	02/11/04	02/11/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

4/12/04
MAB

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/09/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41510	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1510-16	Received Date:	02/09/2004
Sample ID:	**0023-S4-742**	Sample Matrix	Soil	Moisture %:	22.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.39	381		P		04M1188L	02/11/04	02/11/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	41510
Project ID:	NAVWPNSTA Seal Beach	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	04M1188L		
MS Filename:	-	Date Analyzed:	021104	Time Analyzed:	11:34
MSD Filename:	-	Date Analyzed:	021104	Time Analyzed:	11:36
MS Sample No:	**0023-S4-742**	Sample Lab ID:	04-1510-16	Moisture, % -	22.1

Spiked Components	Unit	Spike Added	Concentration Unspiked	MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	193	381	562	93	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	REC
LEAD	mg/kg	193	561	93	0	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

VALIDATA
Chemical Services, Inc.
4070 Balleycastle Lane, Duluth, GA 30097
(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY REPORT

COMPANY:	Foster Wheeler Environmental
SITE NAME:	IR Sites 4 & 7, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Total Lead
SDG NUMBER:	04-1510 (Level III and IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-727	04-1510-1	Soil	X
0023-S4-728	04-1510-2	Soil	X
0023-S4-729	04-1510-3	Soil	X
0023-S4-730	04-1510-4	Soil	X
0023-S4-731	04-1510-5	Soil	X
0023-S4-732	04-1510-6	Soil	X
0023-S4-733	04-1510-7	Soil	X
0023-S4-734	04-1510-8	Soil	X
0023-S4-735	04-1510-9	Soil	X
0023-S4-736[2]	04-1510-10	Soil	X
0023-S4-737[1,2]	04-1510-11	Soil	X
0023-S4-738	04-1510-12	Soil	X
0023-S4-739	04-1510-13	Soil	X
0023-S4-740	04-1510-14	Soil	X
0023-S4-741	04-1510-15	Soil	X
0023-S4-742	04-1510-16	Soil	X
0023-S4-742MS	04-1510-16	Soil	X
0023-S4-742MSD	04-1510-16	Soil	X

Note 1: Sample was identified for Level IV validation.
Note 2: Sample 0023-S4-737 is a field duplicate of sample 0023-S4-738

SUFFIX CODES: MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWER(S): Mary Ann Brookshire, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1510 Inorganics

SAMPLES: 0023-S4-727, 0023-S4-728, 0023-S4-729, 0023-S4-730, 0023-S4-731, 0023-S4-732, 0023-S4-733, 0023-S4-734, 0023-S4-735, 0023-S4-736, 0023-S4-737, 0023-S4-738, 0023-S4-739, 0023-S4-740, 0023-S4-741, 0023-S4-742

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was reported at -5.7 ug/L in continuing calibration blank CCB4. Because the results for lead in the SDG samples were greater than 5X the blank amount, no action was required.

IV.) Interference Check:

The following result was reported in the ICS Solution A with magnitude greater than the IDL:

lead	6.0 ug/L

This analyte should not be present. Aluminum, calcium, iron and/or magnesium was detected in samples 0023-S4-731, 0023-S4-735, and 0023-S4-741 at a concentration comparable to the ICS standard. The lead results in these samples were flagged as estimated (J). All remaining samples had reported results greater than 100X the interference level. In the professional judgement of the validator, the level of interference was not considered significant, so no further action was taken.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-742. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

The RPD of lead between field duplicate samples 0023-S4-736 / 0023-S4-737 was 33%, which is within the advisory 60% QC limit for soil.

IX.) Serial Dilution Analysis:

All Serial Dilution criteria were met. No action was required.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05459

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4 + 7	PURCHASE ORDER NO.: 20781 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Amanda Johnson	SAMPLER SIGNATURE: Amanda Johnson
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1521

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 5035/8260B	EPA 8270C/SIM	EPA 8081A	EPA 8082	Title 22 Metals	TPH - extractable					COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-743	2/10/04	0907	5	X		S	5 day	X	X	X	X	X	X						~~Stockpile 18~~ ~~Stockpile 19~~	2.0	–	Reg
0023-S4-744	2/10/04	0917	5	X		S	5 day	X	X	X	X	X	X						Stockpile 19	4.5	–	Reg
0023-S4-745	2/10/04	0925	5	X		S	5 day	X	X	X	X	X	X						Stockpile 20	0.5	–	Reg
0023-S4-746	2/10/04	0931	5	X		S	5 day	X	X	X	X	X	X						Stockpile 21	3.0	–	Reg
0023-S4-747	2/10/04	0937	5	X		S	5 day	X	X	X	X	X	X						Stockpile 22	5.0	–	Reg
0023-S4-748	2/10/04	0943	5	X		S	5 day	X	X	X	X	X	X						Stockpile 23	0.0	–	Reg
0023-S4-749	2/10/04	0948	5	X		S	5 day	X	X	X	X	X	X						Stockpile 24	1.5	–	Reg
0023-S4-750	2/10/04	0955	5	X		S	5 day	X	X	X	X	X	X						Stockpile 25	3.0	–	Reg
0023-S4-751	2/10/04	1001	5	X		S	5 day	X	X	X	X	X	X						Stockpile 26	2.5	–	Reg
0023-S4-752	2/10/04	1006	5	X		S	5 day	X	X	X	X	X	X						Stockpile 27	4.0	–	Reg
0023-S4-753	2/10/04	1008	5	~~X~~	X	S	5 day	X	X	X	X	X	X						Stockpile 27	4.0	–	FD

RELINQUISHED BY (Signature): Amanda Johnson	DATE: 2/10/04	RECEIVED BY (Signature): Lisa Bienkowski	
COMPANY: FFWI	TIME: 1230	COMPANY: FFWI	
RELINQUISHED BY (Signature): Lisa Bienkowski	DATE: 2/10/04	RECEIVED BY (Signature): [illegible]	
COMPANY: FFWI	TIME: 1440	COMPANY: APCL	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	
COMPANY	TIME	COMPANY	

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Dredge Material Stockpile Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1521

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05460

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4&7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Amanda Johnson	SAMPLER SIGNATURE: Amanda Johnson
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1521

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 5035/8260B	EPA 8270C/SIM	EPA 8082	Title 22 Metals	TPH - extractable	EPA 8081A					COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-754	2/10/04	1030	5	X		S	5 day	X	X	X	X	X	X						Stockpile 28	1.0'	–	Reg
0023-S4-755	2/10/04	1025	15	X		S	5 day	X	X	X	X	X	X					MS/MSD	Stockpile 29	2.5'	–	Reg
0023-S4-756	2/10/04	1043	5	X		S	5 day	X	X	X	X	X	X						Stockpile 30	3.5	–	Reg
0023-S4-757	2/10/04	1050	5	X		S	5 day	X	X	X	X	X	X						Stockpile 31	2.5	–	Reg
0023-S4-758	2/10/04	1058	5	X		S	5 day	X	X	X	X	X	X						Stockpile 32	4.0	–	Reg
0023-S4-759	2/10/04	1059	5	X		S	5 day	X	X	X	X	X	X						Stockpile 33	1.0'	–	Reg
0023-S4-760	2/10/04	1104	5	X		S	5 day	X	X	X	X	X	X						Stockpile 34	0.5'	–	Reg
0023-S4-761	2/10/04	1115	7	X		W	5 day	X	X	X	X	X	X						EQ Rinsate	–	–	Reg

RELINQUISHED BY (Signature): Amanda Johnson	DATE: 2/10/04	RECEIVED BY (Signature): Lisa Bienkowski	LABORATORY INSTRUCTIONS/COMMENTS: N/A
COMPANY: FFWI	TIME: 1230	COMPANY: FFWI	
RELINQUISHED BY (Signature): Lisa Bienkowski	DATE: 2/10/04	RECEIVED BY (Signature): [illegible]	COMPOSITE DESCRIPTION: N/A
COMPANY: FFWI	TIME: 1440	COMPANY: APCL	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
COMPANY	TIME	COMPANY	TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Dredge Material Stockpile Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1520

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-1	Received Date:	02/10/2004
Sample ID:	**0023-S4-743**	Sample Matrix	Soil	Moisture %:	24.2
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/12/04	Anal. Date:	02/12/04
Batch No:	04G1369	Prep. No:	–	Anal. Time:	03:27
Data File Name:	1521-01	Sample Amount:	4.8 g	Dilution Factor:	1.04
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge:	(Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	69	<69	U J
2	BENZENE	71-43-2	µg/kg	6.9	<6.9	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.9	<6.9	U
4	BROMOFORM	75-25-2	µg/kg	6.9	<6.9	U
5	BROMOMETHANE	74-83-9	µg/kg	6.9	<6.9	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	69	<69	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.9	<6.9	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.9	<6.9	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.9	<6.9	U
10	CHLOROETHANE	75-00-3	µg/kg	6.9	<6.9	U
11	CHLOROFORM	67-66-3	µg/kg	6.9	<6.9	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.9	<6.9	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.9	<6.9	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.9	<6.9	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.9	<6.9	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.9	<6.9	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.9	<6.9	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.9	<6.9	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.9	<6.9	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.9	<6.9	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.9	<6.9	U
22	2-HEXANONE	591-78-6	µg/kg	69	<69	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.9	<6.9	U J
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	69	<69	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	14	<14	U
26	STYRENE	100-42-5	µg/kg	6.9	<6.9	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.9	<6.9	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.9	<6.9	U
29	TOLUENE	108-88-3	µg/kg	6.9	<6.9	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.9	<6.9	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.9	<6.9	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.9	<6.9	U
33	VINYL ACETATE	108-05-4	µg/kg	69	<69	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.9	<6.9	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.9	<6.9	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	109
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	109

9018

4/05/04

Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	113
4	TOLUENE-D8	2037-26-5	80-120	102
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	100
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	98
3	FLUOROBENZENE	462-06-6	50-200	78
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-2	Received Date:	02/10/2004
Sample ID:	**0023-S4-744**	Sample Matrix	Soil	Moisture %:	18.7
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/12/04	Anal. Date:	02/12/04
Batch No:	04G1369	Prep. No:	–	Anal. Time:	03:53
Data File Name:	1521-02	Sample Amount:	5.02 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	62	<62	U J
2	BENZENE	71-43-2	µg/kg	6.2	<6.2	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.2	<6.2	U
4	BROMOFORM	75-25-2	µg/kg	6.2	<6.2	U
5	BROMOMETHANE	74-83-9	µg/kg	6.2	<6.2	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	62	<62	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.2	<6.2	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.2	<6.2	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.2	<6.2	U
10	CHLOROETHANE	75-00-3	µg/kg	6.2	<6.2	U
11	CHLOROFORM	67-66-3	µg/kg	6.2	<6.2	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.2	<6.2	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.2	<6.2	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.2	<6.2	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.2	<6.2	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.2	<6.2	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.2	<6.2	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.2	<6.2	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.2	<6.2	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.2	<6.2	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.2	<6.2	U
22	2-HEXANONE	591-78-6	µg/kg	62	<62	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.2	<6.2	U J
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	62	<62	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	12	<12	U
26	STYRENE	100-42-5	µg/kg	6.2	<6.2	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.2	<6.2	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.2	<6.2	U
29	TOLUENE	108-88-3	µg/kg	6.2	<6.2	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.2	<6.2	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.2	<6.2	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.2	<6.2	U
33	VINYL ACETATE	108-05-4	µg/kg	62	<62	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.2	<6.2	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.2	<6.2	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	107
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	108

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	112
4	TOLUENE-D8	2037-26-5	80-120	101
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	97
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	98
3	FLUOROBENZENE	462-06-6	50-200	75
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-3	Received Date:	02/10/2004
Sample ID:	**0023-S4-745**	Sample Matrix	Soil	Moisture %:	17.8
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/12/04	Anal. Date:	02/12/04
Batch No:	04G1369	Prep. No:	–	Anal. Time:	04:19
Data File Name:	1521-03	Sample Amount:	5.51 g	Dilution Factor:	0.91
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	55	<55	U J
2	BENZENE	71-43-2	µg/kg	5.5	<5.5	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.5	<5.5	U
4	BROMOFORM	75-25-2	µg/kg	5.5	<5.5	U
5	BROMOMETHANE	74-83-9	µg/kg	5.5	<5.5	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	55	<55	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.5	<5.5	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.5	<5.5	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.5	<5.5	U
10	CHLOROETHANE	75-00-3	µg/kg	5.5	<5.5	U
11	CHLOROFORM	67-66-3	µg/kg	5.5	<5.5	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.5	<5.5	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.5	<5.5	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.5	<5.5	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.5	<5.5	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.5	<5.5	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.5	<5.5	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.5	<5.5	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.5	<5.5	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.5	<5.5	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.5	<5.5	U
22	2-HEXANONE	591-78-6	µg/kg	55	<55	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.5	<5.5	U J
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	55	<55	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	11	<11	U
26	STYRENE	100-42-5	µg/kg	5.5	<5.5	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.5	<5.5	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.5	<5.5	U
29	TOLUENE	108-88-3	µg/kg	5.5	<5.5	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.5	<5.5	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.5	<5.5	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.5	<5.5	U
33	VINYL ACETATE	108-05-4	µg/kg	55	<55	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.5	<5.5	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.5	<5.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	107
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	111

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	115
4	TOLUENE-D8	2037-26-5	80-120	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	92
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	92
3	FLUOROBENZENE	462-06-6	50-200	69
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-4	Received Date:	02/10/2004
Sample ID:	**0023-S4-746**	Sample Matrix	Soil	Moisture %:	16.4
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/12/04	Anal. Date:	02/12/04
Batch No:	04G1369	Prep. No:	–	Anal. Time:	04:45
Data File Name:	1521-04	Sample Amount:	5.23 g	Dilution Factor:	0.96
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge:	(Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	57	<57	U J
2	BENZENE	71-43-2	µg/kg	5.7	<5.7	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.7	<5.7	U
4	BROMOFORM	75-25-2	µg/kg	5.7	<5.7	U
5	BROMOMETHANE	74-83-9	µg/kg	5.7	<5.7	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	57	<57	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.7	<5.7	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.7	<5.7	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.7	<5.7	U
10	CHLOROETHANE	75-00-3	µg/kg	5.7	<5.7	U
11	CHLOROFORM	67-66-3	µg/kg	5.7	<5.7	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.7	<5.7	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.7	<5.7	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.7	<5.7	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.7	<5.7	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.7	<5.7	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.7	<5.7	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.7	<5.7	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.7	<5.7	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.7	<5.7	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.7	<5.7	U
22	2-HEXANONE	591-78-6	µg/kg	57	<57	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.7	<5.7	U J
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	57	<57	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	11	<11	U
26	STYRENE	100-42-5	µg/kg	5.7	<5.7	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.7	<5.7	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.7	<5.7	U
29	TOLUENE	108-88-3	µg/kg	5.7	<5.7	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.7	<5.7	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.7	<5.7	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.7	<5.7	U
33	VINYL ACETATE	108-05-4	µg/kg	57	<57	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.7	<5.7	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.7	<5.7	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	107
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	109

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	113
4	TOLUENE-D8	2037-26-5	80-120	101
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	86
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	86
3	FLUOROBENZENE	462-06-6	50-200	66
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-5	Received Date:	02/10/2004
Sample ID:	**0023-S4-747**	Sample Matrix	Soil	Moisture %:	19.8
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/12/04	Anal. Date:	02/12/04
Batch No:	04G1369	Prep. No:	–	Anal. Time:	05:12
Data File Name:	1521-05	Sample Amount:	5.43 g	Dilution Factor:	0.92
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	57	10	~~J~~
2	BENZENE	71-43-2	µg/kg	5.7	<5.7	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.7	<5.7	U
4	BROMOFORM	75-25-2	µg/kg	5.7	<5.7	U
5	BROMOMETHANE	74-83-9	µg/kg	5.7	<5.7	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	57	<57	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.7	<5.7	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.7	<5.7	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.7	<5.7	U
10	CHLOROETHANE	75-00-3	µg/kg	5.7	<5.7	U
11	CHLOROFORM	67-66-3	µg/kg	5.7	<5.7	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.7	<5.7	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.7	<5.7	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.7	<5.7	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.7	<5.7	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.7	<5.7	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.7	<5.7	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.7	<5.7	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.7	<5.7	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.7	<5.7	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.7	<5.7	U
22	2-HEXANONE	591-78-6	µg/kg	57	<57	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.7	<5.7	UJ
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	57	<57	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	11	<11	U
26	STYRENE	100-42-5	µg/kg	5.7	<5.7	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.7	<5.7	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.7	<5.7	U
29	TOLUENE	108-88-3	µg/kg	5.7	<5.7	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.7	<5.7	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.7	<5.7	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.7	<5.7	U
33	VINYL ACETATE	108-05-4	µg/kg	57	<57	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.7	<5.7	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.7	<5.7	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	108
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	109

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	113
4	TOLUENE-D8	2037-26-5	80-120	103
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	94
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	93
3	FLUOROBENZENE	462-06-6	50-200	74
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-6	Received Date:	02/10/2004
Sample ID:	**0023-S4-748**	Sample Matrix	Soil	Moisture %:	13.3
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/12/04	Anal. Date:	02/12/04
Batch No:	04G1369	Prep. No:	–	Anal. Time:	05:38
Data File Name:	1521-06	Sample Amount:	5.08 g	Dilution Factor:	0.98
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	56	<56	U J
2	BENZENE	71-43-2	µg/kg	5.6	<5.6	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.6	<5.6	U
4	BROMOFORM	75-25-2	µg/kg	5.6	<5.6	U
5	BROMOMETHANE	74-83-9	µg/kg	5.6	<5.6	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	56	<56	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.6	<5.6	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.6	<5.6	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.6	<5.6	U
10	CHLOROETHANE	75-00-3	µg/kg	5.6	<5.6	U
11	CHLOROFORM	67-66-3	µg/kg	5.6	<5.6	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.6	<5.6	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.6	<5.6	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.6	<5.6	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.6	<5.6	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.6	<5.6	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.6	<5.6	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.6	<5.6	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.6	<5.6	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.6	<5.6	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.6	<5.6	U
22	2-HEXANONE	591-78-6	µg/kg	56	<56	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.6	<5.6	U J
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	56	<56	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	11	<11	U
26	STYRENE	100-42-5	µg/kg	5.6	<5.6	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.6	<5.6	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.6	<5.6	U
29	TOLUENE	108-88-3	µg/kg	5.6	<5.6	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.6	<5.6	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.6	<5.6	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.6	<5.6	U
33	VINYL ACETATE	108-05-4	µg/kg	56	<56	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.6	<5.6	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.6	<5.6	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	106
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	108

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	115
4	TOLUENE-D8	2037-26-5	80-120	101
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	92
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	92
3	FLUOROBENZENE	462-06-6	50-200	70
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-7	Received Date:	02/10/2004
Sample ID:	**0023-S4-749**	Sample Matrix	Soil	Moisture %:	21.0
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/12/04	Anal. Date:	02/12/04
Batch No:	04G1369	Prep. No:	–	Anal. Time:	06:04
Data File Name:	1521-07	Sample Amount:	4.91 g	Dilution Factor:	1.02
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge:	(Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	65	<65	U J
2	BENZENE	71-43-2	µg/kg	6.5	<6.5	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.5	<6.5	U
4	BROMOFORM	75-25-2	µg/kg	6.5	<6.5	U
5	BROMOMETHANE	74-83-9	µg/kg	6.5	<6.5	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	65	<65	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.5	<6.5	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.5	<6.5	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.5	<6.5	U
10	CHLOROETHANE	75-00-3	µg/kg	6.5	<6.5	U
11	CHLOROFORM	67-66-3	µg/kg	6.5	<6.5	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.5	<6.5	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.5	<6.5	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.5	<6.5	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.5	<6.5	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.5	<6.5	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.5	<6.5	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.5	<6.5	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.5	<6.5	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.5	<6.5	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.5	<6.5	U
22	2-HEXANONE	591-78-6	µg/kg	65	<65	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.5	<6.5	U J
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	65	<65	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	13	<13	U
26	STYRENE	100-42-5	µg/kg	6.5	<6.5	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.5	<6.5	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.5	<6.5	U
29	TOLUENE	108-88-3	µg/kg	6.5	<6.5	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.5	<6.5	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.5	<6.5	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.5	<6.5	U
33	VINYL ACETATE	108-05-4	µg/kg	65	<65	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.5	<6.5	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.5	<6.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	107
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	109

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	112
4	TOLUENE-D8	2037-26-5	80-120	102
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	88
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	88
3	FLUOROBENZENE	462-06-6	50-200	69
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-8	Received Date:	02/10/2004
Sample ID:	**0023-S4-750**	Sample Matrix	Soil	Moisture %:	17.8
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/12/04	Anal. Date:	02/12/04
Batch No:	04G1369	Prep. No:	–	Anal. Time:	06:29
Data File Name:	1521-08	Sample Amount:	5.4 g	Dilution Factor:	0.93
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	57	<57	U J
2	BENZENE	71-43-2	µg/kg	5.7	<5.7	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.7	<5.7	U
4	BROMOFORM	75-25-2	µg/kg	5.7	<5.7	U
5	BROMOMETHANE	74-83-9	µg/kg	5.7	<5.7	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	57	<57	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.7	<5.7	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.7	<5.7	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.7	<5.7	U
10	CHLOROETHANE	75-00-3	µg/kg	5.7	<5.7	U
11	CHLOROFORM	67-66-3	µg/kg	5.7	<5.7	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.7	<5.7	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.7	<5.7	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.7	<5.7	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.7	<5.7	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.7	<5.7	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.7	<5.7	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.7	<5.7	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.7	<5.7	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.7	<5.7	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.7	<5.7	U
22	2-HEXANONE	591-78-6	µg/kg	57	<57	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.7	<5.7	U J
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	57	<57	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	11	<11	U
26	STYRENE	100-42-5	µg/kg	5.7	<5.7	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.7	<5.7	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.7	<5.7	U
29	TOLUENE	108-88-3	µg/kg	5.7	<5.7	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.7	<5.7	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.7	<5.7	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.7	<5.7	U
33	VINYL ACETATE	108-05-4	µg/kg	57	<57	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.7	<5.7	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.7	<5.7	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	108
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	107

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	112
4	TOLUENE-D8	2037-26-5	80-120	102
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	90
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	88
3	FLUOROBENZENE	462-06-6	50-200	73
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-9	Received Date:	02/10/2004
Sample ID:	**0023-S4-751**	Sample Matrix	Soil	Moisture %:	18.7
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/12/04	Anal. Date:	02/12/04
Batch No:	04G1369	Prep. No:	–	Anal. Time:	06:55
Data File Name:	1521-09	Sample Amount:	5.53 g	Dilution Factor:	0.9
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	55	<55	U J
2	BENZENE	71-43-2	µg/kg	5.5	<5.5	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.5	<5.5	U
4	BROMOFORM	75-25-2	µg/kg	5.5	<5.5	U
5	BROMOMETHANE	74-83-9	µg/kg	5.5	<5.5	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	55	<55	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.5	<5.5	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.5	<5.5	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.5	<5.5	U
10	CHLOROETHANE	75-00-3	µg/kg	5.5	<5.5	U
11	CHLOROFORM	67-66-3	µg/kg	5.5	<5.5	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.5	<5.5	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.5	<5.5	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.5	<5.5	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.5	<5.5	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.5	<5.5	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.5	<5.5	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.5	<5.5	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.5	<5.5	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.5	<5.5	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.5	<5.5	U
22	2-HEXANONE	591-78-6	µg/kg	55	<55	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.5	<5.5	U J
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	55	<55	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	11	<11	U
26	STYRENE	100-42-5	µg/kg	5.5	<5.5	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.5	<5.5	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.5	<5.5	U
29	TOLUENE	108-88-3	µg/kg	5.5	<5.5	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.5	<5.5	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.5	<5.5	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.5	<5.5	U
33	VINYL ACETATE	108-05-4	µg/kg	55	<55	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.5	<5.5	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.5	<5.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	111
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	109

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	111
4	TOLUENE-D8	2037-26-5	80-120	102
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	90
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	87
3	FLUOROBENZENE	462-06-6	50-200	70
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-10	Received Date:	02/10/2004
Sample ID:	**0023-S4-752**	Sample Matrix	Soil	Moisture %:	20.5
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/12/04	Anal. Date:	02/12/04
Batch No:	04G1369	Prep. No:	–	Anal. Time:	07:21
Data File Name:	1521-10	Sample Amount:	4.89 g	Dilution Factor:	1.02
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	64	<64	U J
2	BENZENE	71-43-2	µg/kg	6.4	<6.4	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.4	<6.4	U
4	BROMOFORM	75-25-2	µg/kg	6.4	<6.4	U
5	BROMOMETHANE	74-83-9	µg/kg	6.4	<6.4	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	64	<64	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.4	<6.4	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.4	<6.4	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.4	<6.4	U
10	CHLOROETHANE	75-00-3	µg/kg	6.4	<6.4	U
11	CHLOROFORM	67-66-3	µg/kg	6.4	<6.4	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.4	<6.4	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.4	<6.4	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.4	<6.4	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.4	<6.4	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.4	<6.4	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.4	<6.4	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.4	<6.4	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.4	<6.4	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.4	<6.4	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.4	<6.4	U
22	2-HEXANONE	591-78-6	µg/kg	64	<64	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.4	<6.4	U J
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	64	<64	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	13	<13	U
26	STYRENE	100-42-5	µg/kg	6.4	<6.4	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.4	<6.4	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.4	<6.4	U
29	TOLUENE	108-88-3	µg/kg	6.4	<6.4	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.4	<6.4	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.4	<6.4	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.4	<6.4	U
33	VINYL ACETATE	108-05-4	µg/kg	64	<64	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.4	<6.4	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.4	<6.4	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	108
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	107

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	110
4	TOLUENE-D8	2037-26-5	80-120	101
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	82
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	83
3	FLUOROBENZENE	462-06-6	50-200	64
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-11	Received Date:	02/10/2004
Sample ID:	**0023-S4-753**	Sample Matrix	Soil	Moisture %:	30.8
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/12/04	Anal. Date:	02/12/04
Batch No:	04G1369	Prep. No:	–	Anal. Time:	07:47
Data File Name:	1521-11	Sample Amount:	4.8 g	Dilution Factor:	1.04
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	75	17	+J
2	BENZENE	71-43-2	µg/kg	7.5	<7.5	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	7.5	<7.5	U
4	BROMOFORM	75-25-2	µg/kg	7.5	<7.5	U
5	BROMOMETHANE	74-83-9	µg/kg	7.5	<7.5	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	75	<75	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	7.5	<7.5	U
8	CHLOROBENZENE	108-90-7	µg/kg	7.5	<7.5	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	7.5	<7.5	U
10	CHLOROETHANE	75-00-3	µg/kg	7.5	<7.5	U
11	CHLOROFORM	67-66-3	µg/kg	7.5	<7.5	U
12	CHLOROMETHANE	74-87-3	µg/kg	7.5	<7.5	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	7.5	<7.5	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	7.5	<7.5	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	7.5	<7.5	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	7.5	<7.5	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	7.5	<7.5	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	7.5	<7.5	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	7.5	<7.5	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	7.5	<7.5	U
21	ETHYLBENZENE	100-41-4	µg/kg	7.5	<7.5	U
22	2-HEXANONE	591-78-6	µg/kg	75	<75	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	7.5	<7.5	UJ
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	75	<75	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	15	<15	U
26	STYRENE	100-42-5	µg/kg	7.5	<7.5	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	7.5	<7.5	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	7.5	<7.5	U
29	TOLUENE	108-88-3	µg/kg	7.5	<7.5	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	7.5	<7.5	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	7.5	<7.5	U
32	TRICHLOROETHENE	79-01-6	µg/kg	7.5	<7.5	U
33	VINYL ACETATE	108-05-4	µg/kg	75	<75	U
34	VINYL CHLORIDE	75-01-4	µg/kg	7.5	<7.5	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	7.5	<7.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	109
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	108

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	113
4	TOLUENE-D8	2037-26-5	80-120	102
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	88
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	88
3	FLUOROBENZENE	462-06-6	50-200	68
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-12	Received Date:	02/10/2004
Sample ID:	**0023-S4-754**	Sample Matrix	Soil	Moisture %:	21.0
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/12/04	Anal. Date:	02/12/04
Batch No:	04G1369	Prep. No:	–	Anal. Time:	08:13
Data File Name:	1521-12	Sample Amount:	4.76 g	Dilution Factor:	1.05
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	66	<66	U J
2	BENZENE	71-43-2	µg/kg	6.6	<6.6	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.6	<6.6	U
4	BROMOFORM	75-25-2	µg/kg	6.6	<6.6	U
5	BROMOMETHANE	74-83-9	µg/kg	6.6	<6.6	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	66	<66	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.6	<6.6	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.6	<6.6	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.6	<6.6	U
10	CHLOROETHANE	75-00-3	µg/kg	6.6	<6.6	U
11	CHLOROFORM	67-66-3	µg/kg	6.6	<6.6	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.6	<6.6	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.6	<6.6	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.6	<6.6	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.6	<6.6	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.6	<6.6	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.6	<6.6	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.6	<6.6	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.6	<6.6	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.6	<6.6	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.6	<6.6	U
22	2-HEXANONE	591-78-6	µg/kg	66	<66	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.6	<6.6	U J
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	66	<66	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	13	<13	U
26	STYRENE	100-42-5	µg/kg	6.6	<6.6	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.6	<6.6	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.6	<6.6	U
29	TOLUENE	108-88-3	µg/kg	6.6	<6.6	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.6	<6.6	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.6	<6.6	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.6	<6.6	U
33	VINYL ACETATE	108-05-4	µg/kg	66	<66	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.6	<6.6	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.6	<6.6	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	108
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	107

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	110
4	TOLUENE-D8	2037-26-5	80-120	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	81
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	82
3	FLUOROBENZENE	462-06-6	50-200	61
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-13	Received Date:	02/10/2004
Sample ID:	**0023-S4-755**	Sample Matrix	Soil	Moisture %:	26.0
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/12/04	Anal. Date:	02/12/04
Batch No:	04G1369	Prep. No:	–	Anal. Time:	08:40
Data File Name:	1521-13	Sample Amount:	4.9 g	Dilution Factor:	1.02
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	69	<69	U J
2	BENZENE	71-43-2	µg/kg	6.9	<6.9	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.9	<6.9	U
4	BROMOFORM	75-25-2	µg/kg	6.9	<6.9	U
5	BROMOMETHANE	74-83-9	µg/kg	6.9	<6.9	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	69	<69	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.9	<6.9	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.9	<6.9	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.9	<6.9	U
10	CHLOROETHANE	75-00-3	µg/kg	6.9	<6.9	U
11	CHLOROFORM	67-66-3	µg/kg	6.9	<6.9	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.9	<6.9	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.9	<6.9	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.9	<6.9	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.9	<6.9	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.9	<6.9	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.9	<6.9	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.9	<6.9	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.9	<6.9	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.9	<6.9	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.9	<6.9	U
22	2-HEXANONE	591-78-6	µg/kg	69	<69	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.9	<6.9	U J
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	69	<69	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	14	<14	U
26	STYRENE	100-42-5	µg/kg	6.9	<6.9	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.9	<6.9	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.9	<6.9	U
29	TOLUENE	108-88-3	µg/kg	6.9	<6.9	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.9	<6.9	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.9	<6.9	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.9	<6.9	U
33	VINYL ACETATE	108-05-4	µg/kg	69	<69	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.9	<6.9	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.9	<6.9	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	108
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	109

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	115
4	TOLUENE-D8	2037-26-5	80-120	102
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	84
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	86
3	FLUOROBENZENE	462-06-6	50-200	64
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-14	Received Date:	02/10/2004
Sample ID:	**0023-S4-756**	Sample Matrix	Soil	Moisture %:	16.1
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/12/04	Anal. Date:	02/12/04
Batch No:	04G1369	Prep. No:	–	Anal. Time:	09:06
Data File Name:	1521-14	Sample Amount:	4.96 g	Dilution Factor:	1.01
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	60	<60	U J
2	BENZENE	71-43-2	µg/kg	6.0	<6.0	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.0	<6.0	U
4	BROMOFORM	75-25-2	µg/kg	6.0	<6.0	U
5	BROMOMETHANE	74-83-9	µg/kg	6.0	<6.0	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	60	<60	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.0	<6.0	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.0	<6.0	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.0	<6.0	U
10	CHLOROETHANE	75-00-3	µg/kg	6.0	<6.0	U
11	CHLOROFORM	67-66-3	µg/kg	6.0	<6.0	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.0	<6.0	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.0	<6.0	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.0	<6.0	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.0	<6.0	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.0	<6.0	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.0	<6.0	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.0	<6.0	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.0	<6.0	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.0	<6.0	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.0	<6.0	U
22	2-HEXANONE	591-78-6	µg/kg	60	<60	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.0	<6.0	U J
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	60	<60	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	12	<12	U
26	STYRENE	100-42-5	µg/kg	6.0	<6.0	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.0	<6.0	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.0	<6.0	U
29	TOLUENE	108-88-3	µg/kg	6.0	<6.0	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.0	<6.0	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.0	<6.0	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.0	<6.0	U
33	VINYL ACETATE	108-05-4	µg/kg	60	<60	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.0	<6.0	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.0	<6.0	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	108
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	109

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	112
4	TOLUENE-D8	2037-26-5	80-120	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	89
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	88
3	FLUOROBENZENE	462-06-6	50-200	68
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-15	Received Date:	02/10/2004
Sample ID:	**0023-S4-757**	Sample Matrix	Soil	Moisture %:	18.4
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/12/04	Anal. Date:	02/12/04
Batch No:	04G1369	Prep. No:	–	Anal. Time:	09:32
Data File Name:	1521-15	Sample Amount:	4.78 g	Dilution Factor:	1.05
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	64	<64	U J
2	BENZENE	71-43-2	µg/kg	6.4	<6.4	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.4	<6.4	U
4	BROMOFORM	75-25-2	µg/kg	6.4	<6.4	U
5	BROMOMETHANE	74-83-9	µg/kg	6.4	<6.4	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	64	<64	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.4	<6.4	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.4	<6.4	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.4	<6.4	U
10	CHLOROETHANE	75-00-3	µg/kg	6.4	<6.4	U
11	CHLOROFORM	67-66-3	µg/kg	6.4	<6.4	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.4	<6.4	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.4	<6.4	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.4	<6.4	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.4	<6.4	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.4	<6.4	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.4	<6.4	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.4	<6.4	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.4	<6.4	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.4	<6.4	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.4	<6.4	U
22	2-HEXANONE	591-78-6	µg/kg	64	<64	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.4	<6.4	U J
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	64	<64	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	13	<13	U
26	STYRENE	100-42-5	µg/kg	6.4	<6.4	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.4	<6.4	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.4	<6.4	U
29	TOLUENE	108-88-3	µg/kg	6.4	<6.4	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.4	<6.4	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.4	<6.4	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.4	<6.4	U
33	VINYL ACETATE	108-05-4	µg/kg	64	<64	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.4	<6.4	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.4	<6.4	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	106
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	110

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	114
4	TOLUENE-D8	2037-26-5	80-120	99
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	85
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	86
3	FLUOROBENZENE	462-06-6	50-200	64
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-16	Received Date:	02/10/2004
Sample ID:	**0023-S4-758**	Sample Matrix	Soil	Moisture %:	19.7
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/12/04	Anal. Date:	02/12/04
Batch No:	04G1369	Prep. No:	–	Anal. Time:	09:58
Data File Name:	1521-16	Sample Amount:	5.32 g	Dilution Factor:	0.94
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	59	<59	U J
2	BENZENE	71-43-2	µg/kg	5.9	<5.9	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.9	<5.9	U
4	BROMOFORM	75-25-2	µg/kg	5.9	<5.9	U
5	BROMOMETHANE	74-83-9	µg/kg	5.9	<5.9	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	59	<59	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.9	<5.9	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.9	<5.9	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.9	<5.9	U
10	CHLOROETHANE	75-00-3	µg/kg	5.9	<5.9	U
11	CHLOROFORM	67-66-3	µg/kg	5.9	<5.9	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.9	<5.9	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.9	<5.9	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.9	<5.9	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.9	<5.9	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.9	<5.9	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.9	<5.9	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.9	<5.9	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.9	<5.9	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.9	<5.9	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.9	<5.9	U
22	2-HEXANONE	591-78-6	µg/kg	59	<59	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.9	<5.9	U J
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	59	<59	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	12	<12	U
26	STYRENE	100-42-5	µg/kg	5.9	<5.9	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.9	<5.9	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.9	<5.9	U
29	TOLUENE	108-88-3	µg/kg	5.9	<5.9	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.9	<5.9	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.9	<5.9	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.9	<5.9	U
33	VINYL ACETATE	108-05-4	µg/kg	59	<59	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.9	<5.9	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.9	<5.9	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	102
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	108

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	110
4	TOLUENE-D8	2037-26-5	80-120	98
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	71
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	79
3	FLUOROBENZENE	462-06-6	50-200	52
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-17	Received Date:	02/10/2004
Sample ID:	**0023-S4-759**	Sample Matrix	Soil	Moisture %:	4.5
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/12/04	Anal. Date:	02/12/04
Batch No:	04G1369	Prep. No:	–	Anal. Time:	10:24
Data File Name:	1521-17	Sample Amount:	4.06 g	Dilution Factor:	1.23
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	64	<64	U J
2	BENZENE	71-43-2	µg/kg	6.4	<6.4	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.4	<6.4	U
4	BROMOFORM	75-25-2	µg/kg	6.4	<6.4	U
5	BROMOMETHANE	74-83-9	µg/kg	6.4	<6.4	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	64	<64	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.4	<6.4	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.4	<6.4	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.4	<6.4	U
10	CHLOROETHANE	75-00-3	µg/kg	6.4	<6.4	U
11	CHLOROFORM	67-66-3	µg/kg	6.4	<6.4	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.4	<6.4	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.4	<6.4	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.4	<6.4	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.4	<6.4	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.4	<6.4	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.4	<6.4	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.4	<6.4	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.4	<6.4	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.4	<6.4	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.4	<6.4	U
22	2-HEXANONE	591-78-6	µg/kg	64	<64	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.4	<6.4	U J
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	64	<64	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	13	<13	U
26	STYRENE	100-42-5	µg/kg	6.4	<6.4	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.4	<6.4	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.4	<6.4	U
29	TOLUENE	108-88-3	µg/kg	6.4	<6.4	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.4	<6.4	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.4	<6.4	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.4	<6.4	U
33	VINYL ACETATE	108-05-4	µg/kg	64	<64	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.4	<6.4	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.4	<6.4	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	106
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	109

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	111
4	TOLUENE-D8	2037-26-5	80-120	99
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	86
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	88
3	FLUOROBENZENE	462-06-6	50-200	64
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-18	Received Date:	02/10/2004
Sample ID:	**0023-S4-760**	Sample Matrix	Soil	Moisture %:	4.4
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/12/04	Anal. Date:	02/12/04
Batch No:	04G1369	Prep. No:	–	Anal. Time:	10:50
Data File Name:	1521-18	Sample Amount:	3.8 g	Dilution Factor:	1.32
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge:	(Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	69	<69	U J
2	BENZENE	71-43-2	µg/kg	6.9	<6.9	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.9	<6.9	U
4	BROMOFORM	75-25-2	µg/kg	6.9	<6.9	U
5	BROMOMETHANE	74-83-9	µg/kg	6.9	<6.9	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	69	<69	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.9	<6.9	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.9	<6.9	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.9	<6.9	U
10	CHLOROETHANE	75-00-3	µg/kg	6.9	<6.9	U
11	CHLOROFORM	67-66-3	µg/kg	6.9	<6.9	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.9	<6.9	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.9	<6.9	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.9	<6.9	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.9	<6.9	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.9	<6.9	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.9	<6.9	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.9	<6.9	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.9	<6.9	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.9	<6.9	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.9	<6.9	U
22	2-HEXANONE	591-78-6	µg/kg	69	<69	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.9	<6.9	U J
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	69	<69	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	14	<14	U
26	STYRENE	100-42-5	µg/kg	6.9	<6.9	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.9	<6.9	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.9	<6.9	U
29	TOLUENE	108-88-3	µg/kg	6.9	<6.9	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.9	<6.9	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.9	<6.9	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.9	<6.9	U
33	VINYL ACETATE	108-05-4	µg/kg	69	<69	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.9	<6.9	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.9	<6.9	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	110
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	107

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	109
4	TOLUENE-D8	2037-26-5	80-120	99
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	91
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	90
3	FLUOROBENZENE	462-06-6	50-200	68
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-19	Received Date:	02/10/2004
Sample ID:	**0023-S4-761**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030B	Instrument ID:	GC/MS: G
Anal. Method:	8260B	Prep. Date:	02/13/04	Anal. Date:	02/13/04
Batch No:	04G1381	Prep. No:	–	Anal. Time:	16:42
Data File Name:	1521-19	Sample Amount:	25 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/L	50	<50	U R
2	BENZENE	71-43-2	µg/L	5	<5	U
3	BROMODICHLOROMETHANE	75-27-4	µg/L	5	<5	U
4	BROMOFORM	75-25-2	µg/L	5	<5	U
5	BROMOMETHANE	74-83-9	µg/L	5	<5	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/L	50	<50	U
7	CARBON TETRACHLORIDE	56-23-5	µg/L	5	<5	U
8	CHLOROBENZENE	108-90-7	µg/L	5	<5	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/L	5	<5	U
10	CHLOROETHANE	75-00-3	µg/L	5	<5	U
11	CHLOROFORM	67-66-3	µg/L	5	4	J
12	CHLOROMETHANE	74-87-3	µg/L	5	<5	U
13	1,1-DICHLOROETHANE	75-34-3	µg/L	5	<5	U
14	1,2-DICHLOROETHANE	107-06-2	µg/L	5	<5	U
15	1,1-DICHLOROETHENE	75-35-4	µg/L	5	<5	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/L	5	<5	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/L	5	<5	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/L	5	<5	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/L	5	<5	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/L	5	<5	U
21	ETHYLBENZENE	100-41-4	µg/L	5	<5	U
22	2-HEXANONE	591-78-6	µg/L	50	<50	U
23	METHYLENE CHLORIDE	75-09-2	µg/L	5	<5	U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/L	50	<50	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/L	10	<10	U
26	STYRENE	100-42-5	µg/L	5	<5	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/L	5	<5	U
28	TETRACHLOROETHENE	127-18-4	µg/L	5	<5	U
29	TOLUENE	108-88-3	µg/L	5	<5	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/L	5	<5	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/L	5	<5	U
32	TRICHLOROETHENE	79-01-6	µg/L	5	<5	U
33	VINYL ACETATE	108-05-4	µg/L	50	<50	U
34	VINYL CHLORIDE	75-01-4	µg/L	5	<5	U
35	XYLENES (TOTAL)	1330-20-7	µg/L	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	101
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	115

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Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	75-125	105
4	TOLUENE-D8	2037-26-5	80-120	98
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	96
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	90
3	FLUOROBENZENE	462-06-6	50-200	89
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-1	Received Date:	02/10/2004
Sample ID:	**0023-S4-743**	Sample Matrix	Soil	Moisture %:	24.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/11/04	Anal. Date:	02/19/04
Batch No:	04G1359	Prep. No:	1 of 1	Anal. Time:	18:41
Data File Name:	1521-01	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	440	< 440	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	440	< 440	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	440	< 440	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	440	26	J
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	440	< 440	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	440	< 440	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	440	< 440	U
8	4-CHLOROANILINE	106-47-8	µg/kg	1000	< 1000	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	440	< 440	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	440	< 440	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	440	< 440	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	440	< 440	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	440	< 440	U
14	DIBENZOFURAN	132-64-9	µg/kg	440	< 440	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	440	< 440	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	440	< 440	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	440	< 440	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	870	< 870	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	440	< 440	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	440	< 440	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	440	< 440	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	440	< 440	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	2100	< 2100	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	2100	< 2100	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	440	< 440	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	440	< 440	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	440	< 440	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	440	< 440	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	2100	< 2100	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	440	< 440	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	440	< 440	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	440	< 440	U
33	2-NITROANILINE	88-74-4	µg/kg	2100	< 2100	U
34	3-NITROANILINE	99-09-2	µg/kg	2100	< 2100	U
35	4-NITROANILINE	100-01-6	µg/kg	2100	< 2100	U
36	NITROBENZENE	98-95-3	µg/kg	440	< 440	U
37	2-NITROPHENOL	88-75-5	µg/kg	440	< 440	U
38	4-NITROPHENOL	100-02-7	µg/kg	2100	< 2100	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	440	< 440	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	870	< 870	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	μg/kg	2100	< 2100	U
42	PHENOL	108-95-2	μg/kg	440	< 440	U
43	PYRIDINE	110-86-1	μg/kg	440	< 440	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	μg/kg	440	< 440	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	μg/kg	2100	< 2100	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	μg/kg	440	< 440	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	51
2	2-FLUOROPHENOL	367-12-4	30-120	55
3	NITROBENZENE-D5	4165-60-0	40-135	53
4	PHENOL-D5	4165-62-2	20-120	46
5	TERPHENYL-D14	1718-51-0	40-135	58
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	54
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	115
2	CHRYSENE-D12	1719-03-5	50-200	120
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	115
4	NAPHTHALENE-D8	1146-65-2	50-200	112
5	PERYLENE-D12	1520-96-3	50-200	115
6	PHENANTHRENE-D10	1517-22-2	50-200	121
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-2	Received Date:	02/10/2004
Sample ID:	**0023-S4-744**	Sample Matrix	Soil	Moisture %:	18.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/11/04	Anal. Date:	02/19/04
Batch No:	04G1359	Prep. No:	1 of 1	Anal. Time:	19:20
Data File Name:	1521-02	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	410	< 410	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	410	< 410	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	410	< 410	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	410	< 410	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	410	< 410	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	410	< 410	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	410	< 410	U
8	4-CHLOROANILINE	106-47-8	µg/kg	940	< 940	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	410	< 410	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	410	< 410	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	410	< 410	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	410	< 410	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	410	< 410	U
14	DIBENZOFURAN	132-64-9	µg/kg	410	< 410	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	410	< 410	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	410	< 410	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	410	< 410	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	810	< 810	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	410	< 410	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	410	< 410	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	410	< 410	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	410	< 410	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	2000	< 2000	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	2000	< 2000	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	410	< 410	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	410	< 410	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	410	< 410	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	410	< 410	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	2000	< 2000	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	410	< 410	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	410	< 410	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	410	< 410	U
33	2-NITROANILINE	88-74-4	µg/kg	2000	< 2000	U
34	3-NITROANILINE	99-09-2	µg/kg	2000	< 2000	U
35	4-NITROANILINE	100-01-6	µg/kg	2000	< 2000	U
36	NITROBENZENE	98-95-3	µg/kg	410	< 410	U
37	2-NITROPHENOL	88-75-5	µg/kg	410	< 410	U
38	4-NITROPHENOL	100-02-7	µg/kg	2000	< 2000	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	410	< 410	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	810	< 810	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	2000	<2000	U
42	PHENOL	108-95-2	µg/kg	410	<410	U
43	PYRIDINE	110-86-1	µg/kg	410	<410	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	410	<410	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	2000	<2000	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	410	<410	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	48
2	2-FLUOROPHENOL	367-12-4	30-120	52
3	NITROBENZENE-D5	4165-60-0	40-135	50
4	PHENOL-D5	4165-62-2	20-120	43
5	TERPHENYL-D14	1718-51-0	40-135	55
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	48
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	122
2	CHRYSENE-D12	1719-03-5	50-200	124
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	124
4	NAPHTHALENE-D8	1146-65-2	50-200	120
5	PERYLENE-D12	1520-96-3	50-200	118
6	PHENANTHRENE-D10	1517-22-2	50-200	127
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-3	Received Date:	02/10/2004
Sample ID:	**0023-S4-745**	Sample Matrix	Soil	Moisture %:	17.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/11/04	Anal. Date:	02/19/04
Batch No:	04G1359	Prep. No:	1 of 1	Anal. Time:	19:59
Data File Name:	1521-03	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	400	<400	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	400	<400	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	400	<400	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	400	23	J
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	400	<400	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	400	<400	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	400	<400	U
8	4-CHLOROANILINE	106-47-8	µg/kg	930	<930	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	400	<400	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	400	<400	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	400	<400	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	400	<400	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	400	<400	U
14	DIBENZOFURAN	132-64-9	µg/kg	400	<400	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	400	<400	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	400	<400	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	400	<400	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	800	<800	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	400	<400	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	400	<400	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	400	<400	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	400	<400	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1900	<1900	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1900	<1900	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	400	<400	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	400	<400	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	400	<400	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	400	<400	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1900	<1900	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	400	<400	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	400	<400	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	400	<400	U
33	2-NITROANILINE	88-74-4	µg/kg	1900	<1900	U
34	3-NITROANILINE	99-09-2	µg/kg	1900	<1900	U
35	4-NITROANILINE	100-01-6	µg/kg	1900	<1900	U
36	NITROBENZENE	98-95-3	µg/kg	400	<400	U
37	2-NITROPHENOL	88-75-5	µg/kg	400	<400	U
38	4-NITROPHENOL	100-02-7	µg/kg	1900	<1900	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	400	<400	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	800	<800	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	μg/kg	1900	<1900	U
42	PHENOL	108-95-2	μg/kg	400	<400	U
43	PYRIDINE	110-86-1	μg/kg	400	<400	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	μg/kg	400	<400	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	μg/kg	1900	<1900	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	μg/kg	400	<400	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	48
2	2-FLUOROPHENOL	367-12-4	30-120	53
3	NITROBENZENE-D5	4165-60-0	40-135	50
4	PHENOL-D5	4165-62-2	20-120	44
5	TERPHENYL-D14	1718-51-0	40-135	58
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	54
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	135
2	CHRYSENE-D12	1719-03-5	50-200	137
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	134
4	NAPHTHALENE-D8	1146-65-2	50-200	132
5	PERYLENE-D12	1520-96-3	50-200	132
6	PHENANTHRENE-D10	1517-22-2	50-200	142
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-4	Received Date:	02/10/2004
Sample ID:	**0023-S4-746**	Sample Matrix	Soil	Moisture %:	16.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/11/04	Anal. Date:	02/19/04
Batch No:	04G1359	Prep. No:	1 of 1	Anal. Time:	20:38
Data File Name:	1521-04	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	390	<390	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	390	<390	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	390	<390	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	390	<390	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	390	<390	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	390	<390	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	390	<390	U
8	4-CHLOROANILINE	106-47-8	µg/kg	910	<910	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	390	<390	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	390	<390	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	390	<390	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	390	<390	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	390	<390	U
14	DIBENZOFURAN	132-64-9	µg/kg	390	<390	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	390	<390	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	390	<390	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	390	<390	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	790	<790	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	390	<390	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	390	<390	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	390	<390	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	390	<390	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1900	<1900	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1900	<1900	UJ
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	390	<390	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	390	<390	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	390	<390	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	390	<390	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1900	<1900	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	390	<390	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	390	<390	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	390	<390	U
33	2-NITROANILINE	88-74-4	µg/kg	1900	<1900	U
34	3-NITROANILINE	99-09-2	µg/kg	1900	<1900	U
35	4-NITROANILINE	100-01-6	µg/kg	1900	<1900	U
36	NITROBENZENE	98-95-3	µg/kg	390	<390	U
37	2-NITROPHENOL	88-75-5	µg/kg	390	<390	U
38	4-NITROPHENOL	100-02-7	µg/kg	1900	<1900	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	390	<390	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	790	<790	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	1900	<1900	U
42	PHENOL	108-95-2	µg/kg	390	<390	U
43	PYRIDINE	110-86-1	µg/kg	390	<390	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	390	<390	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	1900	<1900	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	390	<390	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	45
2	2-FLUOROPHENOL	367-12-4	30-120	49
3	NITROBENZENE-D5	4165-60-0	40-135	47
4	PHENOL-D5	4165-62-2	20-120	41
5	TERPHENYL-D14	1718-51-0	40-135	54
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	47
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	123
2	CHRYSENE-D12	1719-03-5	50-200	124
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	123
4	NAPHTHALENE-D8	1146-65-2	50-200	121
5	PERYLENE-D12	1520-96-3	50-200	119
6	PHENANTHRENE-D10	1517-22-2	50-200	130
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-5	Received Date:	02/10/2004
Sample ID:	**0023-S4-747**	Sample Matrix	Soil	Moisture %:	19.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/11/04	Anal. Date:	02/19/04
Batch No:	04G1359	Prep. No:	1 of 1	Anal. Time:	21:17
Data File Name:	1521-05	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	410	<410	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	410	<410	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	410	<410	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	410	<410	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	410	<410	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	410	<410	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	410	<410	U
8	4-CHLOROANILINE	106-47-8	µg/kg	950	<950	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	410	<410	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	410	<410	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	410	<410	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	410	<410	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	410	<410	U
14	DIBENZOFURAN	132-64-9	µg/kg	410	<410	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	410	<410	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	410	<410	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	410	<410	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	820	<820	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	410	<410	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	410	<410	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	410	<410	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	410	<410	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	2000	<2000	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	2000	<2000	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	410	<410	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	410	<410	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	410	<410	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	410	<410	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	2000	<2000	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	410	<410	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	410	<410	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	410	<410	U
33	2-NITROANILINE	88-74-4	µg/kg	2000	<2000	U
34	3-NITROANILINE	99-09-2	µg/kg	2000	<2000	U
35	4-NITROANILINE	100-01-6	µg/kg	2000	<2000	U
36	NITROBENZENE	98-95-3	µg/kg	410	<410	U
37	2-NITROPHENOL	88-75-5	µg/kg	410	<410	U
38	4-NITROPHENOL	100-02-7	µg/kg	2000	<2000	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	410	<410	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	820	<820	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	2000	< 2000	U
42	PHENOL	108-95-2	µg/kg	410	< 410	U
43	PYRIDINE	110-86-1	µg/kg	410	< 410	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	410	< 410	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	2000	< 2000	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	410	< 410	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	45
2	2-FLUOROPHENOL	367-12-4	30-120	52
3	NITROBENZENE-D5	4165-60-0	40-135	48
4	PHENOL-D5	4165-62-2	20-120	41
5	TERPHENYL-D14	1718-51-0	40-135	53
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	48
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	115
2	CHRYSENE-D12	1719-03-5	50-200	119
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	122
4	NAPHTHALENE-D8	1146-65-2	50-200	116
5	PERYLENE-D12	1520-96-3	50-200	114
6	PHENANTHRENE-D10	1517-22-2	50-200	122
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-6	Received Date:	02/10/2004
Sample ID:	**0023-S4-748**	Sample Matrix	Soil	Moisture %:	13.3
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/11/04	Anal. Date:	02/19/04
Batch No:	04G1359	Prep. No:	1 of 1	Anal. Time:	21:56
Data File Name:	1521-06	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	380	<380	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	380	<380	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	380	<380	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	380	<380	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	380	<380	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	380	<380	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	380	<380	U
8	4-CHLOROANILINE	106-47-8	µg/kg	880	<880	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	380	<380	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	380	<380	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	380	<380	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	380	<380	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	380	<380	U
14	DIBENZOFURAN	132-64-9	µg/kg	380	<380	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	380	<380	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	380	<380	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	380	<380	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	760	<760	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	380	<380	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	380	<380	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	380	<380	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	380	<380	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1800	<1800	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1800	<1800	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	380	<380	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	380	<380	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	380	<380	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	380	<380	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1800	<1800	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	380	<380	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	380	<380	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	380	<380	U
33	2-NITROANILINE	88-74-4	µg/kg	1800	<1800	U
34	3-NITROANILINE	99-09-2	µg/kg	1800	<1800	U
35	4-NITROANILINE	100-01-6	µg/kg	1800	<1800	U
36	NITROBENZENE	98-95-3	µg/kg	380	<380	U
37	2-NITROPHENOL	88-75-5	µg/kg	380	<380	U
38	4-NITROPHENOL	100-02-7	µg/kg	1800	<1800	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	380	<380	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	760	<760	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	1800	<1800	U
42	PHENOL	108-95-2	µg/kg	380	<380	U
43	PYRIDINE	110-86-1	µg/kg	380	<380	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	380	<380	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	1800	<1800	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	380	<380	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	56
2	2-FLUOROPHENOL	367-12-4	30-120	63
3	NITROBENZENE-D5	4165-60-0	40-135	60
4	PHENOL-D5	4165-62-2	20-120	52
5	TERPHENYL-D14	1718-51-0	40-135	61
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	59
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	129
2	CHRYSENE-D12	1719-03-5	50-200	132
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	130
4	NAPHTHALENE-D8	1146-65-2	50-200	127
5	PERYLENE-D12	1520-96-3	50-200	126
6	PHENANTHRENE-D10	1517-22-2	50-200	135
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-7	Received Date:	02/10/2004
Sample ID:	**0023-S4-749**	Sample Matrix	Soil	Moisture %:	21.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/11/04	Anal. Date:	02/19/04
Batch No:	04G1359	Prep. No:	1 of 1	Anal. Time:	22:35
Data File Name:	1521-07	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	420	< 420	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	420	< 420	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	420	< 420	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	420	23	J
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	420	< 420	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	420	< 420	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	420	< 420	U
8	4-CHLOROANILINE	106-47-8	µg/kg	960	< 960	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	420	< 420	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	420	< 420	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	420	< 420	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	420	< 420	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	420	< 420	U
14	DIBENZOFURAN	132-64-9	µg/kg	420	< 420	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	420	< 420	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	420	< 420	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	420	< 420	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	840	< 840	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	420	< 420	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	420	< 420	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	420	< 420	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	420	< 420	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	2000	< 2000	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	2000	< 2000	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	420	< 420	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	420	< 420	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	420	< 420	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	420	< 420	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	2000	< 2000	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	420	< 420	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	420	< 420	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	420	< 420	U
33	2-NITROANILINE	88-74-4	µg/kg	2000	< 2000	U
34	3-NITROANILINE	99-09-2	µg/kg	2000	< 2000	U
35	4-NITROANILINE	100-01-6	µg/kg	2000	< 2000	U
36	NITROBENZENE	98-95-3	µg/kg	420	< 420	U
37	2-NITROPHENOL	88-75-5	µg/kg	420	< 420	U
38	4-NITROPHENOL	100-02-7	µg/kg	2000	< 2000	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	420	< 420	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	840	< 840	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	μg/kg	2000	< 2000	U
42	PHENOL	108-95-2	μg/kg	420	< 420	U
43	PYRIDINE	110-86-1	μg/kg	420	< 420	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	μg/kg	420	< 420	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	μg/kg	2000	< 2000	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	μg/kg	420	< 420	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	43
2	2-FLUOROPHENOL	367-12-4	30-120	49
3	NITROBENZENE-D5	4165-60-0	40-135	46
4	PHENOL-D5	4165-62-2	20-120	39
5	TERPHENYL-D14	1718-51-0	40-135	54
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	48
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	127
2	CHRYSENE-D12	1719-03-5	50-200	131
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	128
4	NAPHTHALENE-D8	1146-65-2	50-200	125
5	PERYLENE-D12	1520-96-3	50-200	124
6	PHENANTHRENE-D10	1517-22-2	50-200	134
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-8	Received Date:	02/10/2004
Sample ID:	**0023-S4-750**	Sample Matrix	Soil	Moisture %:	17.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/11/04	Anal. Date:	02/19/04
Batch No:	04G1359	Prep. No:	1 of 1	Anal. Time:	23:14
Data File Name:	1521-08	Sample Amount:	29.9 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	400	< 400	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	400	< 400	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	400	< 400	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	400	< 400	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	400	< 400	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	400	< 400	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	400	< 400	U
8	4-CHLOROANILINE	106-47-8	µg/kg	920	< 920	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	400	< 400	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	400	< 400	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	400	< 400	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	400	< 400	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	400	< 400	U
14	DIBENZOFURAN	132-64-9	µg/kg	400	< 400	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	400	< 400	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	400	< 400	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	400	< 400	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	800	< 800	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	400	< 400	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	400	< 400	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	400	< 400	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	400	< 400	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1900	< 1900	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1900	< 1900	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	400	< 400	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	400	< 400	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	400	< 400	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	400	< 400	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1900	< 1900	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	400	< 400	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	400	< 400	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	400	< 400	U
33	2-NITROANILINE	88-74-4	µg/kg	1900	< 1900	U
34	3-NITROANILINE	99-09-2	µg/kg	1900	< 1900	U
35	4-NITROANILINE	100-01-6	µg/kg	1900	< 1900	U
36	NITROBENZENE	98-95-3	µg/kg	400	< 400	U
37	2-NITROPHENOL	88-75-5	µg/kg	400	< 400	U
38	4-NITROPHENOL	100-02-7	µg/kg	1900	< 1900	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	400	< 400	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	800	< 800	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	1900	<1900	U
42	PHENOL	108-95-2	µg/kg	400	<400	U
43	PYRIDINE	110-86-1	µg/kg	400	<400	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	400	<400	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	1900	<1900	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	400	<400	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	46-
2	2-FLUOROPHENOL	367-12-4	30-120	54
3	NITROBENZENE-D5	4165-60-0	40-135	49
4	PHENOL-D5	4165-62-2	20-120	43
5	TERPHENYL-D14	1718-51-0	40-135	56
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	48
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	113
2	CHRYSENE-D12	1719-03-5	50-200	114
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	125
4	NAPHTHALENE-D8	1146-65-2	50-200	117
5	PERYLENE-D12	1520-96-3	50-200	107
6	PHENANTHRENE-D10	1517-22-2	50-200	119
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-9	Received Date:	02/10/2004
Sample ID:	**0023-S4-751**	Sample Matrix	Soil	Moisture %:	18.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/11/04	Anal. Date:	02/19/04
Batch No:	04G1359	Prep. No:	1 of 1	Anal. Time:	23:54
Data File Name:	1521-09	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	410	<410	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	410	<410	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	410	<410	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	410	<410	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	410	<410	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	410	<410	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	410	<410	U
8	4-CHLOROANILINE	106-47-8	µg/kg	940	<940	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	410	<410	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	410	<410	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	410	<410	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	410	<410	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	410	<410	U
14	DIBENZOFURAN	132-64-9	µg/kg	410	<410	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	410	<410	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	410	<410	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	410	<410	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	810	<810	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	410	<410	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	410	<410	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	410	<410	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	410	<410	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	2000	<2000	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	2000	<2000	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	410	<410	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	410	<410	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	410	<410	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	410	<410	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	2000	<2000	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	410	<410	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	410	<410	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	410	<410	U
33	2-NITROANILINE	88-74-4	µg/kg	2000	<2000	U
34	3-NITROANILINE	99-09-2	µg/kg	2000	<2000	U
35	4-NITROANILINE	100-01-6	µg/kg	2000	<2000	U
36	NITROBENZENE	98-95-3	µg/kg	410	<410	U
37	2-NITROPHENOL	88-75-5	µg/kg	410	<410	U
38	4-NITROPHENOL	100-02-7	µg/kg	2000	<2000	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	410	<410	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	810	<810	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	2000	< 2000	U
42	PHENOL	108-95-2	µg/kg	410	< 410	U
43	PYRIDINE	110-86-1	µg/kg	410	< 410	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	410	< 410	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	2000	< 2000	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	410	< 410	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	54
2	2-FLUOROPHENOL	367-12-4	30-120	60
3	NITROBENZENE-D5	4165-60-0	40-135	58
4	PHENOL-D5	4165-62-2	20-120	49
5	TERPHENYL-D14	1718-51-0	40-135	69
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	58
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	129
2	CHRYSENE-D12	1719-03-5	50-200	130
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	134
4	NAPHTHALENE-D8	1146-65-2	50-200	129
5	PERYLENE-D12	1520-96-3	50-200	122
6	PHENANTHRENE-D10	1517-22-2	50-200	134
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-10	Received Date:	02/10/2004
Sample ID:	**0023-S4-752**	Sample Matrix	Soil	Moisture %:	20.5
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/11/04	Anal. Date:	02/20/04
Batch No:	04G1359	Prep. No:	1 of 1	Anal. Time:	00:33
Data File Name:	1521-10	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	420	<420	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	420	<420	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	420	<420	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	420	<420	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	420	<420	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	420	<420	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	420	<420	U
8	4-CHLOROANILINE	106-47-8	µg/kg	960	<960	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	420	<420	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	420	<420	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	420	<420	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	420	<420	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	420	<420	U
14	DIBENZOFURAN	132-64-9	µg/kg	420	<420	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	420	<420	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	420	<420	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	420	<420	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	830	<830	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	420	<420	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	420	<420	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	420	<420	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	420	<420	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	2000	<2000	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	2000	<2000	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	420	<420	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	420	<420	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	420	<420	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	420	<420	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	2000	<2000	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	420	<420	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	420	<420	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	420	<420	U
33	2-NITROANILINE	88-74-4	µg/kg	2000	<2000	U
34	3-NITROANILINE	99-09-2	µg/kg	2000	<2000	U
35	4-NITROANILINE	100-01-6	µg/kg	2000	<2000	U
36	NITROBENZENE	98-95-3	µg/kg	420	<420	U
37	2-NITROPHENOL	88-75-5	µg/kg	420	<420	U
38	4-NITROPHENOL	100-02-7	µg/kg	2000	<2000	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	420	<420	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	830	<830	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	2000	< 2000	U
42	PHENOL	108-95-2	µg/kg	420	< 420	U
43	PYRIDINE	110-86-1	µg/kg	420	< 420	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	420	< 420	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	2000	< 2000	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	420	< 420	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	50
2	2-FLUOROPHENOL	367-12-4	30-120	58
3	NITROBENZENE-D5	4165-60-0	40-135	54
4	PHENOL-D5	4165-62-2	20-120	48
5	TERPHENYL-D14	1718-51-0	40-135	60
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	55
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	137
2	CHRYSENE-D12	1719-03-5	50-200	139
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	140
4	NAPHTHALENE-D8	1146-65-2	50-200	135
5	PERYLENE-D12	1520-96-3	50-200	135
6	PHENANTHRENE-D10	1517-22-2	50-200	142
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-11	Received Date:	02/10/2004
Sample ID:	**0023-S4-753**	Sample Matrix	Soil	Moisture %:	30.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/11/04	Anal. Date:	02/20/04
Batch No:	04G1359	Prep. No:	1 of 1	Anal. Time:	01:12
Data File Name:	1521-11	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	480	<480	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	480	<480	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	480	<480	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	480	<480	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	480	<480	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	480	<480	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	480	<480	U
8	4-CHLOROANILINE	106-47-8	µg/kg	1100	<1100	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	480	<480	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	480	<480	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	480	<480	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	480	<480	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	480	<480	U
14	DIBENZOFURAN	132-64-9	µg/kg	480	<480	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	480	<480	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	480	<480	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	480	<480	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	950	<950	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	480	<480	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	480	<480	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	480	<480	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	480	<480	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	2300	<2300	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	2300	<2300	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	480	<480	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	480	<480	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	480	<480	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	480	<480	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	2300	<2300	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	480	<480	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	480	<480	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	480	<480	U
33	2-NITROANILINE	88-74-4	µg/kg	2300	<2300	U
34	3-NITROANILINE	99-09-2	µg/kg	2300	<2300	U
35	4-NITROANILINE	100-01-6	µg/kg	2300	<2300	U
36	NITROBENZENE	98-95-3	µg/kg	480	<480	U
37	2-NITROPHENOL	88-75-5	µg/kg	480	<480	U
38	4-NITROPHENOL	100-02-7	µg/kg	2300	<2300	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	480	<480	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	950	<950	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	2300	< 2300	U
42	PHENOL	108-95-2	µg/kg	480	< 480	U
43	PYRIDINE	110-86-1	µg/kg	480	< 480	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	480	< 480	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	2300	< 2300	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	480	< 480	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	46
2	2-FLUOROPHENOL	367-12-4	30-120	50
3	NITROBENZENE-D5	4165-60-0	40-135	47
4	PHENOL-D5	4165-62-2	20-120	40
5	TERPHENYL-D14	1718-51-0	40-135	59
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	49
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	132
2	CHRYSENE-D12	1719-03-5	50-200	131
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	137
4	NAPHTHALENE-D8	1146-65-2	50-200	133
5	PERYLENE-D12	1520-96-3	50-200	123
6	PHENANTHRENE-D10	1517-22-2	50-200	135
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-12	Received Date:	02/10/2004
Sample ID:	**0023-S4-754**	Sample Matrix	Soil	Moisture %:	21.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/11/04	Anal. Date:	02/20/04
Batch No:	04G1359	Prep. No:	1 of 1	Anal. Time:	01:51
Data File Name:	1521-12	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	420	<420	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	420	<420	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	420	<420	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	420	<420	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	420	<420	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	420	<420	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	420	<420	U
8	4-CHLOROANILINE	106-47-8	µg/kg	960	<960	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	420	<420	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	420	<420	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	420	<420	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	420	<420	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	420	<420	U
14	DIBENZOFURAN	132-64-9	µg/kg	420	<420	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	420	<420	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	420	<420	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	420	<420	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	840	<840	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	420	<420	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	420	<420	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	420	<420	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	420	<420	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	2000	<2000	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	2000	<2000	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	420	<420	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	420	<420	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	420	<420	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	420	<420	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	2000	<2000	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	420	<420	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	420	<420	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	420	<420	U
33	2-NITROANILINE	88-74-4	µg/kg	2000	<2000	U
34	3-NITROANILINE	99-09-2	µg/kg	2000	<2000	U
35	4-NITROANILINE	100-01-6	µg/kg	2000	<2000	U
36	NITROBENZENE	98-95-3	µg/kg	420	<420	U
37	2-NITROPHENOL	88-75-5	µg/kg	420	<420	U
38	4-NITROPHENOL	100-02-7	µg/kg	2000	<2000	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	420	<420	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	840	<840	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	2000	<2000	U
42	PHENOL	108-95-2	µg/kg	420	<420	U
43	PYRIDINE	110-86-1	µg/kg	420	<420	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	420	<420	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	2000	<2000	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	420	<420	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	48
2	2-FLUOROPHENOL	367-12-4	30-120	52
3	NITROBENZENE-D5	4165-60-0	40-135	50
4	PHENOL-D5	4165-62-2	20-120	43
5	TERPHENYL-D14	1718-51-0	40-135	62
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	50
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	121
2	CHRYSENE-D12	1719-03-5	50-200	123
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	122
4	NAPHTHALENE-D8	1146-65-2	50-200	119
5	PERYLENE-D12	1520-96-3	50-200	115
6	PHENANTHRENE-D10	1517-22-2	50-200	127
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-13	Received Date:	02/10/2004
Sample ID:	**0023-S4-755**	Sample Matrix	Soil	Moisture %:	26.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/11/04	Anal. Date:	02/20/04
Batch No:	04G1359	Prep. No:	1 of 1	Anal. Time:	02:30
Data File Name:	1521-13	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	450	< 450	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	450	< 450	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	450	< 450	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	450	< 450	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	450	< 450	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	450	< 450	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	450	< 450	U
8	4-CHLOROANILINE	106-47-8	µg/kg	1000	< 1000	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	450	< 450	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	450	< 450	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	450	< 450	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	450	< 450	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	450	< 450	U
14	DIBENZOFURAN	132-64-9	µg/kg	450	< 450	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	450	< 450	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	450	< 450	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	450	< 450	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	890	< 890	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	450	< 450	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	450	< 450	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	450	< 450	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	450	< 450	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	2200	< 2200	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	2200	< 2200	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	450	< 450	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	450	< 450	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	450	< 450	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	450	< 450	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	2200	< 2200	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	450	< 450	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	450	< 450	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	450	< 450	U
33	2-NITROANILINE	88-74-4	µg/kg	2200	< 2200	U
34	3-NITROANILINE	99-09-2	µg/kg	2200	< 2200	U
35	4-NITROANILINE	100-01-6	µg/kg	2200	< 2200	U
36	NITROBENZENE	98-95-3	µg/kg	450	< 450	U
37	2-NITROPHENOL	88-75-5	µg/kg	450	< 450	U
38	4-NITROPHENOL	100-02-7	µg/kg	2200	< 2200	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	450	< 450	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	890	< 890	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	2200	< 2200	U
42	PHENOL	108-95-2	µg/kg	450	< 450	U
43	PYRIDINE	110-86-1	µg/kg	450	< 450	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	450	< 450	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	2200	< 2200	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	450	< 450	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	40
2	2-FLUOROPHENOL	367-12-4	30-120	46
3	NITROBENZENE-D5	4165-60-0	40-135	42
4	PHENOL-D5	4165-62-2	20-120	37
5	TERPHENYL-D14	1718-51-0	40-135	48
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	42
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	120
2	CHRYSENE-D12	1719-03-5	50-200	120
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	121
4	NAPHTHALENE-D8	1146-65-2	50-200	118
5	PERYLENE-D12	1520-96-3	50-200	112
6	PHENANTHRENE-D10	1517-22-2	50-200	125
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-14	Received Date:	02/10/2004
Sample ID:	**0023-S4-756**	Sample Matrix	Soil	Moisture %:	16.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/11/04	Anal. Date:	02/20/04
Batch No:	04G1359	Prep. No:	1 of 1	Anal. Time:	03:10
Data File Name:	1521-14	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	390	<390	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	390	<390	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	390	<390	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	390	<390	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	390	<390	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	390	<390	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	390	<390	U
8	4-CHLOROANILINE	106-47-8	µg/kg	910	<910	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	390	<390	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	390	<390	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	390	<390	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	390	<390	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	390	<390	U
14	DIBENZOFURAN	132-64-9	µg/kg	390	<390	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	390	<390	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	390	<390	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	390	<390	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	790	<790	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	390	<390	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	390	<390	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	390	<390	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	390	<390	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1900	<1900	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1900	<1900	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	390	<390	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	390	<390	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	390	<390	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	390	<390	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1900	<1900	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	390	<390	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	390	<390	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	390	<390	U
33	2-NITROANILINE	88-74-4	µg/kg	1900	<1900	U
34	3-NITROANILINE	99-09-2	µg/kg	1900	<1900	U
35	4-NITROANILINE	100-01-6	µg/kg	1900	<1900	U
36	NITROBENZENE	98-95-3	µg/kg	390	<390	U
37	2-NITROPHENOL	88-75-5	µg/kg	390	<390	U
38	4-NITROPHENOL	100-02-7	µg/kg	1900	<1900	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	390	<390	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	790	<790	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	1900	<1900	U
42	PHENOL	108-95-2	µg/kg	390	<390	U
43	PYRIDINE	110-86-1	µg/kg	390	<390	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	390	<390	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	1900	<1900	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	390	<390	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	46
2	2-FLUOROPHENOL	367-12-4	30-120	52
3	NITROBENZENE-D5	4165-60-0	40-135	48
4	PHENOL-D5	4165-62-2	20-120	42
5	TERPHENYL-D14	1718-51-0	40-135	55
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	50
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	119
2	CHRYSENE-D12	1719-03-5	50-200	123
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	123
4	NAPHTHALENE-D8	1146-65-2	50-200	119
5	PERYLENE-D12	1520-96-3	50-200	112
6	PHENANTHRENE-D10	1517-22-2	50-200	128
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-15	Received Date:	02/10/2004
Sample ID:	**0023-S4-757**	Sample Matrix	Soil	Moisture %:	18.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/11/04	Anal. Date:	02/20/04
Batch No:	04G1359	Prep. No:	1 of 1	Anal. Time:	03:50
Data File Name:	1521-15	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	400	<400	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	400	<400	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	400	<400	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	400	<400	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	400	<400	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	400	<400	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	400	<400	U
8	4-CHLOROANILINE	106-47-8	µg/kg	930	<930	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	400	<400	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	400	<400	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	400	<400	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	400	<400	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	400	<400	U
14	DIBENZOFURAN	132-64-9	µg/kg	400	<400	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	400	<400	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	400	<400	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	400	<400	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	810	<810	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	400	<400	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	400	<400	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	400	<400	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	400	<400	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	2000	<2000	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	2000	<2000	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	400	<400	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	400	<400	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	400	<400	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	400	<400	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	2000	<2000	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	400	<400	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	400	<400	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	400	<400	U
33	2-NITROANILINE	88-74-4	µg/kg	2000	<2000	U
34	3-NITROANILINE	99-09-2	µg/kg	2000	<2000	U
35	4-NITROANILINE	100-01-6	µg/kg	2000	<2000	U
36	NITROBENZENE	98-95-3	µg/kg	400	<400	U
37	2-NITROPHENOL	88-75-5	µg/kg	400	<400	U
38	4-NITROPHENOL	100-02-7	µg/kg	2000	<2000	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	400	<400	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	810	<810	U

9202

AA 4/05/04

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	2000	< 2000	U
42	PHENOL	108-95-2	µg/kg	400	< 400	U
43	PYRIDINE	110-86-1	µg/kg	400	< 400	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	400	< 400	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	2000	< 2000	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	400	< 400	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	47
2	2-FLUOROPHENOL	367-12-4	30-120	53
3	NITROBENZENE-D5	4165-60-0	40-135	49
4	PHENOL-D5	4165-62-2	20-120	43
5	TERPHENYL-D14	1718-51-0	40-135	60
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	54
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	116
2	CHRYSENE-D12	1719-03-5	50-200	118
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	115
4	NAPHTHALENE-D8	1146-65-2	50-200	113
5	PERYLENE-D12	1520-96-3	50-200	108
6	PHENANTHRENE-D10	1517-22-2	50-200	123
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-16	Received Date:	02/10/2004
Sample ID:	**0023-S4-758**	Sample Matrix	Soil	Moisture %:	19.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/11/04	Anal. Date:	02/18/04
Batch No:	04G1359	Prep. No:	1 of 1	Anal. Time:	19:54
Data File Name:	1521-16	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	410	<410	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	410	<410	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	410	<410	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	410	<410	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	410	<410	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	410	<410	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	410	<410	U
8	4-CHLOROANILINE	106-47-8	µg/kg	950	<950	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	410	<410	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	410	<410	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	410	<410	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	410	<410	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	410	<410	U
14	DIBENZOFURAN	132-64-9	µg/kg	410	<410	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	410	<410	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	410	<410	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	410	<410	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	820	<820	U J
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	410	<410	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	410	<410	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	410	<410	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	410	<410	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	2000	<2000	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	2000	<2000	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	410	<410	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	410	<410	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	410	<410	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	410	<410	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	2000	<2000	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	410	<410	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	410	<410	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	410	<410	U
33	2-NITROANILINE	88-74-4	µg/kg	2000	<2000	U
34	3-NITROANILINE	99-09-2	µg/kg	2000	<2000	U
35	4-NITROANILINE	100-01-6	µg/kg	2000	<2000	U
36	NITROBENZENE	98-95-3	µg/kg	410	<410	U
37	2-NITROPHENOL	88-75-5	µg/kg	410	<410	U
38	4-NITROPHENOL	100-02-7	µg/kg	2000	<2000	U J
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	410	<410	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	820	<820	U

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AEH 4/05/04

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	μg/kg	2000	< 2000	U
42	PHENOL	108-95-2	μg/kg	410	< 410	U
43	PYRIDINE	110-86-1	μg/kg	410	< 410	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	μg/kg	410	< 410	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	μg/kg	2000	< 2000	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	μg/kg	410	< 410	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	50
2	2-FLUOROPHENOL	367-12-4	30-120	56
3	NITROBENZENE-D5	4165-60-0	40-135	54
4	PHENOL-D5	4165-62-2	20-120	47
5	TERPHENYL-D14	1718-51-0	40-135	56
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	47
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	113
2	CHRYSENE-D12	1719-03-5	50-200	119
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	122
4	NAPHTHALENE-D8	1146-65-2	50-200	117
5	PERYLENE-D12	1520-96-3	50-200	109
6	PHENANTHRENE-D10	1517-22-2	50-200	123
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-17	Received Date:	02/10/2004
Sample ID:	**0023-S4-759**	Sample Matrix	Soil	Moisture %:	4.5
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/11/04	Anal. Date:	02/18/04
Batch No:	04G1359	Prep. No:	1 of 1	Anal. Time:	20:33
Data File Name:	1521-17	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	350	<350	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	350	<350	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	350	<350	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	350	<350	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	350	<350	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	350	<350	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	350	<350	U
8	4-CHLOROANILINE	106-47-8	µg/kg	800	<800	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	350	<350	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	350	<350	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	350	<350	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	350	<350	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	350	<350	U
14	DIBENZOFURAN	132-64-9	µg/kg	350	<350	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	350	<350	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	350	<350	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	350	<350	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	690	<690	U J
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	350	<350	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	350	<350	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	350	<350	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	350	<350	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1700	<1700	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1700	<1700	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	350	<350	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	350	<350	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	350	<350	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	350	<350	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1700	<1700	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	350	<350	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	350	<350	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	350	<350	U
33	2-NITROANILINE	88-74-4	µg/kg	1700	<1700	U
34	3-NITROANILINE	99-09-2	µg/kg	1700	<1700	U
35	4-NITROANILINE	100-01-6	µg/kg	1700	<1700	U
36	NITROBENZENE	98-95-3	µg/kg	350	<350	U
37	2-NITROPHENOL	88-75-5	µg/kg	350	<350	U J
38	4-NITROPHENOL	100-02-7	µg/kg	1700	<1700	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	350	<350	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	690	<690	U

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JLH 1/05/04

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	1700	<1700	U
42	PHENOL	108-95-2	µg/kg	350	<350	U
43	PYRIDINE	110-86-1	µg/kg	350	<350	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	350	<350	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	1700	<1700	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	350	<350	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	56-
2	2-FLUOROPHENOL	367-12-4	30-120	62
3	NITROBENZENE-D5	4165-60-0	40-135	59
4	PHENOL-D5	4165-62-2	20-120	52
5	TERPHENYL-D14	1718-51-0	40-135	60
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	54
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	123
2	CHRYSENE-D12	1719-03-5	50-200	129
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	132
4	NAPHTHALENE-D8	1146-65-2	50-200	127
5	PERYLENE-D12	1520-96-3	50-200	118
6	PHENANTHRENE-D10	1517-22-2	50-200	134
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-18	Received Date:	02/10/2004
Sample ID:	**0023-S4-760**	Sample Matrix	Soil	Moisture %:	4.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/11/04	Anal. Date:	02/18/04
Batch No:	04G1359	Prep. No:	1 of 1	Anal. Time:	21:12
Data File Name:	1521-18	Sample Amount:	29.9 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	350	<350	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	350	<350	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	350	<350	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	350	22	J
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	350	<350	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	350	<350	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	350	<350	U
8	4-CHLOROANILINE	106-47-8	µg/kg	800	<800	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	350	<350	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	350	<350	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	350	<350	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	350	<350	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	350	<350	U
14	DIBENZOFURAN	132-64-9	µg/kg	350	<350	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	350	<350	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	350	<350	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	350	<350	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	690	<690	U J
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	350	<350	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	350	<350	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	350	<350	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	350	<350	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1700	<1700	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	1700	<1700	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	350	<350	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	350	<350	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	350	<350	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	350	<350	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1700	<1700	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	350	<350	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	350	<350	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	350	<350	U
33	2-NITROANILINE	88-74-4	µg/kg	1700	<1700	U
34	3-NITROANILINE	99-09-2	µg/kg	1700	<1700	U
35	4-NITROANILINE	100-01-6	µg/kg	1700	<1700	U
36	NITROBENZENE	98-95-3	µg/kg	350	<350	U
37	2-NITROPHENOL	88-75-5	µg/kg	350	<350	U
38	4-NITROPHENOL	100-02-7	µg/kg	1700	<1700	U J
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	350	<350	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	690	<690	U

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AH 4/05/04

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	1700	<1700	U
42	PHENOL	108-95-2	µg/kg	350	<350	U
43	PYRIDINE	110-86-1	µg/kg	350	<350	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	350	<350	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	1700	<1700	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	350	<350	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	57
2	2-FLUOROPHENOL	367-12-4	30-120	64
3	NITROBENZENE-D5	4165-60-0	40-135	61
4	PHENOL-D5	4165-62-2	20-120	55
5	TERPHENYL-D14	1718-51-0	40-135	69
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	65
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	122
2	CHRYSENE-D12	1719-03-5	50-200	126
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	131
4	NAPHTHALENE-D8	1146-65-2	50-200	126
5	PERYLENE-D12	1520-96-3	50-200	104
6	PHENANTHRENE-D10	1517-22-2	50-200	133
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-19	Received Date:	02/10/2004
Sample ID:	**0023-S4-761**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510C	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/13/04	Anal. Date:	02/20/04
Batch No:	04G1391	Prep. No:	1 of 1	Anal. Time:	15:22
Data File Name:	1521-19	Sample Amount:	500. mL	Dilution Factor:	1
Extract Vol.	0.5 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/L	10	<10	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/L	10	<10	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/L	10	<10	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/L	10	64	
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/L	10	<10	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/L	10	0.9	J
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/L	20	<20	U
8	4-CHLOROANILINE	106-47-8	µg/L	50	<50	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/L	10	<10	U
10	2-CHLOROPHENOL	95-57-8	µg/L	10	<10	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/L	10	<10	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/L	10	<10	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/L	10	<10	U
14	DIBENZOFURAN	132-64-9	µg/L	10	<10	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/L	10	<10	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/L	10	<10	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/L	10	<10	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/L	20	<20	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/L	10	<10	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/L	10	<10	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/L	10	<10	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/L	10	<10	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/L	50	<50	U
24	2,4-DINITROPHENOL	51-28-5	µg/L	50	<50	U
25	2,4-DINITROTOLUENE	121-14-2	µg/L	10	<10	U
26	2,6-DINITROTOLUENE	606-20-2	µg/L	10	<10	U
27	HEXACHLOROBENZENE	118-74-1	µg/L	10	<10	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/L	10	<10	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/L	50	<50	U
30	HEXACHLOROETHANE	67-72-1	µg/L	10	<10	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/L	10	<10	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/L	10	<10	U
33	2-NITROANILINE	88-74-4	µg/L	50	<50	U
34	3-NITROANILINE	99-09-2	µg/L	50	<50	U
35	4-NITROANILINE	100-01-6	µg/L	50	<50	U
36	NITROBENZENE	98-95-3	µg/L	10	<10	U
37	2-NITROPHENOL	88-75-5	µg/L	10	<10	U
38	4-NITROPHENOL	100-02-7	µg/L	50	<50	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/L	10	<10	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/L	50	<50	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/L	50	<50	U
42	PHENOL	108-95-2	µg/L	10	<10	U
43	PYRIDINE	110-86-1	µg/L	10	<10	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/L	10	<10	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/L	10	<10	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/L	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-130	53
2	2-FLUOROPHENOL	367-12-4	20-130	56
3	NITROBENZENE-D5	4165-60-0	40-130	64
4	PHENOL-D5	4165-62-2	10-110	36
5	TERPHENYL-D14	1718-51-0	40-140	63
6	2,4,6-TRIBROMOPHENOL	118-79-6	20-130	52
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	125
2	CHRYSENE-D12	1719-03-5	50-200	135
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	124
4	NAPHTHALENE-D8	1146-65-2	50-200	127
5	PERYLENE-D12	1520-96-3	50-200	131
6	PHENANTHRENE-D10	1517-22-2	50-200	136
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-1	Received Date:	02/10/2004
Sample ID:	**0023-S4-743**	Sample Matrix	Soil	Moisture %:	24.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1355	Prep. No:	1 of 1	Anal. Time:	18:37
Data File Name:	1521-01	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	6.6	<6.6	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	6.6	<6.6	U
3	ANTHRACENE	120-12-7	µg/kg	6.6	<6.6	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	6.6	<6.6	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	6.6	<6.6	U J
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	6.6	<6.6	U J
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	6.6	<6.6	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	6.6	<6.6	U
9	CHRYSENE	218-01-9	µg/kg	6.6	<6.6	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	6.6	<6.6	U
11	FLUORANTHENE	206-44-0	µg/kg	6.6	<6.6	U
12	FLUORENE	86-73-7	µg/kg	6.6	<6.6	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	6.6	<6.6	U
14	NAPHTHALENE	91-20-3	µg/kg	6.6	<6.6	U
15	PHENANTHRENE	85-01-8	µg/kg	6.6	<6.6	U
16	PYRENE	129-00-0	µg/kg	6.6	<6.6	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	51
2	NITROBENZENE-D5	4165-60-0	35-134	63
3	TERPHENYL-D14	1718-51-0	35-134	64
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	117
2	CHRYSENE-D12	1719-03-5	50-200	117
3	NAPHTHALENE-D8	1146-65-2	50-200	119
4	PERYLENE-D12	1520-96-3	50-200	122
5	PHENANTHRENE-D10	1517-22-2	50-200	113
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-2	Received Date:	02/10/2004
Sample ID:	**0023-S4-744**	Sample Matrix	Soil	Moisture %:	18.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1355	Prep. No:	1 of 1	Anal. Time:	19:13
Data File Name:	1521-02	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	6.2	<6.2	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	6.2	<6.2	U
3	ANTHRACENE	120-12-7	μg/kg	6.2	<6.2	U
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	6.2	<6.2	U
5	BENZO(A)PYRENE	50-32-8	μg/kg	6.2	<6.2	U J
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	6.2	<6.2	U J
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	6.2	<6.2	U
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	6.2	<6.2	U
9	CHRYSENE	218-01-9	μg/kg	6.2	<6.2	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	6.2	<6.2	U
11	FLUORANTHENE	206-44-0	μg/kg	6.2	<6.2	U
12	FLUORENE	86-73-7	μg/kg	6.2	<6.2	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	6.2	<6.2	U
14	NAPHTHALENE	91-20-3	μg/kg	6.2	<6.2	U
15	PHENANTHRENE	85-01-8	μg/kg	6.2	<6.2	U
16	PYRENE	129-00-0	μg/kg	6.2	2	J

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	66
2	NITROBENZENE-D5	4165-60-0	35-134	81
3	TERPHENYL-D14	1718-51-0	35-134	75
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	139
2	CHRYSENE-D12	1719-03-5	50-200	144
3	NAPHTHALENE-D8	1146-65-2	50-200	136
4	PERYLENE-D12	1520-96-3	50-200	147
5	PHENANTHRENE-D10	1517-22-2	50-200	134
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-3	Received Date:	02/10/2004
Sample ID:	**0023-S4-745**	Sample Matrix	Soil	Moisture %:	17.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1355	Prep. No:	1 of 1	Anal. Time:	19:49
Data File Name:	1521-03	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	6.1	<6.1	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	6.1	<6.1	U
3	ANTHRACENE	120-12-7	µg/kg	6.1	<6.1	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	6.1	<6.1	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	6.1	<6.1	U J
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	6.1	<6.1	U J
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	6.1	<6.1	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	6.1	<6.1	U
9	CHRYSENE	218-01-9	µg/kg	6.1	<6.1	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	6.1	<6.1	U
11	FLUORANTHENE	206-44-0	µg/kg	6.1	<6.1	U
12	FLUORENE	86-73-7	µg/kg	6.1	<6.1	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	6.1	<6.1	U
14	NAPHTHALENE	91-20-3	µg/kg	6.1	<6.1	U
15	PHENANTHRENE	85-01-8	µg/kg	6.1	<6.1	U
16	PYRENE	129-00-0	µg/kg	6.1	<6.1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	58
2	NITROBENZENE-D5	4165-60-0	35-134	75
3	TERPHENYL-D14	1718-51-0	35-134	72
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	120
2	CHRYSENE-D12	1719-03-5	50-200	114
3	NAPHTHALENE-D8	1146-65-2	50-200	120
4	PERYLENE-D12	1520-96-3	50-200	125
5	PHENANTHRENE-D10	1517-22-2	50-200	114
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-4	Received Date:	02/10/2004
Sample ID:	**0023-S4-746**	Sample Matrix	Soil	Moisture %:	16.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1355	Prep. No:	1 of 1	Anal. Time:	20:24
Data File Name:	1521-04	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	6.0	<6.0	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	6.0	<6.0	U
3	ANTHRACENE	120-12-7	μg/kg	6.0	<6.0	U
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	6.0	<6.0	U
5	BENZO(A)PYRENE	50-32-8	μg/kg	6.0	<6.0	U J
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	6.0	<6.0	U J
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	6.0	<6.0	U
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	6.0	<6.0	U
9	CHRYSENE	218-01-9	μg/kg	6.0	<6.0	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	6.0	<6.0	U
11	FLUORANTHENE	206-44-0	μg/kg	6.0	<6.0	U
12	FLUORENE	86-73-7	μg/kg	6.0	<6.0	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	6.0	<6.0	U
14	NAPHTHALENE	91-20-3	μg/kg	6.0	<6.0	U
15	PHENANTHRENE	85-01-8	μg/kg	6.0	<6.0	U
16	PYRENE	129-00-0	μg/kg	6.0	<6.0	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	60
2	NITROBENZENE-D5	4165-60-0	35-134	75
3	TERPHENYL-D14	1718-51-0	35-134	78
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	134
2	CHRYSENE-D12	1719-03-5	50-200	123
3	NAPHTHALENE-D8	1146-65-2	50-200	129
4	PERYLENE-D12	1520-96-3	50-200	119
5	PHENANTHRENE-D10	1517-22-2	50-200	129
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-5	Received Date:	02/10/2004
Sample ID:	**0023-S4-747**	Sample Matrix	Soil	Moisture %:	19.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1355	Prep. No:	1 of 1	Anal. Time:	21:00
Data File Name:	1521-05	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	6.2	<6.2	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	6.2	<6.2	U
3	ANTHRACENE	120-12-7	μg/kg	6.2	<6.2	U
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	6.2	<6.2	U
5	BENZO(A)PYRENE	50-32-8	μg/kg	6.2	<6.2	U J
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	6.2	<6.2	U J
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	6.2	<6.2	U
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	6.2	<6.2	U
9	CHRYSENE	218-01-9	μg/kg	6.2	<6.2	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	6.2	<6.2	U
11	FLUORENE	86-73-7	μg/kg	6.2	<6.2	U
12	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	6.2	<6.2	U
13	NAPHTHALENE	91-20-3	μg/kg	6.2	<6.2	U
14	PHENANTHRENE	85-01-8	μg/kg	6.2	<6.2	U
15	PYRENE	129-00-0	μg/kg	6.2	<6.2	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	69
2	NITROBENZENE-D5	4165-60-0	35-134	91
3	TERPHENYL-D14	1718-51-0	35-134	93
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	144
2	CHRYSENE-D12	1719-03-5	50-200	137
3	NAPHTHALENE-D8	1146-65-2	50-200	136
4	PERYLENE-D12	1520-96-3	50-200	138
5	PHENANTHRENE-D10	1517-22-2	50-200	140
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-6	Received Date:	02/10/2004
Sample ID:	**0023-S4-748**	Sample Matrix	Soil	Moisture %:	13.3
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/11/04	Anal. Date:	02/17/04
Batch No:	04G1355	Prep. No:	1 of 1	Anal. Time:	04:19
Data File Name:	1521-06A	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	5.8	<5.8	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	5.8	<5.8	U
3	ANTHRACENE	120-12-7	µg/kg	5.8	<5.8	U J
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	5.8	<5.8	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	5.8	<5.8	U J
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	5.8	<5.8	U J
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	5.8	2	J
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	5.8	<5.8	U
9	CHRYSENE	218-01-9	µg/kg	5.8	2	J
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	5.8	<5.8	U
11	FLUORENE	86-73-7	µg/kg	5.8	<5.8	U
12	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	5.8	<5.8	U J
13	NAPHTHALENE	91-20-3	µg/kg	5.8	<5.8	U
14	PHENANTHRENE	85-01-8	µg/kg	5.8	<5.8	U J
15	PYRENE	129-00-0	µg/kg	5.8	<5.8	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	78
2	NITROBENZENE-D5	4165-60-0	35-134	77
3	TERPHENYL-D14	1718-51-0	35-134	87
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	83
2	CHRYSENE-D12	1719-03-5	50-200	91
3	NAPHTHALENE-D8	1146-65-2	50-200	84
4	PERYLENE-D12	1520-96-3	50-200	83
5	PHENANTHRENE-D10	1517-22-2	50-200	82
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-7	Received Date:	02/10/2004
Sample ID:	**0023-S4-749**	Sample Matrix	Soil	Moisture %:	21.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1355	Prep. No:	1 of 1	Anal. Time:	22:12
Data File Name:	1521-07	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	6.3	<6.3	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	6.3	<6.3	U
3	ANTHRACENE	120-12-7	µg/kg	6.3	<6.3	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	6.3	<6.3	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	6.3	<6.3	U J
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	6.3	<6.3	U J
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	6.3	<6.3	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	6.3	<6.3	U
9	CHRYSENE	218-01-9	µg/kg	6.3	<6.3	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	6.3	<6.3	U
11	FLUORENE	86-73-7	µg/kg	6.3	<6.3	U
12	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	6.3	<6.3	U
13	NAPHTHALENE	91-20-3	µg/kg	6.3	<6.3	U
14	PHENANTHRENE	85-01-8	µg/kg	6.3	<6.3	U
15	PYRENE	129-00-0	µg/kg	6.3	<6.3	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	63
2	NITROBENZENE-D5	4165-60-0	35-134	78
3	TERPHENYL-D14	1718-51-0	35-134	76
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	132
2	CHRYSENE-D12	1719-03-5	50-200	130
3	NAPHTHALENE-D8	1146-65-2	50-200	128
4	PERYLENE-D12	1520-96-3	50-200	126
5	PHENANTHRENE-D10	1517-22-2	50-200	128
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-8	Received Date:	02/10/2004
Sample ID:	**0023-S4-750**	Sample Matrix	Soil	Moisture %:	17.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1355	Prep. No:	1 of 1	Anal. Time:	22:47
Data File Name:	1521-08	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	6.1	<6.1	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	6.1	<6.1	U
3	ANTHRACENE	120-12-7	μg/kg	6.1	<6.1	U
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	6.1	<6.1	U
5	BENZO(A)PYRENE	50-32-8	μg/kg	6.1	<6.1	U J
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	6.1	<6.1	U J
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	6.1	<6.1	U
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	6.1	<6.1	U
9	CHRYSENE	218-01-9	μg/kg	6.1	<6.1	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	6.1	<6.1	U
11	FLUORENE	86-73-7	μg/kg	6.1	<6.1	U
12	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	6.1	<6.1	U
13	NAPHTHALENE	91-20-3	μg/kg	6.1	<6.1	U
14	PHENANTHRENE	85-01-8	μg/kg	6.1	<6.1	U
15	PYRENE	129-00-0	μg/kg	6.1	<6.1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	78
2	NITROBENZENE-D5	4165-60-0	35-134	98
3	TERPHENYL-D14	1718-51-0	35-134	95
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	137
2	CHRYSENE-D12	1719-03-5	50-200	135
3	NAPHTHALENE-D8	1146-65-2	50-200	133
4	PERYLENE-D12	1520-96-3	50-200	121
5	PHENANTHRENE-D10	1517-22-2	50-200	134
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-9	Received Date:	02/10/2004
Sample ID:	**0023-S4-751**	Sample Matrix	Soil	Moisture %:	18.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1355	Prep. No:	1 of 1	Anal. Time:	23:23
Data File Name:	1521-09	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	6.2	<6.2	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	6.2	<6.2	U
3	ANTHRACENE	120-12-7	µg/kg	6.2	<6.2	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	6.2	<6.2	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	6.2	<6.2	U J
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	6.2	<6.2	U J
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	6.2	<6.2	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	6.2	<6.2	U
9	CHRYSENE	218-01-9	µg/kg	6.2	<6.2	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	6.2	<6.2	U
11	FLUORANTHENE	206-44-0	µg/kg	6.2	<6.2	U
12	FLUORENE	86-73-7	µg/kg	6.2	<6.2	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	6.2	<6.2	U
14	NAPHTHALENE	91-20-3	µg/kg	6.2	<6.2	U
15	PHENANTHRENE	85-01-8	µg/kg	6.2	<6.2	U
16	PYRENE	129-00-0	µg/kg	6.2	<6.2	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	67
2	NITROBENZENE-D5	4165-60-0	35-134	87
3	TERPHENYL-D14	1718-51-0	35-134	92
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	154
2	CHRYSENE-D12	1719-03-5	50-200	134
3	NAPHTHALENE-D8	1146-65-2	50-200	145
4	PERYLENE-D12	1520-96-3	50-200	118
5	PHENANTHRENE-D10	1517-22-2	50-200	149
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-10	Received Date:	02/10/2004
Sample ID:	**0023-S4-752**	Sample Matrix	Soil	Moisture %:	20.5
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1355	Prep. No:	1 of 1	Anal. Time:	23:59
Data File Name:	1521-10	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	6.3	<6.3	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	6.3	<6.3	U
3	ANTHRACENE	120-12-7	μg/kg	6.3	<6.3	U
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	6.3	<6.3	U
5	BENZO(A)PYRENE	50-32-8	μg/kg	6.3	<6.3	U J
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	6.3	<6.3	U J
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	6.3	<6.3	U
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	6.3	<6.3	U
9	CHRYSENE	218-01-9	μg/kg	6.3	<6.3	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	6.3	<6.3	U
11	FLUORANTHENE	206-44-0	μg/kg	6.3	<6.3	U
12	FLUORENE	86-73-7	μg/kg	6.3	<6.3	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	6.3	<6.3	U
14	NAPHTHALENE	91-20-3	μg/kg	6.3	<6.3	U
15	PHENANTHRENE	85-01-8	μg/kg	6.3	<6.3	U
16	PYRENE	129-00-0	μg/kg	6.3	<6.3	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	67
2	NITROBENZENE-D5	4165-60-0	35-134	80
3	TERPHENYL-D14	1718-51-0	35-134	87
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	124
2	CHRYSENE-D12	1719-03-5	50-200	113
3	NAPHTHALENE-D8	1146-65-2	50-200	127
4	PERYLENE-D12	1520-96-3	50-200	117
5	PHENANTHRENE-D10	1517-22-2	50-200	121
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-11	Received Date:	02/10/2004
Sample ID:	**0023-S4-753**	Sample Matrix	Soil	Moisture %:	30.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/11/04	Anal. Date:	02/14/04
Batch No:	04G1355	Prep. No:	1 of 1	Anal. Time:	00:35
Data File Name:	1521-11	Sample Amount:	29.9 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	7.2	<7.2	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	7.2	<7.2	U
3	ANTHRACENE	120-12-7	μg/kg	7.2	<7.2	U
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	7.2	<7.2	U
5	BENZO(A)PYRENE	50-32-8	μg/kg	7.2	<7.2	U J
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	7.2	<7.2	U J
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	7.2	2	J
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	7.2	<7.2	U
9	CHRYSENE	218-01-9	μg/kg	7.2	<7.2	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	7.2	<7.2	U
11	FLUORANTHENE	206-44-0	μg/kg	7.2	<7.2	U
12	FLUORENE	86-73-7	μg/kg	7.2	<7.2	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	7.2	<7.2	U
14	NAPHTHALENE	91-20-3	μg/kg	7.2	<7.2	U
15	PHENANTHRENE	85-01-8	μg/kg	7.2	<7.2	U
16	PYRENE	129-00-0	μg/kg	7.2	<7.2	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	67
2	NITROBENZENE-D5	4165-60-0	35-134	90
3	TERPHENYL-D14	1718-51-0	35-134	92
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	136
2	CHRYSENE-D12	1719-03-5	50-200	122
3	NAPHTHALENE-D8	1146-65-2	50-200	129
4	PERYLENE-D12	1520-96-3	50-200	115
5	PHENANTHRENE-D10	1517-22-2	50-200	135
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-12	Received Date:	02/10/2004
Sample ID:	**0023-S4-754**	Sample Matrix	Soil	Moisture %:	21.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/11/04	Anal. Date:	02/14/04
Batch No:	04G1355	Prep. No:	1 of 1	Anal. Time:	01:11
Data File Name:	1521-12	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	6.3	<6.3	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	6.3	<6.3	U
3	ANTHRACENE	120-12-7	μg/kg	6.3	<6.3	U
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	6.3	<6.3	U
5	BENZO(A)PYRENE	50-32-8	μg/kg	6.3	<6.3	U J
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	6.3	<6.3	U J
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	6.3	<6.3	U
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	6.3	<6.3	U
9	CHRYSENE	218-01-9	μg/kg	6.3	<6.3	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	6.3	<6.3	U
11	FLUORANTHENE	206-44-0	μg/kg	6.3	<6.3	U
12	FLUORENE	86-73-7	μg/kg	6.3	<6.3	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	6.3	<6.3	U
14	NAPHTHALENE	91-20-3	μg/kg	6.3	<6.3	U
15	PHENANTHRENE	85-01-8	μg/kg	6.3	<6.3	U
16	PYRENE	129-00-0	μg/kg	6.3	<6.3	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	75
2	NITROBENZENE-D5	4165-60-0	35-134	99
3	TERPHENYL-D14	1718-51-0	35-134	93
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	130
2	CHRYSENE-D12	1719-03-5	50-200	121
3	NAPHTHALENE-D8	1146-65-2	50-200	127
4	PERYLENE-D12	1520-96-3	50-200	121
5	PHENANTHRENE-D10	1517-22-2	50-200	126
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-13	Received Date:	02/10/2004
Sample ID:	**0023-S4-755**	Sample Matrix	Soil	Moisture %:	26.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/11/04	Anal. Date:	02/14/04
Batch No:	04G1355	Prep. No:	1 of 1	Anal. Time:	01:46
Data File Name:	1521-13	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	6.8	<6.8	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	6.8	<6.8	U
3	ANTHRACENE	120-12-7	µg/kg	6.8	<6.8	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	6.8	<6.8	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	6.8	<6.8	U J
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	6.8	<6.8	U J
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	6.8	<6.8	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	6.8	<6.8	U
9	CHRYSENE	218-01-9	µg/kg	6.8	<6.8	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	6.8	<6.8	U
11	FLUORANTHENE	206-44-0	µg/kg	6.8	<6.8	U
12	FLUORENE	86-73-7	µg/kg	6.8	<6.8	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	6.8	<6.8	U
14	NAPHTHALENE	91-20-3	µg/kg	6.8	<6.8	U
15	PHENANTHRENE	85-01-8	µg/kg	6.8	<6.8	U
16	PYRENE	129-00-0	µg/kg	6.8	<6.8	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	53
2	NITROBENZENE-D5	4165-60-0	35-134	67
3	TERPHENYL-D14	1718-51-0	35-134	77
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	136
2	CHRYSENE-D12	1719-03-5	50-200	127
3	NAPHTHALENE-D8	1146-65-2	50-200	130
4	PERYLENE-D12	1520-96-3	50-200	116
5	PHENANTHRENE-D10	1517-22-2	50-200	133
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-14	Received Date:	02/10/2004
Sample ID:	**0023-S4-756**	Sample Matrix	Soil	Moisture %:	16.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/11/04	Anal. Date:	02/14/04
Batch No:	04G1355	Prep. No:	1 of 1	Anal. Time:	02:22
Data File Name:	1521-14	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	6.0	<6.0	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	6.0	<6.0	U
3	ANTHRACENE	120-12-7	µg/kg	6.0	<6.0	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	6.0	<6.0	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	6.0	<6.0	U J
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	6.0	<6.0	U J
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	6.0	<6.0	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	6.0	<6.0	U
9	CHRYSENE	218-01-9	µg/kg	6.0	<6.0	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	6.0	<6.0	U
11	FLUORANTHENE	206-44-0	µg/kg	6.0	<6.0	U
12	FLUORENE	86-73-7	µg/kg	6.0	<6.0	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	6.0	<6.0	U
14	NAPHTHALENE	91-20-3	µg/kg	6.0	<6.0	U
15	PHENANTHRENE	85-01-8	µg/kg	6.0	<6.0	U
16	PYRENE	129-00-0	µg/kg	6.0	<6.0	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	56
2	NITROBENZENE-D5	4165-60-0	35-134	70
3	TERPHENYL-D14	1718-51-0	35-134	79
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	133
2	CHRYSENE-D12	1719-03-5	50-200	118
3	NAPHTHALENE-D8	1146-65-2	50-200	127
4	PERYLENE-D12	1520-96-3	50-200	105
5	PHENANTHRENE-D10	1517-22-2	50-200	127
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-15	Received Date:	02/10/2004
Sample ID:	**0023-S4-757**	Sample Matrix	Soil	Moisture %:	18.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/11/04	Anal. Date:	02/14/04
Batch No:	04G1355	Prep. No:	1 of 1	Anal. Time:	02:58
Data File Name:	1521-15	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	6.1	<6.1	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	6.1	<6.1	U
3	ANTHRACENE	120-12-7	µg/kg	6.1	<6.1	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	6.1	<6.1	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	6.1	<6.1	U J
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	6.1	<6.1	U J
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	6.1	<6.1	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	6.1	<6.1	U
9	CHRYSENE	218-01-9	µg/kg	6.1	<6.1	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	6.1	<6.1	U
11	FLUORANTHENE	206-44-0	µg/kg	6.1	<6.1	U
12	FLUORENE	86-73-7	µg/kg	6.1	<6.1	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	6.1	<6.1	U
14	NAPHTHALENE	91-20-3	µg/kg	6.1	<6.1	U
15	PHENANTHRENE	85-01-8	µg/kg	6.1	<6.1	U
16	PYRENE	129-00-0	µg/kg	6.1	<6.1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	58
2	NITROBENZENE-D5	4165-60-0	35-134	68
3	TERPHENYL-D14	1718-51-0	35-134	86
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	112
2	CHRYSENE-D12	1719-03-5	50-200	100
3	NAPHTHALENE-D8	1146-65-2	50-200	115
4	PERYLENE-D12	1520-96-3	50-200	98
5	PHENANTHRENE-D10	1517-22-2	50-200	107
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-16	Received Date:	02/10/2004
Sample ID:	**0023-S4-758**	Sample Matrix	Soil	Moisture %:	19.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/11/04	Anal. Date:	02/14/04
Batch No:	04G1355	Prep. No:	1 of 1	Anal. Time:	03:34
Data File Name:	1521-16	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	6.2	<6.2	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	6.2	<6.2	U
3	ANTHRACENE	120-12-7	μg/kg	6.2	<6.2	U
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	6.2	<6.2	U
5	BENZO(A)PYRENE	50-32-8	μg/kg	6.2	<6.2	U J
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	6.2	<6.2	U J
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	6.2	<6.2	U
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	6.2	<6.2	U
9	CHRYSENE	218-01-9	μg/kg	6.2	<6.2	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	6.2	<6.2	U
11	FLUORANTHENE	206-44-0	μg/kg	6.2	<6.2	U
12	FLUORENE	86-73-7	μg/kg	6.2	<6.2	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	6.2	<6.2	U
14	NAPHTHALENE	91-20-3	μg/kg	6.2	<6.2	U
15	PHENANTHRENE	85-01-8	μg/kg	6.2	<6.2	U
16	PYRENE	129-00-0	μg/kg	6.2	<6.2	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	67
2	NITROBENZENE-D5	4165-60-0	35-134	82
3	TERPHENYL-D14	1718-51-0	35-134	83
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	105
2	CHRYSENE-D12	1719-03-5	50-200	93
3	NAPHTHALENE-D8	1146-65-2	50-200	104
4	PERYLENE-D12	1520-96-3	50-200	102
5	PHENANTHRENE-D10	1517-22-2	50-200	96
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-17	Received Date:	02/10/2004
Sample ID:	**0023-S4-759**	Sample Matrix	Soil	Moisture %:	4.5
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/11/04	Anal. Date:	02/14/04
Batch No:	04G1355	Prep. No:	1 of 1	Anal. Time:	04:10
Data File Name:	1521-17	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	5.2	<5.2	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	5.2	<5.2	U
3	ANTHRACENE	120-12-7	µg/kg	5.2	<5.2	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	5.2	<5.2	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	5.2	<5.2	U J
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	5.2	<5.2	U J
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	5.2	6	
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	5.2	<5.2	U
9	CHRYSENE	218-01-9	µg/kg	5.2	<5.2	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	5.2	<5.2	U
11	FLUORANTHENE	206-44-0	µg/kg	5.2	<5.2	U
12	FLUORENE	86-73-7	µg/kg	5.2	<5.2	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	5.2	<5.2	U
14	NAPHTHALENE	91-20-3	µg/kg	5.2	<5.2	U
15	PHENANTHRENE	85-01-8	µg/kg	5.2	<5.2	U
16	PYRENE	129-00-0	µg/kg	5.2	2	J

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	52
2	NITROBENZENE-D5	4165-60-0	35-134	62
3	TERPHENYL-D14	1718-51-0	35-134	67
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	109
2	CHRYSENE-D12	1719-03-5	50-200	94
3	NAPHTHALENE-D8	1146-65-2	50-200	117
4	PERYLENE-D12	1520-96-3	50-200	87
5	PHENANTHRENE-D10	1517-22-2	50-200	107
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-18	Received Date:	02/10/2004
Sample ID:	**0023-S4-760**	Sample Matrix	Soil	Moisture %:	4.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/11/04	Anal. Date:	02/14/04
Batch No:	04G1355	Prep. No:	1 of 1	Anal. Time:	04:45
Data File Name:	1521-18	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	5.2	<5.2	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	5.2	<5.2	U
3	ANTHRACENE	120-12-7	µg/kg	5.2	<5.2	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	5.2	<5.2	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	5.2	4	~~J~~ J
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	5.2	<5.2	U J
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	5.2	24	
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	5.2	<5.2	U
9	CHRYSENE	218-01-9	µg/kg	5.2	3	J
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	5.2	<5.2	U
11	FLUORANTHENE	206-44-0	µg/kg	5.2	<5.2	U
12	FLUORENE	86-73-7	µg/kg	5.2	<5.2	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	5.2	4	J
14	NAPHTHALENE	91-20-3	µg/kg	5.2	<5.2	U
15	PHENANTHRENE	85-01-8	µg/kg	5.2	<5.2	U
16	PYRENE	129-00-0	µg/kg	5.2	3	J

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	67
2	NITROBENZENE-D5	4165-60-0	35-134	87
3	TERPHENYL-D14	1718-51-0	35-134	90
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	113
2	CHRYSENE-D12	1719-03-5	50-200	91
3	NAPHTHALENE-D8	1146-65-2	50-200	126
4	PERYLENE-D12	1520-96-3	50-200	89
5	PHENANTHRENE-D10	1517-22-2	50-200	103
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-19	Received Date:	02/10/2004
Sample ID:	**0023-S4-761**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510C	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/11/04	Anal. Date:	02/17/04
Batch No:	04G1360	Prep. No:	1 of 1	Anal. Time:	03:07
Data File Name:	1521-19	Sample Amount:	1040 mL	Dilution Factor:	0.96
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/L	0.096	<0.096	U
2	ACENAPHTHYLENE	208-96-8	μg/L	0.096	<0.096	U
3	ANTHRACENE	120-12-7	μg/L	0.096	<0.096	U
4	BENZO(A)ANTHRACENE	56-55-3	μg/L	0.096	<0.096	U
5	BENZO(A)PYRENE	50-32-8	μg/L	0.096	<0.096	U
6	BENZO(B)FLUORANTHENE	205-99-2	μg/L	0.096	<0.096	U
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/L	0.096	<0.096	U
8	BENZO(K)FLUORANTHENE	207-08-9	μg/L	0.096	<0.096	U
9	CHRYSENE	218-01-9	μg/L	0.096	<0.096	U
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/L	0.096	<0.096	U
11	FLUORANTHENE	206-44-0	μg/L	0.096	<0.096	U
12	FLUORENE	86-73-7	μg/L	0.096	<0.096	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/L	0.096	<0.096	U
14	NAPHTHALENE	91-20-3	μg/L	0.096	<0.096	U
15	PHENANTHRENE	85-01-8	μg/L	0.096	<0.096	U
16	PYRENE	129-00-0	μg/L	0.096	<0.096	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-115	54
2	NITROBENZENE-D5	4165-60-0	35-130	49
3	TERPHENYL-D14	1718-51-0	35-129	56
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	85
2	CHRYSENE-D12	1719-03-5	50-200	100
3	NAPHTHALENE-D8	1146-65-2	50-200	97
4	PERYLENE-D12	1520-96-3	50-200	99
5	PHENANTHRENE-D10	1517-22-2	50-200	86
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-1	Received Date:	02/10/2004
Sample ID:	**0023-S4-743**	Sample Matrix	Soil	Moisture %:	24.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1356	Prep. No:	1 of 1	Anal. Time:	11:52
Data File Name:	1521.001	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.2	<2.2	U
2	BETA BHC	319-85-7	µg/kg	2.2	<2.2	U
3	ALPHA BHC	319-84-6	µg/kg	2.2	<2.2	U
4	DELTA BHC	319-86-8	µg/kg	2.2	<2.2	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.2	<2.2	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.3	<1.3	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.3	<1.3	U
8	P,P'-DDD	72-54-8	µg/kg	4.0	8.1	
9	P,P'-DDE	72-55-9	µg/kg	4.0	63	
10	P,P'-DDT	50-29-3	µg/kg	4.0	2	J
11	DIELDRIN	60-57-1	µg/kg	4.0	<4.0	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.2	<2.2	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	4.0	<4.0	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.6	<6.6	U
15	ENDRIN	72-20-8	µg/kg	4.0	<4.0	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	4.0	<4.0	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.6	<2.6	U
18	HEPTACHLOR	76-44-8	µg/kg	2.2	<2.2	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.2	<2.2	U
20	METHOXYCHLOR	72-43-5	µg/kg	13	<13	U
21	TOXAPHENE	8001-35-2	µg/kg	130	<130	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	73
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	71
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	102
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-2	Received Date:	02/10/2004
Sample ID:	**0023-S4-744**	Sample Matrix	Soil	Moisture %:	18.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1356	Prep. No:	1 of 1	Anal. Time:	12:17
Data File Name:	1521.002	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.1	<2.1	U
2	BETA BHC	319-85-7	µg/kg	2.1	<2.1	U
3	ALPHA BHC	319-84-6	µg/kg	2.1	<2.1	U
4	DELTA BHC	319-86-8	µg/kg	2.1	<2.1	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.1	<2.1	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.7	1	J
9	P,P'-DDE	72-55-9	µg/kg	3.7	13	
10	P,P'-DDT	50-29-3	µg/kg	3.7	0.3	J
11	DIELDRIN	60-57-1	µg/kg	3.7	<3.7	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.1	<2.1	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.7	<3.7	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.2	<6.2	U
15	ENDRIN	72-20-8	µg/kg	3.7	<3.7	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.7	<3.7	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.5	<2.5	U
18	HEPTACHLOR	76-44-8	µg/kg	2.1	<2.1	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.1	<2.1	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	73
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	70
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	99
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-3	Received Date:	02/10/2004
Sample ID:	**0023-S4-745**	Sample Matrix	Soil	Moisture %:	17.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1356	Prep. No:	1 of 1	Anal. Time:	12:42
Data File Name:	1521.003	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.1	<2.1	U
2	BETA BHC	319-85-7	µg/kg	2.1	<2.1	U
3	ALPHA BHC	319-84-6	µg/kg	2.1	<2.1	U
4	DELTA BHC	319-86-8	µg/kg	2.1	<2.1	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.1	<2.1	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.7	0.3	J
9	P,P'-DDE	72-55-9	µg/kg	3.7	2	J
10	P,P'-DDT	50-29-3	µg/kg	3.7	1	J
11	DIELDRIN	60-57-1	µg/kg	3.7	<3.7	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.1	<2.1	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.7	<3.7	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.1	<6.1	U
15	ENDRIN	72-20-8	µg/kg	3.7	<3.7	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.7	<3.7	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.4	<2.4	U
18	HEPTACHLOR	76-44-8	µg/kg	2.1	<2.1	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.1	<2.1	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	74
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	73
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	101
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-4	Received Date:	02/10/2004
Sample ID:	**0023-S4-746**	Sample Matrix	Soil	Moisture %:	16.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1356	Prep. No:	1 of 1	Anal. Time:	13:07
Data File Name:	1521.004	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.0	<2.0	U
2	BETA BHC	319-85-7	µg/kg	2.0	<2.0	U
3	ALPHA BHC	319-84-6	µg/kg	2.0	<2.0	U
4	DELTA BHC	319-86-8	µg/kg	2.0	<2.0	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.0	<2.0	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.6	5	
9	P,P'-DDE	72-55-9	µg/kg	3.6	59	
10	P,P'-DDT	50-29-3	µg/kg	3.6	11	
11	DIELDRIN	60-57-1	µg/kg	3.6	<3.6	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.0	<2.0	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.6	<3.6	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.0	<6.0	U
15	ENDRIN	72-20-8	µg/kg	3.6	<3.6	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.6	<3.6	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.4	<2.4	U
18	HEPTACHLOR	76-44-8	µg/kg	2.0	<2.0	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.0	<2.0	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	75
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	68
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	102
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-5	Received Date:	02/10/2004
Sample ID:	**0023-S4-747**	Sample Matrix	Soil	Moisture %:	19.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1356	Prep. No:	1 of 1	Anal. Time:	13:32
Data File Name:	1521.005	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.1	<2.1	U
2	BETA BHC	319-85-7	µg/kg	2.1	<2.1	U
3	ALPHA BHC	319-84-6	µg/kg	2.1	<2.1	U
4	DELTA BHC	319-86-8	µg/kg	2.1	<2.1	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.1	<2.1	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	0.3	J
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	0.7	J
8	P,P'-DDD	72-54-8	µg/kg	3.7	2	J
9	P,P'-DDE	72-55-9	µg/kg	3.7	17	
10	P,P'-DDT	50-29-3	µg/kg	3.7	0.7	J
11	DIELDRIN	60-57-1	µg/kg	3.7	<3.7	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.1	<2.1	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.7	<3.7	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.2	<6.2	U
15	ENDRIN	72-20-8	µg/kg	3.7	<3.7	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.7	<3.7	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.5	<2.5	U
18	HEPTACHLOR	76-44-8	µg/kg	2.1	<2.1	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.1	<2.1	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	77
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	72
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	102
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-6	Received Date:	02/10/2004
Sample ID:	**0023-S4-748**	Sample Matrix	Soil	Moisture %:	13.3
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1356	Prep. No:	1 of 1	Anal. Time:	13:56
Data File Name:	1521.006	Sample Amount:	29.9 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.0	<2.0	U
2	BETA BHC	319-85-7	µg/kg	2.0	<2.0	U
3	ALPHA BHC	319-84-6	µg/kg	2.0	<2.0	U
4	DELTA BHC	319-86-8	µg/kg	2.0	<2.0	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.0	<2.0	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	0.3	J
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	0.6	J
8	P,P'-DDD	72-54-8	µg/kg	3.5	3	J
9	P,P'-DDE	72-55-9	µg/kg	3.5	21	
10	P,P'-DDT	50-29-3	µg/kg	3.5	5	
11	DIELDRIN	60-57-1	µg/kg	3.5	<3.5	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.0	<2.0	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.5	<3.5	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	5.8	<5.8	U
15	ENDRIN	72-20-8	µg/kg	3.5	<3.5	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.5	<3.5	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.3	<2.3	U
18	HEPTACHLOR	76-44-8	µg/kg	2.0	<2.0	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.0	<2.0	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	70
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	70
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	99
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-7	Received Date:	02/10/2004
Sample ID:	**0023-S4-749**	Sample Matrix	Soil	Moisture %:	21.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1356	Prep. No:	1 of 1	Anal. Time:	14:21
Data File Name:	1521.007	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.2	<2.2	U
2	BETA BHC	319-85-7	µg/kg	2.2	<2.2	U
3	ALPHA BHC	319-84-6	µg/kg	2.2	<2.2	U
4	DELTA BHC	319-86-8	µg/kg	2.2	<2.2	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.2	<2.2	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.3	<1.3	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.3	<1.3	U
8	P,P'-DDD	72-54-8	µg/kg	3.8	3	J
9	P,P'-DDE	72-55-9	µg/kg	3.8	18	
10	P,P'-DDT	50-29-3	µg/kg	3.8	0.7	J
11	DIELDRIN	60-57-1	µg/kg	3.8	<3.8	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.2	<2.2	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.8	<3.8	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.3	<6.3	U
15	ENDRIN	72-20-8	µg/kg	3.8	<3.8	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.8	<3.8	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.5	<2.5	U
18	HEPTACHLOR	76-44-8	µg/kg	2.2	<2.2	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.2	<2.2	U
20	METHOXYCHLOR	72-43-5	µg/kg	13	<13	U
21	TOXAPHENE	8001-35-2	µg/kg	130	<130	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	69
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	65
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	102
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-8	Received Date:	02/10/2004
Sample ID:	**0023-S4-750**	Sample Matrix	Soil	Moisture %:	17.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1356	Prep. No:	1 of 1	Anal. Time:	14:46
Data File Name:	1521.008	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.1	<2.1	U
2	BETA BHC	319-85-7	µg/kg	2.1	<2.1	U
3	ALPHA BHC	319-84-6	µg/kg	2.1	<2.1	U
4	DELTA BHC	319-86-8	µg/kg	2.1	<2.1	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.1	<2.1	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.6	4	
9	P,P'-DDE	72-55-9	µg/kg	3.6	28	
10	P,P'-DDT	50-29-3	µg/kg	3.6	22	
11	DIELDRIN	60-57-1	µg/kg	3.6	<3.6	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.1	<2.1	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.6	<3.6	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.1	<6.1	U
15	ENDRIN	72-20-8	µg/kg	3.6	<3.6	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.6	<3.6	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.4	<2.4	U
18	HEPTACHLOR	76-44-8	µg/kg	2.1	<2.1	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.1	<2.1	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	69
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	66
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	108
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-9	Received Date:	02/10/2004
Sample ID:	**0023-S4-751**	Sample Matrix	Soil	Moisture %:	18.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1356	Prep. No:	1 of 1	Anal. Time:	16:34
Data File Name:	1521.009	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.1	<2.1	U
2	BETA BHC	319-85-7	µg/kg	2.1	<2.1	U
3	ALPHA BHC	319-84-6	µg/kg	2.1	<2.1	U
4	DELTA BHC	319-86-8	µg/kg	2.1	<2.1	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.1	<2.1	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.7	0.9	J
9	P,P'-DDE	72-55-9	µg/kg	3.7	7	
10	P,P'-DDT	50-29-3	µg/kg	3.7	0.4	J
11	DIELDRIN	60-57-1	µg/kg	3.7	<3.7	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.1	<2.1	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.7	<3.7	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.2	<6.2	U
15	ENDRIN	72-20-8	µg/kg	3.7	<3.7	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.7	<3.7	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.5	<2.5	U
18	HEPTACHLOR	76-44-8	µg/kg	2.1	<2.1	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.1	<2.1	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	84
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	82
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	106
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-10	Received Date:	02/10/2004
Sample ID:	**0023-S4-752**	Sample Matrix	Soil	Moisture %:	20.5
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1356	Prep. No:	1 of 1	Anal. Time:	16:59
Data File Name:	1521.010	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.1	<2.1	U
2	BETA BHC	319-85-7	µg/kg	2.1	<2.1	U
3	ALPHA BHC	319-84-6	µg/kg	2.1	<2.1	U
4	DELTA BHC	319-86-8	µg/kg	2.1	<2.1	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.1	<2.1	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.3	<1.3	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.3	<1.3	U
8	P,P'-DDD	72-54-8	µg/kg	3.8	3	J
9	P,P'-DDE	72-55-9	µg/kg	3.8	18	
10	P,P'-DDT	50-29-3	µg/kg	3.8	0.3	J
11	DIELDRIN	60-57-1	µg/kg	3.8	<3.8	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.1	<2.1	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.8	<3.8	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.3	<6.3	U
15	ENDRIN	72-20-8	µg/kg	3.8	<3.8	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.8	<3.8	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.5	<2.5	U
18	HEPTACHLOR	76-44-8	µg/kg	2.1	<2.1	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.1	<2.1	U
20	METHOXYCHLOR	72-43-5	µg/kg	13	<13	U
21	TOXAPHENE	8001-35-2	µg/kg	130	<130	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	79
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	80
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	108
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-11	Received Date:	02/10/2004
Sample ID:	**0023-S4-753**	Sample Matrix	Soil	Moisture %:	30.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1356	Prep. No:	1 of 1	Anal. Time:	17:24
Data File Name:	1521.011	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.5	<2.5	U
2	BETA BHC	319-85-7	µg/kg	2.5	<2.5	U
3	ALPHA BHC	319-84-6	µg/kg	2.5	<2.5	U
4	DELTA BHC	319-86-8	µg/kg	2.5	<2.5	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.5	<2.5	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.4	<1.4	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.4	0.6	J
8	P,P'-DDD	72-54-8	µg/kg	4.3	4	J
9	P,P'-DDE	72-55-9	µg/kg	4.3	19	
10	P,P'-DDT	50-29-3	µg/kg	4.3	0.4	J
11	DIELDRIN	60-57-1	µg/kg	4.3	<4.3	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.5	<2.5	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	4.3	<4.3	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	7.2	<7.2	U
15	ENDRIN	72-20-8	µg/kg	4.3	<4.3	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	4.3	<4.3	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.9	<2.9	U
18	HEPTACHLOR	76-44-8	µg/kg	2.5	<2.5	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.5	<2.5	U
20	METHOXYCHLOR	72-43-5	µg/kg	14	<14	U
21	TOXAPHENE	8001-35-2	µg/kg	140	<140	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	78
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	78
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	104
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-12	Received Date:	02/10/2004
Sample ID:	**0023-S4-754**	Sample Matrix	Soil	Moisture %:	21.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1356	Prep. No:	1 of 1	Anal. Time:	17:48
Data File Name:	1521.012	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.2	<2.2	U
2	BETA BHC	319-85-7	µg/kg	2.2	<2.2	U
3	ALPHA BHC	319-84-6	µg/kg	2.2	<2.2	U
4	DELTA BHC	319-86-8	µg/kg	2.2	<2.2	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.2	<2.2	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.3	<1.3	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.3	<1.3	U
8	P,P'-DDD	72-54-8	µg/kg	3.8	5	
9	P,P'-DDE	72-55-9	µg/kg	3.8	59	
10	P,P'-DDT	50-29-3	µg/kg	3.8	13	
11	DIELDRIN	60-57-1	µg/kg	3.8	<3.8	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.2	<2.2	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.8	<3.8	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.3	<6.3	U
15	ENDRIN	72-20-8	µg/kg	3.8	<3.8	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.8	<3.8	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.5	<2.5	U
18	HEPTACHLOR	76-44-8	µg/kg	2.2	<2.2	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.2	<2.2	U
20	METHOXYCHLOR	72-43-5	µg/kg	13	<13	U
21	TOXAPHENE	8001-35-2	µg/kg	130	<130	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	76
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	74
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	109
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-13	Received Date:	02/10/2004
Sample ID:	**0023-S4-755**	Sample Matrix	Soil	Moisture %:	26.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1356	Prep. No:	1 of 1	Anal. Time:	18:13
Data File Name:	1521.013	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.3	<2.3	U
2	BETA BHC	319-85-7	µg/kg	2.3	<2.3	U
3	ALPHA BHC	319-84-6	µg/kg	2.3	<2.3	U
4	DELTA BHC	319-86-8	µg/kg	2.3	<2.3	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.3	<2.3	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.4	<1.4	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.4	<1.4	U
8	P,P'-DDD	72-54-8	µg/kg	4.1	<4.1	U
9	P,P'-DDE	72-55-9	µg/kg	4.1	0.7	J
10	P,P'-DDT	50-29-3	µg/kg	4.1	<4.1	U
11	DIELDRIN	60-57-1	µg/kg	4.1	<4.1	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.3	<2.3	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	4.1	<4.1	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.8	<6.8	U
15	ENDRIN	72-20-8	µg/kg	4.1	<4.1	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	4.1	<4.1	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.7	<2.7	U
18	HEPTACHLOR	76-44-8	µg/kg	2.3	<2.3	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.3	<2.3	U
20	METHOXYCHLOR	72-43-5	µg/kg	14	<14	U
21	TOXAPHENE	8001-35-2	µg/kg	140	<140	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	82
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	79
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	107
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-14	Received Date:	02/10/2004
Sample ID:	**0023-S4-756**	Sample Matrix	Soil	Moisture %:	16.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1356	Prep. No:	1 of 1	Anal. Time:	18:38
Data File Name:	1521.014	Sample Amount:	29.9 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.0	<2.0	U
2	BETA BHC	319-85-7	µg/kg	2.0	<2.0	U
3	ALPHA BHC	319-84-6	µg/kg	2.0	<2.0	U
4	DELTA BHC	319-86-8	µg/kg	2.0	<2.0	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.0	<2.0	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.6	0.1	J
9	P,P'-DDE	72-55-9	µg/kg	3.6	2	J
10	P,P'-DDT	50-29-3	µg/kg	3.6	<3.6	U
11	DIELDRIN	60-57-1	µg/kg	3.6	<3.6	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.0	<2.0	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.6	<3.6	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.0	<6.0	U
15	ENDRIN	72-20-8	µg/kg	3.6	<3.6	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.6	<3.6	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.4	<2.4	U
18	HEPTACHLOR	76-44-8	µg/kg	2.0	<2.0	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.0	<2.0	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates		Control Limit, %	Surro. Rec.%
1 DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	67
2 2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	64
# of out-of-control			0

Internal Standard		Control Limit, %	IS Rec.%
1 DIBUTYLCHLORENDATE	1770-80-5	50-200	109
# of out-of-control			0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-15	Received Date:	02/10/2004
Sample ID:	**0023-S4-757**	Sample Matrix	Soil	Moisture %:	18.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1356	Prep. No:	1 of 1	Anal. Time:	19:03
Data File Name:	1521.015	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.1	<2.1	U
2	BETA BHC	319-85-7	µg/kg	2.1	<2.1	U
3	ALPHA BHC	319-84-6	µg/kg	2.1	<2.1	U
4	DELTA BHC	319-86-8	µg/kg	2.1	<2.1	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.1	<2.1	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.7	6	
9	P,P'-DDE	72-55-9	µg/kg	3.7	81	
10	P,P'-DDT	50-29-3	µg/kg	3.7	4	
11	DIELDRIN	60-57-1	µg/kg	3.7	<3.7	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.1	<2.1	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.7	<3.7	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.1	<6.1	U
15	ENDRIN	72-20-8	µg/kg	3.7	<3.7	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.7	<3.7	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.5	<2.5	U
18	HEPTACHLOR	76-44-8	µg/kg	2.1	<2.1	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.1	<2.1	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates		Control Limit, %	Surro. Rec.%
1 DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	81
2 2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	79
# of out-of-control			0

Internal Standard		Control Limit, %	IS Rec.%
1 DIBUTYLCHLORENDATE	1770-80-5	50-200	103
# of out-of-control			0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-16	Received Date:	02/10/2004
Sample ID:	**0023-S4-758**	Sample Matrix	Soil	Moisture %:	19.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1356	Prep. No:	1 of 1	Anal. Time:	19:28
Data File Name:	1521.016	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.1	<2.1	U
2	BETA BHC	319-85-7	µg/kg	2.1	<2.1	U
3	ALPHA BHC	319-84-6	µg/kg	2.1	<2.1	U
4	DELTA BHC	319-86-8	µg/kg	2.1	<2.1	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.1	<2.1	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.7	0.6	J
9	P,P'-DDE	72-55-9	µg/kg	3.7	7	
10	P,P'-DDT	50-29-3	µg/kg	3.7	0.4	J
11	DIELDRIN	60-57-1	µg/kg	3.7	<3.7	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.1	<2.1	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.7	<3.7	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.2	<6.2	U
15	ENDRIN	72-20-8	µg/kg	3.7	<3.7	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.7	<3.7	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.5	<2.5	U
18	HEPTACHLOR	76-44-8	µg/kg	2.1	<2.1	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.1	<2.1	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	76
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	74
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	102
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-17	Received Date:	02/10/2004
Sample ID:	**0023-S4-759**	Sample Matrix	Soil	Moisture %:	4.5
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1356	Prep. No:	1 of 1	Anal. Time:	19:53
Data File Name:	1521.017	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	μg/kg	1.8	<1.8	U
2	BETA BHC	319-85-7	μg/kg	1.8	<1.8	U
3	ALPHA BHC	319-84-6	μg/kg	1.8	<1.8	U
4	DELTA BHC	319-86-8	μg/kg	1.8	<1.8	U
5	GAMMA BHC (LINDANE)	58-89-9	μg/kg	1.8	<1.8	U
6	ALPHA-CHLORDANE	5103-71-9	μg/kg	1.0	<1.0	U
7	GAMMA-CHLORDANE	5103-74-2	μg/kg	1.0	<1.0	U
8	P,P'-DDD	72-54-8	μg/kg	3.1	0.1	J
9	P,P'-DDE	72-55-9	μg/kg	3.1	0.7	J
10	P,P'-DDT	50-29-3	μg/kg	3.1	0.3	J
11	DIELDRIN	60-57-1	μg/kg	3.1	<3.1	U
12	ALPHA ENDOSULFAN	959-98-8	μg/kg	1.8	<1.8	U
13	BETA ENDOSULFAN	33213-65-9	μg/kg	3.1	<3.1	U
14	ENDOSULFAN SULFATE	1031-07-8	μg/kg	5.2	<5.2	U
15	ENDRIN	72-20-8	μg/kg	3.1	<3.1	U
16	ENDRIN ALDEHYDE	7421-93-4	μg/kg	3.1	<3.1	U
17	ENDRIN KETONE	53494-70-5	μg/kg	2.1	<2.1	U
18	HEPTACHLOR	76-44-8	μg/kg	1.8	<1.8	U
19	HEPTACHLOR EPOXIDE	1024-57-3	μg/kg	1.8	<1.8	U
20	METHOXYCHLOR	72-43-5	μg/kg	10	<10	U
21	TOXAPHENE	8001-35-2	μg/kg	100	<100	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	73
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	71
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	105
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-18	Received Date:	02/10/2004
Sample ID:	**0023-S4-760**	Sample Matrix	Soil	Moisture %:	4.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1356	Prep. No:	1 of 1	Anal. Time:	20:18
Data File Name:	1521.018	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	1.8	<1.8	U
2	BETA BHC	319-85-7	µg/kg	1.8	<1.8	U
3	ALPHA BHC	319-84-6	µg/kg	1.8	<1.8	U
4	DELTA BHC	319-86-8	µg/kg	1.8	<1.8	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	1.8	<1.8	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.0	<1.0	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.0	0.2	J
8	P,P'-DDD	72-54-8	µg/kg	3.1	0.1	J
9	P,P'-DDE	72-55-9	µg/kg	3.1	<3.1	U
10	P,P'-DDT	50-29-3	µg/kg	3.1	0.4	J
11	DIELDRIN	60-57-1	µg/kg	3.1	<3.1	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	1.8	<1.8	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.1	<3.1	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	5.2	<5.2	U
15	ENDRIN	72-20-8	µg/kg	3.1	<3.1	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.1	<3.1	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.1	<2.1	U
18	HEPTACHLOR	76-44-8	µg/kg	1.8	<1.8	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	1.8	<1.8	U
20	METHOXYCHLOR	72-43-5	µg/kg	10	<10	U
21	TOXAPHENE	8001-35-2	µg/kg	100	<100	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	75
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	76
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	101
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-19	Received Date:	02/10/2004
Sample ID:	**0023-S4-761**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510C	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/16/04	Anal. Date:	02/17/04
Batch No:	04G1414	Prep. No:	1 of 1	Anal. Time:	13:35
Data File Name:	1521.019	Sample Amount:	500. mL	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	μg/L	0.05	<0.05	U
2	BETA BHC	319-85-7	μg/L	0.05	<0.05	U
3	ALPHA BHC	319-84-6	μg/L	0.05	<0.05	U
4	DELTA BHC	319-86-8	μg/L	0.05	<0.05	U
5	GAMMA BHC (LINDANE)	58-89-9	μg/L	0.05	<0.05	U
6	ALPHA-CHLORDANE	5103-71-9	μg/L	0.05	<0.05	U
7	GAMMA-CHLORDANE	5103-74-2	μg/L	0.05	<0.05	U
8	P,P'-DDD	72-54-8	μg/L	0.1	<0.1	U
9	P,P'-DDE	72-55-9	μg/L	0.1	<0.1	U
10	P,P'-DDT	50-29-3	μg/L	0.1	<0.1	U
11	DIELDRIN	60-57-1	μg/L	0.1	<0.1	U
12	ALPHA ENDOSULFAN	959-98-8	μg/L	0.05	<0.05	U
13	BETA ENDOSULFAN	33213-65-9	μg/L	0.1	<0.1	U
14	ENDOSULFAN SULFATE	1031-07-8	μg/L	0.5	<0.5	U
15	ENDRIN	72-20-8	μg/L	0.1	<0.1	U
16	ENDRIN ALDEHYDE	7421-93-4	μg/L	0.1	<0.1	U
17	ENDRIN KETONE	53494-70-5	μg/L	0.1	<0.1	U
18	HEPTACHLOR	76-44-8	μg/L	0.05	<0.05	U
19	HEPTACHLOR EPOXIDE	1024-57-3	μg/L	0.05	<0.05	U
20	METHOXYCHLOR	72-43-5	μg/L	2	<2	U
21	TOXAPHENE	8001-35-2	μg/L	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	76
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	42-130	77
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	106
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Méthod 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-1	Received Date:	02/10/2004
Sample ID:	**0023-S4-743**	Sample Matrix	Soil	Moisture %:	24.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1358	Prep. No:	1 of 1	Anal. Time:	23:08
Data File Name:	1521.001	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	44	<44	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	87	<87	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	44	<44	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	44	<44	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	44	<44	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	44	<44	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	44	<44	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	66
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	64
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-2	Received Date:	02/10/2004
Sample ID:	**0023-S4-744**	Sample Matrix	Soil	Moisture %:	18.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1358	Prep. No:	1 of 1	Anal. Time:	23:32
Data File Name:	1521.002	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	41	<41	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	81	<81	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	41	<41	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	41	<41	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	41	<41	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	41	<41	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	41	<41	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	87
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	83
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-3	Received Date:	02/10/2004
Sample ID:	**0023-S4-745**	Sample Matrix	Soil	Moisture %:	17.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1358	Prep. No:	1 of 1	Anal. Time:	23:57
Data File Name:	1521.003	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	40	<40	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	80	<80	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	40	<40	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	40	<40	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	40	<40	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	40	<40	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	40	<40	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	93
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	92
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-4	Received Date:	02/10/2004
Sample ID:	**0023-S4-746**	Sample Matrix	Soil	Moisture %:	16.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1358	Prep. No:	1 of 1	Anal. Time:	00:22
Data File Name:	1521.004	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	39	<39	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	79	<79	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	39	<39	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	39	<39	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	39	<39	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	39	<39	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	39	<39	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	80
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	78
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-5	Received Date:	02/10/2004
Sample ID:	**0023-S4-747**	Sample Matrix	Soil	Moisture %:	19.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1358	Prep. No:	1 of 1	Anal. Time:	00:46
Data File Name:	1521.005	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	41	<41	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	82	<82	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	41	<41	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	41	<41	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	41	<41	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	41	<41	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	41	<41	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	89
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	87
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-6	Received Date:	02/10/2004
Sample ID:	**0023-S4-748**	Sample Matrix	Soil	Moisture %:	13.3
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1358	Prep. No:	1 of 1	Anal. Time:	01:11
Data File Name:	1521.006	Sample Amount:	29.9 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	38	<38	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	76	<76	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	38	<38	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	38	<38	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	38	<38	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	38	<38	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	38	<38	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	91
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	90
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-7	Received Date:	02/10/2004
Sample ID:	**0023-S4-749**	Sample Matrix	Soil	Moisture %:	21.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1358	Prep. No:	1 of 1	Anal. Time:	01:36
Data File Name:	1521.007	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	42	< 42	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	84	< 84	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	42	< 42	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	42	< 42	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	42	< 42	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	42	< 42	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	42	< 42	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	84
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	84
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-8	Received Date:	02/10/2004
Sample ID:	**0023-S4-750**	Sample Matrix	Soil	Moisture %:	17.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1358	Prep. No:	1 of 1	Anal. Time:	02:01
Data File Name:	1521.008	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	µg/kg	40	<40	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	µg/kg	80	<80	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	µg/kg	40	<40	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	µg/kg	40	<40	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	µg/kg	40	<40	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	µg/kg	40	<40	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	µg/kg	40	<40	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	84
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	84
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-9	Received Date:	02/10/2004
Sample ID:	**0023-S4-751**	Sample Matrix	Soil	Moisture %:	18.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1358	Prep. No:	1 of 1	Anal. Time:	02:26
Data File Name:	1521.009	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	µg/kg	41	<41	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	µg/kg	81	<81	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	µg/kg	41	<41	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	µg/kg	41	<41	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	µg/kg	41	<41	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	µg/kg	41	<41	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	µg/kg	41	<41	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	78
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	75
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-10	Received Date:	02/10/2004
Sample ID:	**0023-S4-752**	Sample Matrix	Soil	Moisture %:	20.5
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1358	Prep. No:	1 of 1	Anal. Time:	03:52
Data File Name:	1521.010	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	42	<42	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	83	<83	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	42	<42	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	42	<42	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	42	<42	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	42	<42	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	42	<42	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	88
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	87
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-11	Received Date:	02/10/2004
Sample ID:	**0023-S4-753**	Sample Matrix	Soil	Moisture %:	30.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1358	Prep. No:	1 of 1	Anal. Time:	04:17
Data File Name:	1521.011	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	48	<48	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	95	<95	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	48	<48	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	48	<48	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	48	<48	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	48	<48	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	48	<48	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	80
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	78
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-12	Received Date:	02/10/2004
Sample ID:	**0023-S4-754**	Sample Matrix	Soil	Moisture %:	21.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1358	Prep. No:	1 of 1	Anal. Time:	04:42
Data File Name:	1521.012	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	42	<42	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	84	<84	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	42	<42	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	42	<42	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	42	<42	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	42	<42	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	42	<42	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	92
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	91
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-13	Received Date:	02/10/2004
Sample ID:	**0023-S4-755**	Sample Matrix	Soil	Moisture %:	26.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1358	Prep. No:	1 of 1	Anal. Time:	05:07
Data File Name:	1521.013	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	45	<45	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	89	<89	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	45	<45	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	45	<45	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	45	<45	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	45	<45	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	45	<45	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	86
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	84
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-14	Received Date:	02/10/2004
Sample ID:	**0023-S4-756**	Sample Matrix	Soil	Moisture %:	16.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1358	Prep. No:	1 of 1	Anal. Time:	05:32
Data File Name:	1521.014	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	µg/kg	39	<39	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	µg/kg	79	<79	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	µg/kg	39	<39	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	µg/kg	39	<39	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	µg/kg	39	<39	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	µg/kg	39	<39	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	µg/kg	39	<39	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	83
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	80
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-15	Received Date:	02/10/2004
Sample ID:	**0023-S4-757**	Sample Matrix	Soil	Moisture %:	18.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1358	Prep. No:	1 of 1	Anal. Time:	05:56
Data File Name:	1521.015	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	40	<40	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	81	<81	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	40	<40	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	40	<40	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	40	<40	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	40	<40	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	40	<40	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	83
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	81
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-16	Received Date:	02/10/2004
Sample ID:	**0023-S4-758**	Sample Matrix	Soil	Moisture %:	19.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1358	Prep. No:	1 of 1	Anal. Time:	06:21
Data File Name:	1521.016	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	41	<41	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	82	<82	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	41	<41	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	41	<41	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	41	<41	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	41	<41	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	41	<41	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	94
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	92
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-17	Received Date:	02/10/2004
Sample ID:	**0023-S4-759**	Sample Matrix	Soil	Moisture %:	4.5
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1358	Prep. No:	1 of 1	Anal. Time:	06:46
Data File Name:	1521.017	Sample Amount:	29.9 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	35	<35	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	69	<69	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	35	<35	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	35	<35	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	35	<35	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	35	<35	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	35	<35	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	93
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	91
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-18	Received Date:	02/10/2004
Sample ID:	**0023-S4-760**	Sample Matrix	Soil	Moisture %:	4.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1358	Prep. No:	1 of 1	Anal. Time:	07:11
Data File Name:	1521.018	Sample Amount:	29.9 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	35	<35	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	69	<69	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	35	<35	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	35	<35	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	35	<35	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	35	<35	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	35	<35	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	77
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	75
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-19	Received Date:	02/10/2004
Sample ID:	**0023-S4-761**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510C	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/16/04	Anal. Date:	02/16/04
Batch No:	04G1415	Prep. No:	1 of 1	Anal. Time:	17:36
Data File Name:	1521.019	Sample Amount:	500. mL	Dilution Factor:	1
Extract Vol.	2.5 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/L	2	<2	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/L	5	<5	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/L	2	<2	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/L	2	<2	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/L	2	<2	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/L	1	<1	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/L	1	<1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	94
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	92
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-1	Received Date:	02/10/2004
Sample ID:	**0023-S4-743**	Sample Matrix	Soil	Moisture %:	24.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/11/04	Anal. Date:	02/11/04
Batch No:	04G1351	Prep. No:	1 of 1	Anal. Time:	19:34
Data File Name:	1521.001	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	13	<13	U
2	MOTOR OILS		mg/kg	13	<13	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	56
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-2	Received Date:	02/10/2004
Sample ID:	**0023-S4-744**	Sample Matrix	Soil	Moisture %:	18.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/11/04	Anal. Date:	02/11/04
Batch No:	04G1351	Prep. No:	1 of 1	Anal. Time:	19:59
Data File Name:	1521.002	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	<12	U
2	MOTOR OILS		mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	63
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-3	Received Date:	02/10/2004
Sample ID:	**0023-S4-745**	Sample Matrix	Soil	Moisture %:	17.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/11/04	Anal. Date:	02/11/04
Batch No:	04G1351	Prep. No:	1 of 1	Anal. Time:	20:24
Data File Name:	1521.003	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	<12	U
2	MOTOR OILS		mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	70
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-4	Received Date:	02/10/2004
Sample ID:	**0023-S4-746**	Sample Matrix	Soil	Moisture %:	16.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1351	Prep. No:	1 of 1	Anal. Time:	10:20
Data File Name:	1521.004	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	<12	U
2	MOTOR OILS		mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	101
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-5	Received Date:	02/10/2004
Sample ID:	**0023-S4-747**	Sample Matrix	Soil	Moisture %:	19.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1351	Prep. No:	1 of 1	Anal. Time:	09:12
Data File Name:	1521.005	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	<12	U
2	MOTOR OILS		mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	105
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-6	Received Date:	02/10/2004
Sample ID:	**0023-S4-748**	Sample Matrix	Soil	Moisture %:	13.3
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1351	Prep. No:	1 of 1	Anal. Time:	09:36
Data File Name:	1521.006	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	<12	U
2	MOTOR OILS		mg/kg	12	40	

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	69
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-7	Received Date:	02/10/2004
Sample ID:	**0023-S4-749**	Sample Matrix	Soil	Moisture %:	21.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/11/04	Anal. Date:	02/11/04
Batch No:	04G1351	Prep. No:	1 of 1	Anal. Time:	23:44
Data File Name:	1521.007	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	13	<13	U
2	MOTOR OILS		mg/kg	13	<13	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	65
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-8	Received Date:	02/10/2004
Sample ID:	**0023-S4-750**	Sample Matrix	Soil	Moisture %:	17.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1351	Prep. No:	1 of 1	Anal. Time:	00:09
Data File Name:	1521.008	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	<12	U
2	MOTOR OILS		mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	66
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-9	Received Date:	02/10/2004
Sample ID:	**0023-S4-751**	Sample Matrix	Soil	Moisture %:	18.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1351	Prep. No:	1 of 1	Anal. Time:	00:34
Data File Name:	1521.009	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	<12	U
2	MOTOR OILS		mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	66
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-10	Received Date:	02/10/2004
Sample ID:	**0023-S4-752**	Sample Matrix	Soil	Moisture %:	20.5
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1351	Prep. No:	1 of 1	Anal. Time:	00:59
Data File Name:	1521.010	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	13	< 13	U
2	MOTOR OILS		mg/kg	13	< 13	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	71
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-11	Received Date:	02/10/2004
Sample ID:	**0023-S4-753**	Sample Matrix	Soil	Moisture %:	30.8
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1351	Prep. No:	1 of 1	Anal. Time:	01:24
Data File Name:	1521.011	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	14	<14	U
2	MOTOR OILS		mg/kg	14	<14	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	73
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-12	Received Date:	02/10/2004
Sample ID:	**0023-S4-754**	Sample Matrix	Soil	Moisture %:	21.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1351	Prep. No:	1 of 1	Anal. Time:	01:49
Data File Name:	1521.012	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	13	<13	U
2	MOTOR OILS		mg/kg	13	<13	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	66
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-13	Received Date:	02/10/2004
Sample ID:	**0023-S4-755**	Sample Matrix	Soil	Moisture %:	26.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1351	Prep. No:	1 of 1	Anal. Time:	02:14
Data File Name:	1521.013	Sample Amount:	19.9 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	14	<14	U
2	MOTOR OILS		mg/kg	14	<14	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	74
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-14	Received Date:	02/10/2004
Sample ID:	**0023-S4-756**	Sample Matrix	Soil	Moisture %:	16.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1351	Prep. No:	1 of 1	Anal. Time:	02:39
Data File Name:	1521.014	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	<12	U
2	MOTOR OILS		mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	66
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-15	Received Date:	02/10/2004
Sample ID:	**0023-S4-757**	Sample Matrix	Soil	Moisture %:	18.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1351	Prep. No:	1 of 1	Anal. Time:	03:04
Data File Name:	1521.015	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	<12	U
2	MOTOR OILS	.	mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	72
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-16	Received Date:	02/10/2004
Sample ID:	**0023-S4-758**	Sample Matrix	Soil	Moisture %:	19.7
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1351	Prep. No:	1 of 1	Anal. Time:	03:29
Data File Name:	1521.016	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	12	<12	U
2	MOTOR OILS		mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	68
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-17	Received Date:	02/10/2004
Sample ID:	**0023-S4-759**	Sample Matrix	Soil	Moisture %:	4.5
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1351	Prep. No:	1 of 1	Anal. Time:	04:43
Data File Name:	1521.017	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	10	<10	U
2	MOTOR OILS		mg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	95
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-18	Received Date:	02/10/2004
Sample ID:	**0023-S4-760**	Sample Matrix	Soil	Moisture %:	4.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/11/04	Anal. Date:	02/12/04
Batch No:	04G1351	Prep. No:	1 of 1	Anal. Time:	05:08
Data File Name:	1521.018	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/kg	10	13	
2	MOTOR OILS		mg/kg	10	65	

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-148	64
# of out-of-control				0

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-19	Received Date:	02/10/2004
Sample ID:	**0023-S4-761**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510C	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/11/04	Anal. Date:	02/13/04
Batch No:	04G1362	Prep. No:	1 of 1	Anal. Time:	00:52
Data File Name:	1521.019	Sample Amount:	500. mL	Dilution Factor:	1
Extract Vol.	0.5 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	PHC AS DIESEL FUEL	11-84-7	mg/L	0.5	<0.5	U
2	MOTOR OILS		mg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	50-149	74
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-1	Received Date:	02/10/2004
Sample ID:	**0023-S4-743**	Sample Matrix	Soil	Moisture %:	24.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.6	<6.6	U	P		04M1195L	02/12/04	02/12/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.40	9.1	J	P		04M1195L	02/12/04	02/12/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	141		P		04M1195L	02/12/04	02/12/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.26	<0.26	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.26	<0.26	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.66	35.7		P		04M1195L	02/12/04	02/12/04	1	6010B
COBALT	7440-48-4	mg/kg	0.66	18.2		P		04M1195L	02/12/04	02/12/04	1	6010B
COPPER	7440-50-8	mg/kg	0.66	37.5		P		04M1195L	02/12/04	02/12/04	1	6010B
LEAD	7439-92-1	mg/kg	0.40	16.7		P		04M1195L	02/12/04	02/12/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.26	0.084	J	CV		04M1204H	02/13/04	02/13/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.26	<0.26	U	P		04M1195L	02/12/04	02/12/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.40	25.8		P		04M1195L	02/12/04	02/12/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.53	<0.53	U J	P		04M1195L	02/12/04	02/12/04	1	6010B
SILVER	7440-22-4	mg/kg	0.66	<0.66	U	P		04M1195L	02/12/04	02/12/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.66	<0.66	U	P		04M1195L	02/12/04	02/12/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.66	71.2		P		04M1195L	02/12/04	02/12/04	1	6010B
ZINC	7440-66-6	mg/kg	0.66	111		P		04M1195L	02/12/04	02/12/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-2	Received Date:	02/10/2004
Sample ID:	**0023-S4-744**	Sample Matrix	Soil	Moisture %:	18.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.2	<6.2	U	P		04M1195L	02/12/04	02/12/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.37	8.7	J	P		04M1195L	02/12/04	02/12/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	153		P		04M1195L	02/12/04	02/12/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.028	~~J~~ U	P		04M1195L	02/12/04	02/12/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.62	33.2		P		04M1195L	02/12/04	02/12/04	1	6010B
COBALT	7440-48-4	mg/kg	0.62	16.6		P		04M1195L	02/12/04	02/12/04	1	6010B
COPPER	7440-50-8	mg/kg	0.62	35.0		P		04M1195L	02/12/04	02/12/04	1	6010B
LEAD	7439-92-1	mg/kg	0.37	12.3		P		04M1195L	02/12/04	02/12/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.069	J	CV		04M1204H	02/13/04	02/13/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.25	0.21	~~J~~ U	P		04M1195L	02/12/04	02/12/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.37	22.4		P		04M1195L	02/12/04	02/12/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.49	<0.49	U J	P		04M1195L	02/12/04	02/12/04	1	6010B
SILVER	7440-22-4	mg/kg	0.62	<0.62	U	P		04M1195L	02/12/04	02/12/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.62	<0.62	U	P		04M1195L	02/12/04	02/12/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.62	69.9		P		04M1195L	02/12/04	02/12/04	1	6010B
ZINC	7440-66-6	mg/kg	0.62	96.0		P		04M1195L	02/12/04	02/12/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL; B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control; * - Duplicate analysis out of control; W - Post digestion spike for GFAA out of control; E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-3	Received Date:	02/10/2004
Sample ID:	**0023-S4-745**	Sample Matrix	Soil	Moisture %:	17.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.1	<6.1	U	P		04M1195L	02/12/04	02/12/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.37	7.8	J	P		04M1195L	02/12/04	02/12/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	134		P		04M1195L	02/12/04	02/12/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	<0.24	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.61	30.9		P		04M1195L	02/12/04	02/12/04	1	6010B
COBALT	7440-48-4	mg/kg	0.61	16.8		P		04M1195L	02/12/04	02/12/04	1	6010B
COPPER	7440-50-8	mg/kg	0.61	31.2		P		04M1195L	02/12/04	02/12/04	1	6010B
LEAD	7439-92-1	mg/kg	0.37	12.1		P		04M1195L	02/12/04	02/12/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	0.065	J	CV		04M1204H	02/13/04	02/13/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.24	<0.24	U	P		04M1195L	02/12/04	02/12/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.37	21.9		P		04M1195L	02/12/04	02/12/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.49	<0.49	U J	P		04M1195L	02/12/04	02/12/04	1	6010B
SILVER	7440-22-4	mg/kg	0.61	<0.61	U J	P		04M1195L	02/12/04	02/12/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.61	<0.61	U	P		04M1195L	02/12/04	02/12/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.61	66.5		P		04M1195L	02/12/04	02/12/04	1	6010B
ZINC	7440-66-6	mg/kg	0.61	95.9		P		04M1195L	02/12/04	02/12/04	1	6010B

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Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-4	Received Date:	02/10/2004
Sample ID:	**0023-S4-746**	Sample Matrix	Soil	Moisture %:	16.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.0	<6.0	U	P		04M1195L	02/12/04	02/12/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.36	8.3	J	P		04M1195L	02/12/04	02/12/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	151		P		04M1195L	02/12/04	02/12/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	0.13	J	P		04M1195L	02/12/04	02/12/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.60	33.4		P		04M1195L	02/12/04	02/12/04	1	6010B
COBALT	7440-48-4	mg/kg	0.60	17.5		P		04M1195L	02/12/04	02/12/04	1	6010B
COPPER	7440-50-8	mg/kg	0.60	38.2		P		04M1195L	02/12/04	02/12/04	1	6010B
LEAD	7439-92-1	mg/kg	0.36	13.3		P		04M1195L	02/12/04	02/12/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	0.17	J	CV		04M1204H	02/13/04	02/13/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.24	<0.24	U	P		04M1195L	02/12/04	02/12/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.36	24.1		P		04M1195L	02/12/04	02/12/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.48	0.86	J	P		04M1195L	02/12/04	02/12/04	1	6010B
SILVER	7440-22-4	mg/kg	0.60	<0.60	U	P		04M1195L	02/12/04	02/12/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.60	<0.60	U	P		04M1195L	02/12/04	02/12/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.60	68.3		P		04M1195L	02/12/04	02/12/04	1	6010B
ZINC	7440-66-6	mg/kg	0.60	97.5		P		04M1195L	02/12/04	02/12/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-5	Received Date:	02/10/2004
Sample ID:	**0023-S4-747**	Sample Matrix	Soil	Moisture %:	19.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.2	<6.2	U	P		04M1195L	02/12/04	02/12/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.37	9.2	J	P		04M1195L	02/12/04	02/12/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	153		P		04M1195L	02/12/04	02/12/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.10	J	P		04M1195L	02/12/04	02/12/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.62	33.6		P		04M1195L	02/12/04	02/12/04	1	6010B
COBALT	7440-48-4	mg/kg	0.62	17.4		P		04M1195L	02/12/04	02/12/04	1	6010B
COPPER	7440-50-8	mg/kg	0.62	38.6		P		04M1195L	02/12/04	02/12/04	1	6010B
LEAD	7439-92-1	mg/kg	0.37	16.2		P		04M1195L	02/12/04	02/12/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.069	J	CV		04M1204H	02/13/04	02/13/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.25	0.21	~~J~~ U	P		04M1195L	02/12/04	02/12/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.37	24.8		P		04M1195L	02/12/04	02/12/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.50	<0.50	U J	P		04M1195L	02/12/04	02/12/04	1	6010B
SILVER	7440-22-4	mg/kg	0.62	<0.62	U	P		04M1195L	02/12/04	02/12/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.62	<0.62	U	P		04M1195L	02/12/04	02/12/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.62	69.0		P		04M1195L	02/12/04	02/12/04	1	6010B
ZINC	7440-66-6	mg/kg	0.62	104		P		04M1195L	02/12/04	02/12/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-6	Received Date:	02/10/2004
Sample ID:	**0023-S4-748**	Sample Matrix	Soil	Moisture %:	13.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.8	<5.8	U	P		04M1195L	02/12/04	02/12/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.35	9.5	J	P		04M1195L	02/12/04	02/12/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	129		P		04M1195L	02/12/04	02/12/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.23	<0.23	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.23	<0.23	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.58	28.7		P		04M1195L	02/12/04	02/12/04	1	6010B
COBALT	7440-48-4	mg/kg	0.58	15.2		P		04M1195L	02/12/04	02/12/04	1	6010B
COPPER	7440-50-8	mg/kg	0.58	28.4		P		04M1195L	02/12/04	02/12/04	1	6010B
LEAD	7439-92-1	mg/kg	0.35	13.9		P		04M1195L	02/12/04	02/12/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.23	0.21	J	CV		04M1204H	02/13/04	02/13/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.23	0.88		P		04M1195L	02/12/04	02/12/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.35	20.3		P		04M1195L	02/12/04	02/12/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.46	0.37	J	P		04M1195L	02/12/04	02/12/04	1	6010B
SILVER	7440-22-4	mg/kg	0.58	<0.58	U	P		04M1195L	02/12/04	02/12/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.58	<0.58	U	P		04M1195L	02/12/04	02/12/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.58	62.9		P		04M1195L	02/12/04	02/12/04	1	6010B
ZINC	7440-66-6	mg/kg	0.58	88.5		P		04M1195L	02/12/04	02/12/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-7	Received Date:	02/10/2004
Sample ID:	**0023-S4-749**	Sample Matrix	Soil	Moisture %:	21.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.3	<6.3	U	P		04M1195L	02/12/04	02/12/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.38	8.5	J	P		04M1195L	02/12/04	02/12/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	163		P		04M1195L	02/12/04	02/12/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	<0.25	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.63	33.9		P		04M1195L	02/12/04	02/12/04	1	6010B
COBALT	7440-48-4	mg/kg	0.63	17.0		P		04M1195L	02/12/04	02/12/04	1	6010B
COPPER	7440-50-8	mg/kg	0.63	36.3		P		04M1195L	02/12/04	02/12/04	1	6010B
LEAD	7439-92-1	mg/kg	0.38	11.9		P		04M1195L	02/12/04	02/12/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.065	J	CV		04M1204H	02/13/04	02/13/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.25	0.067	~~J~~ U	P		04M1195L	02/12/04	02/12/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.38	23.8		P		04M1195L	02/12/04	02/12/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.51	<0.51	U J	P		04M1195L	02/12/04	02/12/04	1	6010B
SILVER	7440-22-4	mg/kg	0.63	<0.63	U	P		04M1195L	02/12/04	02/12/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.63	<0.63	U	P		04M1195L	02/12/04	02/12/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.63	72.7		P		04M1195L	02/12/04	02/12/04	1	6010B
ZINC	7440-66-6	mg/kg	0.63	102		P		04M1195L	02/12/04	02/12/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-8	Received Date:	02/10/2004
Sample ID:	**0023-S4-750**	Sample Matrix	Soil	Moisture %:	17.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.1	<6.1	U	P		04M1195L	02/12/04	02/12/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.36	8.6	J	P		04M1195L	02/12/04	02/12/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	144		P		04M1195L	02/12/04	02/12/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	<0.24	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.61	31.1		P		04M1195L	02/12/04	02/12/04	1	6010B
COBALT	7440-48-4	mg/kg	0.61	16.5		P		04M1195L	02/12/04	02/12/04	1	6010B
COPPER	7440-50-8	mg/kg	0.61	30.2		P		04M1195L	02/12/04	02/12/04	1	6010B
LEAD	7439-92-1	mg/kg	0.36	12.1		P		04M1195L	02/12/04	02/12/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	0.078	J	CV		04M1204H	02/13/04	02/13/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.24	<0.24	U	P		04M1195L	02/12/04	02/12/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.36	22.1		P		04M1195L	02/12/04	02/12/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.49	<0.49	U J	P		04M1195L	02/12/04	02/12/04	1	6010B
SILVER	7440-22-4	mg/kg	0.61	<0.61	U	P		04M1195L	02/12/04	02/12/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.61	<0.61	U	P		04M1195L	02/12/04	02/12/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.61	63.5		P		04M1195L	02/12/04	02/12/04	1	6010B
ZINC	7440-66-6	mg/kg	0.61	90.6		P		04M1195L	02/12/04	02/12/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-9	Received Date:	02/10/2004
Sample ID:	**0023-S4-751**	Sample Matrix	Soil	Moisture %:	18.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.2	<6.2	U	P		04M1195L	02/12/04	02/12/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.37	10.1	J	P		04M1195L	02/12/04	02/12/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	193		P		04M1195L	02/12/04	02/12/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.075	J	P		04M1195L	02/12/04	02/12/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.62	31.7		P		04M1195L	02/12/04	02/12/04	1	6010B
COBALT	7440-48-4	mg/kg	0.62	17.7		P		04M1195L	02/12/04	02/12/04	1	6010B
COPPER	7440-50-8	mg/kg	0.62	29.4		P		04M1195L	02/12/04	02/12/04	1	6010B
LEAD	7439-92-1	mg/kg	0.37	12.0		P		04M1195L	02/12/04	02/12/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.057	J	CV		04M1204H	02/13/04	02/13/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.25	<0.25	U	P		04M1195L	02/12/04	02/12/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.37	22.6		P		04M1195L	02/12/04	02/12/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.49	<0.49	U J	P		04M1195L	02/12/04	02/12/04	1	6010B
SILVER	7440-22-4	mg/kg	0.62	<0.62	U	P		04M1195L	02/12/04	02/12/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.62	<0.62	U	P		04M1195L	02/12/04	02/12/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.62	63.0		P		04M1195L	02/12/04	02/12/04	1	6010B
ZINC	7440-66-6	mg/kg	0.62	88.5		P		04M1195L	02/12/04	02/12/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-10	Received Date:	02/10/2004
Sample ID:	**0023-S4-752**	Sample Matrix	Soil	Moisture %:	20.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.3	<6.3	U	P		04M1195L	02/12/04	02/12/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.38	9.4	J	P		04M1195L	02/12/04	02/12/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	173		P		04M1195L	02/12/04	02/12/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	<0.25	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.63	31.7		P		04M1195L	02/12/04	02/12/04	1	6010B
COBALT	7440-48-4	mg/kg	0.63	18.4		P		04M1195L	02/12/04	02/12/04	1	6010B
COPPER	7440-50-8	mg/kg	0.63	30.9		P		04M1195L	02/12/04	02/12/04	1	6010B
LEAD	7439-92-1	mg/kg	0.38	13.4		P		04M1195L	02/12/04	02/12/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.072	J	CV		04M1204H	02/13/04	02/13/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.25	0.41	U	P		04M1195L	02/12/04	02/12/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.38	23.5		P		04M1195L	02/12/04	02/12/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.50	<0.50	U J	P		04M1195L	02/12/04	02/12/04	1	6010B
SILVER	7440-22-4	mg/kg	0.63	<0.63	U	P		04M1195L	02/12/04	02/12/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.63	<0.63	U	P		04M1195L	02/12/04	02/12/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.63	63.7		P		04M1195L	02/12/04	02/12/04	1	6010B
ZINC	7440-66-6	mg/kg	0.63	96.5		P		04M1195L	02/12/04	02/12/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-11	Received Date:	02/10/2004
Sample ID:	**0023-S4-753**	Sample Matrix	Soil	Moisture %:	30.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	7.2	<7.2	U	P		04M1195L	02/12/04	02/12/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.43	13.5	J	P		04M1195L	02/12/04	02/12/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.4	146		P		04M1195L	02/12/04	02/12/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.29	<0.29	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.29	0.036	~~J~~ U	P		04M1195L	02/12/04	02/12/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.72	44.1		P		04M1195L	02/12/04	02/12/04	1	6010B
COBALT	7440-48-4	mg/kg	0.72	21.7		P		04M1195L	02/12/04	02/12/04	1	6010B
COPPER	7440-50-8	mg/kg	0.72	47.3		P		04M1195L	02/12/04	02/12/04	1	6010B
LEAD	7439-92-1	mg/kg	0.43	19.6		P		04M1195L	02/12/04	02/12/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.29	0.12	J	CV		04M1204H	02/13/04	02/13/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.29	0.59		P		04M1195L	02/12/04	02/12/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.43	31.7		P		04M1195L	02/12/04	02/12/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.58	<0.58	U J	P		04M1195L	02/12/04	02/12/04	1	6010B
SILVER	7440-22-4	mg/kg	0.72	<0.72	U	P		04M1195L	02/12/04	02/12/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.72	<0.72	U	P		04M1195L	02/12/04	02/12/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.72	87.7		P		04M1195L	02/12/04	02/12/04	1	6010B
ZINC	7440-66-6	mg/kg	0.72	129		P		04M1195L	02/12/04	02/12/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

ASH
4/08/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-12	Received Date:	02/10/2004
Sample ID:	**0023-S4-754**	Sample Matrix	Soil	Moisture %:	21.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.3	<6.3	U	P		04M1195L	02/12/04	02/12/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.38	12.4	J	P		04M1195L	02/12/04	02/12/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	151		P		04M1195L	02/12/04	02/12/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.17	J	P		04M1195L	02/12/04	02/12/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.63	33.1		P		04M1195L	02/12/04	02/12/04	1	6010B
COBALT	7440-48-4	mg/kg	0.63	18.7		P		04M1195L	02/12/04	02/12/04	1	6010B
COPPER	7440-50-8	mg/kg	0.63	39.3		P		04M1195L	02/12/04	02/12/04	1	6010B
LEAD	7439-92-1	mg/kg	0.38	18.1		P		04M1195L	02/12/04	02/12/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.20	J	CV		04M1204H	02/13/04	02/13/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.25	0.51		P		04M1195L	02/12/04	02/12/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.38	26.2		P		04M1195L	02/12/04	02/12/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.51	0.87	J	P		04M1195L	02/12/04	02/12/04	1	6010B
SILVER	7440-22-4	mg/kg	0.63	<0.63	U	P		04M1195L	02/12/04	02/12/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.63	<0.63	U	P		04M1195L	02/12/04	02/12/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.63	66.0		P		04M1195L	02/12/04	02/12/04	1	6010B
ZINC	7440-66-6	mg/kg	0.63	105		P		04M1195L	02/12/04	02/12/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

ALH 4/05/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-13	Received Date:	02/10/2004
Sample ID:	**0023-S4-755**	Sample Matrix	Soil	Moisture %:	26.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.8	<6.8	U	P		04M1195L	02/12/04	02/12/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.41	9.1	J	P		04M1195L	02/12/04	02/12/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.4	148		P		04M1195L	02/12/04	02/12/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.27	<0.27	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.27	<0.27	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.68	28.8		P		04M1195L	02/12/04	02/12/04	1	6010B
COBALT	7440-48-4	mg/kg	0.68	19.9		P		04M1195L	02/12/04	02/12/04	1	6010B
COPPER	7440-50-8	mg/kg	0.68	36.5		P		04M1195L	02/12/04	02/12/04	1	6010B
LEAD	7439-92-1	mg/kg	0.41	10.5		P		04M1195L	02/12/04	02/12/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.27	0.074	J	CV		04M1204H	02/13/04	02/13/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.27	<0.27	U	P		04M1195L	02/12/04	02/12/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.41	22.3		P		04M1195L	02/12/04	02/12/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.54	0.52	~~J~~ J	P		04M1195L	02/12/04	02/12/04	1	6010B
SILVER	7440-22-4	mg/kg	0.68	<0.68	U	P		04M1195L	02/12/04	02/12/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.68	<0.68	U	P		04M1195L	02/12/04	02/12/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.68	69.0		P		04M1195L	02/12/04	02/12/04	1	6010B
ZINC	7440-66-6	mg/kg	0.68	101		P		04M1195L	02/12/04	02/12/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA
CV - Cold Vapor

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AEH
4/05/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-14	Received Date:	02/10/2004
Sample ID:	**0023-S4-756**	Sample Matrix	Soil	Moisture %:	16.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.0	<6.0	U	P		04M1195L	02/12/04	02/12/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.36	7.0	J	P		04M1195L	02/12/04	02/12/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	139		P		04M1195L	02/12/04	02/12/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.24	<0.24	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.60	23.4		P		04M1195L	02/12/04	02/12/04	1	6010B
COBALT	7440-48-4	mg/kg	0.60	14.8		P		04M1195L	02/12/04	02/12/04	1	6010B
COPPER	7440-50-8	mg/kg	0.60	20.6		P		04M1195L	02/12/04	02/12/04	1	6010B
LEAD	7439-92-1	mg/kg	0.36	7.7		P		04M1195L	02/12/04	02/12/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.24	0.047	J	CV		04M1204H	02/13/04	02/13/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.24	0.30	U	P		04M1195L	02/12/04	02/12/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.36	17.5		P		04M1195L	02/12/04	02/12/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.48	<0.48	UJ	P		04M1195L	02/12/04	02/12/04	1	6010B
SILVER	7440-22-4	mg/kg	0.60	<0.60	U	P		04M1195L	02/12/04	02/12/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.60	<0.60	U	P		04M1195L	02/12/04	02/12/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.60	50.5		P		04M1195L	02/12/04	02/12/04	1	6010B
ZINC	7440-66-6	mg/kg	0.60	77.0		P		04M1195L	02/12/04	02/12/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL; B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control; * - Duplicate analysis out of control; W - Post digestion spike for GFAA out of control; E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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AH 4/05/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-15	Received Date:	02/10/2004
Sample ID:	**0023-S4-757**	Sample Matrix	Soil	Moisture %:	18.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.1	<6.1	U	P		04M1195L	02/12/04	02/12/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.37	8.9	J	P		04M1195L	02/12/04	02/12/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	141		P		04M1195L	02/12/04	02/12/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.15	J	P		04M1195L	02/12/04	02/12/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.61	34.4		P		04M1195L	02/12/04	02/12/04	1	6010B
COBALT	7440-48-4	mg/kg	0.61	18.8		P		04M1195L	02/12/04	02/12/04	1	6010B
COPPER	7440-50-8	mg/kg	0.61	38.7		P		04M1195L	02/12/04	02/12/04	1	6010B
LEAD	7439-92-1	mg/kg	0.37	20.1		P		04M1195L	02/12/04	02/12/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.091	J	CV		04M1204H	02/13/04	02/13/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.25	0.10	~~J~~ U	P		04M1195L	02/12/04	02/12/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.37	27.1		P		04M1195L	02/12/04	02/12/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.49	<0.49	U J	P		04M1195L	02/12/04	02/12/04	1	6010B
SILVER	7440-22-4	mg/kg	0.61	<0.61	U	P		04M1195L	02/12/04	02/12/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.61	<0.61	U	P		04M1195L	02/12/04	02/12/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.61	69.5		P		04M1195L	02/12/04	02/12/04	1	6010B
ZINC	7440-66-6	mg/kg	0.61	110		P		04M1195L	02/12/04	02/12/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL; B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control; * - Duplicate analysis out of control; W - Post digestion spike for GFAA out of control; E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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4/05/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-16	Received Date:	02/10/2004
Sample ID:	**0023-S4-758**	Sample Matrix	Soil	Moisture %:	19.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.2	<6.2	U	P		04M1195L	02/12/04	02/12/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.37	10.0	J	P		04M1195L	02/12/04	02/12/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	142		P		04M1195L	02/12/04	02/12/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.021	JU	P		04M1195L	02/12/04	02/12/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.62	30.6		P		04M1195L	02/12/04	02/12/04	1	6010B
COBALT	7440-48-4	mg/kg	0.62	17.2		P		04M1195L	02/12/04	02/12/04	1	6010B
COPPER	7440-50-8	mg/kg	0.62	29.1		P		04M1195L	02/12/04	02/12/04	1	6010B
LEAD	7439-92-1	mg/kg	0.37	13.4		P		04M1195L	02/12/04	02/12/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.063	J	CV		04M1204H	02/13/04	02/13/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.25	<0.25	U	P		04M1195L	02/12/04	02/12/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.37	22.7		P		04M1195L	02/12/04	02/12/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.50	<0.50	UJ	P		04M1195L	02/12/04	02/12/04	1	6010B
SILVER	7440-22-4	mg/kg	0.62	<0.62	U	P		04M1195L	02/12/04	02/12/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.62	<0.62	U	P		04M1195L	02/12/04	02/12/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.62	63.9		P		04M1195L	02/12/04	02/12/04	1	6010B
ZINC	7440-66-6	mg/kg	0.62	97.0		P		04M1195L	02/12/04	02/12/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

9878

MH 4/05/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-17	Received Date:	02/10/2004
Sample ID:	**0023-S4-759**	Sample Matrix	Soil	Moisture %:	4.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.2	<5.2	U	P		04M1195L	02/12/04	02/12/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.31	3.5	J	P		04M1195L	02/12/04	02/12/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.0	42.0		P		04M1195L	02/12/04	02/12/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.21	<0.21	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.21	<0.21	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.52	10.6		P		04M1195L	02/12/04	02/12/04	1	6010B
COBALT	7440-48-4	mg/kg	0.52	5.8		P		04M1195L	02/12/04	02/12/04	1	6010B
COPPER	7440-50-8	mg/kg	0.52	7.6		P		04M1195L	02/12/04	02/12/04	1	6010B
LEAD	7439-92-1	mg/kg	0.31	6.7		P		04M1195L	02/12/04	02/12/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.21	0.067	J	CV		04M1204H	02/13/04	02/13/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.21	<0.21	U	P		04M1195L	02/12/04	02/12/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.31	7.5		P		04M1195L	02/12/04	02/12/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.42	<0.42	UJ	P		04M1195L	02/12/04	02/12/04	1	6010B
SILVER	7440-22-4	mg/kg	0.52	<0.52	U	P		04M1195L	02/12/04	02/12/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.52	<0.52	U	P		04M1195L	02/12/04	02/12/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.52	21.7		P		04M1195L	02/12/04	02/12/04	1	6010B
ZINC	7440-66-6	mg/kg	0.52	29.4		P		04M1195L	02/12/04	02/12/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL; B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control; * - Duplicate analysis out of control; W - Post digestion spike for GFAA out of control; E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

9879

AH 4/05/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-18	Received Date:	02/10/2004
Sample ID:	**0023-S4-760**	Sample Matrix	Soil	Moisture %:	4.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.2	< 5.2	U	P		04M1195L	02/12/04	02/12/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.31	3.3	J	P		04M1195L	02/12/04	02/12/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.0	44.1		P		04M1195L	02/12/04	02/12/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.21	< 0.21	U	P		04M1195L	02/12/04	02/12/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.21	0.031	~~J~~ U	P		04M1195L	02/12/04	02/12/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.52	12.3		P		04M1195L	02/12/04	02/12/04	1	6010B
COBALT	7440-48-4	mg/kg	0.52	6.4		P		04M1195L	02/12/04	02/12/04	1	6010B
COPPER	7440-50-8	mg/kg	0.52	8.8		P		04M1195L	02/12/04	02/12/04	1	6010B
LEAD	7439-92-1	mg/kg	0.31	24.3		P		04M1195L	02/12/04	02/12/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.21	0.11	J	CV		04M1204H	02/13/04	02/13/04	1	7470A
MOLYBDENUM	7439-98-7	mg/kg	0.21	< 0.21	U	P		04M1195L	02/12/04	02/12/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.31	8.1		P		04M1195L	02/12/04	02/12/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.42	< 0.42	U J	P		04M1195L	02/12/04	02/12/04	1	6010B
SILVER	7440-22-4	mg/kg	0.52	< 0.52	U	P		04M1195L	02/12/04	02/12/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.52	< 0.52	U	P		04M1195L	02/12/04	02/12/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.52	24.8		P		04M1195L	02/12/04	02/12/04	1	6010B
ZINC	7440-66-6	mg/kg	0.52	30.7		P		04M1195L	02/12/04	02/12/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

ASH 1/05/04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/10/2004
Project ID:	NAVWPNSTA Seal Beach	Service ID:	41521	Collected by:	
		Lab Sample ID:	04-1521-19	Received Date:	02/10/2004
Sample ID:	**0023-S4-761**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	μg/L	10	<10	U	P		04M1194L	02/12/04	02/12/04	1	6010B
ARSENIC	7440-38-2	μg/L	5	<5	U	P		04M1194L	02/12/04	02/12/04	1	6010B
BARIUM	7440-39-3	μg/L	10	1.3	J	P		04M1194L	02/12/04	02/12/04	1	6010B
BERYLLIUM	7440-41-7	μg/L	2	<2	U	P		04M1194L	02/12/04	02/12/04	1	6010B
CADMIUM	7440-43-9	μg/L	2	<2	U	P		04M1194L	02/12/04	02/12/04	1	6010B
CHROMIUM	7440-47-3	μg/L	5	2.2	J	P		04M1194L	02/12/04	02/12/04	1	6010B
COBALT	7440-48-4	μg/L	5	<5	U	P		04M1194L	02/12/04	02/12/04	1	6010B
COPPER	7440-50-8	μg/L	10	2.8	J	P		04M1194L	02/12/04	02/12/04	1	6010B
LEAD	7439-92-1	μg/L	5	<5	U	P		04M1194L	02/12/04	02/12/04	1	6010B
MERCURY	7439-97-6	μg/L	0.5	0.080	J	CV		04M1192H	02/11/04	02/11/04	1	7470A
MOLYBDENUM	7439-98-7	μg/L	5	<5	U	P		04M1194L	02/12/04	02/12/04	1	6010B
NICKEL	7440-02-0	μg/L	5	0.55	J	P		04M1194L	02/12/04	02/12/04	1	6010B
SELENIUM	7782-49-2	μg/L	10	<10	U	P		04M1194L	02/12/04	02/12/04	1	6010B
SILVER	7440-22-4	μg/L	10	<10	U	P		04M1194L	02/12/04	02/12/04	1	6010B
THALLIUM	7440-28-0	μg/L	10	<10	U	P		04M1194L	02/12/04	02/12/04	1	6010B
VANADIUM	7440-62-2	μg/L	10	<10	U	P		04M1194L	02/12/04	02/12/04	1	6010B
ZINC	7440-66-6	μg/L	10	4.4	J	P		04M1194L	02/12/04	02/12/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Foster Wheeler Environmental
SITE NAME:	Naval Weapons Station, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1999; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRICES:	Soil & Water
TYPES OF ANALYSES:	Volatile Organics (VOA), Semivolatile Organics (SVOA), Polynuclear Aromatic Hydrocarbons (PAH), Pesticides, Polychlorinated Biphenyls (PCB), Diesel & Motor Oil, Total Metals
SDG NUMBER:	04-1521 (Level III and Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	SVOA	PAH
0023-S4-743	04-1521-1	Soil	X	X	X
0023-S4-744	04-1521-2	Soil	X	X	X
0023-S4-745	04-1521-3	Soil	X	X	X
0023-S4-746	04-1521-4	Soil	X	X	X
0023-S4-747	04-1521-5	Soil	X	X	X
0023-S4-748	04-1521-6	Soil	X	X	X
0023-S4-749	04-1521-7	Soil	X	X	X
0023-S4-750	04-1521-8	Soil	X	X	X
0023-S4-751	04-1521-9	Soil	X	X	X
0023-S4-752[2]	04-1521-10	Soil	X	X	X
0023-S4-753[1,2]	04-1521-11	Soil	X	X	X
0023-S4-754	04-1521-12	Soil	X	X	X
0023-S4-755	04-1521-13	Soil	X	X	X
0023-S4-756	04-1521-14	Soil	X	X	X
0023-S4-757	04-1521-15	Soil	X	X	X
0023-S4-758	04-1521-16	Soil	X	X	X

Client Sample #	Lab Sample #	Matrix	VOA	SVOA	PAH
0023-S4-759	04-1521-17	Soil	X	X	X
0023-S4-760	04-1521-18	Soil	X	X	X
0023-S4-761[3]	04-1521-19	Water	X	X	X
0023-S4-755MS	04-1521-13MS	Soil	X	X	X
0023-S4-755MSD	04-1521-13MSD	Soil	X	X	X

Client Sample #	Lab Sample #	Matrix	Pest	PCB
0023-S4-743	04-1521-1	Soil	X	X
0023-S4-744	04-1521-2	Soil	X	X
0023-S4-745	04-1521-3	Soil	X	X
0023-S4-746	04-1521-4	Soil	X	X
0023-S4-747	04-1521-5	Soil	X	X
0023-S4-748	04-1521-6	Soil	X	X
0023-S4-749	04-1521-7	Soil	X	X
0023-S4-750	04-1521-8	Soil	X	X
0023-S4-751	04-1521-9	Soil	X	X
0023-S4-752[2]	04-1521-10	Soil	X	X
0023-S4-753[1,2]	04-1521-11	Soil	X	X
0023-S4-754	04-1521-12	Soil	X	X
0023-S4-755	04-1521-13	Soil	X	X
0023-S4-756	04-1521-14	Soil	X	X
0023-S4-757	04-1521-15	Soil	X	X
0023-S4-758	04-1521-16	Soil	X	X
0023-S4-759	04-1521-17	Soil	X	X
0023-S4-760	04-1521-18	Soil	X	X
0023-S4-761[3]	04-1521-19	Water	X	X
0023-S4-755MS	04-1521-13MS	Soil	X	X
0023-S4-755MSD	04-1521-13MSD	Soil	X	X

Client Sample #	Lab Sample #	Matrix	Diesel / Motor Oil	Total Metals
0023-S4-743	04-1521-1	Soil	X	X
0023-S4-744	04-1521-2	Soil	X	X
0023-S4-745	04-1521-3	Soil	X	X
0023-S4-746	04-1521-4	Soil	X	X
0023-S4-747	04-1521-5	Soil	X	X
0023-S4-748	04-1521-6	Soil	X	X
0023-S4-749	04-1521-7	Soil	X	X
0023-S4-750	04-1521-8	Soil	X	X
0023-S4-751	04-1521-9	Soil	X	X
0023-S4-752[2]	04-1521-10	Soil	X	X
0023-S4-753[1,2]	04-1521-11	Soil	X	X
0023-S4-754	04-1521-12	Soil	X	X
0023-S4-755	04-1521-13	Soil	X	X
0023-S4-756	04-1521-14	Soil	X	X
0023-S4-757	04-1521-15	Soil	X	X
0023-S4-758	04-1521-16	Soil	X	X
0023-S4-759	04-1521-17	Soil	X	X

Client Sample #	Lab Sample #	Matrix	Diesel / Motor Oil	Total Metals
0023-S4-760	04-1521-18	Soil	X	X
0023-S4-761[3]	04-1521-19	Water	X	X
0023-S4-755MD	04-1521-13MD	Soil		X
0023-S4-755MS	04-1521-13MS	Soil	X	X
0023-S4-755MSD	04-1521-13MSD	Soil	X	X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

Note 1: Sample was identified for Level IV validation.
Note 2: Sample was identified as a field duplicate sample.
Note 3: Sample was identified as an equipment rinsate blank.

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1521 Organics & Inorganics

SAMPLES: 0023-S4-743, 0023-S4-744, 0023-S4-745, 0023-S4-746, 0023-S4-747, 0023-S4-748, 0023-S4-749, 0023-S4-750, 0023-S4-751, 0023-S4-752, 0023-S4-753, 0023-S4-754, 0023-S4-755, 0023-S4-756, 0023-S4-757, 0023-S4-758, 0023-S4-759, 0023-S4-760, 0023-S4-761

VOLATILE ORGANICS

SUMMARY

The non-detect result for acetone in SDG sample 0023-S4-761 was rejected (R) based on an extremely low RRF in the Initial Calibration.

All other laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

I.) Initial Calibration:

The Average Relative Response Factor (RRF) was 0.037 for aecetone in the standards analyzed on 1/28/04 on instrument G, which was below the 0.050 QC limit. The non-detect result for acetone in associated sample 0023-S4-761 was rejected (R).

II.) Continuing Calibration:

The Relative Response Factor (RRF) was 0.042 for acetone in the standards run on 2/13/04 at 13:27 on instrument G, which was below the 0.050 QC limit. The result for acetone in the associated sample was previously rejected based on the Initial Calibration, so no further action was required.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria was met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviations (%RSDs) for the standards run on 1/28/04 on instrument G exceeded the 20% QC limit for the following compounds:

bromomethane	22.6%
methylene chloride	46.1%
2-butanone	21.1%

Since the associated sample was an equipment rinsate blank, no action was required.

The Percent Relative Standard Deviations (%RSDs) for the standards run on 2/10/04 on instrument X exceeded the 20% QC limit for the following compounds:

bromomethane	46.2%
acetone	37.1%
methylene chloride	66.9%

All positive results for these compounds in the SDG samples were flagged as estimated (J).

Please also see the Major Issues section for this fraction of the SDG.

Continuing Calibration:

The Percent Differences (%D's) were 18.3% for methylene chloride and 16.5% for dibromomethane for the standards run on 2/13/04 at 13:27 on instrument G, which exceeded the 15% QC limit. Since the associated sample was an equipment rinsate blank, no action was required.

The Percent Differences (%D's) were 17.0% for acetone and 24.1% for methylene chloride in the standards run on 2/11/04 at 23:31 on instrument X, which exceeded the 15% QC limit. All positive and non-detect results for these compounds in the SDG samples were flagged as estimated (J) and (UJ).

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks associated with this SDG. No action was required.

Equipment Blanks:

Chloroform was detected at 4 ug/L in equipment rinsate blank 0023-S4-761. Since there were no positive results for chloroform in the SDG samples, no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory. All Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All MS / MSD criteria were met using SDG sample 0023-S4-755. No action was required.

VIII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

IX.) Field Duplicates:

One set of field duplicate samples (0023-S4-752 / 0023-S4-753) was identified in this SDG. Relative Percent Differences (RPDs) were not calculable. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

SEMIVOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) was 21.2% for 2,4-dinitrophenol in the standards

analyzed on 2/13/04 on instrument Z, which exceeded the 20% QC limit. All results for 2,4-dinitrophenol in the SDG samples were non-detects, so no action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 2/18/04 at 15:59 on instrument Z exceeded the 15% QC limit for the following compounds:

2,4-dinitrophenol	25.6%
4-nitrophenol	19.4%
3,3'-dichlorobenzidine	17.5%

All results for these compounds in associated SDG samples 0023-S4-758, 0023-S4-759 and 0023-S4-760, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Difference (%D) was 18.1% for 2,4-dinitrophenol in the standard run on 2/19/04 at 18:02 on instrument Z, which exceeded the 15% QC limit. All results for 2,4-dinitrophenol in the associated SDG samples, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 0023-S4-743, 0023-S4-744, 0023-S4-745, 0023-S4-746, 0023-S4-747, 0023-S4-748, 0023-S4-749, 0023-S4-750, 0023-S4-751, 0023-S4-752, 0023-S4-753, 0023-S4-754, 0023-S4-755, 0023-S4-756 and 0023-S4-757.

IV.) Blanks:

There were no detections in the blanks for this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Four LCSs were analyzed by the laboratory. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-755. A total of three Percent Recoveries (%R's) were below the QC limits. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

IX.) Field Duplicates:

One set of field duplicate samples (0023-S4-752 / 0023-S4-753) was identified in this SDG. Relative Percent Differences (RPDs) were not calculable. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

POLYNUCLEAR AROMATIC HYDROCARBONS (PAH)

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 2/13/04 at 12:59 on instrument Y exceeded the 15% QC limit for the following compounds:

naphthalene	15.1%
phenanthrene	19.1%
anthracene	18.2%
benzo(g,h,i)perylene	17.8%

Since the associated samples were QC samples, no action was required.

The Percent Differences (%D's) were 18.2% for benzo(b)fluoranthene and 17.1% for benzo(a)pyrene in the standards run on 2/13/04 at 17:25 on instrument Y, which exceeded the 15% QC limit. All positive and non-detect results for benzo(b)fluoranthene and benzo(a)pyrene in the associated SDG samples were flagged as estimated (J) and (UJ). The associated SDG samples were 0023-S4-743, 0023-S4-744,

0023-S4-745, 0023-S4-746, 0023-S4-747, 0023-S4-749, 0023-S4-750, 0023-S4-751, 0023-S4-752, 0023-S4-753, 0023-S4-754, 0023-S4-755, 0023-S4-756, 0023-S4-757, 0023-S4-758, 0023-S4-759 and 0023-S4-760.

The Percent Differences (%D's) for the standards run on 2/16/04 at 18:42 on instrument Y exceeded the 15% QC limit for the following compounds:

phenanthrene	15.7%
anthracene	16.3%
benzo(b)fluoranthene	18.0%
benzo(a)pyrene	16.5%
indeno(1,2,3-cd)pyrene	15.1%

All results for these compounds in associated SDG sample 0023-S4-748, which consisted entirely of non-detects, were flagged as estimated (UJ).

IV.) Blanks:

There were no detections in the blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Four LCSs were analyzed by the laboratory. All LCS Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-755. All MS / MSD criteria were met. No action was required.

VIII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

IX.) Field Duplicates:

One set of field duplicate samples (0023-S4-752 / 0023-S4-753) was identified in this SDG. Relative Percent Differences (RPDs) were not calculable. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

PESTICIDES

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviations (%RSD's) for the standards runs on 2/04/04 on the secondary column exceeded the 20% QC limit for the following compounds:

alpha BHC	23.0%
beta BHC	21.9%
delta BHC	29.0%
methoxychlor	20.7%

Since the exceedances were on the secondary column used for confirmation, no action was required.

Continuing Calibration:

All Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the associated blanks. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Four LCSs were analyzed for this fraction of the SDG. All LCS Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 0023-S4-755. All MS / MSD criteria were met. No action was required.

VIII.) TCL Compound Identification:

All Compound Identification criteria were met. No action was required.

IX.) Field Duplicates:

One set of field duplicate samples (0023-S4-752 / 0023-S4-753) was identified in this SDG. The calculable Relative Percent Differences (RPDs) were:

Compound	0023-S4-752	0023-S4-753	RPD
4,4'-DDD	3.0 mg/kg	4.0 mg/kg	28.6%
4,4'-DDE	18 mg/kg	19 mg/kg	5.4%
4,4'-DDT	0.3 mg/kg	0.4 mg/kg	26.7%

All RPDs were within the 60% QC limit for soil samples, so no action was required.

X.) Pesticide Cleanup Check:

Florisil Cartridge Check:

Florisil data was not provided. No action was required.

Gel Permeation Chromatography (GPC):

GPC data was not provided. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

POLYCHLORINATED BIPHENYLS (PCBs)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the associated method and equipment blanks. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met in the four LCSs analyzed for this fraction. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All MS / MSD criteria were met using SDG sample 0023-S4-755. No action was required.

VIII.) TCL Compound Identification:

All Compound Identification criteria were met. No action was required.

IX.) Field Duplicates:

One set of field duplicate samples (0023-S4-752 / 0023-S4-753) was identified in this SDG. Relative Percent Differences (RPDs) were not calculated. No action was required.

X.) Pesticide Cleanup Check:

Florisil Cartridge Check:

Florisil data were not provided. No action was required.

Gel Permeation Chromatography (GPC):

GPC data were not provided. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

DIESEL AND MOTOR OIL

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

Instrument Performance criteria was not required. No action was taken.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the associated blanks. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met in the four LCSs analyzed for this fraction. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All MS / MSD criteria were met using SDG sample 0023-S4-755. No action was required.

VIII.) TCL Compound Identification:

All Compound Identification criteria were met. No action was required.

IX.) Field Duplicates:

One set of field duplicate samples (0023-S4-752 / 0023-S4-753) was identified in this SDG. Relative Percent Differences (RPDs) were not calculable. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

TOTAL METALS

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

The following analytes were detected in the blanks associated with this SDG:

Blank ID	Analyte	Detection	Action Level
CCB4	antimony	4.01 ug/L	1.00 mg/kg
ICB	arsenic	1.84 ug/L	0.46 mg/kg
CCB1	barium	0.85 ug/L	0.21 mg/kg
CCB2	beryllium	0.29 ug/L	0.29 mg/kg
CCB2	cadmium	0.40 ug/L	0.07 mg/kg
CCB2	chromium	0.36 ug/L	0.09 mg/kg
CCB2	cobalt	1.01 ug/L	0.25 mg/kg
CCB1	copper	4.95 ug/L	1.24 mg/kg

Blank ID	Analyte	Detection	Action Level
CCB2	molybdenum	1.74 ug/L	0.44 mg/kg
CCB2	nickel	0.40 ug/L	0.10 mg/kg
CCB6	silver	1.48 ug/L	0.37 mg/kg
CCB5	thallium	3.20 ug/L	0.80 mg/kg
CCB2	vanadium	0.93 ug/L	0.24 mg/kg
CCB2	zinc	1.74 ug/L	0.44 mg/kg

All positive results for these analytes in the SDG samples less than the action level were flagged as undetected (U).

The following negative results were reported in the blanks associated with this SDG:

Blank ID	Analyte	Result	Action Level
CCB3	lead	-2.69 ug/L	0.67 mg/kg
CCB4	selenium	-4.69 ug/L	1.17 mg/kg

All positive results for these analytes in the SDG samples less than the action level and all non-detect results were flagged as estimated (J) and (UJ).

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-755. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (0023-S4-752 / 0023-S4-753) was identified for this SDG. The calculable Relative Percent Differences (RPDs) were:

Analyte	0023-S4-752	0023-S4-753	RPD
arsenic	9.1 mg/kg	13.5 mg/kg	39%
barium	173 mg/kg	146 mg/kg	17%
chromium	31.7 mg/kg	44.1 mg/kg	33%
cobalt	18.4 mg/kg	21.7 mg/kg	16%
copper	30.9 mg/kg	47.3 mg/kg	42%

Analyte	0023-S4-752	0023-S4-753	RPD
lead	13.4 mg/kg	19.6 mg/kg	38%
nickel	23.5 mg/kg	31.7 mg/kg	30%
vanadium	63.7 mg/kg	87.7 mg/kg	32%
zinc	96.5 mg/kg	129 mg/kg	29%

All RPDs were within the 60% QC limit for soil samples. No action was required.

IX.) Serial Dilution Analysis:

The Percent Difference (%D) was 14% for arsenic in the Serial Dilution Analysis of sample 0023-S4-755. All positive results for arsenic in the SDG samples were flagged as estimated (J).

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05461

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4 & 7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Amanda Johnson	SAMPLER SIGNATURE: Amanda Johnson
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1558 (04-1797-TCLP STOCS)

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	Title 22 Metals	EPA 5035/8260B	EPA 8270C	EPA 8081A	EPA 8082	STLC Pb	STLC Cr (Added 2/18/04)	TCLP Pb		TCLP STOCS (Added 2/24/04 TCLP TAT)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-762	2/11/04	0743	9	X		S	5 day	X	X	X	X	X	X	X	X		X		Stockpile B12	—	—	Reg
0023-S4-763	2/11/04	0831	5	X		S	5 day	X					X		X				Stockpile A13	—	—	Reg
0023-S4-764	2/11/04	0857	5	X		S	5 day	X					X	X	X				Stockpile B13	—	—	Reg
0023-S4-765	2/11/04	0956	9	X		S	5 day	X	X	X	X	X	X		X				Stockpile A14	—	—	Reg
0023-S4-766	2/11/04	1012	5	X		S	5 day	X						X	X				Stockpile B14	—	—	Reg
0023-S4-767	2/11/04	1041	5	X		S	5 day	X						X	X				Stockpile A15	—	—	Reg
0023-S4-768	2/11/04	1108	9	X		S	5 day	X	X	X	X	X	X		X				Stockpile B15	—	—	Reg
0023-S4-769	2/11/04	1250	5	X		S	5 day	X					X	X	X				Stockpile C1	—	—	Reg
0023-S4-770	2/11/04	1306	5	X		S	5 day	X					X	X	X				Stockpile C2	—	—	Reg
0023-S4-771	2/11/04	1320	9	X		S	5 day	X	X	X	X	X	X	X	X		X	Run MS/~~MS~~ MSD	Stockpile ~~B2~~ D1	—	—	Reg
0023-S4-772	2/11/04	1354	5	X		S	5 day	X					X		X				Stockpile ~~B1~~ D2	—	—	Reg

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Amanda Johnson	2/11/04	[signature]
COMPANY: TIFWI	TIME: 4:10	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: Composite all 5 jars per sample before analysis

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Stockpile #1 Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1558 04-1797

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05463

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4 & 7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPN STA, Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Amanda Johnson	SAMPLER SIGNATURE: Amanda Johnson
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1558

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	Title 22 Metals	EPA 5035/8260B	EPA 8270C	EPA 8051A	EPA 8082	STLC Cr	STLC Pb	TCLP Pb			COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-54-773	2/11/04	1407	5	X		S	5 day	X					X	X	X				Stockpile E1	–	–	Reg
0023-54-774	2/11/04	1429	9	X		S	5 day	X	X	X	X	X	X		X				Stockpile E2	–	–	Reg

AJ 2/11/04

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Amanda Johnson	2/11/04	[illegible]
COMPANY: AFWI	TIME: 4:10	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: Composite all 5 jars per sample before analysis

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Stockpile #1 Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1558

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-1	Received Date:	02/11/2004
Sample ID:	**0023-S4-762**	Sample Matrix	Soil	Moisture %:	25.2
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/14/04	Anal. Date:	02/14/04
Batch No:	04G1402	Prep. No:	–	Anal. Time:	12:46
Data File Name:	1558-01	Sample Amount:	5.31 g	Dilution Factor:	0.94
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	63	<63	U
2	BENZENE	71-43-2	µg/kg	6.3	<6.3	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.3	<6.3	U
4	BROMOFORM	75-25-2	µg/kg	6.3	<6.3	U
5	BROMOMETHANE	74-83-9	µg/kg	6.3	<6.3	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	63	<63	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.3	<6.3	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.3	<6.3	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.3	<6.3	U
10	CHLOROETHANE	75-00-3	µg/kg	6.3	<6.3	U
11	CHLOROFORM	67-66-3	µg/kg	6.3	<6.3	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.3	<6.3	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.3	<6.3	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.3	<6.3	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.3	<6.3	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.3	<6.3	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.3	<6.3	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.3	<6.3	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.3	<6.3	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.3	<6.3	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.3	<6.3	U
22	2-HEXANONE	591-78-6	µg/kg	63	<63	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.3	<6.3	U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	63	<63	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	13	<13	U
26	STYRENE	100-42-5	µg/kg	6.3	<6.3	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.3	<6.3	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.3	<6.3	U
29	TOLUENE	108-88-3	µg/kg	6.3	<6.3	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.3	<6.3	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.3	<6.3	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.3	<6.3	U
33	VINYL ACETATE	108-05-4	µg/kg	63	<63	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.3	<6.3	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.3	<6.3	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	108
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	109

Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	113
4	TOLUENE-D8	2037-26-5	80-120	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	109
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	105
3	FLUOROBENZENE	462-06-6	50-200	82
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-4	Received Date:	02/11/2004
Sample ID:	**0023-S4-765**	Sample Matrix	Soil	Moisture %:	18.6
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/14/04	Anal. Date:	02/14/04
Batch No:	04G1402	Prep. No:	–	Anal. Time:	13:12
Data File Name:	1558-04	Sample Amount:	5.06 g	Dilution Factor:	0.99
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	61	<61	U
2	BENZENE	71-43-2	µg/kg	6.1	<6.1	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.1	<6.1	U
4	BROMOFORM	75-25-2	µg/kg	6.1	<6.1	U
5	BROMOMETHANE	74-83-9	µg/kg	6.1	<6.1	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	61	<61	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.1	<6.1	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.1	<6.1	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.1	<6.1	U
10	CHLOROETHANE	75-00-3	µg/kg	6.1	<6.1	U
11	CHLOROFORM	67-66-3	µg/kg	6.1	<6.1	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.1	<6.1	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.1	<6.1	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.1	<6.1	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.1	<6.1	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.1	<6.1	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.1	<6.1	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.1	<6.1	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.1	<6.1	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.1	<6.1	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.1	<6.1	U
22	2-HEXANONE	591-78-6	µg/kg	61	<61	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.1	<6.1	U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	61	<61	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	12	<12	U
26	STYRENE	100-42-5	µg/kg	6.1	<6.1	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.1	<6.1	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.1	<6.1	U
29	TOLUENE	108-88-3	µg/kg	6.1	<6.1	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.1	<6.1	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.1	<6.1	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.1	<6.1	U
33	VINYL ACETATE	108-05-4	µg/kg	61	<61	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.1	<6.1	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.1	<6.1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	108
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	110

Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	115
4	TOLUENE-D8	2037-26-5	80-120	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	105
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	100
3	FLUOROBENZENE	462-06-6	50-200	78
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-7	Received Date:	02/11/2004
Sample ID:	**0023-S4-768**	Sample Matrix	Soil	Moisture %:	13.1
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/14/04	Anal. Date:	02/14/04
Batch No:	04G1402	Prep. No:	–	Anal. Time:	13:38
Data File Name:	1558-07	Sample Amount:	4.2 g	Dilution Factor:	1.19
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	68	<68	U
2	BENZENE	71-43-2	µg/kg	6.8	<6.8	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.8	<6.8	U
4	BROMOFORM	75-25-2	µg/kg	6.8	<6.8	U
5	BROMOMETHANE	74-83-9	µg/kg	6.8	<6.8	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	68	<68	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.8	<6.8	U
8	CHLOROBENZENE	108-90-7	µg/kg	6.8	<6.8	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.8	<6.8	U
10	CHLOROETHANE	75-00-3	µg/kg	6.8	<6.8	U
11	CHLOROFORM	67-66-3	µg/kg	6.8	<6.8	U
12	CHLOROMETHANE	74-87-3	µg/kg	6.8	<6.8	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.8	<6.8	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.8	<6.8	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.8	<6.8	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.8	<6.8	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.8	<6.8	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.8	<6.8	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.8	<6.8	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.8	<6.8	U
21	ETHYLBENZENE	100-41-4	µg/kg	6.8	<6.8	U
22	2-HEXANONE	591-78-6	µg/kg	68	<68	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	6.8	<6.8	U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	68	<68	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	14	<14	U
26	STYRENE	100-42-5	µg/kg	6.8	<6.8	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.8	<6.8	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	6.8	<6.8	U
29	TOLUENE	108-88-3	µg/kg	6.8	<6.8	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.8	<6.8	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.8	<6.8	U
32	TRICHLOROETHENE	79-01-6	µg/kg	6.8	<6.8	U
33	VINYL ACETATE	108-05-4	µg/kg	68	<68	U
34	VINYL CHLORIDE	75-01-4	µg/kg	6.8	<6.8	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	6.8	<6.8	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	109
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	107

Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	110
4	TOLUENE-D8	2037-26-5	80-120	99
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	110
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	105
3	FLUOROBENZENE	462-06-6	50-200	83
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-10	Received Date:	02/11/2004
Sample ID:	**0023-S4-771**	Sample Matrix	Soil	Moisture %:	21.9
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/14/04	Anal. Date:	02/14/04
Batch No:	04G1402	Prep. No:	–	Anal. Time:	14:04
Data File Name:	1558-10	Sample Amount:	3.87 g	Dilution Factor:	1.29
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	83	<83	U
2	BENZENE	71-43-2	µg/kg	8.3	<8.3	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	8.3	<8.3	U
4	BROMOFORM	75-25-2	µg/kg	8.3	<8.3	U
5	BROMOMETHANE	74-83-9	µg/kg	8.3	<8.3	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	83	<83	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	8.3	<8.3	U
8	CHLOROBENZENE	108-90-7	µg/kg	8.3	<8.3	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	8.3	<8.3	U
10	CHLOROETHANE	75-00-3	µg/kg	8.3	<8.3	U
11	CHLOROFORM	67-66-3	µg/kg	8.3	<8.3	U
12	CHLOROMETHANE	74-87-3	µg/kg	8.3	<8.3	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	8.3	<8.3	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	8.3	<8.3	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	8.3	<8.3	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	8.3	<8.3	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	8.3	<8.3	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	8.3	<8.3	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	8.3	<8.3	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	8.3	<8.3	U
21	ETHYLBENZENE	100-41-4	µg/kg	8.3	<8.3	U
22	2-HEXANONE	591-78-6	µg/kg	83	<83	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	8.3	<8.3	U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	83	<83	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	17	<17	U
26	STYRENE	100-42-5	µg/kg	8.3	<8.3	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	8.3	<8.3	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	8.3	<8.3	U
29	TOLUENE	108-88-3	µg/kg	8.3	<8.3	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	8.3	<8.3	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	8.3	<8.3	U
32	TRICHLOROETHENE	79-01-6	µg/kg	8.3	<8.3	U
33	VINYL ACETATE	108-05-4	µg/kg	83	<83	U
34	VINYL CHLORIDE	75-01-4	µg/kg	8.3	<8.3	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	8.3	<8.3	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	106
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	107

Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	108
4	TOLUENE-D8	2037-26-5	80-120	98
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	104
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	99
3	FLUOROBENZENE	462-06-6	50-200	78
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-13	Received Date:	02/11/2004
Sample ID:	**0023-S4-774**	Sample Matrix	Soil	Moisture %:	36.5
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/14/04	Anal. Date:	02/14/04
Batch No:	04G1402	Prep. No:	–	Anal. Time:	14:30
Data File Name:	1558-13	Sample Amount:	3.76 g	Dilution Factor:	1.33
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	100	90	J
2	BENZENE	71-43-2	µg/kg	10	<10	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	10	<10	U
4	BROMOFORM	75-25-2	µg/kg	10	<10	U
5	BROMOMETHANE	74-83-9	µg/kg	10	<10	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	100	<100	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	10	<10	U
8	CHLOROBENZENE	108-90-7	µg/kg	10	<10	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	10	<10	U
10	CHLOROETHANE	75-00-3	µg/kg	10	<10	U
11	CHLOROFORM	67-66-3	µg/kg	10	<10	U
12	CHLOROMETHANE	74-87-3	µg/kg	10	<10	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	10	<10	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	10	<10	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	10	<10	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	10	<10	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	10	<10	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	10	<10	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	10	<10	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	10	<10	U
21	ETHYLBENZENE	100-41-4	µg/kg	10	<10	U
22	2-HEXANONE	591-78-6	µg/kg	100	<100	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	10	<10	U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	100	<100	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	21	<21	U
26	STYRENE	100-42-5	µg/kg	10	<10	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	10	<10	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	10	<10	U
29	TOLUENE	108-88-3	µg/kg	10	<10	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	10	<10	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	10	<10	U
32	TRICHLOROETHENE	79-01-6	µg/kg	10	<10	U
33	VINYL ACETATE	108-05-4	µg/kg	100	<100	U
34	VINYL CHLORIDE	75-01-4	µg/kg	10	<10	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	107
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	106

Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	110
4	TOLUENE-D8	2037-26-5	80-120	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	104
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	98
3	FLUOROBENZENE	462-06-6	50-200	81
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/13/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	
		Lab Sample ID:	04G1395-MB-01	Received Date:	02/13/2004
Sample ID:	**04G1395-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/13/04	Anal. Date:	02/16/04
Batch No:	04G1395	Prep. No:	1 of 1	Anal. Time:	12:55
Data File Name:	G1395K01	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	330	<330	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	330	<330	U
3	ANTHRACENE	120-12-7	µg/kg	330	<330	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	330	<330	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	330	<330	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	330	<330	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	330	<330	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	330	<330	U
9	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	330	<330	U
10	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	330	<330	U
11	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	330	<330	U
12	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	330	<330	U
13	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	330	<330	U
14	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	330	<330	U
15	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	330	<330	U
16	4-CHLOROANILINE	106-47-8	µg/kg	760	<760	U
17	2-CHLORONAPHTHALENE	91-58-7	µg/kg	330	<330	U
18	2-CHLOROPHENOL	95-57-8	µg/kg	330	<330	U
19	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	330	<330	U
20	CHRYSENE	218-01-9	µg/kg	330	<330	U
21	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	330	<330	U
22	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	330	<330	U
23	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	330	<330	U
24	DIBENZOFURAN	132-64-9	µg/kg	330	<330	U
25	1,2-DICHLOROBENZENE	95-50-1	µg/kg	330	<330	U
26	1,3-DICHLOROBENZENE	541-73-1	µg/kg	330	<330	U
27	1,4-DICHLOROBENZENE	106-46-7	µg/kg	330	<330	U
28	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	660	<660	U
29	2,4-DICHLOROPHENOL	120-83-2	µg/kg	330	<330	U
30	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	330	<330	U
31	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	330	<330	U
32	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	330	<330	U
33	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	1600	<1600	U
34	2,4-DINITROPHENOL	51-28-5	µg/kg	1600	<1600	U
35	2,4-DINITROTOLUENE	121-14-2	µg/kg	330	<330	U
36	2,6-DINITROTOLUENE	606-20-2	µg/kg	330	<330	U
37	FLUORANTHENE	206-44-0	µg/kg	330	<330	U
38	FLUORENE	86-73-7	µg/kg	330	<330	U
39	HEXACHLOROBENZENE	118-74-1	µg/kg	330	<330	U
40	HEXACHLOROBUTADIENE	87-68-3	µg/kg	330	<330	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	1600	<1600	U
42	HEXACHLOROETHANE	67-72-1	µg/kg	330	<330	U
43	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	330	<330	U
44	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	330	<330	U
45	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	330	<330	U
46	NAPHTHALENE	91-20-3	µg/kg	330	<330	U
47	2-NITROANILINE	88-74-4	µg/kg	1600	<1600	U
48	3-NITROANILINE	99-09-2	µg/kg	1600	<1600	U
49	4-NITROANILINE	100-01-6	µg/kg	1600	<1600	U
50	NITROBENZENE	98-95-3	µg/kg	330	<330	U
51	2-NITROPHENOL	88-75-5	µg/kg	330	<330	U
52	4-NITROPHENOL	100-02-7	µg/kg	1600	<1600	U
53	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	330	<330	U
54	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	660	<660	U
55	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	1600	<1600	U
56	PHENANTHRENE	85-01-8	µg/kg	330	<330	U
57	PHENOL	108-95-2	µg/kg	330	<330	U
58	PYRENE	129-00-0	µg/kg	330	<330	U
59	PYRIDINE	110-86-1	µg/kg	330	<330	U
60	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	330	<330	U
61	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	1600	<1600	U
62	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	330	<330	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	61
2	2-FLUOROPHENOL	367-12-4	30-120	65
3	NITROBENZENE-D5	4165-60-0	40-135	56
4	PHENOL-D5	4165-62-2	20-120	49
5	TERPHENYL-D14	1718-51-0	40-135	80
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	51
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	98
2	CHRYSENE-D12	1719-03-5	50-200	101
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	101
4	NAPHTHALENE-D8	1146-65-2	50-200	98
5	PERYLENE-D12	1520-96-3	50-200	89
6	PHENANTHRENE-D10	1517-22-2	50-200	103
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-1	Received Date:	02/11/2004
Sample ID:	**0023-S4-762**	Sample Matrix	Soil	Moisture %:	25.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/13/04	Anal. Date:	02/16/04
Batch No:	04G1395	Prep. No:	1 of 1	Anal. Time:	20:27
Data File Name:	1558-01	Sample Amount:	30.0 g	Dilution Factor:	16
Extract Vol.	4.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	7100	<7100	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	7100	<7100	U
3	ANTHRACENE	120-12-7	µg/kg	7100	<7100	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	7100	<7100	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	7100	<7100	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	7100	<7100	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	7100	<7100	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	7100	<7100	U
9	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	7100	<7100	U
10	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	7100	<7100	U
11	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	7100	<7100	U
12	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	7100	890	J
13	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	7100	<7100	U
14	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	7100	<7100	U
15	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	7100	<7100	U
16	4-CHLOROANILINE	106-47-8	µg/kg	16000	<16000	U
17	2-CHLORONAPHTHALENE	91-58-7	µg/kg	7100	<7100	U
18	2-CHLOROPHENOL	95-57-8	µg/kg	7100	<7100	U
19	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	7100	<7100	U
20	CHRYSENE	218-01-9	µg/kg	7100	<7100	U
21	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	7100	<7100	U
22	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	7100	<7100	U
23	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	7100	<7100	U
24	DIBENZOFURAN	132-64-9	µg/kg	7100	<7100	U
25	1,2-DICHLOROBENZENE	95-50-1	µg/kg	7100	<7100	U
26	1,3-DICHLOROBENZENE	541-73-1	µg/kg	7100	<7100	U
27	1,4-DICHLOROBENZENE	106-46-7	µg/kg	7100	<7100	U
28	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	14000	<14000	U
29	2,4-DICHLOROPHENOL	120-83-2	µg/kg	7100	<7100	U
30	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	7100	<7100	U
31	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	7100	<7100	U
32	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	7100	<7100	U
33	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	34000	<34000	U
34	2,4-DINITROPHENOL	51-28-5	µg/kg	34000	<34000	U
35	2,4-DINITROTOLUENE	121-14-2	µg/kg	7100	<7100	U
36	2,6-DINITROTOLUENE	606-20-2	µg/kg	7100	<7100	U
37	FLUORANTHENE	206-44-0	µg/kg	7100	<7100	U
38	FLUORENE	86-73-7	µg/kg	7100	<7100	U
39	HEXACHLOROBENZENE	118-74-1	µg/kg	7100	<7100	U
40	HEXACHLOROBUTADIENE	87-68-3	µg/kg	7100	<7100	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	34000	<34000	U
42	HEXACHLOROETHANE	67-72-1	µg/kg	7100	<7100	U
43	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	7100	<7100	U
44	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	7100	<7100	U
45	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	7100	<7100	U
46	NAPHTHALENE	91-20-3	µg/kg	7100	<7100	U
47	2-NITROANILINE	88-74-4	µg/kg	34000	<34000	U
48	3-NITROANILINE	99-09-2	µg/kg	34000	<34000	U
49	4-NITROANILINE	100-01-6	µg/kg	34000	<34000	U
50	NITROBENZENE	98-95-3	µg/kg	7100	<7100	U
51	2-NITROPHENOL	88-75-5	µg/kg	7100	<7100	U
52	4-NITROPHENOL	100-02-7	µg/kg	34000	<34000	U
53	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	7100	<7100	U
54	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	14000	<14000	U
55	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	34000	<34000	U
56	PHENANTHRENE	85-01-8	µg/kg	7100	<7100	U
57	PHENOL	108-95-2	µg/kg	7100	<7100	U
58	PYRENE	129-00-0	µg/kg	7100	<7100	U
59	PYRIDINE	110-86-1	µg/kg	7100	<7100	U
60	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	7100	<7100	U
61	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	34000	<34000	U
62	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	7100	<7100	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	53
2	2-FLUOROPHENOL	367-12-4	30-120	51
3	NITROBENZENE-D5	4165-60-0	40-135	41
4	PHENOL-D5	4165-62-2	20-120	27
5	TERPHENYL-D14	1718-51-0	40-135	80
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	33
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	114
2	CHRYSENE-D12	1719-03-5	50-200	110
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	116
4	NAPHTHALENE-D8	1146-65-2	50-200	111
5	PERYLENE-D12	1520-96-3	50-200	86
6	PHENANTHRENE-D10	1517-22-2	50-200	118
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-4	Received Date:	02/11/2004
Sample ID:	**0023-S4-765**	Sample Matrix	Soil	Moisture %:	18.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/13/04	Anal. Date:	02/16/04
Batch No:	04G1395	Prep. No:	1 of 1	Anal. Time:	19:09
Data File Name:	1558-04	Sample Amount:	30.0 g	Dilution Factor:	4
Extract Vol.	4.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	1600	<1600	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	1600	<1600	U
3	ANTHRACENE	120-12-7	µg/kg	1600	<1600	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	1600	<1600	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	1600	<1600	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	1600	<1600	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	1600	<1600	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	1600	<1600	U
9	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	1600	<1600	U
10	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	1600	<1600	U
11	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	1600	<1600	U
12	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	1600	<1600	U
13	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	1600	<1600	U
14	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	1600	<1600	U
15	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	1600	<1600	U
16	4-CHLOROANILINE	106-47-8	µg/kg	3700	<3700	U
17	2-CHLORONAPHTHALENE	91-58-7	µg/kg	1600	<1600	U
18	2-CHLOROPHENOL	95-57-8	µg/kg	1600	<1600	U
19	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	1600	<1600	U
20	CHRYSENE	218-01-9	µg/kg	1600	<1600	U
21	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	1600	<1600	U
22	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	1600	<1600	U
23	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	1600	<1600	U
24	DIBENZOFURAN	132-64-9	µg/kg	1600	<1600	U
25	1,2-DICHLOROBENZENE	95-50-1	µg/kg	1600	<1600	U
26	1,3-DICHLOROBENZENE	541-73-1	µg/kg	1600	<1600	U
27	1,4-DICHLOROBENZENE	106-46-7	µg/kg	1600	<1600	U
28	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	3200	<3200	U
29	2,4-DICHLOROPHENOL	120-83-2	µg/kg	1600	<1600	U
30	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	1600	<1600	U
31	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	1600	<1600	U
32	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	1600	<1600	U
33	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	7900	<7900	U
34	2,4-DINITROPHENOL	51-28-5	µg/kg	7900	<7900	U
35	2,4-DINITROTOLUENE	121-14-2	µg/kg	1600	<1600	U
36	2,6-DINITROTOLUENE	606-20-2	µg/kg	1600	<1600	U
37	FLUORANTHENE	206-44-0	µg/kg	1600	<1600	U
38	FLUORENE	86-73-7	µg/kg	1600	<1600	U
39	HEXACHLOROBENZENE	118-74-1	µg/kg	1600	<1600	U
40	HEXACHLOROBUTADIENE	87-68-3	µg/kg	1600	<1600	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	7900	<7900	U
42	HEXACHLOROETHANE	67-72-1	µg/kg	1600	<1600	U
43	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	1600	<1600	U
44	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	1600	<1600	U
45	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	1600	<1600	U
46	NAPHTHALENE	91-20-3	µg/kg	1600	<1600	U
47	2-NITROANILINE	88-74-4	µg/kg	7900	<7900	U
48	3-NITROANILINE	99-09-2	µg/kg	7900	<7900	U
49	4-NITROANILINE	100-01-6	µg/kg	7900	<7900	U
50	NITROBENZENE	98-95-3	µg/kg	1600	<1600	U
51	2-NITROPHENOL	88-75-5	µg/kg	1600	<1600	U
52	4-NITROPHENOL	100-02-7	µg/kg	7900	<7900	U
53	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	1600	<1600	U
54	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	3200	<3200	U
55	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	7900	<7900	U
56	PHENANTHRENE	85-01-8	µg/kg	1600	<1600	U
57	PHENOL	108-95-2	µg/kg	1600	<1600	U
58	PYRENE	129-00-0	µg/kg	1600	<1600	U
59	PYRIDINE	110-86-1	µg/kg	1600	<1600	U
60	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	1600	<1600	U
61	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	7900	<7900	U
62	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	1600	<1600	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	25
2	2-FLUOROPHENOL	367-12-4	30-120	25
3	NITROBENZENE-D5	4165-60-0	40-135	20
4	PHENOL-D5	4165-62-2	20-120	14
5	TERPHENYL-D14	1718-51-0	40-135	41
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	19
# of out-of-control				5

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	95
2	CHRYSENE-D12	1719-03-5	50-200	87
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	96
4	NAPHTHALENE-D8	1146-65-2	50-200	91
5	PERYLENE-D12	1520-96-3	50-200	60
6	PHENANTHRENE-D10	1517-22-2	50-200	100
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-7	Received Date:	02/11/2004
Sample ID:	**0023-S4-768**	Sample Matrix	Soil	Moisture %:	13.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/13/04	Anal. Date:	02/16/04
Batch No:	04G1395	Prep. No:	1 of 1	Anal. Time:	19:48
Data File Name:	1558-07	Sample Amount:	30.0 g	Dilution Factor:	4
Extract Vol.	4.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	1500	<1500	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	1500	<1500	U
3	ANTHRACENE	120-12-7	µg/kg	1500	<1500	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	1500	<1500	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	1500	<1500	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	1500	<1500	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	1500	<1500	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	1500	<1500	U
9	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	1500	<1500	U
10	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	1500	<1500	U
11	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	1500	<1500	U
12	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	1500	<1500	U
13	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	1500	<1500	U
14	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	1500	<1500	U
15	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	1500	<1500	U
16	4-CHLOROANILINE	106-47-8	µg/kg	3500	<3500	U
17	2-CHLORONAPHTHALENE	91-58-7	µg/kg	1500	<1500	U
18	2-CHLOROPHENOL	95-57-8	µg/kg	1500	<1500	U
19	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	1500	<1500	U
20	CHRYSENE	218-01-9	µg/kg	1500	<1500	U
21	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	1500	<1500	U
22	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	1500	<1500	U
23	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	1500	<1500	U
24	DIBENZOFURAN	132-64-9	µg/kg	1500	<1500	U
25	1,2-DICHLOROBENZENE	95-50-1	µg/kg	1500	<1500	U
26	1,3-DICHLOROBENZENE	541-73-1	µg/kg	1500	<1500	U
27	1,4-DICHLOROBENZENE	106-46-7	µg/kg	1500	<1500	U
28	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	3000	<3000	U
29	2,4-DICHLOROPHENOL	120-83-2	µg/kg	1500	<1500	U
30	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	1500	<1500	U
31	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	1500	<1500	U
32	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	1500	<1500	U
33	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	7400	<7400	U
34	2,4-DINITROPHENOL	51-28-5	µg/kg	7400	<7400	U
35	2,4-DINITROTOLUENE	121-14-2	µg/kg	1500	<1500	U
36	2,6-DINITROTOLUENE	606-20-2	µg/kg	1500	<1500	U
37	FLUORANTHENE	206-44-0	µg/kg	1500	<1500	U
38	FLUORENE	86-73-7	µg/kg	1500	<1500	U
39	HEXACHLOROBENZENE	118-74-1	µg/kg	1500	<1500	U
40	HEXACHLOROBUTADIENE	87-68-3	µg/kg	1500	<1500	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	7400	<7400	U
42	HEXACHLOROETHANE	67-72-1	µg/kg	1500	<1500	U
43	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	1500	<1500	U
44	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	1500	<1500	U
45	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	1500	<1500	U
46	NAPHTHALENE	91-20-3	µg/kg	1500	<1500	U
47	2-NITROANILINE	88-74-4	µg/kg	7400	<7400	U
48	3-NITROANILINE	99-09-2	µg/kg	7400	<7400	U
49	4-NITROANILINE	100-01-6	µg/kg	7400	<7400	U
50	NITROBENZENE	98-95-3	µg/kg	1500	<1500	U
51	2-NITROPHENOL	88-75-5	µg/kg	1500	<1500	U
52	4-NITROPHENOL	100-02-7	µg/kg	7400	<7400	U
53	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	1500	<1500	U
54	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	3000	<3000	U
55	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	7400	<7400	U
56	PHENANTHRENE	85-01-8	µg/kg	1500	<1500	U
57	PHENOL	108-95-2	µg/kg	1500	<1500	U
58	PYRENE	129-00-0	µg/kg	1500	<1500	U
59	PYRIDINE	110-86-1	µg/kg	1500	<1500	U
60	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	1500	<1500	U
61	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	7400	<7400	U
62	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	1500	<1500	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	46
2	2-FLUOROPHENOL	367-12-4	30-120	36
3	NITROBENZENE-D5	4165-60-0	40-135	39
4	PHENOL-D5	4165-62-2	20-120	25
5	TERPHENYL-D14	1718-51-0	40-135	67
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	39
# of out-of-control				1

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	105
2	CHRYSENE-D12	1719-03-5	50-200	99
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	107
4	NAPHTHALENE-D8	1146-65-2	50-200	103
5	PERYLENE-D12	1520-96-3	50-200	77
6	PHENANTHRENE-D10	1517-22-2	50-200	109
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-10	Received Date:	02/11/2004
Sample ID:	**0023-S4-771**	Sample Matrix	Soil	Moisture %:	21.9
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/13/04	Anal. Date:	02/16/04
Batch No:	04G1395	Prep. No:	1 of 1	Anal. Time:	21:07
Data File Name:	1558-10	Sample Amount:	30.0 g	Dilution Factor:	16
Extract Vol.	4.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	6800	<6800	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	6800	<6800	U
3	ANTHRACENE	120-12-7	µg/kg	6800	<6800	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	6800	<6800	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	6800	<6800	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	6800	<6800	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	6800	<6800	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	6800	<6800	U
9	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	6800	<6800	U
10	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	6800	<6800	U
11	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	6800	<6800	U
12	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	6800	<6800	U
13	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	6800	<6800	U
14	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	6800	<6800	U
15	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	6800	<6800	U
16	4-CHLOROANILINE	106-47-8	µg/kg	16000	<16000	U
17	2-CHLORONAPHTHALENE	91-58-7	µg/kg	6800	<6800	U
18	2-CHLOROPHENOL	95-57-8	µg/kg	6800	<6800	U
19	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	6800	<6800	U
20	CHRYSENE	218-01-9	µg/kg	6800	<6800	U
21	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	6800	<6800	U
22	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	6800	<6800	U
23	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	6800	<6800	U
24	DIBENZOFURAN	132-64-9	µg/kg	6800	<6800	U
25	1,2-DICHLOROBENZENE	95-50-1	µg/kg	6800	<6800	U
26	1,3-DICHLOROBENZENE	541-73-1	µg/kg	6800	<6800	U
27	1,4-DICHLOROBENZENE	106-46-7	µg/kg	6800	<6800	U
28	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	14000	<14000	U
29	2,4-DICHLOROPHENOL	120-83-2	µg/kg	6800	<6800	U
30	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	6800	<6800	U
31	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	6800	<6800	U
32	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	6800	<6800	U
33	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	33000	<33000	U
34	2,4-DINITROPHENOL	51-28-5	µg/kg	33000	<33000	U
35	2,4-DINITROTOLUENE	121-14-2	µg/kg	6800	<6800	U
36	2,6-DINITROTOLUENE	606-20-2	µg/kg	6800	<6800	U
37	FLUORANTHENE	206-44-0	µg/kg	6800	<6800	U
38	FLUORENE	86-73-7	µg/kg	6800	<6800	U
39	HEXACHLOROBENZENE	118-74-1	µg/kg	6800	<6800	U
40	HEXACHLOROBUTADIENE	87-68-3	µg/kg	6800	<6800	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	33000	<33000	U
42	HEXACHLOROETHANE	67-72-1	µg/kg	6800	<6800	U
43	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	6800	<6800	U
44	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	6800	<6800	U
45	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	6800	<6800	U
46	NAPHTHALENE	91-20-3	µg/kg	6800	<6800	U
47	2-NITROANILINE	88-74-4	µg/kg	33000	<33000	U
48	3-NITROANILINE	99-09-2	µg/kg	33000	<33000	U
49	4-NITROANILINE	100-01-6	µg/kg	33000	<33000	U
50	NITROBENZENE	98-95-3	µg/kg	6800	<6800	U
51	2-NITROPHENOL	88-75-5	µg/kg	6800	<6800	U
52	4-NITROPHENOL	100-02-7	µg/kg	33000	<33000	U
53	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	6800	<6800	U
54	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	14000	<14000	U
55	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	33000	<33000	U
56	PHENANTHRENE	85-01-8	µg/kg	6800	<6800	U
57	PHENOL	108-95-2	µg/kg	6800	<6800	U
58	PYRENE	129-00-0	µg/kg	6800	<6800	U
59	PYRIDINE	110-86-1	µg/kg	6800	<6800	U
60	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	6800	<6800	U
61	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	33000	<33000	U
62	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	6800	<6800	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	50
2	2-FLUOROPHENOL	367-12-4	30-120	45
3	NITROBENZENE-D5	4165-60-0	40-135	39
4	PHENOL-D5	4165-62-2	20-120	24
5	TERPHENYL-D14	1718-51-0	40-135	76
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	25
# of out-of-control				2

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	101
2	CHRYSENE-D12	1719-03-5	50-200	91
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	104
4	NAPHTHALENE-D8	1146-65-2	50-200	99
5	PERYLENE-D12	1520-96-3	50-200	69
6	PHENANTHRENE-D10	1517-22-2	50-200	104
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-13	Received Date:	02/11/2004
Sample ID:	**0023-S4-774**	Sample Matrix	Soil	Moisture %:	36.5
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/13/04	Anal. Date:	02/16/04
Batch No:	04G1395	Prep. No:	1 of 1	Anal. Time:	18:30
Data File Name:	1558-13	Sample Amount:	30.0 g	Dilution Factor:	4
Extract Vol.	4.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	2100	<2100	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	2100	<2100	U
3	ANTHRACENE	120-12-7	µg/kg	2100	<2100	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	2100	<2100	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	2100	<2100	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	2100	<2100	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	2100	<2100	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	2100	<2100	U
9	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	2100	<2100	U
10	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	2100	<2100	U
11	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	2100	<2100	U
12	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	2100	250	J
13	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	2100	<2100	U
14	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	2100	<2100	U
15	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	2100	<2100	U
16	4-CHLOROANILINE	106-47-8	µg/kg	4800	<4800	U
17	2-CHLORONAPHTHALENE	91-58-7	µg/kg	2100	<2100	U
18	2-CHLOROPHENOL	95-57-8	µg/kg	2100	<2100	U
19	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	2100	<2100	U
20	CHRYSENE	218-01-9	µg/kg	2100	<2100	U
21	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	2100	<2100	U
22	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	2100	<2100	U
23	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	2100	<2100	U
24	DIBENZOFURAN	132-64-9	µg/kg	2100	<2100	U
25	1,2-DICHLOROBENZENE	95-50-1	µg/kg	2100	<2100	U
26	1,3-DICHLOROBENZENE	541-73-1	µg/kg	2100	<2100	U
27	1,4-DICHLOROBENZENE	106-46-7	µg/kg	2100	<2100	U
28	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	4200	<4200	U
29	2,4-DICHLOROPHENOL	120-83-2	µg/kg	2100	<2100	U
30	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	2100	<2100	U
31	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	2100	<2100	U
32	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	2100	<2100	U
33	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	10000	<10000	U
34	2,4-DINITROPHENOL	51-28-5	µg/kg	10000	<10000	U
35	2,4-DINITROTOLUENE	121-14-2	µg/kg	2100	<2100	U
36	2,6-DINITROTOLUENE	606-20-2	µg/kg	2100	<2100	U
37	FLUORANTHENE	206-44-0	µg/kg	2100	<2100	U
38	FLUORENE	86-73-7	µg/kg	2100	<2100	U
39	HEXACHLOROBENZENE	118-74-1	µg/kg	2100	<2100	U
40	HEXACHLOROBUTADIENE	87-68-3	µg/kg	2100	<2100	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	10000	<10000	U
42	HEXACHLOROETHANE	67-72-1	µg/kg	2100	<2100	U
43	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	2100	<2100	U
44	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	2100	<2100	U
45	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	2100	<2100	U
46	NAPHTHALENE	91-20-3	µg/kg	2100	<2100	U
47	2-NITROANILINE	88-74-4	µg/kg	10000	<10000	U
48	3-NITROANILINE	99-09-2	µg/kg	10000	<10000	U
49	4-NITROANILINE	100-01-6	µg/kg	10000	<10000	U
50	NITROBENZENE	98-95-3	µg/kg	2100	<2100	U
51	2-NITROPHENOL	88-75-5	µg/kg	2100	<2100	U
52	4-NITROPHENOL	100-02-7	µg/kg	10000	<10000	U
53	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	2100	<2100	U
54	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	4200	<4200	U
55	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	10000	<10000	U
56	PHENANTHRENE	85-01-8	µg/kg	2100	<2100	U
57	PHENOL	108-95-2	µg/kg	2100	<2100	U
58	PYRENE	129-00-0	µg/kg	2100	<2100	U
59	PYRIDINE	110-86-1	µg/kg	2100	<2100	U
60	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	2100	<2100	U
61	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	10000	<10000	U
62	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	2100	<2100	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	55
2	2-FLUOROPHENOL	367-12-4	30-120	59
3	NITROBENZENE-D5	4165-60-0	40-135	49
4	PHENOL-D5	4165-62-2	20-120	38
5	TERPHENYL-D14	1718-51-0	40-135	81
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	50
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	111
2	CHRYSENE-D12	1719-03-5	50-200	104
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	112
4	NAPHTHALENE-D8	1146-65-2	50-200	106
5	PERYLENE-D12	1520-96-3	50-200	84
6	PHENANTHRENE-D10	1517-22-2	50-200	113
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-1	Received Date:	02/11/2004
Sample ID:	**0023-S4-762**	Sample Matrix	Soil	Moisture %:	25.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/13/04	Anal. Date:	02/16/04
Batch No:	04G1393	Prep. No:	1 of 1	Anal. Time:	10:55
Data File Name:	1558.101	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.3	<2.3	U
2	BETA BHC	319-85-7	µg/kg	2.3	<2.3	U
3	ALPHA BHC	319-84-6	µg/kg	2.3	<2.3	U
4	DELTA BHC	319-86-8	µg/kg	2.3	<2.3	U
5	GAMMA BHC	58-89-9	µg/kg	2.3	<2.3	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.3	<1.3	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.3	<1.3	U
8	P,P'-DDD	72-54-8	µg/kg	4.0	4	J
9	P,P'-DDE	72-55-9	µg/kg	4.0	<4.0	U
10	P,P'-DDT	50-29-3	µg/kg	4.0	17	
11	DIELDRIN	60-57-1	µg/kg	4.0	<4.0	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.3	<2.3	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	4.0	<4.0	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.7	<6.7	U
15	ENDRIN	72-20-8	µg/kg	4.0	<4.0	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	4.0	<4.0	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.7	<2.7	U
18	HEPTACHLOR	76-44-8	µg/kg	2.3	<2.3	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.3	<2.3	U
20	METHOXYCHLOR	72-43-5	µg/kg	13	<13	U
21	TOXAPHENE	8001-35-2	µg/kg	130	<130	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	65
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	62
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	101
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-4	Received Date:	02/11/2004
Sample ID:	**0023-S4-765**	Sample Matrix	Soil	Moisture %:	18.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/13/04	Anal. Date:	02/16/04
Batch No:	04G1393	Prep. No:	1 of 1	Anal. Time:	11:20
Data File Name:	1558.104	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.1	<2.1	U
2	BETA BHC	319-85-7	µg/kg	2.1	<2.1	U
3	ALPHA BHC	319-84-6	µg/kg	2.1	<2.1	U
4	DELTA BHC	319-86-8	µg/kg	2.1	<2.1	U
5	GAMMA BHC	58-89-9	µg/kg	2.1	<2.1	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.7	4	
9	P,P'-DDE	72-55-9	µg/kg	3.7	<3.7	U
10	P,P'-DDT	50-29-3	µg/kg	3.7	24	
11	DIELDRIN	60-57-1	µg/kg	3.7	<3.7	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.1	<2.1	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.7	<3.7	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.1	<6.1	U
15	ENDRIN	72-20-8	µg/kg	3.7	<3.7	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.7	<3.7	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.5	<2.5	U
18	HEPTACHLOR	76-44-8	µg/kg	2.1	<2.1	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.1	<2.1	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	67
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	70
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	104
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-7	Received Date:	02/11/2004
Sample ID:	**0023-S4-768**	Sample Matrix	Soil	Moisture %:	13.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/13/04	Anal. Date:	02/16/04
Batch No:	04G1393	Prep. No:	1 of 1	Anal. Time:	12:38
Data File Name:	1558.107	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.0	<2.0	U
2	BETA BHC	319-85-7	µg/kg	2.0	<2.0	U
3	ALPHA BHC	319-84-6	µg/kg	2.0	<2.0	U
4	DELTA BHC	319-86-8	µg/kg	2.0	<2.0	U
5	GAMMA BHC	58-89-9	µg/kg	2.0	<2.0	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.2	<1.2	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.2	<1.2	U
8	P,P'-DDD	72-54-8	µg/kg	3.5	7	
9	P,P'-DDE	72-55-9	µg/kg	3.5	4	
10	P,P'-DDT	50-29-3	µg/kg	3.5	29	
11	DIELDRIN	60-57-1	µg/kg	3.5	<3.5	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.0	<2.0	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.5	<3.5	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	5.8	<5.8	U
15	ENDRIN	72-20-8	µg/kg	3.5	<3.5	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.5	<3.5	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.3	<2.3	U
18	HEPTACHLOR	76-44-8	µg/kg	2.0	<2.0	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.0	<2.0	U
20	METHOXYCHLOR	72-43-5	µg/kg	12	<12	U
21	TOXAPHENE	8001-35-2	µg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	63
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	60
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	115
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-10	Received Date:	02/11/2004
Sample ID:	**0023-S4-771**	Sample Matrix	Soil	Moisture %:	21.9
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/13/04	Anal. Date:	02/16/04
Batch No:	04G1393	Prep. No:	1 of 1	Anal. Time:	13:03
Data File Name:	1558.110	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.2	<2.2	U
2	BETA BHC	319-85-7	µg/kg	2.2	<2.2	U
3	ALPHA BHC	319-84-6	µg/kg	2.2	<2.2	U
4	DELTA BHC	319-86-8	µg/kg	2.2	<2.2	U
5	GAMMA BHC	58-89-9	µg/kg	2.2	<2.2	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.3	<1.3	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.3	<1.3	U
8	P,P'-DDD	72-54-8	µg/kg	3.8	3	J
9	P,P'-DDE	72-55-9	µg/kg	3.8	<3.8	U
10	P,P'-DDT	50-29-3	µg/kg	3.8	14	
11	DIELDRIN	60-57-1	µg/kg	3.8	<3.8	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.2	<2.2	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.8	<3.8	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.4	<6.4	U
15	ENDRIN	72-20-8	µg/kg	3.8	<3.8	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.8	<3.8	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.6	<2.6	U
18	HEPTACHLOR	76-44-8	µg/kg	2.2	<2.2	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.2	<2.2	U
20	METHOXYCHLOR	72-43-5	µg/kg	13	<13	U
21	TOXAPHENE	8001-35-2	µg/kg	130	<130	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	66
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	65
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	101
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-13	Received Date:	02/11/2004
Sample ID:	**0023-S4-774**	Sample Matrix	Soil	Moisture %:	36.5
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/13/04	Anal. Date:	02/16/04
Batch No:	04G1393	Prep. No:	1 of 1	Anal. Time:	13:28
Data File Name:	1558.113	Sample Amount:	29.9 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.7	<2.7	U
2	BETA BHC	319-85-7	µg/kg	2.7	<2.7	U
3	ALPHA BHC	319-84-6	µg/kg	2.7	<2.7	U
4	DELTA BHC	319-86-8	µg/kg	2.7	<2.7	U
5	GAMMA BHC	58-89-9	µg/kg	2.7	<2.7	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.6	<1.6	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.6	<1.6	U
8	P,P'-DDD	72-54-8	µg/kg	4.7	3	J
9	P,P'-DDE	72-55-9	µg/kg	4.7	<4.7	U
10	P,P'-DDT	50-29-3	µg/kg	4.7	3	J
11	DIELDRIN	60-57-1	µg/kg	4.7	<4.7	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.7	<2.7	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	4.7	<4.7	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	7.9	<7.9	U
15	ENDRIN	72-20-8	µg/kg	4.7	<4.7	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	4.7	<4.7	U
17	ENDRIN KETONE	53494-70-5	µg/kg	3.1	<3.1	U
18	HEPTACHLOR	76-44-8	µg/kg	2.7	<2.7	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.7	<2.7	U
20	METHOXYCHLOR	72-43-5	µg/kg	16	<16	U
21	TOXAPHENE	8001-35-2	µg/kg	160	<160	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	74
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	73
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	92
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-1	Received Date:	02/11/2004
Sample ID:	**0023-S4-762**	Sample Matrix	Soil	Moisture %:	25.2
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/13/04	Anal. Date:	02/16/04
Batch No:	04G1394	Prep. No:	1 of 1	Anal. Time:	09:53
Data File Name:	1558.101	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	44	<44	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	88	<88	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	44	<44	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	44	<44	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	44	<44	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	44	<44	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	44	48 [d]	

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	71
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	63
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.
[d]Sample might contain more than one PCB. Result estimated.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-4	Received Date:	02/11/2004
Sample ID:	**0023-S4-765**	Sample Matrix	Soil	Moisture %:	18.6
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/13/04	Anal. Date:	02/13/04
Batch No:	04G1394	Prep. No:	1 of 1	Anal. Time:	17:46
Data File Name:	1558.004	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	41	<41	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	81	<81	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	41	<41	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	41	<41	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	41	<41	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	41	<41	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	41	98 [d]	

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	72
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	70
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.
[d]Sample might contain more than one PCB. Result estimated.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-7	Received Date:	02/11/2004
Sample ID:	**0023-S4-768**	Sample Matrix	Soil	Moisture %:	13.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/13/04	Anal. Date:	02/13/04
Batch No:	04G1394	Prep. No:	1 of 1	Anal. Time:	18:11
Data File Name:	1558.007	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	38	<38	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	76	<76	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	38	<38	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	38	<38	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	38	<38	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	38	<38	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	38	110 [d]	

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	81
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	72
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[d]Sample might contain more than one PCB. Result estimated.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-10	Received Date:	02/11/2004
Sample ID:	**0023-S4-771**	Sample Matrix	Soil	Moisture %:	21.9
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/13/04	Anal. Date:	02/16/04
Batch No:	04G1394	Prep. No:	1 of 1	Anal. Time:	12:06
Data File Name:	1558.110	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	42	<42	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	85	<85	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	42	<42	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	42	<42	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	42	<42	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	42	<42	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	42	45 [d]	

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	70
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	60
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[d]Sample might contain more than one PCB. Result estimated.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-13	Received Date:	02/11/2004
Sample ID:	**0023-S4-774**	Sample Matrix	Soil	Moisture %:	36.5
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/13/04	Anal. Date:	02/16/04
Batch No:	04G1394	Prep. No:	1 of 1	Anal. Time:	13:19
Data File Name:	1558.213	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	52	<52	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	100	<100	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	52	<52	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	52	<52	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	52	<52	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	52	<52	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	52	16 [d]	J

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	76
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	76
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[d]Sample might contain more than one PCB. Result estimated.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-1	Received Date:	02/11/2004
Sample ID:	**0023-S4-762**	Sample Matrix	Soil	Moisture %:	25.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.7	<6.7	U	P		04M1203M	02/13/04	02/16/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.40	4.6		P		04M1203M	02/13/04	02/16/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	254		P		04M1203M	02/13/04	02/16/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.27	<0.27	U	P		04M1203M	02/13/04	02/16/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.27	0.13	J	P		04M1203M	02/13/04	02/16/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.67	51.5		P		04M1203M	02/13/04	02/16/04	1	6010B
COBALT	7440-48-4	mg/kg	0.67	12.1		P		04M1203M	02/13/04	02/16/04	1	6010B
COPPER	7440-50-8	mg/kg	0.67	38.4		P		04M1203M	02/13/04	02/16/04	1	6010B
LEAD	7439-92-1	mg/kg	0.40	788		P		04M1203M	02/13/04	02/16/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.27	0.89		CV		04M1209H	02/16/04	02/16/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.27	0.11	J	P		04M1203M	02/13/04	02/16/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.40	18.6		P		04M1203M	02/13/04	02/16/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.54	2.4		P		04M1203M	02/13/04	02/16/04	1	6010B
SILVER	7440-22-4	mg/kg	0.67	<0.67	U	P		04M1203M	02/13/04	02/16/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.67	<0.67	U	P		04M1203M	02/13/04	02/16/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.67	43.2		P		04M1203M	02/13/04	02/16/04	1	6010B
ZINC	7440-66-6	mg/kg	0.67	198		P		04M1203M	02/13/04	02/16/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-1	Received Date:	02/11/2004
Sample ID:	**0023-S4-762**	Sample Matrix	Soil	Moisture %:	25.2
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	μg/L	10	869		P		04M1236M	02/20/04	02/20/04	2	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-1	Received Date:	02/11/2004
Sample ID:	**0023-S4-762**	Sample Matrix	Soil	Moisture %:	25.2
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC LEAD [b]	7439-92-1	μg/L	25	47000		P		04M1237M	02/20/04	02/20/04	5	6010B
STLC CHROMIUM [b]	7440-47-3	μg/L	25	925		P		04M1237M	02/20/04	02/20/04	5	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-2	Received Date:	02/11/2004
Sample ID:	**0023-S4-763**	Sample Matrix	Soil	Moisture %:	14.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.8	<5.8	U	P		04M1203M	02/13/04	02/16/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.35	4.8		P		04M1203M	02/13/04	02/16/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	216		P		04M1203M	02/13/04	02/16/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.23	<0.23	U	P		04M1203M	02/13/04	02/16/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.23	0.069	J	P		04M1203M	02/13/04	02/16/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.58	44.0		P		04M1203M	02/13/04	02/16/04	1	6010B
COBALT	7440-48-4	mg/kg	0.58	12.9		P		04M1203M	02/13/04	02/16/04	1	6010B
COPPER	7440-50-8	mg/kg	0.58	32.5		P		04M1203M	02/13/04	02/16/04	1	6010B
LEAD	7439-92-1	mg/kg	0.35	461		P		04M1203M	02/13/04	02/16/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.23	0.57		CV		04M1209H	02/16/04	02/16/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.23	0.031	J	P		04M1203M	02/13/04	02/16/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.35	19.2		P		04M1203M	02/13/04	02/16/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.47	2.9		P		04M1203M	02/13/04	02/16/04	1	6010B
SILVER	7440-22-4	mg/kg	0.58	<0.58	U	P		04M1203M	02/13/04	02/16/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.58	<0.58	U	P		04M1203M	02/13/04	02/16/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.58	52.8		P		04M1203M	02/13/04	02/16/04	1	6010B
ZINC	7440-66-6	mg/kg	0.58	166		P		04M1203M	02/13/04	02/16/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-2	Received Date:	02/11/2004
Sample ID:	**0023-S4-763**	Sample Matrix	Soil	Moisture %:	14.3
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	μg/L	10	516		P		04M1236M	02/20/04	02/20/04	2	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-2	Received Date:	02/11/2004
Sample ID:	**0023-S4-763**	Sample Matrix	Soil	Moisture %:	14.3
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC LEAD [b]	7439-92-1	μg/L	25	20300		P		04M1237M	02/20/04	02/20/04	5	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-3	Received Date:	02/11/2004
Sample ID:	**0023-S4-764**	Sample Matrix	Soil	Moisture %:	21.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.4	<6.4	U	P		04M1203M	02/13/04	02/16/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.38	5.4		P		04M1203M	02/13/04	02/16/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	398		P		04M1203M	02/13/04	02/16/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1203M	02/13/04	02/16/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.26		P		04M1203M	02/13/04	02/16/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.64	80.6		P		04M1203M	02/13/04	02/16/04	1	6010B
COBALT	7440-48-4	mg/kg	0.64	14.6		P		04M1203M	02/13/04	02/16/04	1	6010B
COPPER	7440-50-8	mg/kg	0.64	50.1		P		04M1203M	02/13/04	02/16/04	1	6010B
LEAD	7439-92-1	mg/kg	0.38	908		P		04M1203M	02/13/04	02/16/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.64		CV		04M1209H	02/16/04	02/16/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.25	0.13	J	P		04M1203M	02/13/04	02/16/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.38	24.0		P		04M1203M	02/13/04	02/16/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.51	3.6		P		04M1203M	02/13/04	02/16/04	1	6010B
SILVER	7440-22-4	mg/kg	0.64	<0.64	U	P		04M1203M	02/13/04	02/16/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.64	<0.64	U	P		04M1203M	02/13/04	02/16/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.64	59.4		P		04M1203M	02/13/04	02/16/04	1	6010B
ZINC	7440-66-6	mg/kg	0.64	300		P		04M1203M	02/13/04	02/16/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-3	Received Date:	02/11/2004
Sample ID:	**0023-S4-764**	Sample Matrix	Soil	Moisture %:	21.4
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	μg/L	10	613		P		04M1236M	02/20/04	02/20/04	2	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-3	Received Date:	02/11/2004
Sample ID:	**0023-S4-764**	Sample Matrix	Soil	Moisture %:	21.4
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC LEAD [b]	7439-92-1	μg/L	25	52700		P		04M1237M	02/20/04	02/20/04	5	6010B
STLC CHROMIUM [b]	7440-47-3	μg/L	25	1030		P		04M1237M	02/20/04	02/20/04	5	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-4	Received Date:	02/11/2004
Sample ID:	**0023-S4-765**	Sample Matrix	Soil	Moisture %:	18.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.1	<6.1	U	P		04M1203M	02/13/04	02/16/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.37	3.2		P		04M1203M	02/13/04	02/16/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	246		P		04M1203M	02/13/04	02/16/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1203M	02/13/04	02/16/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.14	J	P		04M1203M	02/13/04	02/16/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.61	45.5		P		04M1203M	02/13/04	02/16/04	1	6010B
COBALT	7440-48-4	mg/kg	0.61	14.4		P		04M1203M	02/13/04	02/16/04	1	6010B
COPPER	7440-50-8	mg/kg	0.61	34.7		P		04M1203M	02/13/04	02/16/04	1	6010B
LEAD	7439-92-1	mg/kg	0.37	518		P		04M1203M	02/13/04	02/16/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.21	J	CV		04M1209H	02/16/04	02/16/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.25	<0.25	U	P		04M1203M	02/13/04	02/16/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.37	20.8		P		04M1203M	02/13/04	02/16/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.49	3.9		P		04M1203M	02/13/04	02/16/04	1	6010B
SILVER	7440-22-4	mg/kg	0.61	<0.61	U	P		04M1203M	02/13/04	02/16/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.61	<0.61	U	P		04M1203M	02/13/04	02/16/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.61	60.1		P		04M1203M	02/13/04	02/16/04	1	6010B
ZINC	7440-66-6	mg/kg	0.61	192		P		04M1203M	02/13/04	02/16/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-4	Received Date:	02/11/2004
Sample ID:	**0023-S4-765**	Sample Matrix	Soil	Moisture %:	18.6
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	μg/L	10	409		P		04M1236M	02/20/04	02/20/04	2	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-4	Received Date:	02/11/2004
Sample ID:	**0023-S4-765**	Sample Matrix	Soil	Moisture %:	18.6
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC LEAD [b]	7439-92-1	μg/L	25	32500		P		04M1237M	02/20/04	02/20/04	5	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-5	Received Date:	02/11/2004
Sample ID:	**0023-S4-766**	Sample Matrix	Soil	Moisture %:	36.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	7.9	<7.9	U	P		04M1203M	02/13/04	02/16/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.47	8.7		P		04M1203M	02/13/04	02/16/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.6	486		P		04M1203M	02/13/04	02/16/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.31	<0.31	U	P		04M1203M	02/13/04	02/16/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.31	0.20	J	P		04M1203M	02/13/04	02/16/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.79	81.3		P		04M1203M	02/13/04	02/16/04	1	6010B
COBALT	7440-48-4	mg/kg	0.79	17.7		P		04M1203M	02/13/04	02/16/04	1	6010B
COPPER	7440-50-8	mg/kg	0.79	60.2		P		04M1203M	02/13/04	02/16/04	1	6010B
LEAD	7439-92-1	mg/kg	0.47	1620		P		04M1203M	02/13/04	02/16/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.31	0.41		CV		04M1209H	02/16/04	02/16/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.31	0.80		P		04M1203M	02/13/04	02/16/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.47	28.6		P		04M1203M	02/13/04	02/16/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.63	4.2		P		04M1203M	02/13/04	02/16/04	1	6010B
SILVER	7440-22-4	mg/kg	0.79	<0.79	U	P		04M1203M	02/13/04	02/16/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.79	<0.79	U	P		04M1203M	02/13/04	02/16/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.79	77.3		P		04M1203M	02/13/04	02/16/04	1	6010B
ZINC	7440-66-6	mg/kg	0.79	303		P		04M1203M	02/13/04	02/16/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-5	Received Date:	02/11/2004
Sample ID:	**0023-S4-766**	Sample Matrix	Soil	Moisture %:	36.3
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	μg/L	10	800		P		04M1236M	02/20/04	02/20/04	2	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-5	Received Date:	02/11/2004
Sample ID:	**0023-S4-766**	Sample Matrix	Soil	Moisture %:	36.3
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC CHROMIUM [b]	7440-47-3	μg/L	25	766		P		04M1237M	02/20/04	02/20/04	5	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-6	Received Date:	02/11/2004
Sample ID:	**0023-S4-767**	Sample Matrix	Soil	Moisture %:	12.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.7	<5.7	U	P		04M1203M	02/13/04	02/16/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.34	6.8		P		04M1203M	02/13/04	02/16/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.1	618		P		04M1203M	02/13/04	02/16/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.23	<0.23	U	P		04M1203M	02/13/04	02/16/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.23	0.40		P		04M1203M	02/13/04	02/16/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.57	62.9		P		04M1203M	02/13/04	02/16/04	1	6010B
COBALT	7440-48-4	mg/kg	0.57	13.2		P		04M1203M	02/13/04	02/16/04	1	6010B
COPPER	7440-50-8	mg/kg	0.57	44.6		P		04M1203M	02/13/04	02/16/04	1	6010B
LEAD	7439-92-1	mg/kg	0.34	2890		P		04M1203M	02/13/04	02/16/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.23	0.86		CV		04M1209H	02/16/04	02/16/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.23	0.15	J	P		04M1203M	02/13/04	02/16/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.34	21.4		P		04M1203M	02/13/04	02/16/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.46	3.2		P		04M1203M	02/13/04	02/16/04	1	6010B
SILVER	7440-22-4	mg/kg	0.57	<0.57	U	P		04M1203M	02/13/04	02/16/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.57	<0.57	U	P		04M1203M	02/13/04	02/16/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.57	58.4		P		04M1203M	02/13/04	02/16/04	1	6010B
ZINC	7440-66-6	mg/kg	0.57	354		P		04M1203M	02/13/04	02/16/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

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W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-6	Received Date:	02/11/2004
Sample ID:	**0023-S4-767**	Sample Matrix	Soil	Moisture %:	12.7
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	μg/L	10	360		P		04M1236M	02/20/04	02/20/04	2	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

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M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-6	Received Date:	02/11/2004
Sample ID:	**0023-S4-767**	Sample Matrix	Soil	Moisture %:	12.7
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC CHROMIUM [b]	7440-47-3	μg/L	25	953		P		04M1237M	02/20/04	02/20/04	5	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-7	Received Date:	02/11/2004
Sample ID:	**0023-S4-768**	Sample Matrix	Soil	Moisture %:	13.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.8	<5.8	U	P		04M1203M	02/13/04	02/16/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.35	3.7		P		04M1203M	02/13/04	02/16/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.2	236		P		04M1203M	02/13/04	02/16/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.23	<0.23	U	P		04M1203M	02/13/04	02/16/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.23	0.089	J	P		04M1203M	02/13/04	02/16/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.58	42.6		P		04M1203M	02/13/04	02/16/04	1	6010B
COBALT	7440-48-4	mg/kg	0.58	13.4		P		04M1203M	02/13/04	02/16/04	1	6010B
COPPER	7440-50-8	mg/kg	0.58	33.5		P		04M1203M	02/13/04	02/16/04	1	6010B
LEAD	7439-92-1	mg/kg	0.35	445		P		04M1203M	02/13/04	02/16/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.23	0.23	J	CV		04M1209H	02/16/04	02/16/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.23	<0.23	U	P		04M1203M	02/13/04	02/16/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.35	20.2		P		04M1203M	02/13/04	02/16/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.46	4.4		P		04M1203M	02/13/04	02/16/04	1	6010B
SILVER	7440-22-4	mg/kg	0.58	<0.58	U	P		04M1203M	02/13/04	02/16/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.58	<0.58	U	P		04M1203M	02/13/04	02/16/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.58	57.6		P		04M1203M	02/13/04	02/16/04	1	6010B
ZINC	7440-66-6	mg/kg	0.58	161		P		04M1203M	02/13/04	02/16/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

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Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-7	Received Date:	02/11/2004
Sample ID:	**0023-S4-768**	Sample Matrix	Soil	Moisture %:	13.1
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	$\mu g/L$	10	303		P		04M1236M	02/20/04	02/20/04	2	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

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M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-7	Received Date:	02/11/2004
Sample ID:	**0023-S4-768**	Sample Matrix	Soil	Moisture %:	13.1
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC LEAD [b]	7439-92-1	μg/L	25	21500		P		04M1237M	02/20/04	02/20/04	5	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

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W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-8	Received Date:	02/11/2004
Sample ID:	**0023-S4-769**	Sample Matrix	Soil	Moisture %:	27.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.9	<6.9	U	P		04M1203M	02/13/04	02/16/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.41	6.2		P		04M1203M	02/13/04	02/16/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.4	271		P		04M1203M	02/13/04	02/16/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.28	<0.28	U	P		04M1203M	02/13/04	02/16/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.28	<0.28	U	P		04M1203M	02/13/04	02/16/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.69	53.4		P		04M1203M	02/13/04	02/16/04	1	6010B
COBALT	7440-48-4	mg/kg	0.69	16.0		P		04M1203M	02/13/04	02/16/04	1	6010B
COPPER	7440-50-8	mg/kg	0.69	44.3		P		04M1203M	02/13/04	02/16/04	1	6010B
LEAD	7439-92-1	mg/kg	0.41	544		P		04M1203M	02/13/04	02/16/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.28	1.1		CV		04M1209H	02/16/04	02/16/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.28	0.29		P		04M1203M	02/13/04	02/16/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.41	24.6		P		04M1203M	02/13/04	02/16/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.55	3.5		P		04M1203M	02/13/04	02/16/04	1	6010B
SILVER	7440-22-4	mg/kg	0.69	<0.69	U	P		04M1203M	02/13/04	02/16/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.69	<0.69	U	P		04M1203M	02/13/04	02/16/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.69	67.5		P		04M1203M	02/13/04	02/16/04	1	6010B
ZINC	7440-66-6	mg/kg	0.69	221		P		04M1203M	02/13/04	02/16/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-8	Received Date:	02/11/2004
Sample ID:	**0023-S4-769**	Sample Matrix	Soil	Moisture %:	27.3
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	$\mu g/L$	10	284		P		04M1236M	02/20/04	02/20/04	2	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-8	Received Date:	02/11/2004
Sample ID:	**0023-S4-769**	Sample Matrix	Soil	Moisture %:	27.3
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC LEAD [b]	7439-92-1	μg/L	25	22900		P		04M1237M	02/20/04	02/20/04	5	6010B
STLC CHROMIUM [b]	7440-47-3	μg/L	25	650		P		04M1237M	02/20/04	02/20/04	5	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-9	Received Date:	02/11/2004
Sample ID:	**0023-S4-770**	Sample Matrix	Soil	Moisture %:	27.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.9	<6.9	U	P		04M1203M	02/13/04	02/16/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.41	6.1		P		04M1203M	02/13/04	02/16/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.4	307		P		04M1203M	02/13/04	02/16/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.27	<0.27	U	P		04M1203M	02/13/04	02/16/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.27	<0.27	U	P		04M1203M	02/13/04	02/16/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.69	63.2		P		04M1203M	02/13/04	02/16/04	1	6010B
COBALT	7440-48-4	mg/kg	0.69	15.9		P		04M1203M	02/13/04	02/16/04	1	6010B
COPPER	7440-50-8	mg/kg	0.69	44.1		P		04M1203M	02/13/04	02/16/04	1	6010B
LEAD	7439-92-1	mg/kg	0.41	871		P		04M1203M	02/13/04	02/16/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.27	1.1		CV		04M1209H	02/16/04	02/16/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.27	<0.27	U	P		04M1203M	02/13/04	02/16/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.41	24.4		P		04M1203M	02/13/04	02/16/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.55	3.3		P		04M1203M	02/13/04	02/16/04	1	6010B
SILVER	7440-22-4	mg/kg	0.69	<0.69	U	P		04M1203M	02/13/04	02/16/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.69	<0.69	U	P		04M1203M	02/13/04	02/16/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.69	66.2		P		04M1203M	02/13/04	02/16/04	1	6010B
ZINC	7440-66-6	mg/kg	0.69	256		P		04M1203M	02/13/04	02/16/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-9	Received Date:	02/11/2004
Sample ID:	**0023-S4-770**	Sample Matrix	Soil	Moisture %:	27.2
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	μg/L	10	574		P		04M1236M	02/20/04	02/20/04	2	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-9	Received Date:	02/11/2004
Sample ID:	**0023-S4-770**	Sample Matrix	Soil	Moisture %:	27.2
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC LEAD [b]	7439-92-1	μg/L	25	40100		P		04M1237M	02/20/04	02/20/04	5	6010B
STLC CHROMIUM [b]	7440-47-3	μg/L	25	1020		P		04M1237M	02/20/04	02/20/04	5	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

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M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-10	Received Date:	02/11/2004
Sample ID:	**0023-S4-771**	Sample Matrix	Soil	Moisture %:	21.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.4	<6.4	U	P		04M1203M	02/13/04	02/16/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.38	7.5		P		04M1203M	02/13/04	02/16/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	431		P		04M1203M	02/13/04	02/16/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.26	<0.26	U	P		04M1203M	02/13/04	02/16/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.26	0.086	J	P		04M1203M	02/13/04	02/16/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.64	84.0		P		04M1203M	02/13/04	02/16/04	1	6010B
COBALT	7440-48-4	mg/kg	0.64	13.3		P		04M1203M	02/13/04	02/16/04	1	6010B
COPPER	7440-50-8	mg/kg	0.64	42.8		P		04M1203M	02/13/04	02/16/04	1	6010B
LEAD	7439-92-1	mg/kg	0.38	908		P		04M1203M	02/13/04	02/16/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.26	0.69		CV		04M1209H	02/16/04	02/16/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.26	<0.26	U	P		04M1203M	02/13/04	02/16/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.38	21.4		P		04M1203M	02/13/04	02/16/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.51	3.1		P		04M1203M	02/13/04	02/16/04	1	6010B
SILVER	7440-22-4	mg/kg	0.64	<0.64	U	P		04M1203M	02/13/04	02/16/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.64	<0.64	U	P		04M1203M	02/13/04	02/16/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.64	54.3		P		04M1203M	02/13/04	02/16/04	1	6010B
ZINC	7440-66-6	mg/kg	0.64	263		P		04M1203M	02/13/04	02/16/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

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M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-10	Received Date:	02/11/2004
Sample ID:	**0023-S4-771**	Sample Matrix	Soil	Moisture %:	21.9
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	μg/L	10	418		P		04M1236M	02/20/04	02/20/04	2	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-10	Received Date:	02/11/2004
Sample ID:	**0023-S4-771**	Sample Matrix	Soil	Moisture %:	21.9
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC LEAD [b]	7439-92-1	μg/L	25	40200		P		04M1237M	02/20/04	02/20/04	5	6010B
STLC CHROMIUM [b]	7440-47-3	μg/L	25	944		P		04M1237M	02/20/04	02/20/04	5	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-11	Received Date:	02/11/2004
Sample ID:	**0023-S4-772**	Sample Matrix	Soil	Moisture %:	26.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.8	<6.8	U	P		04M1203M	02/13/04	02/16/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.41	4.2		P		04M1203M	02/13/04	02/16/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.4	214		P		04M1203M	02/13/04	02/16/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.27	<0.27	U	P		04M1203M	02/13/04	02/16/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.27	0.14	J	P		04M1203M	02/13/04	02/16/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.68	39.9		P		04M1203M	02/13/04	02/16/04	1	6010B
COBALT	7440-48-4	mg/kg	0.68	14.7		P		04M1203M	02/13/04	02/16/04	1	6010B
COPPER	7440-50-8	mg/kg	0.68	35.6		P		04M1203M	02/13/04	02/16/04	1	6010B
LEAD	7439-92-1	mg/kg	0.41	645		P		04M1203M	02/13/04	02/16/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.27	0.31		CV		04M1209H	02/16/04	02/16/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.27	0.12	J	P		04M1203M	02/13/04	02/16/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.41	21.9		P		04M1203M	02/13/04	02/16/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.54	3.6		P		04M1203M	02/13/04	02/16/04	1	6010B
SILVER	7440-22-4	mg/kg	0.68	<0.68	U	P		04M1203M	02/13/04	02/16/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.68	<0.68	U	P		04M1203M	02/13/04	02/16/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.68	51.9		P		04M1203M	02/13/04	02/16/04	1	6010B
ZINC	7440-66-6	mg/kg	0.68	207		P		04M1203M	02/13/04	02/16/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

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M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-11	Received Date:	02/11/2004
Sample ID:	**0023-S4-772**	Sample Matrix	Soil	Moisture %:	26.6
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	μg/L	10	464		P		04M1236M	02/20/04	02/20/04	2	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-11	Received Date:	02/11/2004
Sample ID:	**0023-S4-772**	Sample Matrix	Soil	Moisture %:	26.6
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC LEAD [b]	7439-92-1	μg/L	25	24900		P		04M1237M	02/20/04	02/20/04	5	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-12	Received Date:	02/11/2004
Sample ID:	**0023-S4-773**	Sample Matrix	Soil	Moisture %:	35.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	7.8	<7.8	U	P		04M1203M	02/13/04	02/16/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.47	5.6		P		04M1203M	02/13/04	02/16/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.6	246		P		04M1203M	02/13/04	02/16/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.31	<0.31	U	P		04M1203M	02/13/04	02/16/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.31	0.061	J	P		04M1203M	02/13/04	02/16/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.78	55.1		P		04M1203M	02/13/04	02/16/04	1	6010B
COBALT	7440-48-4	mg/kg	0.78	17.2		P		04M1203M	02/13/04	02/16/04	1	6010B
COPPER	7440-50-8	mg/kg	0.78	53.1		P		04M1203M	02/13/04	02/16/04	1	6010B
LEAD	7439-92-1	mg/kg	0.47	309		P		04M1203M	02/13/04	02/16/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.31	0.40		CV		04M1209H	02/16/04	02/16/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.31	0.16	J	P		04M1203M	02/13/04	02/16/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.47	26.8		P		04M1203M	02/13/04	02/16/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.62	3.3		P		04M1203M	02/13/04	02/16/04	1	6010B
SILVER	7440-22-4	mg/kg	0.78	<0.78	U	P		04M1203M	02/13/04	02/16/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.78	<0.78	U	P		04M1203M	02/13/04	02/16/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.78	71.0		P		04M1203M	02/13/04	02/16/04	1	6010B
ZINC	7440-66-6	mg/kg	0.78	185		P		04M1203M	02/13/04	02/16/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

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M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-12	Received Date:	02/11/2004
Sample ID:	**0023-S4-773**	Sample Matrix	Soil	Moisture %:	35.9
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	μg/L	10	83.5		P		04M1236M	02/20/04	02/20/04	2	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

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M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-12	Received Date:	02/11/2004
Sample ID:	**0023-S4-773**	Sample Matrix	Soil	Moisture %:	35.9
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC LEAD [b]	7439-92-1	μg/L	25	7560		P		04M1237M	02/20/04	02/20/04	5	6010B
STLC CHROMIUM [b]	7440-47-3	μg/L	25	344		P		04M1237M	02/20/04	02/20/04	5	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-13	Received Date:	02/11/2004
Sample ID:	**0023-S4-774**	Sample Matrix	Soil	Moisture %:	36.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	7.9	<7.9	U	P		04M1203M	02/13/04	02/16/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.47	4.8		P		04M1203M	02/13/04	02/16/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.6	160		P		04M1203M	02/13/04	02/16/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.31	<0.31	U	P		04M1203M	02/13/04	02/16/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.31	<0.31	U	P		04M1203M	02/13/04	02/16/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.79	39.8		P		04M1203M	02/13/04	02/16/04	1	6010B
COBALT	7440-48-4	mg/kg	0.79	16.9		P		04M1203M	02/13/04	02/16/04	1	6010B
COPPER	7440-50-8	mg/kg	0.79	37.6		P		04M1203M	02/13/04	02/16/04	1	6010B
LEAD	7439-92-1	mg/kg	0.47	277		P		04M1203M	02/13/04	02/16/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.31	0.11	J	CV		04M1209H	02/16/04	02/16/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.31	<0.31	U	P		04M1203M	02/13/04	02/16/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.47	25.6		P		04M1203M	02/13/04	02/16/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.63	3.7		P		04M1203M	02/13/04	02/16/04	1	6010B
SILVER	7440-22-4	mg/kg	0.79	<0.79	U	P		04M1203M	02/13/04	02/16/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.79	<0.79	U	P		04M1203M	02/13/04	02/16/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.79	70.9		P		04M1203M	02/13/04	02/16/04	1	6010B
ZINC	7440-66-6	mg/kg	0.79	155		P		04M1203M	02/13/04	02/16/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-13	Received Date:	02/11/2004
Sample ID:	**0023-S4-774**	Sample Matrix	Soil	Moisture %:	36.5
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	μg/L	10	61.4		P		04M1236M	02/20/04	02/20/04	2	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41558	Collected by:	Amanda Johnson
		Lab Sample ID:	04-1558-13	Received Date:	02/11/2004
Sample ID:	**0023-S4-774**	Sample Matrix	Soil	Moisture %:	36.5
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC LEAD [b]	7439-92-1	μg/L	25	11500		P		04M1237M	02/20/04	02/20/04	5	6010B

[b] Additional analysis requested on 02/19/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41797	Collected by:	AJ/LB
		Lab Sample ID:	04-1797-6	Received Date:	02/11/2004
Sample ID:	**0023-S4-762**[a]	Sample Matrix	Soil	Moisture %:	
Sample Type:	Field Sample	Prep. Method:	3510C	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/26/04	Anal. Date:	02/27/04
Batch No:	04G1526	Prep. No:	1 of 1	Anal. Time:	01:03
Data File Name:	1797-06	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL	Leach Method:	TCLP		

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	2,4-DINITROTOLUENE	121-14-2	μg/L	10	<10	U
2	HEXACHLOROBENZENE	118-74-1	μg/L	10	<10	U
3	HEXACHLOROBUTADIENE	87-68-3	μg/L	10	<10	U
4	HEXACHLOROETHANE	67-72-1	μg/L	10	<10	U
5	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	μg/L	10	<10	U
6	2-METHYLPHENOL (O-CRESOL)	95-48-7	μg/L	10	<10	U
7	NITROBENZENE	98-95-3	μg/L	10	<10	U
8	PENTACHLOROPHENOL	87-86-5	μg/L	50	<50	U
9	PYRIDINE	110-86-1	μg/L	10	<10	U
10	2,4,5-TRICHLOROPHENOL	95-95-4	μg/L	10	<10	U
11	2,4,6-TRICHLOROPHENOL	88-06-2	μg/L	10	<10	U
12	1,4-DICHLOROBENZENE	106-46-7	μg/L	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	55-114	73
2	2-FLUOROPHENOL	367-12-4	20-104	65
3	NITROBENZENE-D5	4165-60-0	46-132	80
4	PHENOL-D5	4165-62-2	20-118	40
5	TERPHENYL-D14	1718-51-0	44-133	84
6	2,4,6-TRIBROMOPHENOL	118-79-6	20-134	76
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	129
2	CHRYSENE-D12	1719-03-5	50-200	132
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	120
4	NAPHTHALENE-D8	1146-65-2	50-200	129
5	PERYLENE-D12	1520-96-3	50-200	114
6	PHENANTHRENE-D10	1517-22-2	50-200	139
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a]Additional analysis for 04-1471,1489,1517, and 1558 requested on 02/24/04.Sample duplicates were composited before analysis.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/11/2004
Project ID:	IR Site 4 & 7	Service ID:	41797	Collected by:	AJ/LB
		Lab Sample ID:	04-1797-7	Received Date:	02/11/2004
Sample ID:	**0023-S4-771**[a]	Sample Matrix	Soil	Moisture %:	
Sample Type:	Field Sample	Prep. Method:	3510C	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/26/04	Anal. Date:	02/27/04
Batch No:	04G1526	Prep. No:	1 of 1	Anal. Time:	01:42
Data File Name:	1797-07	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL	Leach Method:	TCLP		

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	2,4-DINITROTOLUENE	121-14-2	μg/L	10	<10	U
2	HEXACHLOROBENZENE	118-74-1	μg/L	10	<10	U
3	HEXACHLOROBUTADIENE	87-68-3	μg/L	10	<10	U
4	HEXACHLOROETHANE	67-72-1	μg/L	10	<10	U
5	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	μg/L	10	<10	U
6	2-METHYLPHENOL (O-CRESOL)	95-48-7	μg/L	10	<10	U
7	NITROBENZENE	98-95-3	μg/L	10	<10	U
8	PENTACHLOROPHENOL	87-86-5	μg/L	50	<50	U
9	PYRIDINE	110-86-1	μg/L	10	<10	U
10	2,4,5-TRICHLOROPHENOL	95-95-4	μg/L	10	<10	U
11	2,4,6-TRICHLOROPHENOL	88-06-2	μg/L	10	<10	U
12	1,4-DICHLOROBENZENE	106-46-7	μg/L	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	55-114	71
2	2-FLUOROPHENOL	367-12-4	20-104	64
3	NITROBENZENE-D5	4165-60-0	46-132	80
4	PHENOL-D5	4165-62-2	20-118	38
5	TERPHENYL-D14	1718-51-0	44-133	74
6	2,4,6-TRIBROMOPHENOL	118-79-6	20-134	76
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	137
2	CHRYSENE-D12	1719-03-5	50-200	146
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	126
4	NAPHTHALENE-D8	1146-65-2	50-200	134
5	PERYLENE-D12	1520-96-3	50-200	134
6	PHENANTHRENE-D10	1517-22-2	50-200	147
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a]Additional analysis for 04-1471,1489,1517, and 1558 requested on 02/24/04.Sample duplicates were composited.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05465

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4+7	PURCHASE ORDER NO.: 2072, Task 25
PROJECT LOCATION: NAVWPNSTA, Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1572

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	Title 22 Metals	EPA 8270C (SIM for PAHs)	EPA 8081A	EPA 8082	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-SA-775	2/12/04	1415	1	X		S	48 hr	X	X	X	X		Topsoil #2	1	–	REG

2/12/04

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	2/12/04	[illegible]
COMPANY: HFWI	TIME: 1547	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Topsoil #2

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1572

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05464

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Sites 4 & 7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1572

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (Lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-776	2/12/04	1430	1	X		S	48 hr	X		107B N Sidewall OX3	9"	–	REG
0023-S4-777	2/12/04	1442	1	X		S	48 hr	X		78B W Sidewall OX3	10"	–	REG
0023-S4-778	2/12/04	1447	1	X		S	48 hr	X		71B E Sidewall OX3	10"	–	REG
0023-S4-779	2/12/04	1454	1	X		S	48 hr	X	MS/MSD	54B E Sidewall OX3	0"	–	REG
0023-S4-780	2/12/04	1502	1		X	S	48 hr	X		46B E Sidewall OX3	11"	–	REG
0023-S4-781	2/12/04	1510	1	X		S	48 hr	X		37B W Sidewall OX3	4"	–	REG
0023-S4-782	2/12/04	1511	1	X		S	48 hr	X		37B W Sidewall OX3	4"	–	REG FD

AB 2/12/04

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	2/12/04	[illegible]
COMPANY: AFWI	TIME: 1547	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Overex confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1572

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/12/2004
Project ID:	IR Site 4 & 7	Service ID:	41572	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1572-1	Received Date:	02/12/2004
Sample ID:	**0023-S4-775**	Sample Matrix	Soil	Moisture %:	4.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Z
Anal. Method:	8270C	Prep. Date:	02/13/04	Anal. Date:	02/16/04
Batch No:	04G1395	Prep. No:	1 of 1	Anal. Time:	16:50
Data File Name:	1572-01	Sample Amount:	30.0 g	Dilution Factor:	4
Extract Vol.	4.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	1400	<1400	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	1400	<1400	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	1400	<1400	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	1400	<1400	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	1400	<1400	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	1400	<1400	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	1400	<1400	U
8	4-CHLOROANILINE	106-47-8	µg/kg	3200	<3200	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	1400	<1400	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	1400	<1400	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	1400	<1400	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	1400	<1400	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	1400	<1400	U
14	DIBENZOFURAN	132-64-9	µg/kg	1400	<1400	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	1400	<1400	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	1400	<1400	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	1400	<1400	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	2800	<2800	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	1400	<1400	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	1400	<1400	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	1400	<1400	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	1400	<1400	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	6700	<6700	U J
24	2,4-DINITROPHENOL	51-28-5	µg/kg	6700	<6700	U J
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	1400	<1400	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	1400	<1400	U
27	HEXACHLOROBENZENE	118-74-1	µg/kg	1400	<1400	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	1400	<1400	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	6700	<6700	U J
30	HEXACHLOROETHANE	67-72-1	µg/kg	1400	<1400	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	1400	<1400	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	1400	<1400	U
33	2-NITROANILINE	88-74-4	µg/kg	6700	<6700	U
34	3-NITROANILINE	99-09-2	µg/kg	6700	<6700	U
35	4-NITROANILINE	100-01-6	µg/kg	6700	<6700	U
36	NITROBENZENE	98-95-3	µg/kg	1400	<1400	U
37	2-NITROPHENOL	88-75-5	µg/kg	1400	<1400	U
38	4-NITROPHENOL	100-02-7	µg/kg	6700	<6700	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	1400	<1400	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	2800	<2800	U

4/13/04
MAB

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	6700	<6700	U
42	PHENOL	108-95-2	µg/kg	1400	<1400	U
43	PYRIDINE	110-86-1	µg/kg	1400	<1400	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	1400	<1400	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	6700	<6700	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	1400	<1400	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	70
2	2-FLUOROPHENOL	367-12-4	30-120	70
3	NITROBENZENE-D5	4165-60-0	40-135	51
4	PHENOL-D5	4165-62-2	20-120	36
5	TERPHENYL-D14	1718-51-0	40-135	104
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	37
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	95
2	CHRYSENE-D12	1719-03-5	50-200	88
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	91
4	NAPHTHALENE-D8	1146-65-2	50-200	91
5	PERYLENE-D12	1520-96-3	50-200	63
6	PHENANTHRENE-D10	1517-22-2	50-200	99
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270-SIM

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/12/2004
Project ID:	IR Site 4 & 7	Service ID:	41572	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1572-1	Received Date:	02/12/2004
Sample ID:	**0023-S4-775**	Sample Matrix	Soil	Moisture %:	4.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	02/13/04	Anal. Date:	02/16/04
Batch No:	04G1392	Prep. No:	1 of 1	Anal. Time:	14:35
Data File Name:	1572-01A	Sample Amount:	30.0 g	Dilution Factor:	8
Extract Vol.	2.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	42	< 42	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	42	< 42	U
3	ANTHRACENE	120-12-7	µg/kg	42	< 42	U J
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	42	25	J
5	BENZO(A)PYRENE	50-32-8	µg/kg	42	40	J
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	42	36	J
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	42	27	J
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	42	38	J
9	CHRYSENE	218-01-9	µg/kg	42	50	
10	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	42	< 42	U
11	FLUORANTHENE	206-44-0	µg/kg	42	50	
12	FLUORENE	86-73-7	µg/kg	42	< 42	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	42	22	J
14	2-METHYLNAPHTHALENE	91-57-6	µg/kg	42	< 42	U
15	NAPHTHALENE	91-20-3	µg/kg	42	< 42	U
16	PHENANTHRENE	85-01-8	µg/kg	42	21	~~U~~ J
17	PYRENE	129-00-0	µg/kg	42	60	

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	35-124	82
2	NITROBENZENE-D5	4165-60-0	35-134	47
3	TERPHENYL-D14	1718-51-0	35-134	94
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	90
2	CHRYSENE-D12	1719-03-5	50-200	90
3	NAPHTHALENE-D8	1146-65-2	50-200	88
4	PERYLENE-D12	1520-96-3	50-200	75
5	PHENANTHRENE-D10	1517-22-2	50-200	92
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

4/13/04
MAB

8652

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/12/2004
Project ID:	IR Site 4 & 7	Service ID:	41572	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1572-1	Received Date:	02/12/2004
Sample ID:	**0023-S4-775**	Sample Matrix	Soil	Moisture %:	4.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/13/04	Anal. Date:	02/16/04
Batch No:	04G1393	Prep. No:	1 of 1	Anal. Time:	13:53
Data File Name:	1572.201	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	μg/kg	1.8	<1.8	U
2	BETA BHC	319-85-7	μg/kg	1.8	<1.8	U
3	ALPHA BHC	319-84-6	μg/kg	1.8	<1.8	U
4	DELTA BHC	319-86-8	μg/kg	1.8	<1.8	U
5	GAMMA BHC (LINDANE)	58-89-9	μg/kg	1.8	<1.8	U
6	ALPHA-CHLORDANE	5103-71-9	μg/kg	1.0	2.7	
7	GAMMA-CHLORDANE	5103-74-2	μg/kg	1.0	2.9	
8	P,P'-DDD	72-54-8	μg/kg	3.1	16	
9	P,P'-DDE	72-55-9	μg/kg	3.1	31	
10	P,P'-DDT	50-29-3	μg/kg	3.1	37	
11	DIELDRIN	60-57-1	μg/kg	3.1	4	
12	ALPHA ENDOSULFAN	959-98-8	μg/kg	1.8	<1.8	U
13	BETA ENDOSULFAN	33213-65-9	μg/kg	3.1	<3.1	U
14	ENDOSULFAN SULFATE	1031-07-8	μg/kg	5.2	<5.2	U
15	ENDRIN	72-20-8	μg/kg	3.1	<3.1	U
16	ENDRIN ALDEHYDE	7421-93-4	μg/kg	3.1	<3.1	U
17	ENDRIN KETONE	53494-70-5	μg/kg	2.1	<2.1	U
18	HEPTACHLOR	76-44-8	μg/kg	1.8	0.8	J
19	HEPTACHLOR EPOXIDE	1024-57-3	μg/kg	1.8	1	J
20	METHOXYCHLOR	72-43-5	μg/kg	10	<10	U
21	TOXAPHENE	8001-35-2	μg/kg	100	<100	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	36-138	82
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-139	97
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	87
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/12/2004
Project ID:	IR Site 4 & 7	Service ID:	41572	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1572-1	Received Date:	02/12/2004
Sample ID:	**0023-S4-775**	Sample Matrix	Soil	Moisture %:	4.1
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/13/04	Anal. Date:	02/16/04
Batch No:	04G1394	Prep. No:	1 of 1	Anal. Time:	09:30
Data File Name:	1572.101	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	34	<34	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	69	<69	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	34	<34	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	34	<34	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	34	<34	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	34	<34	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	34	9 [a]	J

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	79
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	84
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/12/2004
Project ID:	IR Site 4 & 7	Service ID:	41572	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1572-1	Received Date:	02/12/2004
Sample ID:	**0023-S4-775**	Sample Matrix	Soil	Moisture %:	4.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.2	<5.2	U	P		04M1203M	02/13/04	02/16/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.31	4.2	J	P		04M1203M	02/13/04	02/16/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.0	84.7	J	P		04M1203M	02/13/04	02/16/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.21	<0.21	U	P		04M1203M	02/13/04	02/16/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.21	<0.21	U	P		04M1203M	02/13/04	02/16/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.52	22.7		P		04M1203M	02/13/04	02/16/04	1	6010B
COBALT	7440-48-4	mg/kg	0.52	10.4		P		04M1203M	02/13/04	02/16/04	1	6010B
COPPER	7440-50-8	mg/kg	0.52	20.8		P		04M1203M	02/13/04	02/16/04	1	6010B
LEAD	7439-92-1	mg/kg	0.31	22.4	J	P		04M1203M	02/13/04	02/16/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.21	0.040	J	CV		04M1205H	02/13/04	02/13/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.21	<0.21	U	P		04M1203M	02/13/04	02/16/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.31	16.3	J	P		04M1203M	02/13/04	02/16/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.42	1.1	J	P		04M1203M	02/13/04	02/16/04	1	6010B
SILVER	7440-22-4	mg/kg	0.52	<0.52	U	P		04M1203M	02/13/04	02/16/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.52	<0.52	U	P		04M1203M	02/13/04	02/16/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.52	35.5		P		04M1203M	02/13/04	02/16/04	1	6010B
ZINC	7440-66-6	mg/kg	0.52	74.4		P		04M1203M	02/13/04	02/16/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

4/13/04
MaB

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/12/2004
Project ID:	IR Site 4 & 7	Service ID:	41572	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1572-2	Received Date:	02/12/2004
Sample ID:	**0023-S4-776**	Sample Matrix	Soil	Moisture %:	9.9
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	89.1		P		04M1210L	02/16/04	02/16/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/12/2004
Project ID:	IR Site 4 & 7	Service ID:	41572	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1572-3	Received Date:	02/12/2004
Sample ID:	**0023-S4-777**	Sample Matrix	Soil	Moisture %:	31.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	2.2	456		P		04M1210L	02/16/04	02/16/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/12/2004
Project ID:	IR Site 4 & 7	Service ID:	41572	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1572-4	Received Date:	02/12/2004
Sample ID:	**0023-S4-778**	Sample Matrix	Soil	Moisture %:	13.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	1470		P		04M1210L	02/16/04	02/16/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/12/2004
Project ID:	IR Site 4 & 7	Service ID:	41572	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1572-5	Received Date:	02/12/2004
Sample ID:	**0023-S4-779**	Sample Matrix	Soil	Moisture %:	26.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	8.1	2290		P		04M1210L	02/16/04	02/16/04	20	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/12/2004
Project ID:	IR Site 4 & 7	Service ID:	41572	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1572-6	Received Date:	02/12/2004
Sample ID:	**0023-S4-780**	Sample Matrix	Soil	Moisture %:	30.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.43	275		P		04M1210L	02/16/04	02/16/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/12/2004
Project ID:	IR Site 4 & 7	Service ID:	41572	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1572-7	Received Date:	02/12/2004
Sample ID:	**0023-S4-781**	Sample Matrix	Soil	Moisture %:	27.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.41	25.9 J		P		04M1210L	02/16/04	02/16/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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MAB

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/12/2004
Project ID:	IR Site 4 & 7	Service ID:	41572	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1572-8	Received Date:	02/12/2004
Sample ID:	**0023-S4-782**	Sample Matrix	Soil	Moisture %:	33.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.90	517		P		04M1210L	02/16/04	02/16/04	2	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	41572
Project ID:	IR Site 4 & 7	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	04M1210L		
MS Filename:	-	Date Analyzed:	021604	Time Analyzed:	13:37
MSD Filename:	-	Date Analyzed:	021604	Time Analyzed:	13:39
MS Sample No:	**0023-S4-779**	Sample Lab ID:	04-1572-5	Moisture, %	26.0

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec%	#	QC Limit, % REC
LEAD	mg/kg	203	2290	2680	187	*	75-125
# of Out-of-control					1		

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec%	#	RPD%	#	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	203	2720	207	*	1		20	75-125
# of Out-of-control				1		0			

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Foster Wheeler Environmental
SITE NAME:	IR Sites 4 & 7, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1999; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRICES:	Soil
TYPES OF ANALYSES:	Semivolatile Organics (SVOA), Polynuclear Aromatic Hydrocarbons (PAH), Pesticides, Polychlorinated Biphenyls (PCB), Total Metals
SDG NUMBER:	04-1572 (Level III and Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	SVOA	PAH	Pesticides
0023-S4-775	04-1572-1	Soil	X	X	X

Client Sample #	Lab Sample #	Matrix	PCB	Metals	Lead
0023-S4-775	04-1572-1	Soil	X	X	
0023-S4-776	04-1572-2	Soil			X
0023-S4-777	04-1572-3	Soil			X
0023-S4-778	04-1572-4	Soil			X
0023-S4-779	04-1572-5	Soil			X
0023-S4-780[1]	04-1572-6	Soil			X
0023-S4-781[2]	04-1572-7	Soil			X
0023-S4-782[2]	04-1572-8	Soil			X
0023-S4-779MD	04-1572-5	Soil			X
0023-S4-779MS	04-1572-5	Soil			X
0023-S4-779MSD	04-1572-5	Soil			X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE,
MSD = MATRIX SPIKE DUPLICATE

Note 1: Sample was identified for Level IV validation.
Note 2: Sample was identified as a field duplicate sample.

DATA REVIEWER(S): Mary Ann Brookshire, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1572 Organics & Inorganics

SAMPLES: 0023-S4-775, 0023-S4-776, 0023-S4-777, 0023-S4-778, 0023-S4-779, 0023-S4-780, 0023-S4-781, 0023-S4-782

SEMIVOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) was 21.2% for 2,4-dinitrophenol in the standards analyzed on 2/13/04 on instrument Z, which exceeded the 20% QC limit. The result for 2,4-dinitrophenol in the SDG sample was non-detect, so no action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standard run on 2/16/04 on instrument Z exceeded the 15% QC limit for the following compounds:

hexachlorocyclopentadiene	36.7%
2,4-dinitrophenol	38.1%
4,6-dinitro-2-methylphenol	31.3%

All results for these compounds in SDG sample 0023-S4-775, which consisted entirely of non-detects,

were flagged as estimated (UJ).

IV.) Blanks:

There were no detections in the blanks for this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on sample 0023-S4-771. Six Percent Recoveries were below the QC limits. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this fraction of the SDG. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

POLYNUCLEAR AROMATIC HYDROCARBONS (PAH)

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 2/16/04 on instrument Y exceeded the 15% QC limit for the following compounds:

phenanthrene	18.6%
anthracene	18.2%

The positive and non-detect results for these compounds in SDG sample 0023-S4-775 were flagged as estimated (J) and (UJ).

IV.) Blanks:

There were no detections in the blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory. All Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All MS / MSD criteria were met using batch analyses. No action was required.

VIII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this fraction of the SDG. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

PESTICIDES

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviations (%RSD's) for the standards runs on 2/04/04 on the secondary column exceeded the 20% QC limit for the following compounds:

alpha-BHC	23.0%
beta-BHC	21.9%
delta-BHC	29.0%
methoxychlor	20.7%

As the exceedances were on the secondary column used for confirmation, no action was required.

Continuing Calibration:

All Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the associated blanks. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All LCS Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were run on SDG sample 0023-S4-771. Four percent recoveries (%R's) were below QC limits. Data qualification based on MS / MSD criteria was not required. No action was taken.

VIII.) TCL Compound Identification:

All Compound Identification criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this fraction of the SDG. No action was required.

X.) Pesticide Cleanup Check:

Florisil Cartridge Check:

Florisil data was not provided. No action was required.

Gel Permeation Chromatography (GPC):

GPC data was not provided. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

POLYCHLORINATED BIPHENYLS (PCBs)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) of Aroclor 1016 on the secondary column in the standard analyzed on 2/16/04 on instrument GC S exceeded the 15% QC limit. Data qualification was not required because Aroclor 1016 was not detected in the SDG sample.

IV.) Blanks:

There were no detections in the associated method blank. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All MS / MSD criteria were met using sample 0023-S4-771. No action was required.

VIII.) TCL Compound Identification:

All Compound Identification criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this fraction of the SDG. No action was required.

X.) Pesticide Cleanup Check:

Florisil Cartridge Check:

Florisil data was not provided. No action was required.

Gel Permeation Chromatography (GPC):

GPC data was not provided. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

TOTAL METALS

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was taken.

III.) Blanks:

The following analytes were detected in the blanks associated with this SDG:

Blank ID	Analyte	Detection	Action Level
CCB10	antimony	11.1 ug/L	2.78 mg/kg
CCB12	arsenic	8.94 ug/L	2.24 mg/kg
ICB	barium	5.82 ug/L	1.46 mg/kg
ICB	beryllium	0.60 ug/L	0.15 mg/kg
ICB	cadmium	1.18 ug/L	0.30 mg/kg
ICB	cobalt	2.61 ug/L	0.65 mg/kg
ICB	copper	5.74 ug/L	1.44 mg/kg
ICB	lead	6.4 ug/L	1.60 mg/kg
ICB	molybdenum	2.42 ug/L	0.61 mg/kg
ICB	nickel	3.06 ug/L	0.77 mg/kg
CCB13	thallium	9.51 ug/L	2.38 mg/kg
ICB	vanadium	2.51 ug/L	0.63 mg/kg
CCB11	zinc	7.55 ug/L	1.89 mg/kg

There were no detections of these analytes in the SDG sample less than the action level, so no qualification was required.

The following negative results were reported in the blanks associated with this SDG:

Blank ID	Analyte	Result	Action Level
CCB4	chromium	-0.58 ug/L	0.15 mg/kg
CCB12	selenium	-8.52 ug/L	2.13 mg/kg

ICB = Initial Calibration Blank, CCB = Continuing Calibration Blank

All positive results for these analytes in SDG sample 0023-S4-775 less than the action level and all non-detect results were flagged as estimated (J) and (UJ).

IV.) Interference Check:

The following result was reported in the ICS Solution A with magnitude greater than the IDL:

lead 9.0 ug/L

This analyte should not be present. Aluminum, calcium, iron and/or magnesium was detected in sample 0023-S4-781 at a concentration comparable to the ICS standard. The lead result in this sample was flagged as estimated (J). All remaining samples had reported results greater than 100X the interference level. In the professional judgement of the validator, the level of interference was not considered significant, so no further action was taken.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/MSD analyses were performed on samples 0023-S4-779 and 0023-S4-771. The barium recoveries in the 0023-S4-771 MS and MSD samples were 140% and 143%, respectively, which exceeded the 75-125% QC limits. The positive barium result in associated sample 0023-S4-775 was qualified as estimated (J).

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

One set of field duplicate samples (0023-S4-781 / 0023-S4-782) was identified for this SDG. The Relative Percent Difference (RPD) of lead was 181%, which exceeded the 60% advisory QC limit for soil samples. Data qualification based on field duplicate results was not required. No action was taken.

IX.) Serial Dilution Analysis:

The following Percent Differences (%D's) exceeded the 10% QC limit in the serial dilution of sample 0023-S4-771:

arsenic	13.2%
lead	10.5%
nickel	11.0%

The positive results for arsenic, lead, and nickel in associated SDG sample 0023-S4-775 were flagged as estimated (J).

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05466

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Sites 4+7	PURCHASE ORDER NO.: 80721 Task 25
PROJECT LOCATION: NAVWANSTA Seal Beach, CA	PROJECT NO.: 1070.023D
SAMPLER NAME: Lisa Bertkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bertkowski	AIRBILL NUMBER: Courier

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1600

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 8081 (Aroclors)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 8081 (Aroclors)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-783	2/13/04	1405	1	X		S	24 hr	X		3A N Sidewall	2"	-	REG
0023-S4-784	2/13/04	1408	1	X		S	24 hr	X		3A E Sidewall	11"	-	REG
0023-S4-785	2/13/04	1411	1	X		S	24 hr	X		3A S Sidewall	4"	-	REG
0023-S4-786	2/13/04	1413	1	X		S	24 hr	X		3A W Sidewall	7"	-	REG
0023-S4-787	2/13/04	1416	1	X		S	24 hr	X		3A Floor	1 foot	-	REG
0023-S4-788	2/13/04	1454	1	X		S	24 hr	X	MS/MSD	21A N Sidewall	22"	-	REG
0023-S4-789	2/13/04	1457	1	X		S	24 hr	X		21A E Sidewall	5"	-	REG
0023-S4-790	2/13/04	1459	1		X	S	24 hr	X		21A S Sidewall	7"	-	REG
0023-S4-791	2/13/04	1502	1	X		S	24 hr	X		21A W Sidewall	12"	-	REG
0023-S4-792	2/13/04	1505	1	X		S	24 hr	X		21A Floor	2'	-	REG
							2/13/04						

RELINQUISHED BY (Signature): [signature]	DATE: 2/13/04	RECEIVED BY (Signature): [signature]	LABORATORY INSTRUCTIONS/COMMENTS: N/A
COMPANY: HTWI	TIME: 1530	COMPANY: APCL	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	COMPOSITE DESCRIPTION: N/A
COMPANY	TIME	COMPANY	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
COMPANY	TIME	COMPANY	TEMPERATURE: ____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1600

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/13/2004
Project ID:	IR Sitea 4 & 7	Service ID:	41600	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1600-1	Received Date:	02/13/2004
Sample ID:	**0023-S4-783**	Sample Matrix	Soil	Moisture %:	64.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.83	139		P		04M1211L	02/16/04	02/16/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/13/2004
Project ID:	IR Sitea 4 & 7	Service ID:	41600	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1600-2	Received Date:	02/13/2004
Sample ID:	**0023-S4-784**	Sample Matrix	Soil	Moisture %:	36.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.47	18.7		P		04M1211L	02/16/04	02/16/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/13/2004
Project ID:	IR Sitea 4 & 7	Service ID:	41600	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1600-3	Received Date:	02/13/2004
Sample ID:	**0023-S4-785**	Sample Matrix	Soil	Moisture %:	37.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.48	28.0		P		04M1211L	02/16/04	02/16/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/13/2004
Project ID:	IR Sitea 4 & 7	Service ID:	41600	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1600-4	Received Date:	02/13/2004
Sample ID:	**0023-S4-786**	Sample Matrix	Soil	Moisture %:	75.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.2	921		P		04M1211L	02/16/04	02/16/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/13/2004
Project ID:	IR Sitea 4 & 7	Service ID:	41600	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1600-5	Received Date:	02/13/2004
Sample ID:	**0023-S4-787**	Sample Matrix	Soil	Moisture %:	75.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	1.2	472		P		04M1211L	02/16/04	02/16/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/13/2004
Project ID:	IR Sitea 4 & 7	Service ID:	41600	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1600-6	Received Date:	02/13/2004
Sample ID:	**0023-S4-788**	Sample Matrix	Soil	Moisture %:	47.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.57	51.0		P		04M1211L	02/16/04	02/16/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/13/2004
Project ID:	IR Sitea 4 & 7	Service ID:	41600	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1600-7	Received Date:	02/13/2004
Sample ID:	**0023-S4-789**	Sample Matrix	Soil	Moisture %:	55.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.67	46.5		P		04M1211L	02/16/04	02/16/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/13/2004
Project ID:	IR Sitea 4 & 7	Service ID:	41600	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1600-8	Received Date:	02/13/2004
Sample ID:	**0023-S4-790**	Sample Matrix	Soil	Moisture %:	67.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.92	806		P		04M1211L	02/16/04	02/16/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/13/2004
Project ID:	IR Sitea 4 & 7	Service ID:	41600	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1600-9	Received Date:	02/13/2004
Sample ID:	**0023-S4-791**	Sample Matrix	Soil	Moisture %:	49.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.59	27.1		P		04M1211L	02/16/04	02/16/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/13/2004
Project ID:	IR Sitea 4 & 7	Service ID:	41600	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1600-10	Received Date:	02/13/2004
Sample ID:	**0023-S4-792**	Sample Matrix	Soil	Moisture %:	48.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.58	36.3		P		04M1211L	02/16/04	02/16/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Foster Wheeler Environmental
SITE NAME:	IR Sites 4 & 7, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Total Lead
SDG NUMBER:	04-1600 (Levels III and IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-783	04-1600-1	Soil	X
0023-S4-784	04-1600-2	Soil	X
0023-S4-785	04-1600-3	Soil	X
0023-S4-786	04-1600-4	Soil	X
0023-S4-787	04-1600-5	Soil	X
0023-S4-788	04-1600-6	Soil	X
0023-S4-789	04-1600-7	Soil	X
0023-S4-790[1]	04-1600-8	Soil	X
0023-S4-791	04-1600-9	Soil	X
0023-S4-792	04-1600-10	Soil	X
0023-S4-788MS	04-1600-6	Soil	X
0023-S4-788MSD	04-1600-6	Soil	X

Note 1: Sample was identified for Level IV validation.

SUFFIX CODES: MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWER(S): Mary Ann Brookshire, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1600 Inorganics

SAMPLES: 0023-S4-783, 0023-S4-784, 0023-S4-785, 0023-S4-786, 0023-S4-787, 0023-S4-788, 0023-S4-789, 0023-S4-790, 0023-S4-791, 0023-S4-792

TOTAL LEAD

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was reported at 6.4 ug/L in continuing calibration blank CCB1. Because the results for lead in the SDG samples were greater than 5X the blank amount, no action was required.

IV.) Interference Check:

All Interference Check Sample ICSAB recovery criteria were met. Lead was detected in ICSA at 9.0 ug/L. Concentrations of interferants in the SDG samples were not comparable to the ICSA levels, so no qualification was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-788. All MS / MSD criteria were met.

No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Serial Dilution Analysis:

All Serial Dilution criteria were met. No action was required.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05468

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 4+7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1656

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6000/7 (lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6000/7 (lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-793	2/18/04	1217	1	X		S	24 hr	X		71B E Sidewall OX4	7"	-	REG
0023-S4-794	2/18/04	1212	1	X		S	24 hr	X		54B E Sidewall OX4	4"	-	REG
0023-S4-795	2/18/04	1201	1		X	S	24 hr	X		3A W Sidewall OX	10"	-	REG
0023-S4-796	2/18/04	1205	1		X	S	24 hr	X		21A S Sidewall OX	13"	-	REG

2/18/04

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	2/18/04	[illegible]
COMPANY: TFWI	TIME: 1540	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: OX Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1656

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/18/2004
Project ID:	IR Site 4 & 7	Service ID:	41656	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1656-1	Received Date:	02/18/2004
Sample ID:	**0023-S4-793**	Sample Matrix	Soil	Moisture %:	11.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	3.4	2330		P		04M1232M	02/19/04	02/19/04	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/18/2004
Project ID:	IR Site 4 & 7	Service ID:	41656	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1656-2	Received Date:	02/18/2004
Sample ID:	**0023-S4-794**	Sample Matrix	Soil	Moisture %:	35.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	4.6	2130		P		04M1232M	02/19/04	02/19/04	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/18/2004
Project ID:	IR Site 4 & 7	Service ID:	41656	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1656-3	Received Date:	02/18/2004
Sample ID:	**0023-S4-795**	Sample Matrix	Soil	Moisture %:	59.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.74	35.7		P		04M1232M	02/19/04	02/19/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/18/2004
Project ID:	IR Site 4 & 7	Service ID:	41656	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1656-4	Received Date:	02/18/2004
Sample ID:	**0023-S4-796**	Sample Matrix	Soil	Moisture %:	57.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.70	61.6		P		04M1232M	02/19/04	02/19/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Foster Wheeler Environmental
SITE NAME:	IR Sites 4 & 7, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Total Lead
SDG NUMBER:	04-1656 (Levels III and IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-793	04-1656-1	Soil	X
0023-S4-794	04-1656-2	Soil	X
0023-S4-795[1]	04-1656-3	Soil	X
0023-S4-796[1]	04-1656-4	Soil	X

Note 1: Sample was identified for Level IV validation.

DATA REVIEWER(S): Mary Ann Brookshire, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1656 Inorganics

SAMPLES: 0023-S4-793, 0023-S4-794, 0023-S4-795, 0023-S4-796

TOTAL LEAD

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was reported at 4.55 ug/L in continuing calibration blank CCB1. Because the results for lead in the SDG samples were greater than 5X the blank amount, no action was required.

IV.) Interference Check:

All Interference Check Sample criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on a batch sample. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Serial Dilution Analysis:

All Serial Dilution criteria were met. No action was required.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05467

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Sites 4+7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1746

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: CPA (601/8010/Halogens)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	CPA (601/8010/Halogens)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-801	2/20/04	1125	1	X		S	24 hr	X	Run MS/MSD	54BE Sidewall 0X5	6"	–	REG
0023-S4-802	2/20/04	1135	1		X	S	24 hr	X		71BE Sidewall 0X5	8"	–	REG
0023-S4-803	2/20/04	1136	1	X		S	24 hr	X		71BE Sidewall 0X5	8"	–	REG FD

RELINQUISHED BY (Signature): Lisa Bienkowski	DATE: 2/20/04	RECEIVED BY (Signature): [illegible]	
COMPANY: TFWST	TIME: 1450	COMPANY: APCL	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	
COMPANY	TIME	COMPANY	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	
COMPANY	TIME	COMPANY	

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Overex Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/20/2004
Project ID:	IR Sites 4 & 7	Service ID:	41746	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1746-1	Received Date:	02/20/2004
Sample ID:	**0023-S4-801**	Sample Matrix	Soil	Moisture %:	33.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.45	1160	J	P		04M1246M	02/23/04	02/23/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL
B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control
* - Duplicate analysis out of control
W - Post digestion spike for GFAA out of control
E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

JL 4-10-04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/20/2004
Project ID:	IR Sites 4 & 7	Service ID:	41746	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1746-2	Received Date:	02/20/2004
Sample ID:	0023-S4-802	Sample Matrix	Soil	Moisture %:	15.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	1060	J	P		04M1246M	02/23/04	02/23/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

JK 10-04

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/20/2004
Project ID:	IR Sites 4 & 7	Service ID:	41746	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1746-3	Received Date:	02/20/2004
Sample ID:	**0023-S4-803**	Sample Matrix	Soil	Moisture %:	15.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.35	1220	J	P		04M1246M	02/23/04	02/23/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

JK 4-10-04

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Foster Wheeler Environmental
SITE NAME:	IR Sites 4 & 7, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	04-1746 (Level III and IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-801	04-1746-1	Soil	X
0023-S4-802[1]	04-1746-2	Soil	X
0023-S4-803	04-1746-3	Soil	X
0023-S4-801MS	04-1746-1MS	Soil	X
0023-S4-801MSD	04-1746-1MSD	Soil	X

Note 1: Sample was identified for Level IV validation.

Suffix Codes: MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1746 Inorganics

SAMPLES: 0023-S4-801, 0023-S4-802, 0023-S4-803

TOTAL LEAD

SUMMARY

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

There were no detections for the blanks associated with this SDG. No action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-801. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Serial Dilution Analysis:

The Percent Difference (%D) for lead was 10.4% for the Serial Dilution Analysis performed on SDG sample 0023-S4-801, which exceeded the 10% QC limit. All positive results for lead in the SDG samples were flagged as estimated (J).

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05469

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Sites 4 & 7	PURCHASE ORDER NO.: 30721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1747

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	Title 22 Metals	EPA 5035/8260B	EPA 8270C	EPA 8081A	EPA 8082	STLC Extraction/Metals	TCLP Extraction/Metals	STLC Cr/Pb added 3/1/04	TCLP Pb	TCLP SVOCs added 3/2/04	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-797	2/20/04	0745	5	X		S	5 day	X					X	X	X	X		Run MS/MSD TCLP Cr (6) 3/2/04	Stockpile F1	–	–	REG
0023-S4-798	2/20/04	0820	5	X		S	5 day	X					X	X	X	X		STLC Pb	Stockpile F2	–	–	REG
0023-S4-799	2/20/04	0850	9	X		S	5 day	X	X	X	X	X	X	X	X	X	X	STLC Pb Added 3/2/04	Stockpile F3	–	–	REG
0023-S4-800	2/20/04	0915	5	X		S	5 day	X					X	X	X	X		STLC Pb (6)	Stockpile F4	–	–	REG

2/20/04

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	2/20/04	[signature]
COMPANY: HFWI	TIME: 1450	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: Composite all 5 jars per sample before analysis

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Stockpile #2 Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1747

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/20/2004
Project ID:	IR Sites 4 & 7	Service ID:	41747	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1747-3	Received Date:	02/20/2004
Sample ID:	**0023-S4-799**	Sample Matrix	Soil	Moisture %:	21.3
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/24/04	Anal. Date:	02/24/04
Batch No:	04G1488	Prep. No:	–	Anal. Time:	10:43
Data File Name:	1747-03	Sample Amount:	3.58 g	Dilution Factor:	1.4
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	89	<89	U
2	BENZENE	71-43-2	µg/kg	8.9	<8.9	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	8.9	<8.9	U
4	BROMOFORM	75-25-2	µg/kg	8.9	<8.9	U
5	BROMOMETHANE	74-83-9	µg/kg	8.9	<8.9	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	89	<89	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	8.9	<8.9	U
8	CHLOROBENZENE	108-90-7	µg/kg	8.9	<8.9	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	8.9	<8.9	U
10	CHLOROETHANE	75-00-3	µg/kg	8.9	<8.9	U
11	CHLOROFORM	67-66-3	µg/kg	8.9	<8.9	U
12	CHLOROMETHANE	74-87-3	µg/kg	8.9	<8.9	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	8.9	<8.9	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	8.9	<8.9	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	8.9	<8.9	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	8.9	<8.9	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	8.9	<8.9	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	8.9	<8.9	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	8.9	<8.9	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	8.9	<8.9	U
21	ETHYLBENZENE	100-41-4	µg/kg	8.9	<8.9	U
22	2-HEXANONE	591-78-6	µg/kg	89	<89	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	8.9	<8.9	U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	89	<89	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	18	<18	U
26	STYRENE	100-42-5	µg/kg	8.9	<8.9	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	8.9	<8.9	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	8.9	<8.9	U
29	TOLUENE	108-88-3	µg/kg	8.9	<8.9	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	8.9	<8.9	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	8.9	<8.9	U
32	TRICHLOROETHENE	79-01-6	µg/kg	8.9	<8.9	U
33	VINYL ACETATE	108-05-4	µg/kg	89	<89	U
34	VINYL CHLORIDE	75-01-4	µg/kg	8.9	<8.9	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	8.9	1	J

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	105
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	112

Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	115
4	TOLUENE-D8	2037-26-5	80-120	94
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	90
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	90
3	FLUOROBENZENE	462-06-6	50-200	71
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/20/2004
Project ID:	IR Sites 4 & 7	Service ID:	41747	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1747-3	Received Date:	02/20/2004
Sample ID:	**0023-S4-799**	Sample Matrix	Soil	Moisture %:	21.3
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: D
Anal. Method:	8270C	Prep. Date:	02/23/04	Anal. Date:	02/25/04
Batch No:	04G1480	Prep. No:	1 of 1	Anal. Time:	03:00
Data File Name:	1747-03	Sample Amount:	30.0 g	Dilution Factor:	8 (c)
Extract Vol.	2.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	3400	<3400	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	3400	<3400	U
3	ANTHRACENE	120-12-7	µg/kg	3400	<3400	U
4	BENZO(A)ANTHRACENE	56-55-3	µg/kg	3400	<3400	U
5	BENZO(A)PYRENE	50-32-8	µg/kg	3400	<3400	U
6	BENZO(B)FLUORANTHENE	205-99-2	µg/kg	3400	<3400	U
7	BENZO(G,H,I)PERYLENE	191-24-2	µg/kg	3400	<3400	U
8	BENZO(K)FLUORANTHENE	207-08-9	µg/kg	3400	<3400	U
9	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	3400	<3400	U
10	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	3400	<3400	U
11	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	3400	<3400	U
12	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	3400	<3400	U
13	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	3400	<3400	U
14	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	3400	<3400	U
15	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	3400	<3400	U
16	4-CHLOROANILINE	106-47-8	µg/kg	7700	<7700	U
17	2-CHLORONAPHTHALENE	91-58-7	µg/kg	3400	<3400	U
18	2-CHLOROPHENOL	95-57-8	µg/kg	3400	<3400	U
19	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	3400	<3400	U
20	CHRYSENE	218-01-9	µg/kg	3400	<3400	U
21	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	3400	<3400	U
22	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	3400	<3400	U
23	DIBENZ(A,H)ANTHRACENE	53-70-3	µg/kg	3400	<3400	U
24	DIBENZOFURAN	132-64-9	µg/kg	3400	<3400	U
25	1,2-DICHLOROBENZENE	95-50-1	µg/kg	3400	<3400	U
26	1,3-DICHLOROBENZENE	541-73-1	µg/kg	3400	<3400	U
27	1,4-DICHLOROBENZENE	106-46-7	µg/kg	3400	<3400	U
28	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	6700	<6700	U
29	2,4-DICHLOROPHENOL	120-83-2	µg/kg	3400	<3400	U
30	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	3400	<3400	U
31	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	3400	<3400	U
32	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	3400	<3400	U
33	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	16000	<16000	U
34	2,4-DINITROPHENOL	51-28-5	µg/kg	16000	<16000	U
35	2,4-DINITROTOLUENE	121-14-2	µg/kg	3400	<3400	U
36	2,6-DINITROTOLUENE	606-20-2	µg/kg	3400	<3400	U
37	FLUORANTHENE	206-44-0	µg/kg	3400	<3400	U
38	FLUORENE	86-73-7	µg/kg	3400	<3400	U
39	HEXACHLOROBENZENE	118-74-1	µg/kg	3400	<3400	U
40	HEXACHLOROBUTADIENE	87-68-3	µg/kg	3400	<3400	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	HEXACHLOROCYCLOPENTADIENE	77-47-4	μg/kg	16000	<16000	U
42	HEXACHLOROETHANE	67-72-1	μg/kg	3400	<3400	U
43	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	3400	<3400	U
44	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	μg/kg	3400	<3400	U
45	2-METHYLPHENOL (O-CRESOL)	95-48-7	μg/kg	3400	<3400	U
46	NAPHTHALENE	91-20-3	μg/kg	3400	<3400	U
47	2-NITROANILINE	88-74-4	μg/kg	16000	<16000	U
48	3-NITROANILINE	99-09-2	μg/kg	16000	<16000	U
49	4-NITROANILINE	100-01-6	μg/kg	16000	<16000	U
50	NITROBENZENE	98-95-3	μg/kg	3400	<3400	U
51	2-NITROPHENOL	88-75-5	μg/kg	3400	<3400	U
52	4-NITROPHENOL	100-02-7	μg/kg	16000	<16000	U
53	N-NITROSODI-N-PROPYLAMINE	621-64-7	μg/kg	3400	<3400	U
54	N-NITROSODIPHENYLAMINE	86-30-6	μg/kg	6700	<6700	U
55	PENTACHLOROPHENOL (PCP)	87-86-5	μg/kg	16000	<16000	U
56	PHENANTHRENE	85-01-8	μg/kg	3400	<3400	U
57	PHENOL	108-95-2	μg/kg	3400	<3400	U
58	PYRENE	129-00-0	μg/kg	3400	<3400	U
59	PYRIDINE	110-86-1	μg/kg	3400	<3400	U
60	1,2,4-TRICHLOROBENZENE	120-82-1	μg/kg	3400	<3400	U
61	2,4,5-TRICHLOROPHENOL	95-95-4	μg/kg	16000	<16000	U
62	2,4,6-TRICHLOROPHENOL	88-06-2	μg/kg	3400	<3400	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	66
2	2-FLUOROPHENOL	367-12-4	30-120	53
3	NITROBENZENE-D5	4165-60-0	40-135	59
4	PHENOL-D5	4165-62-2	20-120	37
5	TERPHENYL-D14	1718-51-0	40-135	69
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	53
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	129
2	CHRYSENE-D12	1719-03-5	50-200	142
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	139
4	NAPHTHALENE-D8	1146-65-2	50-200	122
5	PERYLENE-D12	1520-96-3	50-200	93
6	PHENANTHRENE-D10	1517-22-2	50-200	127
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.
(c) Sample extract was dark and viscous, dilution was necessary.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/20/2004
Project ID:	IR Sites 4 & 7	Service ID:	41747	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1747-3	Received Date:	02/20/2004
Sample ID:	**0023-S4-799**	Sample Matrix	Soil	Moisture %:	21.3
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/25/04	Anal. Date:	02/25/04
Batch No:	04G1511	Prep. No:	1 of 1	Anal. Time:	14:36
Data File Name:	1747.003	Sample Amount:	30.0 g	Dilution Factor:	10
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	22	<22	U
2	BETA BHC	319-85-7	µg/kg	22	<22	U
3	ALPHA BHC	319-84-6	µg/kg	22	<22	U
4	DELTA BHC	319-86-8	µg/kg	22	<22	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	22	<22	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	13	<13	U
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	13	<13	U
8	P,P'-DDD	72-54-8	µg/kg	38	1	J
9	P,P'-DDE	72-55-9	µg/kg	38	<38	U
10	P,P'-DDT	50-29-3	µg/kg	38	10	J
11	DIELDRIN	60-57-1	µg/kg	38	<38	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	22	<22	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	38	<38	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	64	<64	U
15	ENDRIN	72-20-8	µg/kg	38	<38	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	38	<38	U
17	ENDRIN KETONE	53494-70-5	µg/kg	25	<25	U
18	HEPTACHLOR	76-44-8	µg/kg	22	<22	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	22	<22	U
20	METHOXYCHLOR	72-43-5	µg/kg	130	<130	U
21	TOXAPHENE	8001-35-2	µg/kg	1300	<1300	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	32-146	53
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	25
# of out-of-control				1

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	107
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/20/2004
Project ID:	IR Sites 4 & 7	Service ID:	41747	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1747-3	Received Date:	02/20/2004
Sample ID:	**0023-S4-799**	Sample Matrix	Soil	Moisture %:	21.3
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/25/04	Anal. Date:	02/26/04
Batch No:	04G1507	Prep. No:	1 of 1	Anal. Time:	10:00
Data File Name:	1747.103	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	42	<42	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	84	<84	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	42	<42	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	42	<42	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	42	<42	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	42	88 [d]	
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	42	<42	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	75
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	71
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[d] Sample might contain more than one PCB, result estimated.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/20/2004
Project ID:	IR Sites 4 & 7	Service ID:	41747	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1747-1	Received Date:	02/20/2004
Sample ID:	**0023-S4-797**	Sample Matrix	Soil	Moisture %:	21.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.4	<6.4	U	P		04M1254L	02/24/04	02/24/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.38	13.6		P		04M1254L	02/24/04	02/24/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	724		P		04M1254L	02/24/04	02/24/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.26	<0.26	U	P		04M1254L	02/24/04	02/24/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.26	0.54		P		04M1254L	02/24/04	02/24/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.64	122		P		04M1254L	02/24/04	02/24/04	1	6010B
COBALT	7440-48-4	mg/kg	0.64	14.3		P		04M1254L	02/24/04	02/24/04	1	6010B
COPPER	7440-50-8	mg/kg	0.64	54.6		P		04M1254L	02/24/04	02/24/04	1	6010B
LEAD	7439-92-1	mg/kg	0.38	2170		P		04M1254L	02/24/04	02/24/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.26	0.74		CV		04M1265H	02/25/04	02/25/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.26	0.23	J	P		04M1254L	02/24/04	02/24/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.38	23.8		P		04M1254L	02/24/04	02/24/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.51	<0.51	U	P		04M1254L	02/24/04	02/24/04	1	6010B
SILVER	7440-22-4	mg/kg	0.64	<0.64	U	P		04M1254L	02/24/04	02/24/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.64	<0.64	U	P		04M1254L	02/24/04	02/24/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.64	55.1		P		04M1254L	02/24/04	02/24/04	1	6010B
ZINC	7440-66-6	mg/kg	0.64	380		P		04M1254L	02/24/04	02/24/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/20/2004
Project ID:	IR Sites 4 & 7	Service ID:	41747	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1747-1	Received Date:	02/20/2004
Sample ID:	**0023-S4-797**	Sample Matrix	Soil	Moisture %:	21.8
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP CHROMIUM [b]	7440-47-3	μg/L	10	1.6	J	P		04M1252M	02/24/04	02/24/04	2	6010B
TCLP LEAD [b]	7439-92-1	μg/L	10	271		P		04M1252M	02/24/04	02/24/04	2	6010B

[b] Additional analysis requested on 03/02/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/20/2004
Project ID:	IR Sites 4 & 7	Service ID:	41747	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1747-1	Received Date:	02/20/2004
Sample ID:	**0023-S4-797**	Sample Matrix	Soil	Moisture %:	21.8
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC CHROMIUM [b]	7440-47-3	μg/L	25	705		P		04M1278L	02/27/04	02/27/04	5	6010B

[b] Additional analysis requested on 03/02/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/20/2004
Project ID:	IR Sites 4 & 7	Service ID:	41747	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1747-2	Received Date:	02/20/2004
Sample ID:	**0023-S4-798**	Sample Matrix	Soil	Moisture %:	25.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.7	<6.7	U	P		04M1254L	02/24/04	02/24/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.40	7.8		P		04M1254L	02/24/04	02/24/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	182		P		04M1254L	02/24/04	02/24/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.27	<0.27	U	P		04M1254L	02/24/04	02/24/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.27	0.23	J	P		04M1254L	02/24/04	02/24/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.67	36.9		P		04M1254L	02/24/04	02/24/04	1	6010B
COBALT	7440-48-4	mg/kg	0.67	14.0		P		04M1254L	02/24/04	02/24/04	1	6010B
COPPER	7440-50-8	mg/kg	0.67	30.8		P		04M1254L	02/24/04	02/24/04	1	6010B
LEAD	7439-92-1	mg/kg	0.40	360		P		04M1254L	02/24/04	02/24/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.27	0.20	J	CV		04M1265H	02/25/04	02/25/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.27	<0.27	U	P		04M1254L	02/24/04	02/24/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.40	19.6		P		04M1254L	02/24/04	02/24/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.54	<0.54	U	P		04M1254L	02/24/04	02/24/04	1	6010B
SILVER	7440-22-4	mg/kg	0.67	<0.67	U	P		04M1254L	02/24/04	02/24/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.67	<0.67	U	P		04M1254L	02/24/04	02/24/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.67	57.5		P		04M1254L	02/24/04	02/24/04	1	6010B
ZINC	7440-66-6	mg/kg	0.67	163		P		04M1254L	02/24/04	02/24/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/20/2004
Project ID:	IR Sites 4 & 7	Service ID:	41747	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1747-2	Received Date:	02/20/2004
Sample ID:	**0023-S4-798**	Sample Matrix	Soil	Moisture %:	25.4
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	μg/L	10	198		P		04M1252M	02/24/04	02/24/04	2	6010B

[b] Additional analysis requested on 03/02/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/20/2004
Project ID:	IR Sites 4 & 7	Service ID:	41747	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1747-2	Received Date:	02/20/2004
Sample ID:	**0023-S4-798**	Sample Matrix	Soil	Moisture %:	25.4
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC LEAD [b]	7439-92-1	μg/L	25	24100		P		04M1278L	02/27/04	02/27/04	5	6010B

[b] Additional analysis requested on 03/02/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

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M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/20/2004
Project ID:	IR Sites 4 & 7	Service ID:	41747	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1747-3	Received Date:	02/20/2004
Sample ID:	**0023-S4-799**	Sample Matrix	Soil	Moisture %:	21.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.4	<6.4	U	P		04M1254L	02/24/04	02/24/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.38	8.5		P		04M1254L	02/24/04	02/24/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	222		P		04M1254L	02/24/04	02/24/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1254L	02/24/04	02/24/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.46		P		04M1254L	02/24/04	02/24/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.64	40.3		P		04M1254L	02/24/04	02/24/04	1	6010B
COBALT	7440-48-4	mg/kg	0.64	13.5		P		04M1254L	02/24/04	02/24/04	1	6010B
COPPER	7440-50-8	mg/kg	0.64	35.7		P		04M1254L	02/24/04	02/24/04	1	6010B
LEAD	7439-92-1	mg/kg	0.38	499		P		04M1254L	02/24/04	02/24/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.93		CV		04M1265H	02/25/04	02/25/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.25	<0.25	U	P		04M1254L	02/24/04	02/24/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.38	19.9		P		04M1254L	02/24/04	02/24/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.51	<0.51	U	P		04M1254L	02/24/04	02/24/04	1	6010B
SILVER	7440-22-4	mg/kg	0.64	<0.64	U	P		04M1254L	02/24/04	02/24/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.64	<0.64	U	P		04M1254L	02/24/04	02/24/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.64	55.4		P		04M1254L	02/24/04	02/24/04	1	6010B
ZINC	7440-66-6	mg/kg	0.64	193		P		04M1254L	02/24/04	02/24/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/20/2004
Project ID:	IR Sites 4 & 7	Service ID:	41747	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1747-3	Received Date:	02/20/2004
Sample ID:	**0023-S4-799**	Sample Matrix	Soil	Moisture %:	21.3
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	μg/L	10	190		P		04M1252M	02/24/04	02/24/04	2	6010B

[b] Additional analysis requested on 03/02/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/20/2004
Project ID:	IR Sites 4 & 7	Service ID:	41747	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1747-3	Received Date:	02/20/2004
Sample ID:	**0023-S4-799**	Sample Matrix	Soil	Moisture %:	21.3
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC LEAD [b]	7439-92-1	μg/L	25	40300		P		04M1278L	02/27/04	02/27/04	5	6010B

[b] Additional analysis requested on 03/02/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/20/2004
Project ID:	IR Sites 4 & 7	Service ID:	41747	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1747-4	Received Date:	02/20/2004
Sample ID:	**0023-S4-800**	Sample Matrix	Soil	Moisture %:	21.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.4	<6.4	U	P		04M1254L	02/24/04	02/24/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.38	9.9		P		04M1254L	02/24/04	02/24/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	247		P		04M1254L	02/24/04	02/24/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1254L	02/24/04	02/24/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	0.36		P		04M1254L	02/24/04	02/24/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.64	50.5		P		04M1254L	02/24/04	02/24/04	1	6010B
COBALT	7440-48-4	mg/kg	0.64	11.8		P		04M1254L	02/24/04	02/24/04	1	6010B
COPPER	7440-50-8	mg/kg	0.64	32.3		P		04M1254L	02/24/04	02/24/04	1	6010B
LEAD	7439-92-1	mg/kg	0.38	926		P		04M1254L	02/24/04	02/24/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.22	J	CV		04M1265H	02/25/04	02/25/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.25	0.81		P		04M1254L	02/24/04	02/24/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.38	19.4		P		04M1254L	02/24/04	02/24/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.51	<0.51	U	P		04M1254L	02/24/04	02/24/04	1	6010B
SILVER	7440-22-4	mg/kg	0.64	<0.64	U	P		04M1254L	02/24/04	02/24/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.64	<0.64	U	P		04M1254L	02/24/04	02/24/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.64	50.3		P		04M1254L	02/24/04	02/24/04	1	6010B
ZINC	7440-66-6	mg/kg	0.64	188		P		04M1254L	02/24/04	02/24/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

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M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/20/2004
Project ID:	IR Sites 4 & 7	Service ID:	41747	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1747-4	Received Date:	02/20/2004
Sample ID:	**0023-S4-800**	Sample Matrix	Soil	Moisture %:	21.5
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD [b]	7439-92-1	$\mu g/L$	10	457		P		04M1252M	02/24/04	02/24/04	2	6010B

[b] Additional analysis requested on 03/02/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/20/2004
Project ID:	IR Sites 4 & 7	Service ID:	41747	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1747-4	Received Date:	02/20/2004
Sample ID:	**0023-S4-800**	Sample Matrix	Soil	Moisture %:	21.5
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC CHROMIUM [b]	7440-47-3	μg/L	25	641		P		04M1278L	02/27/04	02/27/04	5	6010B
STLC LEAD [b]	7439-92-1	μg/L	25	29400		P		04M1278L	02/27/04	02/27/04	5	6010B

[b] Additional analysis requested on 03/02/04.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

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M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05470

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IRSite 4+7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1789

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA (60/1) (lead only)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA (60/1)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-804	2/24/04	1344	1	X		S	24 hr	X		54B E Sidewall 0x6	6"	—	REG
0023-S4-805	2/24/04	1351	1	X		S	24 hr	X		71B E Sidewall 0x6	8"	—	REG

B 2/24/04

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	2/24/04	[signature]
COMPANY: T+FWI	TIME: 1550	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Overex Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1789

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/24/2004
Project ID:	IR Site 4 & 7	Service ID:	41789	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1789-1	Received Date:	02/24/2004
Sample ID:	**0023-S4-804**	Sample Matrix	Soil	Moisture %:	30.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	2.2	1110		P		04M1260L	02/25/04	02/25/04	5	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

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W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/24/2004
Project ID:	IR Site 4 & 7	Service ID:	41789	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1789-2	Received Date:	02/24/2004
Sample ID:	**0023-S4-805**	Sample Matrix	Soil	Moisture %:	7.8
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	6.5	2960		P		04M1260L	02/25/04	02/25/04	20	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Foster Wheeler Environmental
SITE NAME:	IR Sites 4 & 7, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVEL:	EPA Level III
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	04-1789 (Level III)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-804	04-1789-1	Soil	X
0023-S4-805	04-1789-2	Soil	X

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE: Jean M Delashmit

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1789 Inorganics

SAMPLES: 0023-S4-804, 0023-S4-805

TOTAL LEAD

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was reported at -5.57 mg/L in continuing calibration blank CCB8. Since the results for lead in the SDG samples were greater than 5X the blank amount, no action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were submitted for this SDG. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Serial Dilution Analysis:

The Percent Difference (%D) for lead was 39.6% for the batch Serial Dilution Analysis, which exceeded the 10% QC limit. The QC sample was not a client sample, therefore the matrix was not associable and no action was taken.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05471

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Site 447	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Benkowski	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Benkowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1790

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 5035/8260B	EPA 8270C	EPA 8081A	EPA 8082	Title 22 Metals	STLC Metals	TCLP Metals				COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S7-001	2/24/04	1420	5	X		S	5 day					X	X	X					Stockpile	–	–	REG
0023-S7-002	2/24/04	1435	5	X		S	5 day					X	X	X					Stockpile	–	–	REG
0023-S7-003	2/24/04	1450	9	X		S	5 day	X	X	X	X	X	X	X					Stockpile	–	–	REG

B 2/24/04

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	2/24/04	[signature]
COMPANY: HFWI	TIME: 1550	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: Composite all 5 jars per sample before analysis

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: UXO Stockpile - Area 5

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1790

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260B

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/24/2004
Project ID:	IR Site 4 & 7	Service ID:	41790	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1790-3	Received Date:	02/24/2004
Sample ID:	**0023-S7-003**	Sample Matrix	Soil	Moisture %:	21.4
Sample Type:	Field Sample	Prep. Method:	5035	Instrument ID:	GC/MS: X
Anal. Method:	8260B	Prep. Date:	02/25/04	Anal. Date:	02/25/04
Batch No:	04G1505	Prep. No:	–	Anal. Time:	21:40
Data File Name:	1790-03	Sample Amount:	5.45 g	Dilution Factor:	0.92
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	59	<59	U
2	BENZENE	71-43-2	µg/kg	5.9	<5.9	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.9	<5.9	U
4	BROMOFORM	75-25-2	µg/kg	5.9	<5.9	U
5	BROMOMETHANE	74-83-9	µg/kg	5.9	<5.9	U
6	METHYL ETHYL KETONE(MEK)	78-93-3	µg/kg	59	<59	U
7	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.9	<5.9	U
8	CHLOROBENZENE	108-90-7	µg/kg	5.9	<5.9	U
9	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.9	<5.9	U
10	CHLOROETHANE	75-00-3	µg/kg	5.9	<5.9	U
11	CHLOROFORM	67-66-3	µg/kg	5.9	<5.9	U
12	CHLOROMETHANE	74-87-3	µg/kg	5.9	<5.9	U
13	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.9	<5.9	U
14	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.9	<5.9	U
15	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.9	<5.9	U
16	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.9	<5.9	U
17	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.9	<5.9	U
18	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.9	<5.9	U
19	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.9	<5.9	U
20	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.9	<5.9	U
21	ETHYLBENZENE	100-41-4	µg/kg	5.9	<5.9	U
22	2-HEXANONE	591-78-6	µg/kg	59	<59	U
23	METHYLENE CHLORIDE	75-09-2	µg/kg	5.9	<5.9	U
24	METHYL ISOBUTYL KETONE (MIBK)	108-10-1	µg/kg	59	<59	U
25	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/kg	12	<12	U
26	STYRENE	100-42-5	µg/kg	5.9	<5.9	U
27	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.9	<5.9	U
28	TETRACHLOROETHENE	127-18-4	µg/kg	5.9	<5.9	U
29	TOLUENE	108-88-3	µg/kg	5.9	<5.9	U
30	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.9	<5.9	U
31	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.9	<5.9	U
32	TRICHLOROETHENE	79-01-6	µg/kg	5.9	<5.9	U
33	VINYL ACETATE	108-05-4	µg/kg	59	<59	U
34	VINYL CHLORIDE	75-01-4	µg/kg	5.9	<5.9	U
35	XYLENES (TOTAL)	1330-20-7	µg/kg	5.9	<5.9	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	80-120	108
2	DIBROMOFLUOROMETHANE	1868-53-7	80-120	109

Surrogates			Control Limit, %	Surro. Rec.%
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-120	117
4	TOLUENE-D8	2037-26-5	80-120	95
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	86
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	84
3	FLUOROBENZENE	462-06-6	50-200	63
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/24/2004
Project ID:	IR Site 4 & 7	Service ID:	41790	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1790-3	Received Date:	02/24/2004
Sample ID:	**0023-S7-003**	Sample Matrix	Soil	Moisture %:	21.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: D
Anal. Method:	8270C	Prep. Date:	02/25/04	Anal. Date:	02/27/04
Batch No:	04G1509	Prep. No:	1 of 1	Anal. Time:	18:46
Data File Name:	1790-03	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	420	<420	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	420	<420	U
3	ANTHRACENE	120-12-7	μg/kg	420	<420	U
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	420	<420	U
5	BENZO(A)PYRENE	50-32-8	μg/kg	420	<420	U
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	420	<420	U
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	420	<420	U
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	420	<420	U
9	BIS(2-CHLOROETHOXY) METHANE	111-91-1	μg/kg	420	<420	U
10	BIS(2-CHLOROETHYL) ETHER	111-44-4	μg/kg	420	<420	U
11	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	μg/kg	420	<420	U
12	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	μg/kg	420	<420	U
13	4-BROMOPHENYL PHENYL ETHER	101-55-3	μg/kg	420	<420	U
14	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	μg/kg	420	<420	U
15	4-CHLORO-3-METHYLPHENOL	59-50-7	μg/kg	420	<420	U
16	4-CHLOROANILINE	106-47-8	μg/kg	970	<970	U
17	2-CHLORONAPHTHALENE	91-58-7	μg/kg	420	<420	U
18	2-CHLOROPHENOL	95-57-8	μg/kg	420	<420	U
19	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	μg/kg	420	<420	U
20	CHRYSENE	218-01-9	μg/kg	420	<420	U
21	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	μg/kg	420	<420	U
22	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	μg/kg	420	<420	U
23	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	420	<420	U
24	DIBENZOFURAN	132-64-9	μg/kg	420	<420	U
25	1,2-DICHLOROBENZENE	95-50-1	μg/kg	420	<420	U
26	1,3-DICHLOROBENZENE	541-73-1	μg/kg	420	<420	U
27	1,4-DICHLOROBENZENE	106-46-7	μg/kg	420	<420	U
28	3,3'-DICHLOROBENZIDINE	91-94-1	μg/kg	840	<840	U
29	2,4-DICHLOROPHENOL	120-83-2	μg/kg	420	<420	U
30	DIETHYL PHTHALATE (DEP)	84-66-2	μg/kg	420	<420	U
31	DIMETHYL PHTHALATE (DMP)	131-11-3	μg/kg	420	<420	U
32	2,4-DIMETHYLPHENOL	105-67-9	μg/kg	420	<420	U
33	4,6-DINITRO-2-METHYLPHENOL	534-52-1	μg/kg	2000	<2000	U
34	2,4-DINITROPHENOL	51-28-5	μg/kg	2000	<2000	U
35	2,4-DINITROTOLUENE	121-14-2	μg/kg	420	<420	U
36	2,6-DINITROTOLUENE	606-20-2	μg/kg	420	<420	U
37	FLUORANTHENE	206-44-0	μg/kg	420	<420	U
38	FLUORENE	86-73-7	μg/kg	420	<420	U
39	HEXACHLOROBENZENE	118-74-1	μg/kg	420	<420	U
40	HEXACHLOROBUTADIENE	87-68-3	μg/kg	420	<420	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	2000	<2000	U
42	HEXACHLOROETHANE	67-72-1	µg/kg	420	<420	U
43	INDENO(1,2,3-C,D)PYRENE	193-39-5	µg/kg	420	<420	U
44	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	420	<420	U
45	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	420	<420	U
46	NAPHTHALENE	91-20-3	µg/kg	420	<420	U
47	2-NITROANILINE	88-74-4	µg/kg	2000	<2000	U
48	3-NITROANILINE	99-09-2	µg/kg	2000	<2000	U
49	4-NITROANILINE	100-01-6	µg/kg	2000	<2000	U
50	NITROBENZENE	98-95-3	µg/kg	420	<420	U
51	2-NITROPHENOL	88-75-5	µg/kg	420	<420	U
52	4-NITROPHENOL	100-02-7	µg/kg	2000	<2000	U
53	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	420	<420	U
54	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	840	<840	U
55	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	2000	<2000	U
56	PHENANTHRENE	85-01-8	µg/kg	420	<420	U
57	PHENOL	108-95-2	µg/kg	420	<420	U
58	PYRENE	129-00-0	µg/kg	420	<420	U
59	PYRIDINE	110-86-1	µg/kg	420	<420	U
60	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	420	<420	U
61	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	2000	<2000	U
62	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	420	<420	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	52
2	2-FLUOROPHENOL	367-12-4	30-120	63
3	NITROBENZENE-D5	4165-60-0	40-135	52
4	PHENOL-D5	4165-62-2	20-120	47
5	TERPHENYL-D14	1718-51-0	40-135	57
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	75
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	101
2	CHRYSENE-D12	1719-03-5	50-200	149
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	97
4	NAPHTHALENE-D8	1146-65-2	50-200	102
5	PERYLENE-D12	1520-96-3	50-200	122
6	PHENANTHRENE-D10	1517-22-2	50-200	128
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8081A

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/24/2004
Project ID:	IR Site 4 & 7	Service ID:	41790	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1790-3	Received Date:	02/24/2004
Sample ID:	**0023-S7-003**	Sample Matrix	Soil	Moisture %:	21.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	02/25/04	Anal. Date:	02/26/04
Batch No:	04G1511	Prep. No:	1 of 1	Anal. Time:	10:27
Data File Name:	1790.103	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	2.2	<2.2	U
2	BETA BHC	319-85-7	µg/kg	2.2	<2.2	U
3	ALPHA BHC	319-84-6	µg/kg	2.2	<2.2	U
4	DELTA BHC	319-86-8	µg/kg	2.2	<2.2	U
5	GAMMA BHC (LINDANE)	58-89-9	µg/kg	2.2	<2.2	U
6	ALPHA-CHLORDANE	5103-71-9	µg/kg	1.3	0.2	J
7	GAMMA-CHLORDANE	5103-74-2	µg/kg	1.3	0.7	J
8	P,P'-DDD	72-54-8	µg/kg	3.8	0.8	J
9	P,P'-DDE	72-55-9	µg/kg	3.8	2	J
10	P,P'-DDT	50-29-3	µg/kg	3.8	0.8	J
11	DIELDRIN	60-57-1	µg/kg	3.8	<3.8	U
12	ALPHA ENDOSULFAN	959-98-8	µg/kg	2.2	<2.2	U
13	BETA ENDOSULFAN	33213-65-9	µg/kg	3.8	<3.8	U
14	ENDOSULFAN SULFATE	1031-07-8	µg/kg	6.4	<6.4	U
15	ENDRIN	72-20-8	µg/kg	3.8	<3.8	U
16	ENDRIN ALDEHYDE	7421-93-4	µg/kg	3.8	<3.8	U
17	ENDRIN KETONE	53494-70-5	µg/kg	2.5	<2.5	U
18	HEPTACHLOR	76-44-8	µg/kg	2.2	<2.2	U
19	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	2.2	<2.2	U
20	METHOXYCHLOR	72-43-5	µg/kg	13	<13	U
21	TOXAPHENE	8001-35-2	µg/kg	130	<130	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	32-146	73
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	69
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	92
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8082

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/24/2004
Project ID:	IR Site 4 & 7	Service ID:	41790	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1790-3	Received Date:	02/24/2004
Sample ID:	**0023-S7-003**	Sample Matrix	Soil	Moisture %:	21.4
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	02/25/04	Anal. Date:	02/26/04
Batch No:	04G1507	Prep. No:	1 of 1	Anal. Time:	10:49
Data File Name:	1790.103	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	42	<42	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	84	<84	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	42	<42	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	42	<42	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	42	<42	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	42	130 [b]	
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	42	<42	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	76
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	76
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.
[b]Sample might contained more than one PCB,result estimated.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/24/2004
Project ID:	IR Site 4 & 7	Service ID:	41790	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1790-1	Received Date:	02/24/2004
Sample ID:	**0023-S7-001**	Sample Matrix	Soil	Moisture %:	27.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.9	<6.9	U	P		04M1263M	02/25/04	02/25/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.41	7.5		P		04M1263M	02/25/04	02/25/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.4	155		P		04M1263M	02/25/04	02/25/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.27	<0.27	U	P		04M1263M	02/25/04	02/25/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.27	1.5		P		04M1263M	02/25/04	02/25/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.69	32.4		P		04M1263M	02/25/04	02/25/04	1	6010B
COBALT	7440-48-4	mg/kg	0.69	18.4		P		04M1263M	02/25/04	02/25/04	1	6010B
COPPER	7440-50-8	mg/kg	0.69	41.0		P		04M1263M	02/25/04	02/25/04	1	6010B
LEAD	7439-92-1	mg/kg	0.41	16.5		P		04M1263M	02/25/04	02/25/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.27	0.023	J	CV		04M1273H	02/26/04	02/26/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.27	0.10	J	P		04M1263M	02/25/04	02/25/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.41	23.1		P		04M1263M	02/25/04	02/25/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.55	1.7		P		04M1263M	02/25/04	02/25/04	1	6010B
SILVER	7440-22-4	mg/kg	0.69	<0.69	U	P		04M1263M	02/25/04	02/25/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.69	<0.69	U	P		04M1263M	02/25/04	02/25/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.69	65.2		P		04M1263M	02/25/04	02/25/04	1	6010B
ZINC	7440-66-6	mg/kg	0.69	263		P		04M1263M	02/25/04	02/25/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/24/2004
Project ID:	IR Site 4 & 7	Service ID:	41790	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1790-2	Received Date:	02/24/2004
Sample ID:	**0023-S7-002**	Sample Matrix	Soil	Moisture %:	22.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.4	<6.4	U	P		04M1263M	02/25/04	02/25/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.39	8.5		P		04M1263M	02/25/04	02/25/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	137		P		04M1263M	02/25/04	02/25/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.26	<0.26	U	P		04M1263M	02/25/04	02/25/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.26	3.2		P		04M1263M	02/25/04	02/25/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.64	43.7		P		04M1263M	02/25/04	02/25/04	1	6010B
COBALT	7440-48-4	mg/kg	0.64	18.5		P		04M1263M	02/25/04	02/25/04	1	6010B
COPPER	7440-50-8	mg/kg	0.64	42.0		P		04M1263M	02/25/04	02/25/04	1	6010B
LEAD	7439-92-1	mg/kg	0.39	31.4		P		04M1263M	02/25/04	02/25/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.26	0.078	J	CV		04M1273H	02/26/04	02/26/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.26	0.37		P		04M1263M	02/25/04	02/25/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.39	24.1		P		04M1263M	02/25/04	02/25/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.52	3.3		P		04M1263M	02/25/04	02/25/04	1	6010B
SILVER	7440-22-4	mg/kg	0.64	<0.64	U	P		04M1263M	02/25/04	02/25/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.64	<0.64	U	P		04M1263M	02/25/04	02/25/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.64	63.6		P		04M1263M	02/25/04	02/25/04	1	6010B
ZINC	7440-66-6	mg/kg	0.64	235		P		04M1263M	02/25/04	02/25/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	02/24/2004
Project ID:	IR Site 4 & 7	Service ID:	41790	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1790-3	Received Date:	02/24/2004
Sample ID:	**0023-S7-003**	Sample Matrix	Soil	Moisture %:	21.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.4	<6.4	U	P		04M1263M	02/25/04	02/25/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.38	7.9		P		04M1263M	02/25/04	02/25/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.3	119		P		04M1263M	02/25/04	02/25/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.25	<0.25	U	P		04M1263M	02/25/04	02/25/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.25	2.4		P		04M1263M	02/25/04	02/25/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.64	35.4		P		04M1263M	02/25/04	02/25/04	1	6010B
COBALT	7440-48-4	mg/kg	0.64	16.8		P		04M1263M	02/25/04	02/25/04	1	6010B
COPPER	7440-50-8	mg/kg	0.64	63.7		P		04M1263M	02/25/04	02/25/04	1	6010B
LEAD	7439-92-1	mg/kg	0.38	36.2		P		04M1263M	02/25/04	02/25/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.25	0.054	J	CV		04M1273H	02/26/04	02/26/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.25	0.54		P		04M1263M	02/25/04	02/25/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.38	24.2		P		04M1263M	02/25/04	02/25/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.51	2.5		P		04M1263M	02/25/04	02/25/04	1	6010B
SILVER	7440-22-4	mg/kg	0.64	<0.64	U	P		04M1263M	02/25/04	02/25/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.64	<0.64	U	P		04M1263M	02/25/04	02/25/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.64	58.3		P		04M1263M	02/25/04	02/25/04	1	6010B
ZINC	7440-66-6	mg/kg	0.64	299		P		04M1263M	02/25/04	02/25/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05473

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Sites 4 + 7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Brenkowski	SAMPLER SIGNATURE: Lisa Brenkowski
PROJECT CONTACT: Lisa Brenkowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1881

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED: EPA 6010B (Leadonly)

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (Leadonly)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-815	3/1/04	1450	1		X	S	48 hr	X		54B E Sidewall OX7	6"	—	REG
0023-S4-816	3/1/04	1500	1		X	S	48 hr	X		71B E Sidewall OX7	9"	—	REG

FC 3/1/04

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Brenkowski	3/1/04	[signature]
COMPANY: HFWI	TIME: 1540	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Overex Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1881

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	03/01/2004
Project ID:	IR Sites 4 & 7	Service ID:	41881	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1881-1	Received Date:	03/01/2004
Sample ID:	**0023-S4-815**	Sample Matrix	Soil	Moisture %:	23.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	3.9	2770		P		04M1292M	03/03/04	03/03/04	10	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	03/01/2004
Project ID:	IR Sites 4 & 7	Service ID:	41881	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1881-2	Received Date:	03/01/2004
Sample ID:	**0023-S4-816**	Sample Matrix	Soil	Moisture %:	21.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.38	66.4		P		04M1292M	03/03/04	03/03/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Foster Wheeler Environmental
SITE NAME:	IR Sites 4 & 7, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Total Lead
SDG NUMBER:	04-1881 (Level IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-815[1]	04-1881-1	Soil	X
0023-S4-816[1]	04-1881-2	Soil	X

Note 1: Sample was identified for Level IV validation.

DATA REVIEWER(S): Mary Ann Brookshire, Jean M. Delashmit

RELEASE SIGNATURE: Jean M. Delashmit

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1881 Inorganics

SAMPLES: 0023-S4-815, 0023-S4-816

TOTAL LEAD

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was taken.

III.) Blanks:

Lead was reported at 3.5 ug/L in the initial calibration blank. Because the results for lead in the SDG samples were greater than 5X the blank amount, no action was required.

IV.) Interference Check:

All Interference Check Sample ICSAB recovery criteria were met.

Lead was detected in ICSA at 5.0 ug/L, and iron was detected in the SDG samples at concentrations comparable to the ICSA. The SDG samples had reported results greater than 100X the interference level. In the professional judgement of the validator, the level of interference was not considered significant, so no further action was taken.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on a batch sample. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Serial Dilution Analysis:

All Serial Dilution criteria were met. No action was required.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05482

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Sites 4 & 7	PURCHASE ORDER NO.: 80721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

ANALYSES REQUIRED: EPA 6010B (lead only)

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1882

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA 6010B (lead only)	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-806	3/1/04	1145	5	X		S	48 hr	X		Stockpile G1	–	–	REG
0023-S4-807	3/1/04	1310	5	X		S	48 hr	X		Stockpile G2	–	–	REG
0023-S4-808	3/1/04	1320	5	X		S	48 hr	X		Stockpile G3	–	–	REG
0023-S4-809	3/1/04	1328	5	X		S	48 hr	X		Stockpile G4	–	–	REG
0023-S4-810	3/1/04	1335	5	X		S	48 hr	X	Run MS/MSD	Stockpile G5	–	–	REG
0023-S4-811	3/1/04	1355	5	X		S	48 hr	X		Stockpile G6	–	–	REG
0023-S4-812	3/1/04	1400	5	/	X	S	48 hr	X		Stockpile G7	–	–	REG
0023-S4-813	3/1/04	1405	5		X	S	48 hr	X		Stockpile G7	–	–	FD
0023-S4-814	3/1/04	1430	1	X		W	48 hr	X		EQ Rinsate	–	–	ER

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	3/1/04	[signature]
COMPANY: TFEWI	TIME: 1540	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: Composite all 5 jars before analysis for sample.

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: IR Site 5 Stockpile Re-Sampling For Lead

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1882

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	03/01/2004
Project ID:	IR Sites 4 & 7	Service ID:	41882	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1882-1	Received Date:	03/01/2004
Sample ID:	**0023-S4-806**	Sample Matrix	Soil	Moisture %:	8.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	38.8		P		04M1292M	03/03/04	03/03/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	03/01/2004
Project ID:	IR Sites 4 & 7	Service ID:	41882	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1882-2	Received Date:	03/01/2004
Sample ID:	**0023-S4-807**	Sample Matrix	Soil	Moisture %:	6.6
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	31.9		P		04M1292M	03/03/04	03/03/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	03/01/2004
Project ID:	IR Sites 4 & 7	Service ID:	41882	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1882-3	Received Date:	03/01/2004
Sample ID:	**0023-S4-808**	Sample Matrix	Soil	Moisture %:	9.1
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	32.3		P		04M1292M	03/03/04	03/03/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	03/01/2004
Project ID:	IR Sites 4 & 7	Service ID:	41882	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1882-4	Received Date:	03/01/2004
Sample ID:	**0023-S4-809**	Sample Matrix	Soil	Moisture %:	13.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.34	27.2		P		04M1292M	03/03/04	03/03/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	03/01/2004
Project ID:	IR Sites 4 & 7	Service ID:	41882	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1882-5	Received Date:	03/01/2004
Sample ID:	**0023-S4-810**	Sample Matrix	Soil	Moisture %:	6.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.32	35.6		P		04M1292M	03/03/04	03/03/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	03/01/2004
Project ID:	IR Sites 4 & 7	Service ID:	41882	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1882-6	Received Date:	03/01/2004
Sample ID:	**0023-S4-811**	Sample Matrix	Soil	Moisture %:	8.4
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	21.8		P		04M1292M	03/03/04	03/03/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	03/01/2004
Project ID:	IR Sites 4 & 7	Service ID:	41882	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1882-7	Received Date:	03/01/2004
Sample ID:	**0023-S4-812**	Sample Matrix	Soil	Moisture %:	9.0
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	32.2		P		04M1292M	03/03/04	03/03/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	03/01/2004
Project ID:	IR Sites 4 & 7	Service ID:	41882	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1882-8	Received Date:	03/01/2004
Sample ID:	**0023-S4-813**	Sample Matrix	Soil	Moisture %:	8.3
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.33	31.7		P		04M1292M	03/03/04	03/03/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Foster Wheeler Environmental Corp	Project No:	1990.023D	Collection Date:	03/01/2004
Project ID:	IR Sites 4 & 7	Service ID:	41882	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1882-9	Received Date:	03/01/2004
Sample ID:	**0023-S4-814**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	μg/L	5	<5	U	P		04M1290L	03/03/04	03/03/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010B

Client Name:	Foster Wheeler Environmental Corp	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	41882
Project ID:	IR Sites 4 & 7	Project No:	1990.023D	Sample Matrix:	Soil
		Batch No:	04M1292M		
MS Filename:	-	Date Analyzed:	030304	Time Analyzed:	13:30
MSD Filename:	-	Date Analyzed:	030304	Time Analyzed:	13:33
MS Sample No:	**0023-S4-810**	Sample Lab ID:	04-1882-5	Moisture, %	6.5

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
LEAD	mg/kg	160	35.6	214	112	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
LEAD	mg/kg	160	214	112	0	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

VALIDATA
Chemical Services, Inc.
4070 Balleycastle Lane, Duluth, GA 30097
(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY REPORT

COMPANY:	Foster Wheeler Environmental
SITE NAME:	IR Sites 4 & 7, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVELS:	EPA Levels III / IV
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Total Lead
SDG NUMBER:	04-1882 (Levels III and IV)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-806	04-1882-1	Soil	X
0023-S4-807	04-1882-2	Soil	X
0023-S4-808	04-1882-3	Soil	X
0023-S4-809	04-1882-4	Soil	X
0023-S4-810	04-1882-5	Soil	X
0023-S4-811	04-1882-6	Soil	X
0023-S4-812[1,2]	04-1882-7	Soil	X
0023-S4-813[1,2]	04-1882-8	Soil	X
0023-S4-814	04-1882-9	Water	X
0023-S4-810MS	04-1882-5	Soil	X
0023-S4-810MSD	04-1882-5	Soil	X

Note 1: Sample was identified for Level IV validation.
Note 2: Sample 0023-S4-812 is a field duplicate of sample 0023-S4-813

SUFFIX CODES: MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWER(S): Mary Ann Brookshire, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1882 Inorganics

SAMPLES: 0023-S4-806, 0023-S4-807, 0023-S4-808, 0023-S4-809, 0023-S4-810, 0023-S4-811, 0023-S4-812, 0023-S4-813, 0023-S4-814

TOTAL LEAD

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was taken.

III.) Blanks:

There were no lead detections in the method or equipment rinsate blanks associated with this SDG. No action was required.

IV.) Interference Check:

All Interference Check Sample ICSAB recovery criteria were met. Lead was detected in ICSA at 5.0 ug/L. The interferant concentrations were not comparable to the ICSA levels, so no action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on sample 0024-S4-810. All MS / MSD criteria were met. No

action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

The RPD of lead between field duplicate samples 0023-S4-812 / 0023-S4-813 was 1.6%, which is within the advisory 60% QC limit for soil. No action was required.

IX.) Serial Dilution Analysis:

All Serial Dilution criteria were met. No action was required.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05474

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Sites 4+7	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Lisa Bienkowski	SAMPLER SIGNATURE: Lisa Bienkowski
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

ANALYSES REQUIRED

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-1982

Project Information Section Do not submit to Laboratory

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	EPA Lead only	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-S4-817	3/8/04	1530	1	X		S	48 hr	X		54B ~~East~~ Sidewall 0X8	2"	–	REG

3/8/04

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
Lisa Bienkowski	3/8/04	[signature]
COMPANY: TFWI	TIME: 1548	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: N/A

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Overex Confirmation Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-1982

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	Tetra Tech FW Inc.	Project No:	1990.023D	Collection Date:	03/08/2004
Project ID:	IR Sites 4 # 7	Service ID:	41982	Collected by:	Lisa Beinkowski
		Lab Sample ID:	04-1982-1	Received Date:	03/08/2004
Sample ID:	**0023-S4-817**	Sample Matrix	Soil	Moisture %:	18.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
LEAD	7439-92-1	mg/kg	0.37	139		P		04M1310L	03/09/04	03/09/04	1	6010B

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

VALIDATA

Chemical Services, Inc.

4070 Balleycastle Lane, Duluth, GA 30097

(770) 232-0130
(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Foster Wheeler Environmental
SITE NAME:	IR Sites 4 & 7, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVEL:	EPA Level III
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPE OF ANALYSIS:	Total Lead
SDG NUMBER:	04-1982 (Level III)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Lead
0023-S4-817	04-1982-1	Soil	X

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-1982 Inorganics

SAMPLE: 0023-S4-817

TOTAL LEAD

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

There were no detections for the blanks associated with this SDG. No action was required.

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were submitted for this SDG. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Serial Dilution Analysis:

The Percent Difference (%D) for lead was 10.1% for the batch Serial Dilution Analysis, which exceeded the 10% QC limit. The QC sample was not a client sample, therefore the matrix was not associable and not action was taken.

FOSTER WHEELER ENVIRONMENTAL CORPORATION
1230 Columbia Street, Suite 640 San Diego, CA 92101 (619) 234-8696

NUMBER 05475

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: IR Sites 447	PURCHASE ORDER NO.: 20721 Task 25
PROJECT LOCATION: NAVWPNSTA Seal Beach, CA	PROJECT NO.: 1990.023D
SAMPLER NAME: Patrick Tinnes	SAMPLER SIGNATURE: [signature]
PROJECT CONTACT: Lisa Bienkowski	AIRBILL NUMBER: COURIER

LABORATORY NAME: APCL

LABORATORY ID (FOR LABORATORY): 04-2237

Project Information Section Do not submit to Laboratory

ANALYSES REQUIRED

SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	Title 22 Metals	EPA 8270C (SIMPLE PAHs)	EPA 8081A	EPA 8082	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
0023-54-818	3/25/04	1155	1	X		S	3 day	X	X	X	X		Topsoil #2		–	REG

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
[signature]	3/25/04	Alan Wood
COMPANY: Tenn Tech	TIME: 1230	COMPANY: APCL
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)
COMPANY	TIME	COMPANY

LABORATORY INSTRUCTIONS/COMMENTS: Run Metals on 24 hr TAT

COMPOSITE DESCRIPTION: N/A

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: _____ SAMPLE CONDITION: ☐ INTACT ☐ BROKEN
COOLER SEAL: ☐ INTACT ☐ BROKEN

SAMPLING COMMENT: Topsoil #2 Additional Sampling

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

04-2237

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270C

Client Name:	Tetra Tech FW, Inc.	Project No:	1990.023D	Collection Date:	03/25/2004
Project ID:	NAVWPNSTA Seal Beach, Ca	Service ID:	42237	Collected by:	Patrick Tinnes
		Lab Sample ID:	04-2237-1	Received Date:	03/25/2004
Sample ID:	**0023-S4-818**	Sample Matrix	Soil	Moisture %:	6.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: D
Anal. Method:	8270C	Prep. Date:	03/29/04	Anal. Date:	03/30/04
Batch No:	04G1830	Prep. No:	1 of 1	Anal. Time:	04:33
Data File Name:	2237-01	Sample Amount:	30.0 g	Dilution Factor:	4[a]
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BIS(2-CHLOROETHOXY) METHANE	111-91-1	µg/kg	1400	<1400	U
2	BIS(2-CHLOROETHYL) ETHER	111-44-4	µg/kg	1400	<1400	U
3	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	µg/kg	1400	<1400	U
4	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	µg/kg	1400	<1400	U
5	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	1400	<1400	U
6	BENZYL BUTYL PHTHALATE (BBP)	85-68-7	µg/kg	1400	<1400	U
7	4-CHLORO-3-METHYLPHENOL	59-50-7	µg/kg	1400	<1400	U
8	4-CHLOROANILINE	106-47-8	µg/kg	3200	<3200	U
9	2-CHLORONAPHTHALENE	91-58-7	µg/kg	1400	<1400	U
10	2-CHLOROPHENOL	95-57-8	µg/kg	1400	<1400	U
11	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	1400	<1400	U
12	DI-N-BUTYL PHTHALATE (DBP)	84-74-2	µg/kg	1400	<1400	U
13	DI-N-OCTYLPHTHALATE (DOP)	117-84-0	µg/kg	1400	<1400	U
14	DIBENZOFURAN	132-64-9	µg/kg	1400	<1400	U
15	1,2-DICHLOROBENZENE	95-50-1	µg/kg	1400	<1400	U
16	1,3-DICHLOROBENZENE	541-73-1	µg/kg	1400	<1400	U
17	1,4-DICHLOROBENZENE	106-46-7	µg/kg	1400	<1400	U
18	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	2800	<2800	U
19	2,4-DICHLOROPHENOL	120-83-2	µg/kg	1400	<1400	U
20	DIETHYL PHTHALATE (DEP)	84-66-2	µg/kg	1400	<1400	U
21	DIMETHYL PHTHALATE (DMP)	131-11-3	µg/kg	1400	<1400	U
22	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	1400	<1400	U
23	4,6-DINITRO-2-METHYLPHENOL	534-52-1	µg/kg	6800	<6800	U
24	2,4-DINITROPHENOL	51-28-5	µg/kg	6800	<6800	U
25	2,4-DINITROTOLUENE	121-14-2	µg/kg	1400	<1400	U
26	2,6-DINITROTOLUENE	606-20-2	µg/kg	1400	<1400	UJ
27	HEXACHLOROBENZENE	118-74-1	µg/kg	1400	<1400	U
28	HEXACHLOROBUTADIENE	87-68-3	µg/kg	1400	<1400	U
29	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	6800	<6800	U
30	HEXACHLOROETHANE	67-72-1	µg/kg	1400	<1400	U
31	3/4-METHYLPHENOL (M/P-CRESOL)	106-44-5	µg/kg	1400	<1400	U
32	2-METHYLPHENOL (O-CRESOL)	95-48-7	µg/kg	1400	<1400	U
33	2-NITROANILINE	88-74-4	µg/kg	6800	<6800	U
34	3-NITROANILINE	99-09-2	µg/kg	6800	<6800	U
35	4-NITROANILINE	100-01-6	µg/kg	6800	<6800	U
36	NITROBENZENE	98-95-3	µg/kg	1400	<1400	U
37	2-NITROPHENOL	88-75-5	µg/kg	1400	<1400	U
38	4-NITROPHENOL	100-02-7	µg/kg	6800	<6800	U
39	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	1400	<1400	U
40	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	2800	<2800	U

HH 5/08/04

Continued

#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	PENTACHLOROPHENOL (PCP)	87-86-5	µg/kg	6800	<6800	U
42	PHENOL	108-95-2	µg/kg	1400	<1400	U
43	PYRIDINE	110-86-1	µg/kg	1400	<1400	U
44	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	1400	<1400	U
45	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	6800	<6800	U
46	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	1400	<1400	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	40-135	70
2	2-FLUOROPHENOL	367-12-4	30-120	45
3	NITROBENZENE-D5	4165-60-0	40-135	64
4	PHENOL-D5	4165-62-2	20-120	55
5	TERPHENYL-D14	1718-51-0	40-135	96
6	2,4,6-TRIBROMOPHENOL	118-79-6	30-125	55
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	96
2	CHRYSENE-D12	1719-03-5	50-200	101
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	115
4	NAPHTHALENE-D8	1146-65-2	50-200	99
5	PERYLENE-D12	1520-96-3	50-200	104
6	PHENANTHRENE-D10	1517-22-2	50-200	123
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.
(a) Sample extract was dark and viscous, dilution was necessary.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270-SIM

Client Name:	Tetra Tech FW, Inc.	Project No:	1990.023D	Collection Date:	03/25/2004
Project ID:	NAVWPNSTA Seal Beach, Ca	Service ID:	42237	Collected by:	Patrick Tinnes
		Lab Sample ID:	04-2237-1	Received Date:	03/25/2004
Sample ID:	**0023-S4-818**	Sample Matrix	Soil	Moisture %:	6.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC/MS: Y
Anal. Method:	8270-SIM	Prep. Date:	03/30/04	Anal. Date:	03/31/04
Batch No:	04G1854	Prep. No:	1 of 1	Anal. Time:	18:49
Data File Name:	2237-01	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	μg/kg	5.3	<5.3	U
2	ACENAPHTHYLENE	208-96-8	μg/kg	5.3	<5.3	U
3	ANTHRACENE	120-12-7	μg/kg	5.3	2	~~J~~ J
4	BENZO(A)ANTHRACENE	56-55-3	μg/kg	5.3	14	
5	BENZO(A)PYRENE	50-32-8	μg/kg	5.3	20	J
6	BENZO(B)FLUORANTHENE	205-99-2	μg/kg	5.3	<5.3	U
7	BENZO(G,H,I)PERYLENE	191-24-2	μg/kg	5.3	14	
8	BENZO(K)FLUORANTHENE	207-08-9	μg/kg	5.3	37	
9	CHRYSENE	218-01-9	μg/kg	5.3	18	
10	DIBENZ(A,H)ANTHRACENE	53-70-3	μg/kg	5.3	5	~~J~~ J
11	FLUORANTHENE	206-44-0	μg/kg	5.3	18	
12	FLUORENE	86-73-7	μg/kg	5.3	<5.3	U
13	INDENO(1,2,3-C,D)PYRENE	193-39-5	μg/kg	5.3	10	J
14	2-METHYLNAPHTHALENE	91-57-6	μg/kg	5.3	<5.3	U
15	NAPHTHALENE	91-20-3	μg/kg	5.3	4	J
16	PHENANTHRENE	85-01-8	μg/kg	5.3	8	
17	PYRENE	129-00-0	μg/kg	5.3	24	

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	33-126	87
2	NITROBENZENE-D5	4165-60-0	35-129	61
3	TERPHENYL-D14	1718-51-0	31-129	85
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	115
2	CHRYSENE-D12	1719-03-5	50-200	122
3	NAPHTHALENE-D8	1146-65-2	50-200	111
4	PERYLENE-D12	1520-96-3	50-200	65
5	PHENANTHRENE-D10	1517-22-2	50-200	116
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

LLH 5/08/04

Applied P & Ch Laboratory

Organic Analysis Results for Method 8081A

Client Name:	Tetra Tech FW, Inc.	Project No:	1990.023D	Collection Date:	03/25/2004
Project ID:	NAVWPNSTA Seal Beach, Ca	Service ID:	42237	Collected by:	Patrick Tinnes
		Lab Sample ID:	04-2237-1	Received Date:	03/25/2004
Sample ID:	**0023-S4-818**	Sample Matrix	Soil	Moisture %:	6.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: R
Anal. Method:	8081A	Prep. Date:	03/31/04	Anal. Date:	03/31/04
Batch No:	04G1872	Prep. No:	1 of 1	Anal. Time:	22:40
Data File Name:	2237.101	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	μg/kg	1.8	<1.8	U
2	BETA BHC	319-85-7	μg/kg	1.8	<1.8	U
3	ALPHA BHC	319-84-6	μg/kg	1.8	<1.8	U
4	DELTA BHC	319-86-8	μg/kg	1.8	<1.8	U
5	GAMMA BHC (LINDANE)	58-89-9	μg/kg	1.8	<1.8	U
6	ALPHA-CHLORDANE	5103-71-9	μg/kg	1.1	8.8[b]	
7	GAMMA-CHLORDANE	5103-74-2	μg/kg	1.1	10[b]	
8	P,P'-DDD	72-54-8	μg/kg	3.2	5[b]	
9	P,P'-DDE	72-55-9	μg/kg	3.2	12[b]	
10	P,P'-DDT	50-29-3	μg/kg	3.2	9.9[b]	
11	DIELDRIN	60-57-1	μg/kg	3.2	3[b]	J
12	ALPHA ENDOSULFAN	959-98-8	μg/kg	1.8	<1.8	U
13	BETA ENDOSULFAN	33213-65-9	μg/kg	3.2	<3.2	U
14	ENDOSULFAN SULFATE	1031-07-8	μg/kg	5.3	<5.3	U
15	ENDRIN	72-20-8	μg/kg	3.2	<3.2	U
16	ENDRIN ALDEHYDE	7421-93-4	μg/kg	3.2	<3.2	U
17	ENDRIN KETONE	53494-70-5	μg/kg	2.1	<2.1	U
18	HEPTACHLOR	76-44-8	μg/kg	1.8	0.5[b]	J
19	HEPTACHLOR EPOXIDE	1024-57-3	μg/kg	1.8	1[b]	J
20	METHOXYCHLOR	72-43-5	μg/kg	11	<11	U
21	TOXAPHENE	8001-35-2	μg/kg	110	<110	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	32-146	75
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	74
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE	1770-80-5	50-200	93
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[b] Presence of PCB may cause false positives in pesticides chromatogram.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8082

Client Name:	Tetra Tech FW, Inc.	Project No:	1990.023D	Collection Date:	03/25/2004
Project ID:	NAVWPNSTA Seal Beach, Ca	Service ID:	42237	Collected by:	Patrick Tinnes
		Lab Sample ID:	04-2237-1	Received Date:	03/25/2004
Sample ID:	**0023-S4-818**	Sample Matrix	Soil	Moisture %:	6.0
Sample Type:	Field Sample	Prep. Method:	3550B	Instrument ID:	GC: S
Anal. Method:	8082	Prep. Date:	03/31/04	Anal. Date:	03/31/04
Batch No:	04G1873	Prep. No:	1 of 1	Anal. Time:	17:10
Data File Name:	2237.001	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016 (PCB-1016)	12674-11-2	μg/kg	35	<35	U
2	AROCLOR-1221 (PCB-1221)	11104-28-2	μg/kg	70	<70	U
3	AROCLOR-1232 (PCB-1232)	11141-16-5	μg/kg	35	<35	U
4	AROCLOR-1242 (PCB-1242)	53469-21-9	μg/kg	35	<35	U
5	AROCLOR-1248 (PCB-1248)	12672-29-6	μg/kg	35	<35	U
6	AROCLOR-1254 (PCB-1254)	11097-69-1	μg/kg	35	<35	U
7	AROCLOR-1260 (PCB-1260)	11096-82-5	μg/kg	35	8	J

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	35-140	85
2	2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8	35-140	88
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Metal Analysis Results

Client Name: Tetra Tech FW, Inc.
Project ID: NAVWPNSTA Seal Beach, Ca

Sample ID: **0023-S4-818**
Sample Type: Field Sample

Project No: 1990.023D
Service ID: 42237
Lab Sample ID: 04-2237-1
Sample Matrix Soil

Collection Date: 03/25/2004
Collected by: Patrick Tinnes
Received Date: 03/25/2004
Moisture %: 6.0

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5.3	0.61	J ~~B~~	P		04M1370M	03/26/04	03/26/04	1	6010B
ARSENIC	7440-38-2	mg/kg	0.32	4.5		P		04M1370M	03/26/04	03/26/04	1	6010B
BARIUM	7440-39-3	mg/kg	1.1	81.9		P		04M1370M	03/26/04	03/26/04	1	6010B
BERYLLIUM	7440-41-7	mg/kg	0.21	<0.21	U	P		04M1370M	03/26/04	03/26/04	1	6010B
CADMIUM	7440-43-9	mg/kg	0.21	0.21	~~B~~	P		04M1370M	03/26/04	03/26/04	1	6010B
CHROMIUM	7440-47-3	mg/kg	0.53	18.0		P		04M1370M	03/26/04	03/26/04	1	6010B
COBALT	7440-48-4	mg/kg	0.53	9.9		P		04M1370M	03/26/04	03/26/04	1	6010B
COPPER	7440-50-8	mg/kg	0.53	19.4		P		04M1370M	03/26/04	03/26/04	1	6010B
LEAD	7439-92-1	mg/kg	0.32	14.3		P		04M1370M	03/26/04	03/26/04	1	6010B
MERCURY	7439-97-6	mg/kg	0.21	0.098	~~B~~	CV		04M1374H	03/26/04	03/26/04	1	7471A
MOLYBDENUM	7439-98-7	mg/kg	0.21	<0.21	U	P		04M1370M	03/26/04	03/26/04	1	6010B
NICKEL	7440-02-0	mg/kg	0.32	13.4		P		04M1370M	03/26/04	03/26/04	1	6010B
SELENIUM	7782-49-2	mg/kg	0.43	1.1	J	P		04M1370M	03/26/04	03/26/04	1	6010B
SILVER	7440-22-4	mg/kg	0.53	<0.53	U	P		04M1370M	03/26/04	03/26/04	1	6010B
THALLIUM	7440-28-0	mg/kg	0.53	<0.53	U	P		04M1370M	03/26/04	03/26/04	1	6010B
VANADIUM	7440-62-2	mg/kg	0.53	31.8		P		04M1370M	03/26/04	03/26/04	1	6010B
ZINC	7440-66-6	mg/kg	0.53	60.3		P		04M1370M	03/26/04	03/26/04	1	6010B

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL; B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control; * - Duplicate analysis out of control; W - Post digestion spike for GFAA out of control; E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

VALIDATA

Chemical Services, Inc.

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(770) 232-5082 (Fax)
www.datavalidator.com

DATA VALIDATION SUMMARY
REPORT

COMPANY:	Foster Wheeler Environmental
SITE NAME:	IR Sites 4 & 7, Seal Beach, CA
PROJECT NUMBER:	1990.0023D
CONTRACTED LAB:	Applied Physics and Chemistry Laboratories, Inc.
QA/QC LEVEL:	EPA Level III
EPA SOW/METHODS:	EPA 1990 SOW / SW-846
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 1999; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 1994
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Semivolatile Organics (SVOA), Polynuclear Aromatic Hydrocarbons (PAH), Pesticides, Polychlorinated Biphenyls (PCB), Total Metals
SDG NUMBER:	04-2237 (Level III)

OVERVIEW

SAMPLES:

Client Sample #	Lab Sample #	Matrix	SVOA	PAH	Pesticides
0023-S4-818	04-2237-1	Soil	X	X	X

Client Sample #	Lab Sample #	Matrix	PCB	Total Metals
0023-S4-818	04-2237-1	Soil	X	X
0023-S4-818MD	04-2237-1MD	Soil		X
0023-S4-818MS	04-2237-1MS	Soil		X

Suffix Codes: MD = MATRIX DUPLICATE, MS = MATRIX SPIKE

DATA REVIEWER(S): Amy L. Hogan, Jean M. Delashmit

RELEASE SIGNATURE:

Data Qualifier Definitions

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

Protocol Qualifier Classification: The data point was outside the analytical method, data validation guidelines or project specific limits.

Advisory Qualifier Classification: The data point was qualified based on professional judgement of the validator.

Note: All qualifiers applied to the data in all analytical fractions are considered Protocol Qualifier Classification unless specifically noted as Advisory.

DATA QUALIFICATION SUMMARY

Applied Physics and Chemistry Laboratories, Inc - 04-2237 Organics & Inorganics

SAMPLE: 0023-S4-818

SEMIVOLATILE ORGANICS

SUMMARY

All laboratory data were acceptable with one qualification. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) was 15.8% for 2,6-dinitrotoluene in the standards run on 3/29/04 at 17:54 on instrument D, which exceeded the 15% QC limit. The non-detect result for 2,6-dinitrotoluene in the SDG sample was flagged as estimated (UJ).

IV.) Blanks:

There were no detections in the blanks associated with this fraction of the SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory. All LCS criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were submitted for this fraction of the SDG. All MS / MSD criteria were met. No action was required.

VIII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this SDG. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

POLYNUCLEAR AROMATIC HYDROCARBONS (PAH)

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Differences (%D's) for the standards run on 3/31/04 at 12:46 on instrument Y exceeded the 15% QC limit for the following compounds:

anthracene	16.4%
benzo(a)pyrene	17.2%
indeno(1,2,3-cd)pyrene	15.8%
dibenz(a,h)anthracene	19.4%

All results for these compounds in the SDG sample, which were positive, were flagged as estimated (J).

IV.) Blanks:

There were no detections in the blanks associated with this SDG. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed by the laboratory. The Percent Recoveries (%R's) of anthracene were 106% for both LCS samples, which exceeded the 30-105% QC limit. Data qualification based on LCS Recovery criteria was not required. No action was taken.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were submitted for this fraction of the SDG. One Relative Percent Difference (RPD) and nineteen Percent Recoveries (%R's) were outside the QC limits. Data qualification based on batch MS / MSD criteria was not required. No action was taken.

VIII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this SDG. No action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

PESTICIDES

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the associated blanks. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this fraction of the SDG. All LCS Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were submitted for this fraction of the SDG. The Percent Recoveries (%R's) were 165% and 168% for 4,4'-DDT, which exceeded the 42-137% QC limits. Data qualification based on batch MS / MSD analyses was not required. No action was taken.

VIII.) TCL Compound Identification:

All Compound Identification criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this SDG. No action was required.

X.) Pesticide Cleanup Check:

Florisil Cartridge Check:

Florisil data was not provided. No action was required.

Gel Permeation Chromatography (GPC):

GPC data was not provided. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

POLYCHLORINATED BIPHENYLS (PCBs)

SUMMARY

All laboratory data were acceptable without qualification.

MAJOR ISSUES

There were no major problems associated with this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was required.

II.) Instrument Performance:

All Instrument Performance criteria were met. No action was required.

III.) Calibration:

All Initial and Continuing Calibration criteria were met. No action was required.

IV.) Blanks:

There were no detections in the associated blanks. No action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was required.

VI.) Laboratory Control Samples (LCS):

Two LCSs were analyzed for this fraction of the SDG. All LCS Recovery criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses were submitted for this fraction of the SDG. All MS / MSD criteria were met. No action was required.

VIII.) TCL Compound Identification:

All Compound Identification criteria were met. No action was required.

IX.) Field Duplicates:

There were no field duplicate samples identified in this SDG. No action was required.

X.) Pesticide Cleanup Check:

Florisil Cartridge Check:

Florisil data was not provided. No action was required.

Gel Permeation Chromatography (GPC):

GPC data was not provided. No action was required.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No action was required.

TOTAL METALS

SUMMARY

All laboratory data were acceptable with qualifications. All applied data qualifiers were based on guideline protocol unless otherwise noted.

MAJOR ISSUES

There were no major problems for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No action was taken.

II.) Calibration:

All Calibration criteria were met. No action was taken.

III.) Blanks:

The following analytes were detected in the blanks associated with this SDG:

Blank ID	Analyte	Detection	Action Level
ICB	barium	1.91 ug/L	0.48 mg/kg
ICB	beryllium	0.24 ug/L	0.06 mg/kg
ICB	cadmium	0.55 ug/L	0.14 mg/kg
ICB	cobalt	1.36 ug/L	0.34 mg/kg
ICB	copper	2.92 ug/L	0.73 mg/kg
CCB1	lead	1.13 ug/L	0.29 mg/kg
ICB	nickel	1.58 ug/L	0.40 mg/kg
CCB3	silver	0.65 ug/L	0.16 mg/kg
CCB1	thallium	5.41 ug/L	1.35 mg/kg
ICB	vanadium	1.05 ug/L	0.26 mg/kg
ICB	zinc	1.05 ug/L	0.26 mg/kg
ICB	molybdenum	2.15 ug/L	0.54 mg/kg

All positive results for these analytes in the SDG sample were greater than the action level, so no action was taken.

The following negative results were reported in the blanks associated with this SDG:

Blank ID	Analyte	Result	Action Level
CCB2	antimony	-3.79 ug/L	0.95 mg/kg
CCB5	arsenic	-2.47 ug/L	0.62 mg/kg
CCB4	selenium	-8.16 ug/L	2.04 mg/kg

All positive results for these analytes in the SDG samples less than the action level and all associated non-detect results were flagged as estimated (J) and (UJ).

IV.) Interference Check:

All Interference Check criteria were met. No action was required.

V.) Laboratory Control Sample (LCS):

All LCS criteria were met. No action was required.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample 0023-S4-818. All MS / MSD criteria were met. No action was required.

VII.) Matrix Duplicate (MD):

All MD criteria were met for this SDG. No action was required.

VIII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No action was required.

IX.) Serial Dilution Analysis:

The Percent Difference (%D) was 115% for selenium in the Serial Dilution Analysis of sample 0023-S4-818. The positive result for selenium in the SDG sample was flagged as estimated (J).

APPENDIX D

PHOTOGRAPHIC LOG OF THE REMOVAL ACTIVITIES

Photo 1. The original grades of the landfill and AOPCs 1A and 2A were land surveyed.

Photo 2. Depth to the top of waste inside a pothole is measured.
A pothole was excavated near the center of each of the 162 50-foot by 50-foot grids

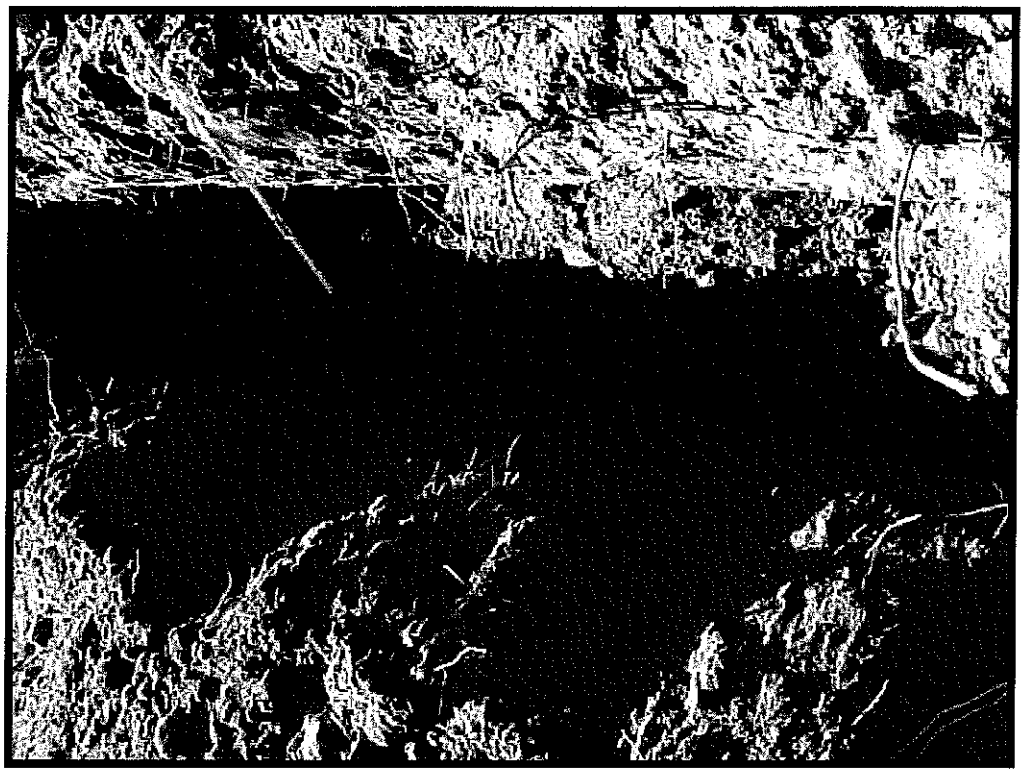

Photo 3. Each pothole was excavated to a maximum depth of 2.5 feet or the top of buried waste, whichever is less.

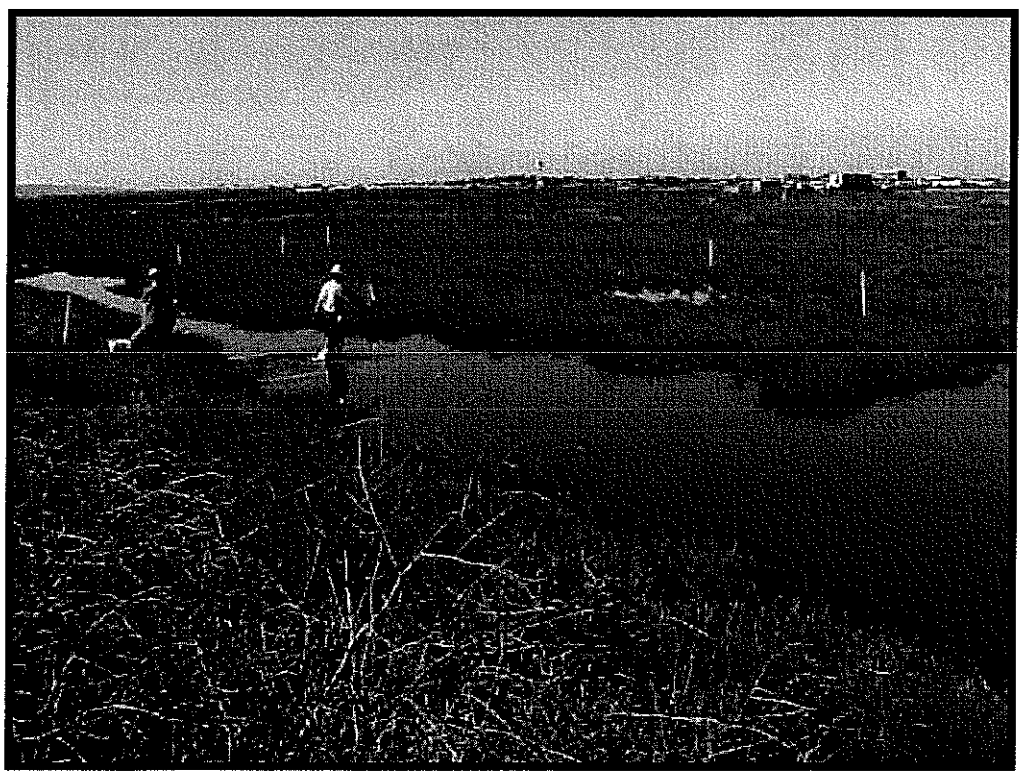

Photo 4. Pre-excavation characterization random sample locations were surveyed by land surveyors.

Photo 5. Waste stockpiles containment area constructed with 20-mil-thick PVC liner and berm around the containment

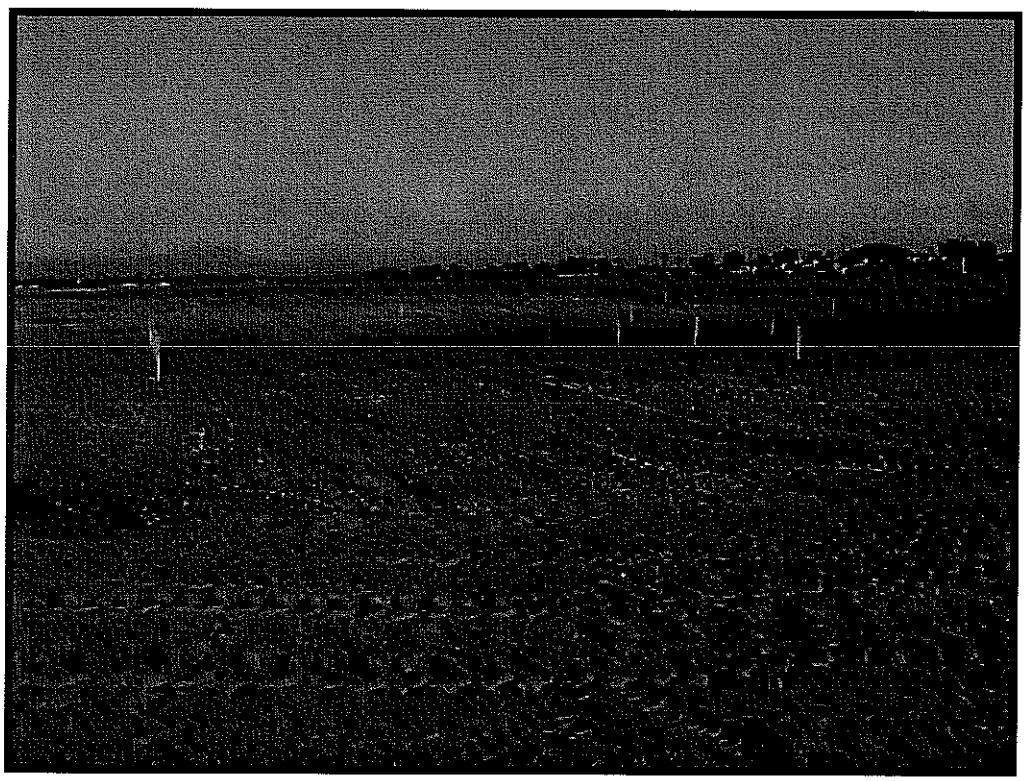

Photo 6. Prior to placement of any cover soil over the landfill, the vegetation was removed and the sub-surfaces were compacted.

Photo 7. Non-native noxious weeds and vegetation that were growing on Area 1 (landfill) were cleared and later hauled off site for disposal

Photo 8. Pre-excavation characterization samples were collected from all 213 grids within AOPCs 1A and 2A.

Photo 9. An excavator was used to excavate the lead-contaminated hot spots at AOPCs 1A and 2A.

Photo 10. A 50-foot by 50-foot excavated grid cell is shown here. Most grid cells were excavated to a depth of 1 foot bgs.

Photo 11. Soil samples were collected from the floor and all sidewalls of the excavated grid cells for confirmation testing.

Photo 12. Confirmation samples were collected from random locations.

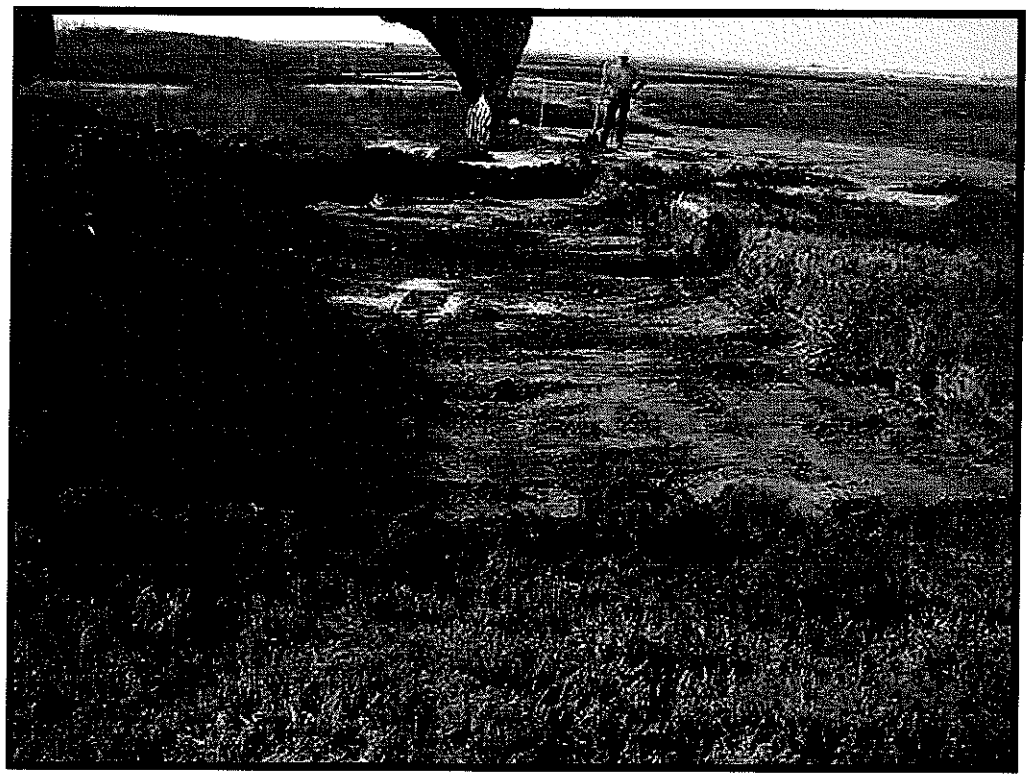

Photo 13. Following initial confirmation sampling, grid cell floors or sidewalls with lead contamination exceeding TCGs were further excavated.

Photo 14. Backfill was placed in the excavated grids within AOPCs 1A and 2A after satisfactory confirmation sampling results.

Photo 15. Excavated grid cells were cordoned with caution tape until the confirmation test results were received, allowing the cell to be backfilled.

Photo 16. Only a few grid cells required excavation up to 2 feet bgs

Photo 17. Following confirmation sampling results which indicated that the TCG had been met, the excavated grid cells were backfilled and graded.

Photo 18. Surface debris removed from Areas 3, 4, and 6 consisted mainly of rusted metal, wood, and plastics

Photo 19. A geophysical survey of Areas 3 and 4 was conducted following initial surface debris removal

Photo 20. An example of what was determined to be ordnance found in Areas 3 and 4 during surface debris clearing.

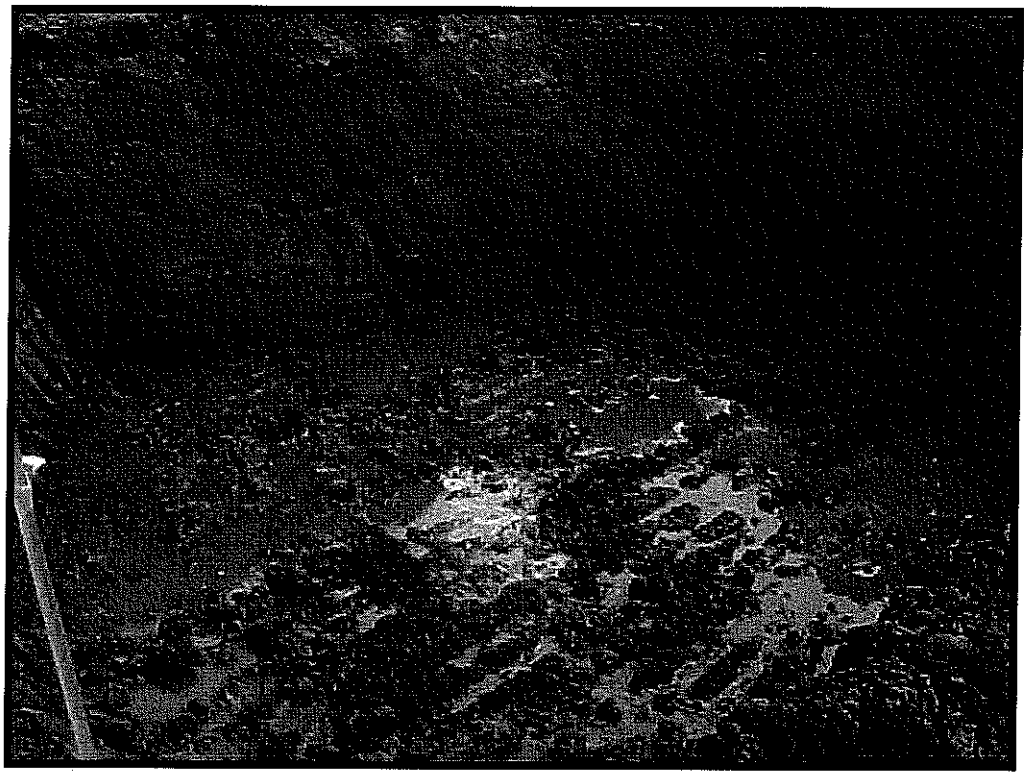

Photo 21. Buried debris in Area 5 was excavated to a minimum depth of 9.5 feet and until the native soil was encountered.

Photo 22. The upper 3 to 4 feet of the soil in Area 5 was for the most part clean overburden soil. Buried debris was encountered beneath the clean overburden soil.

Photo 23. The eastern trench at Area 5 was excavated in 40-foot-long sections. The clean overburden soil was excavated and placed to the side and reused.

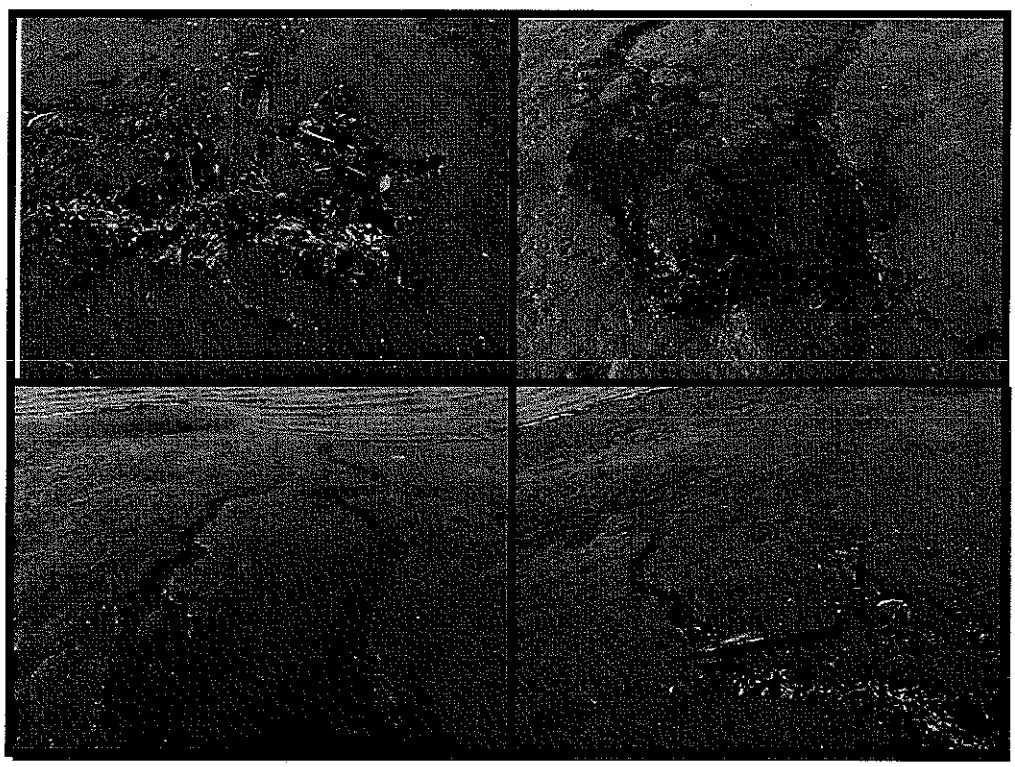

Photo 24. Waste over Area 5 side slope and brackish water seeping from several seeps in the side slopes adjacent to the trenches.

Photo 25. Following the excavation and backfill of the trenches, the excavator was used to remove the debris along the eastern slope of the Perimeter Pond.

Photo 26. Clean fill was placed over the excavated eastern slope of the Perimeter Pond, and the slope was graded with a 4H:1V inclination.

Photo 27.. UXO Technicians screened the debris excavated from Area 5..

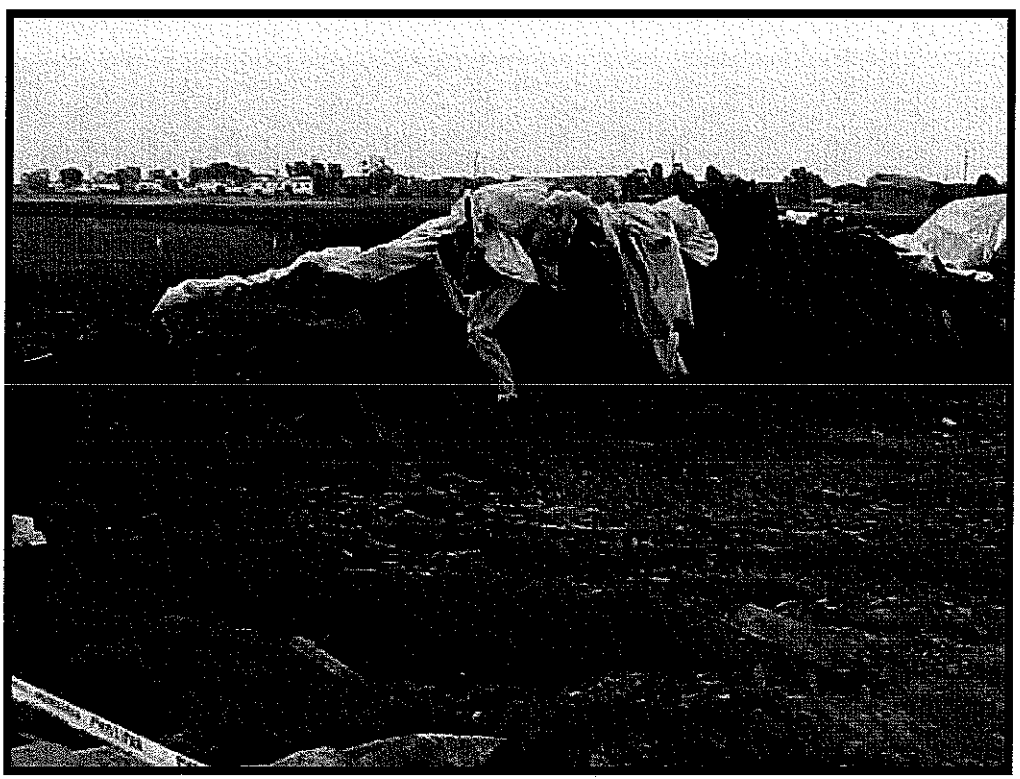

Photo 28.. A portion of stockpiled debris excavated from Area 5 trenches awaiting UXO screening.

Photo 29. Dummy ordnance scrap found during screening of material removed from Area 7

Photo 30. Ordnance scrap discovered and removed during screening of the buried waste excavated from Area 5.

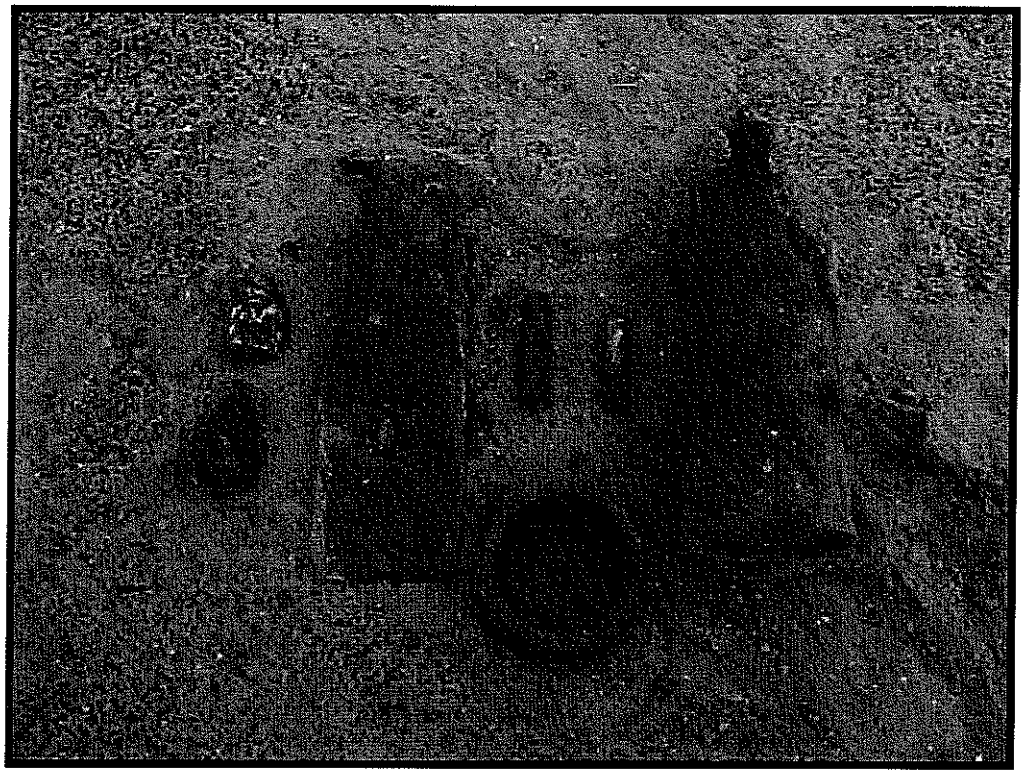

Photo 31. Ordnance scrap metal was removed from the Area 5 excavated buried waste during UXO screening.

Photo 32. Scrap ordnance-related items, including ordnance containers made of plastic were removed.

Photo 33. A 12-feet-wide V-ditch was constructed connecting the Perimeter Pond and the East Pond.

Photo 34. A horse-shoe-shaped V-ditch with a 12-foot wide cross section was constructed in Area 5

Photo 35. Picture of the horse-shoe-shaped V-ditch looking north.

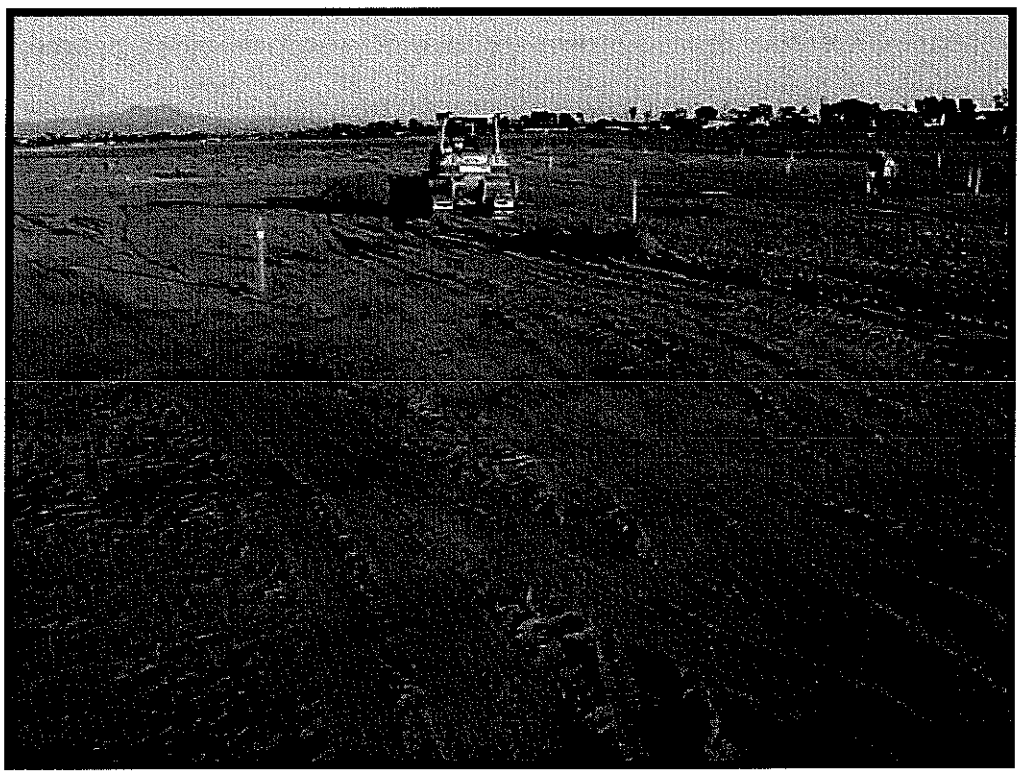

Photo 36. Soil cover was placed over the landfill in 6-inch-thick compacted lifts

Photo 37. Prior to placement of soil for landfill cover repair, the sub-grade was compacted with a sheep-foot compactor.

Photo 38. Dredged sediment material imported from the Station Wharf was used as cover repair soil. The material was placed in 6-inch compacted lifts.

Photo 39. The soil cover was compacted to minimum of 90 percent compaction.

Photo 40. A blend of seed mix composed of seeds from native vegetation species was used for revegetating the landfill cover and the AOPC 2A disturbed areas.

Photo 41. Contaminated stockpiled soil was covered with 10-mil PVC liner Sandbags were placed over the liner to prevent it from being blown away.

Photo 42. The stockpile was subdivided into approximately 100-cubic yard segments. Composite samples were collected from each segment for waste classification.

Photo 43. An excavator was used for loading the contaminated waste and debris in end-dumps for off-site transportation and disposal.

Photo 44. All end dump trucks were weighed after being loaded and before leaving the site.

Photo 45. All end dump trucks were covered after being loaded and weighed, and before leaving the site

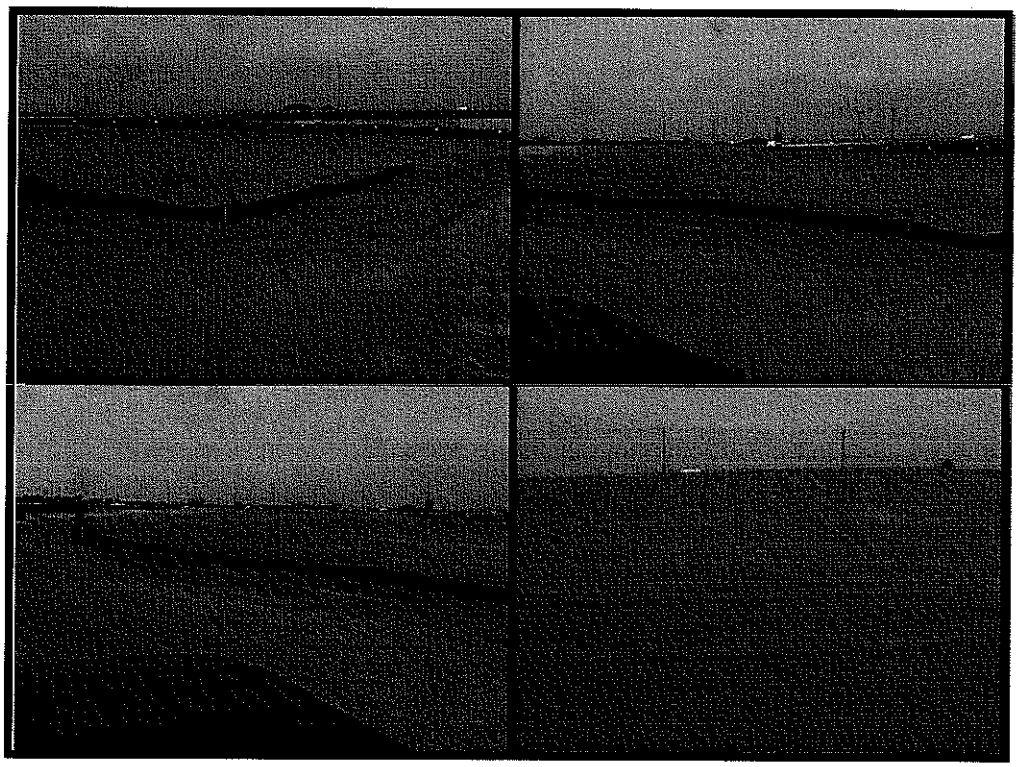

Photo 46. The stockpile area at the Station Wharf was re-graded and silt fencing was installed to minimize erosion and runoff

APPENDIX E

AGENCIES REVIEW COMMENTS ON THE DRAFT PROJECT CLOSEOUT REPORT, NON-TIME CRITICAL REMOVAL ACTION, IRP SITE 7 (STATION LANDFILL) AND SITE 4 (PERIMETER ROAD AOPCS 1A AND 2A)

Department of Toxic Substances Control

Edwin F Lowry, Director
8800 Cal Center Drive
Sacramento, California 95826-3200

ıston H. Hickox
ency Secretary
California Environmental
Protection Agency

Gray Davis
Governor

TO: Katherine Leibel, Project Manager
Office of Military Facilities
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FROM: Marie T. McCrink, RG, CHg
Associate Engineering Geologist
Northern California Geologic Services Unit
8800 Cal Center Drive
Sacramento, California 95826-3200

REVIEWED BY: Michael Finch, R.G.
Senior Engineering Geologist
Northern California Geologic Services Unit

DATE: July 16, 2004

SUBJECT: REVIEW OF DRAFT PROJECT CLOSEOUT REPORT, NON-TIME CRITICAL REMOVAL ACTION, IRP SITE 7 (STATION LANDFILL) AND SITE 4 (PERIMETER ROAD AOPCs 1A AND 2A), NAVAL WEAPONS STATION SEAL BEACH, DATED JUNE 18, 2004

ACTIVITY REQUESTED:

Per your request, the Geologic Services Unit (GSU) has reviewed the *Draft Project Closeout Report (PCR), Non-Time-Critical Removal Action (NTCRA), IRP Site 7 (Station Landfill) and Site 4 (Perimeter Road AOPCs 1A and 2A), Naval Weapons Station (NWS) Seal Beach*. The Draft PCR was prepared by Tetra Tech-Foster Wheeler (TtFW) Inc., for the Department of the Navy (DON), Southwest Division, Naval Facilities Engineering Command, San Diego. The document is dated June 18, 2004, and was received by GSU on June 21, 2004. The GSU was requested to review the

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Draft PCR for adequacy of describing the implementation of the NTCRA with respect to geologic and hydrogeologic issues.

PROJECT SUMMARY

The objective of the Draft PCR is to describe the implementation of the NTCRA at IRP Site 7 and Site 4 Areas of Potential Concern (AOPCs) 1A and 2A. Site 7 is the former Station Landfill, which has been divided into 6 areas. Site 4 is the Perimeter Road. The main purpose of the PCR is to document the specifics of the NTCRA with respect to (1) site conditions prior to the action, (2) chronology and main phases leading to the removal actions, (3) implementation of the stages of the NTCRA, (4) costs, and (5) effectiveness in achieving the Removal Action Objectives (RAOs) for IR Site 7 and IR Site 4 AOPCs 1A and 1B.

This PCR was preceded by the final Project Work Plan, which was based on the Action Memorandum/Remedial Action Plan (AM/RAP) (CH2MHill, 2003). The AM/RAP described the selected removal actions and remedial action objectives (RAOs) derived from recommendations presented in two separate Engineering Evaluation and Cost Analyses (EE/CA) for Site 7 and Site 4.

To help achieve RAOs for Site 7, the selected removal actions were to repair existing landfill cover for Area 1, conduct groundwater monitoring at Area 2, remove surface debris at Areas 3, 4, and 6, and excavate and dispose off-site surface debris from Area 5. In addition, tidal seeps emanating from Area 5 into the perimeter pond were to be eliminated.

At Site 4, AOPCs 1A and 2A, the chemical of concern (COC) was limited to lead in soil. The target cleanup goal (TCG) of 600 mg/kg was developed based on risks to site-specific ecologic receptors. The TCG and the site-wide average of less than 100 mg/kg were adequately achieved and documented. The impacted soil was excavated and properly disposed.

COMMENT AND RECOMMENDATION

The GSU finds the objective of the Draft PCR to describe the implementation of the NTCRA at IRP Site 7 and Site 4 AOPCs 1A and 2A has been adequately met form the geologic and hydrogeologic perspective. In our opinion, the report clearly and accurately described the sequence of events and activities that lead to this final documentation of the NTCRA.

The GSU has reviewed and commented on all previous phases of this project, and we recommend approval of this draft report.

Please feel free to contact me by telephone at (916) 255-3691 or by E-mail at mmccrink@dtsc.ca.gov to discuss any questions you might have.

City of Seal Beach

CITY HALL 211 EIGHTH STREET
SEAL BEACH, CALIFORNIA 90740
(562) 431-2527 • www.ci.seal-beach.ca.us

August 9, 2004

Received
8-16-04
by PFT

Department of Navy
Weapons Support Facility, Seal Beach
Attn: Pei-Fen Tamashiro, Installation Restoration Coordinator
800 Seal Beach Boulevard
Seal Beach, CA 90740-5000

Dear Ms. Tamashiro:

SUBJECT: **CITY OF SEAL BEACH COMMENTS RE: "*DRAFT PROJECT CLOSEOUT REPORT, NON-TIME CRITICAL REMOVAL ACTION, INSTALLATION RESTORATION PROGRAM SITE 7 (STATION LANDFILL) AND SITE 4 (PERIMETER ROAD AOPCS 1A AND 2A), NAVAL WEAPONS STATION, SEAL BEACH*"**

The City of Seal Beach has reviewed the above referenced document and concurs with the findings and conclusions of the report. On October 22, 2003 the EQCB commented on a "Draft Project Work Plan", which described the procedures by which the non-time critical removal action project at the subject sites would be undertaken. Between 1995 and 2004 the City has reviewed and commented on 21 separate documents relating to the site characterization and removal actions at the subject sites.

The City appreciates the recognition of our concerns regarding the determination of appropriate characterization methodologies, target clean-up goals, and other technical concerns regarding the proposed site remediation and removal processes that have been expressed over the past 9 years regarding these sites. The City appreciates the setting forth and implementation of adequate mitigation measures to address these concerns.

The City of Seal Beach extends its sincere appreciation to the Naval Weapons Station and the Department of the Navy in undertaking this activity in a manner to provide the highest level of protection to the residents of Seal Beach, Huntington Beach, and to the employees of the Naval Weapons Station

Thank you for allowing us to comment on the proposed "Draft Closeout Report" at IR Sites 7 and 4. If you have any questions or require further information, please contact Mr. Lee Whittenberg, Director of Development Services Department, (562) 431-2527, extension 313, at your earliest convenience. He will be able to respond to any additional questions that you may have regarding this matter.

Sincerely,

Paul Yost
Mayor
City of Seal Beach

Mario Voce
Chairperson
Environmental Quality Control Board

cc: City Council
Environmental Quality Control Board
Archaeological Advisory Committee

City Manager
Director of Development Services

"Patricia Hannon"
<phannon@rb8.swrcb.ca.gov
>

08/11/2004 10:50 AM

To <lest@efdsw.navfac.navy.mil>,
<pei-fen.tamashiro@navy.mil>

cc <kleibel@dtsc.ca.gov>, <john_bradley@fws.gov>,
<HHamparsumian@TtFWI.com>

bcc

Subject draft Project Closeout Report Site 7, NWS Seal Beach

We have reviewed the June 18, 2004 Draft Project Closeout Report, Non-Time Critical Removal Action, Site 7 (Station Landfill) and Site 4 (Perimeter Road AOPC 1A and 2A).

Well done report. We do not have any technical comments.

Sincerely,

Patricia Hannon
California Regional Water Quality Control Board
Santa Ana Region
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e-mail: phannon@rb8.swrcb.ca.gov
3737 Main Street, Suite 500
Riverside CA 92501-3348