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FINAL SITE INSPECTION REPORT FOR MUNITIONS RESPONSE PROGRAM SITE INSPECTIONS AT SMALL ARMS RANGES FORMER GUNNERY AREA AND SKEET RANGE

NAS WHITING FIELD FL

02/14/2011

TETRA TECH NUS

Comprehensive Long-term Environmental Action Navy

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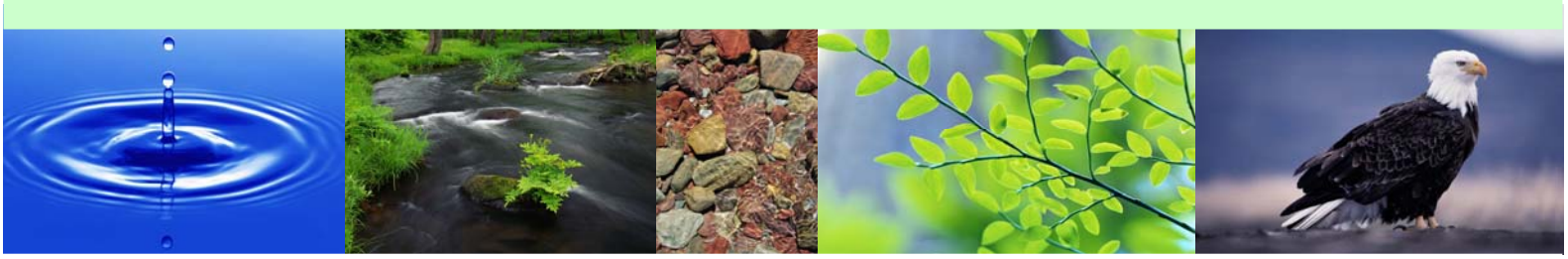

Rev. 2
02/14/2011

FINAL
Site Inspection Report
for
Munitions Response Program
Site Inspections at Small Arms Ranges
Former Gunnery Area and Skeet Range

Naval Air Station Whiting Field
Milton, Florida
USEPA ID No. FL2170023244

Contract Task Order 0084

February 2011

Naval Facilities Engineering Command
NAVFAC SOUTHEAST
NAS Jacksonville
Jacksonville, Florida 32212-0030

TETRA TECH NUS, Inc.

FINAL
SITE INSPECTION REPORT
FOR
MUNITIONS RESPONSE PROGRAM
SITE INSPECTIONS AT SMALL ARMS RANGES
FORMER GUNNERY AREA AND SKEET RANGE

NAVAL AIR STATION WHITING FIELD
MILTON, FLORIDA
USEPA ID No. FL2170023244

COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

Submitted to:
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ACRONYMS

%R	Percent Recovery
ft2/day	square feet per day
ºF	degrees Fahrenheit
µg/L	microgram per liter
BaP	Benzo(a)pyrene
bgs	Below ground surface
CEC	Cation Exchange Capacity
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
ATSDR	Agency for Toxic Substances and Disease Registry
CLEAN	Comprehensive Long-Term Environmental Action Navy
COC	Chain-of-custody
COPC	Contaminant of Potential Concern
CSM	Conceptual Site Model
CTO	Contract Task Order
DERP	Defense Environmental Restoration Program
DI	Deionized
DMM	Discarded Military Munitions
DoD	Department of Defense
DQI	Data Quality Indicator
DQO	Data Quality Objective
FAS	Floridan Aquifer System
FBL	Fixed-Base Laboratory
FDEP	Florida Department of Environmental Protection
FOL	Field Operations Leader
FS	Feasibility Study
GIR	General Information Report
GIS	Geographic Information System
gpm	gallons per minute
GPS	Global Positioning System
HASP	Health and Safety Plan
HRS	Hazard Ranking System
IDW	Investigation-derived waste

INRMP	Integrated Natural Resources Management Plan
ITRC	Interstate Technology and Regulatory Council
JPATS	Joint Primary Aircraft Training System
LCS	Laboratory control sample
LIMS	Laboratory Information Management Systems
MC	Munitions Constituents
MDL	Method detection limit
MEC	Munitions and Explosives of Concern
MEQ	milliequivalents
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MMRP	Military Munitions Response Program
MRP	Munitions Response Program
MS	Matrix Spike
msl	Mean sea level
NAD83	North American Datum of 1983
NAS	Naval Air Station
NAVFAC	Naval Facilities Engineering Command
NEESA	Naval Energy and Environmental Support Activity
NFA	No Further Action
NFESC	Naval Facilities Engineering Service Center
NIST	National Institute of Standards and Technology
NPL	National Priorities List
NTTC	Navy Technical Training Center
NWFWMD	Northwest Florida Water Management District
PA	Preliminary Assessment
PAH	Polycyclic Aromatic Hydrocarbon
PAL	Project Action Limit
ppm	parts per million
PPE	Personal Protective Equipment
PQLG	Project Quantitation Limit Goal
PVC	Polyvinyl chloride
QA	Quality Assurance
QC	Quality Control
QL	Quantitation Limit

RBSL	Risk-Based Screening Levels
RCRA	Resource Conservation Recovery Act
RI	Remedial Investigation
RPD	Relative percent difference
SAR	Small Arms Range
SCTL	Soil Cleanup Target Level
SDZ	Surface Danger Zone
SI	Site Inspection
SOP	Standard Operating Procedure
SPLP	Synthetic Precipitation Leaching Procedure
SU	Standard Units
TAL	Target Analyte List
TEF	Toxicity equivalency factor
Tetra Tech	Tetra Tech NUS, Inc.
TOC	Total Organic Carbon
UCL	Upper Confidence Limit
UFP-SAP	Uniform Federal Policy – Sampling Analysis Plan
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
U.S.	United States
UXO	Unexploded Ordnance
XRF	X-ray fluorescence

EXECUTIVE SUMMARY

INTRODUCTION

This Site Inspection (SI) Report for Small Arms Ranges (SARs) located at Naval Air Station (NAS) Whiting Field, Milton, Florida was prepared by Tetra Tech NUS, Inc. (Tetra Tech) under the Comprehensive Long-Term Environmental Action Navy (CLEAN) Contract No. N62467-04-D-0055, Contract Task Order (CTO) 0084 for Naval Facilities Engineering Command (NAVFAC) Southeast.

The Department of Defense (DoD) has established a program to address non-operational (closed, transferring, and transferred) military munitions ranges known as the Military Munitions Response Program (MMRP). Under this program, DoD follows the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. An initial Preliminary Assessment (PA) is prepared to compile historical records and information on the subject range or testing area and determine the presence or potential presence of munitions and explosives of concern (MEC) and munitions constituents (MC) at concentrations that may pose a hazard to human health or the environment.

Individual PA Reports were completed for NAS Whiting Field in 2005 by Malcolm Pirnie, Inc. (Malcolm Pirnie, 2009 a,b,c,d). The PA Reports identified two individual SARs requiring further investigation. SARs include skeet and trap/sporting clay ranges.

The two SARs located at NAS Whiting Field that are addressed in this SI (the next phase of the CERCLA/MMRP process) are the Former Gunnery Area NAS Whiting Field and the Skeet Range NAS Whiting Field.

Based on studies of SARs across the country, SARs are those ranges using .50-caliber or smaller non-exploding ammunition or MC. SARs may contain select Target Analyte List (TAL) metals such as antimony, arsenic, copper, lead, nickel, tin, and zinc; and polycyclic aromatic hydrocarbons (PAHs) that may leach from bullets and bullet fragments, bullet jackets, and related sporting material (e.g., clay targets), thereby contaminating soil and possibly surface water and groundwater (ITRC, 2003). This SI Report presents the results of the data collected during the SI field program to determine the presence or absence of MC at the SARs in concentrations that may pose a hazard to human health or the environment. This investigation is in accordance with the Unified Federal Policy–Sampling and Analysis Plan (UFP-SAP) prepared for this project by Tetra Tech (Tetra Tech, 2010), and as required under the Navy MMRP policy.

OBJECTIVE

The primary objective of this SI was to determine whether contamination is present and further response actions or remedial investigations (RIs) are appropriate for the sites identified in the PA Reports to restore the sites to an acceptable environmental condition. The SI determines whether MC (e.g., metals and PAHs) that may have been released during previous site activities or operations (e.g., small arms target training) are present and potentially contributing to environmental impacts associated with the soil at the subject MMRP sites. Other objectives were to use the collected data to refine site-specific Conceptual Site Models (CSMs), to summarize supplemental information, and to recommend future actions for the MMRP sites.

The SI at NAS Whiting Field was based on background information provided in the PA Reports, as well as decisions made by the planning team, which are documented in Worksheet #9 of the UFP-SAP (Tetra Tech, 2010).

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

The conclusions and recommendations of the SI at NAS Whiting Field are as follows:

Former Gunnery Area

Seventy-five soil samples were collected from 38 locations at depths of 0- to 6- and 6- to 24-inches below ground surface (bgs) at the Former Gunnery Area. All samples underwent field x-ray fluorescence (XRF) analysis for lead and 20 of the samples were subsequently shipped to the fixed-base laboratory (FBL) for select metals analyses. Nine of the 75 soil samples analyzed in the field with XRF at the Former Gunnery Area had average lead concentrations exceeding the field project action limit (PAL) of 200 milligram per kilogram (mg/kg) with concentrations ranging between 5.67 and 1,020 mg/kg.

Four samples analyzed at the FBL for lead analyses resulted in exceedances of the PAL for lead. The highest lead concentrations were from the 0- to 6-inch sampling interval. The average lead concentrations for samples collected from the 0- to 6-inch bgs, using the FBL concentrations and the combined FBL analyses and predicted FBL concentrations, were less than the PAL of 400 mg/kg for lead.

Four samples from the Former Gunnery Area were shipped to the FBL for Synthetic Precipitation Leaching Procedure (SPLP) analysis. The samples were chosen from sample locations exhibiting a range (high to low) of XRF lead concentrations. Two samples exhibited an exceedance of antimony the

PAL of 6 micrograms per liter (µg/l). All four samples exhibited lead concentrations (20, 24.4, 1,490, and 1,500 µg/l) exceeding the PAL of 15 µg/L.

Twenty-nine samples were selected from the Former Gunnery Area to undergo PAH analyses at the FBL and 18 of the samples had PAL exceedances. The calculated benzo(a)pyrene (BaP) equivalent for 22 of the 29 samples exceeded the PAL of 0.1 mg/kg. In addition, the exposure concentration represented by the 95 percent upper confidence limit (UCL) of the mean for the BaP equivalent was significantly greater than the PAL or residential SCTL of 0.1 mg/kg.

Based on the results of the SI at the Former Gunnery Area, an RI is recommended per the preliminary goals outlined in the UFP-SAP. Because the site does contain soil with exceedances of screening criteria, it is recommended that soil samples exceeding the lead SCTL be further investigated, SPLP data be further delineated vertically, PAH contamination be further delineated horizontally and vertically, and potential risks from exposure to PAHs and lead be determined. Groundwater sampling may be required pending SPLP and other data.

Skeet Range

Seventy-six soil samples were collected from 39 locations at depths of 0- to 6- and 6- to 24-inches bgs at the Skeet Range. All samples underwent field XRF analysis for lead and 20 of the samples were subsequently shipped to the FBL for select metals analyses. Two of the 76 soil samples analyzed in the field with XRF at the Skeet Range had average lead concentrations exceeding the field PAL of 200 mg/kg.

One of 22 samples analyzed at the FBL for lead resulted in an exceedance of the PAL for lead. The average lead concentrations for samples collected from the 0- to 6-inch bgs, solely using the FBL concentrations and the combined FBL analyses and predicted FBL concentrations, was well below the PAL of 400 mg/kg for lead.

Thirty samples were selected from the Skeet Range to undergo PAH analyses at the FBL and 18 of the samples had PAL exceedances. The calculated BaP equivalent for 12 of the 30 samples exceeded the PAL of 0.1 mg/kg. In addition, the exposure concentration represented by the 95 percent UCL of the mean for the BaP equivalent was significantly greater than the PAL or residential SCTL of 0.1 mg/kg.

Four samples from the Skeet Range were shipped to the FBL for SPLP metals analysis. The samples were chosen from the sample locations exhibiting a range (high to low) of XRF lead concentrations. Soil

samples had detections of arsenic, copper, lead, antimony, and zinc. Only soil sample SR-SS-F5-02 (6- to 24- inch bgs) exceeded the lead PAL of 15 µg/L at a concentration of 66.4 µg/L.

Based on the results of the SI at the Skeet Range, an RI is recommended per the preliminary goals outlined in the UFP-SAP. Because the site does contain soil with exceedances of screening criteria, it is recommended that soil samples exceeding the lead SCTL be further investigated, SPLP data be further delineated vertically, PAH contamination be further delineated vertically and horizontally, and potential risks from exposure to PAHs and lead be determined. Groundwater sampling may be required pending SPLP and other data.

1.0 INTRODUCTION

1.1 PURPOSE OF REPORT

This Site Inspection (SI) Report for Small Arms Ranges (SARs) located at Naval Air Station (NAS) Whiting Field, Milton, Florida (Figure 1-1) was prepared by Tetra Tech NUS, Inc. (Tetra Tech) under the Comprehensive Long-Term Environmental Action Navy (CLEAN) Contract No. N62467-04-D-0055, Contract Task Order (CTO) 0084 for Naval Facilities Engineering Command (NAVFAC) Southeast.

The Department of Defense (DoD) has established a program to address non-operational (closed, transferring, and transferred) military munitions ranges known as the Military Munitions Response Program (MMRP). Under this program, DoD follows the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. An initial Preliminary Assessment (PA) is prepared to compile historical records and information on the subject range or testing area to determine the presence or potential presence of munitions and explosives of concern (MEC) and munitions constituents (MC) at concentrations that may pose a hazard to human health or the environment.

Individual PA Reports were completed for NAS Whiting Field in 2005 by Malcolm Pirnie, Inc. (Malcolm Pirnie, 2009 a,b,c,d). The PA Reports identified two individual SARs requiring further investigation. SARs include skeet and trap/sporting clay ranges. Based on studies of SARs across the country, SARs are those ranges using .50-caliber or smaller non-exploding ammunition or MC. SARs may contain select Target Analyte List (TAL) metals such as antimony, arsenic, copper, lead, nickel, tin, and zinc; and polycyclic aromatic hydrocarbons (PAHs) that may leach from bullets and bullet fragments, bullet jackets, and related sporting material (e.g., clay targets), thereby contaminating soil and possibly surface water and groundwater (ITRC, 2003). The site-specific and technical information presented in the relevant PA Reports was used to develop the SI field program. This SI Report presents the results of the data collected during the SI field program to determine the presence or absence of MC at the SARs in concentrations that may pose a hazard to human health or the environment. This investigation is in accordance with the Unified Federal Policy–Sampling and Analysis Plan (UFP-SAP) prepared for this project by Tetra Tech (Tetra Tech, 2010), and as required under the Navy MMRP policy.

The two SARs located at NAS Whiting Field that are addressed in this SI (the next phase of the CERCLA/MMRP process) are the Former Gunnery Area NAS Whiting Field and the Skeet Range NAS Whiting Field (Figure 1-2).

1.2 OBJECTIVE

The main objective of this SI was to determine the absence or presence of contamination and to build on the information contained in the PA Reports by gathering additional site-specific field data. This data will determine whether MC (e.g., metals and PAHs) that may have been released during previous site activities or operations (e.g., small arms target training) are present and potentially contributing to environmental impacts associated with soil at the subject MMRP sites. Other objectives were to use the collected data to refine site-specific Conceptual Site Models (CSMs), to summarize supplemental information, and to recommend future actions for the MMRP sites.

The objective was to perform SIs for the two SARs at NAS Whiting Field with respect to past MC usage. **Figure 1-1** presents a NAS Whiting Field facility location map and **Figure 1-2** depicts the locations of the two SARs addressed under this project.

1.3 SCOPE OF WORK

The SI field program for the two SARs included collection of surface soil at two depths [0- to 6-inches and 6- to 24-inches below ground surface (bgs)] to identify contaminants of potential concern (COPCs) (e.g., metals, PAHs) that may exist as a result of past operations at the sites. The resulting projectiles/fragments are typically found lying on the surface or within the top 6 inches of soil. The 6- to 24-inch depth was also analyzed by Synthetic Precipitation Leaching Procedure (SPLP) to determine if potential contamination is leaching into the deeper surface soil. If contaminants were detected at concentrations exceeding project action limits (PALs), further investigation may be warranted. The program was designed to determine the general absence or presence of contamination.

SI field work also focused on the estimated boundaries of the two SARs as determined by historical maps and aerial photographs.

SI field activities at the two SARs included the following:

- Collection of discrete surface soil samples (0- to 6- and 6- to 24-inches bgs) via hand auger within the lead shot fall-out and clay target drop areas of both skeet ranges.

- Field analysis for lead utilizing an x-ray fluorescence (XRF) analyzer and selection of a representative number of soil samples for shipment to a fixed-base laboratory (FBL) for analysis of select TAL

metals (antimony, arsenic, copper, lead, nickel, tin, and zinc), PAHs, cation exchange capacity (CEC), pH, total organic carbon (TOC), and SPLP.

- Utilize a global positioning system (GPS) to map and confirm sample locations and any suspect MC locations.

1.4 OBJECTIVES

The primary objective of this SI was to determine whether contamination is present and further response actions or remedial investigations (RIs) are appropriate for the sites identified in the PA Reports to restore the sites to an acceptable environmental condition. The SI was based on background information provided in the PA Reports, as well as decisions made by the planning team, which are documented in Worksheet #9 of the UFP-SAP (Tetra Tech, 2010).

1.5 REPORT ORGANIZATION

This SI Report consists of five sections: Section 1.0, the introduction, includes the purpose, objective, scope, and report organization. Section 2.0 describes the background and physical setting of NAS Whiting Field, including initial SI site surveys. Section 3.0 describes the SI field work design and methodologies. Sections 4.0 and 5.0 discuss the SI of the two SARs individually including data results, updated CSMs, and conclusions and recommendations. Section 6.0 includes the references. The appendices include the following:

- Appendix A – Field Forms
- Appendix B – Site Photos
- Appendix C – Validated Analytical Results
- Appendix D – Data Usability Assessments (including all background information)
- Appendix E – XRF/FBL Correlation Statistical Evaluations
- Appendix F – Response to Comments

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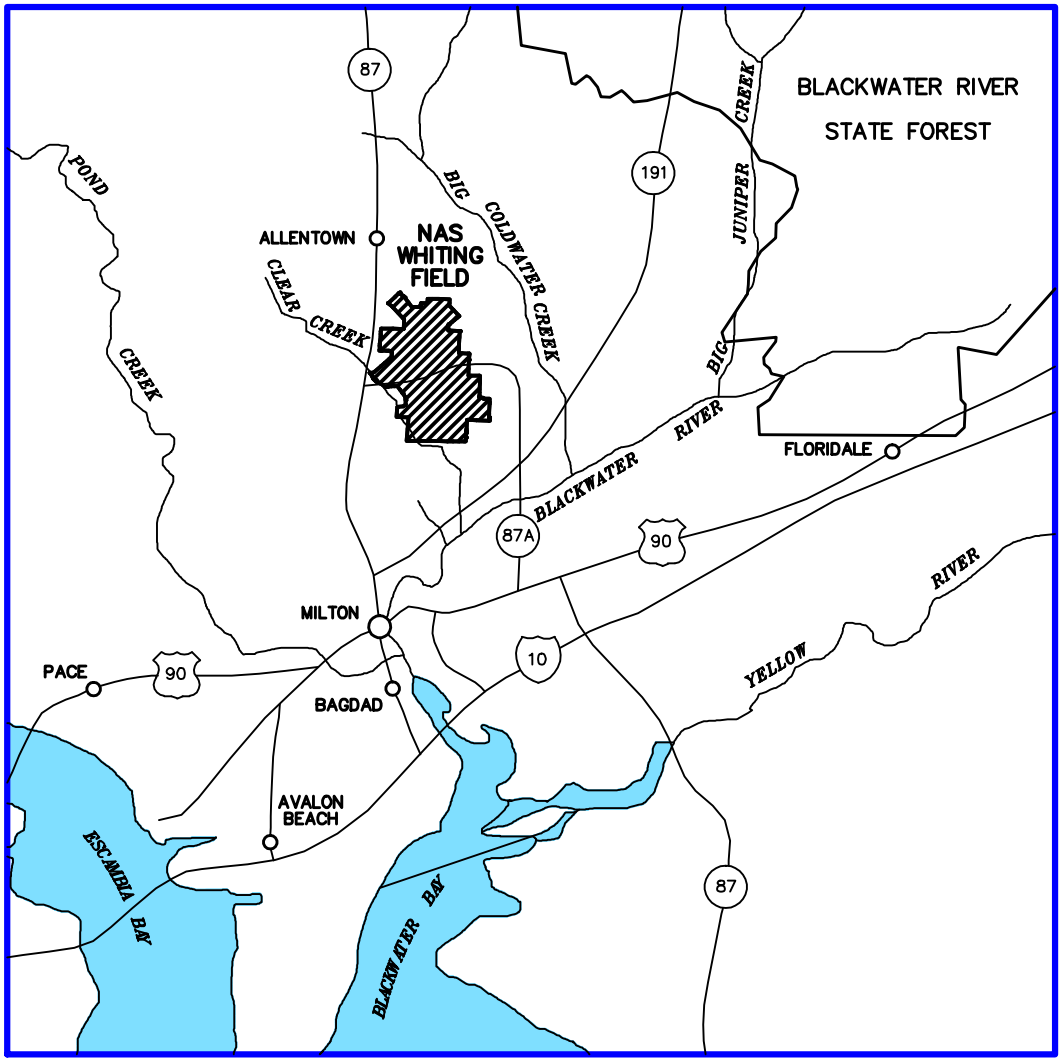

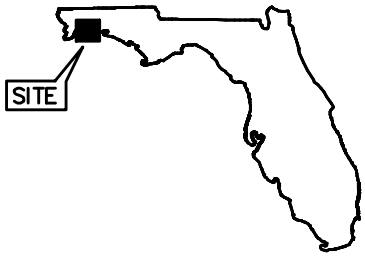

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NAS NAVAL AIR STATION

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GRAPHIC SCALE IN MILES

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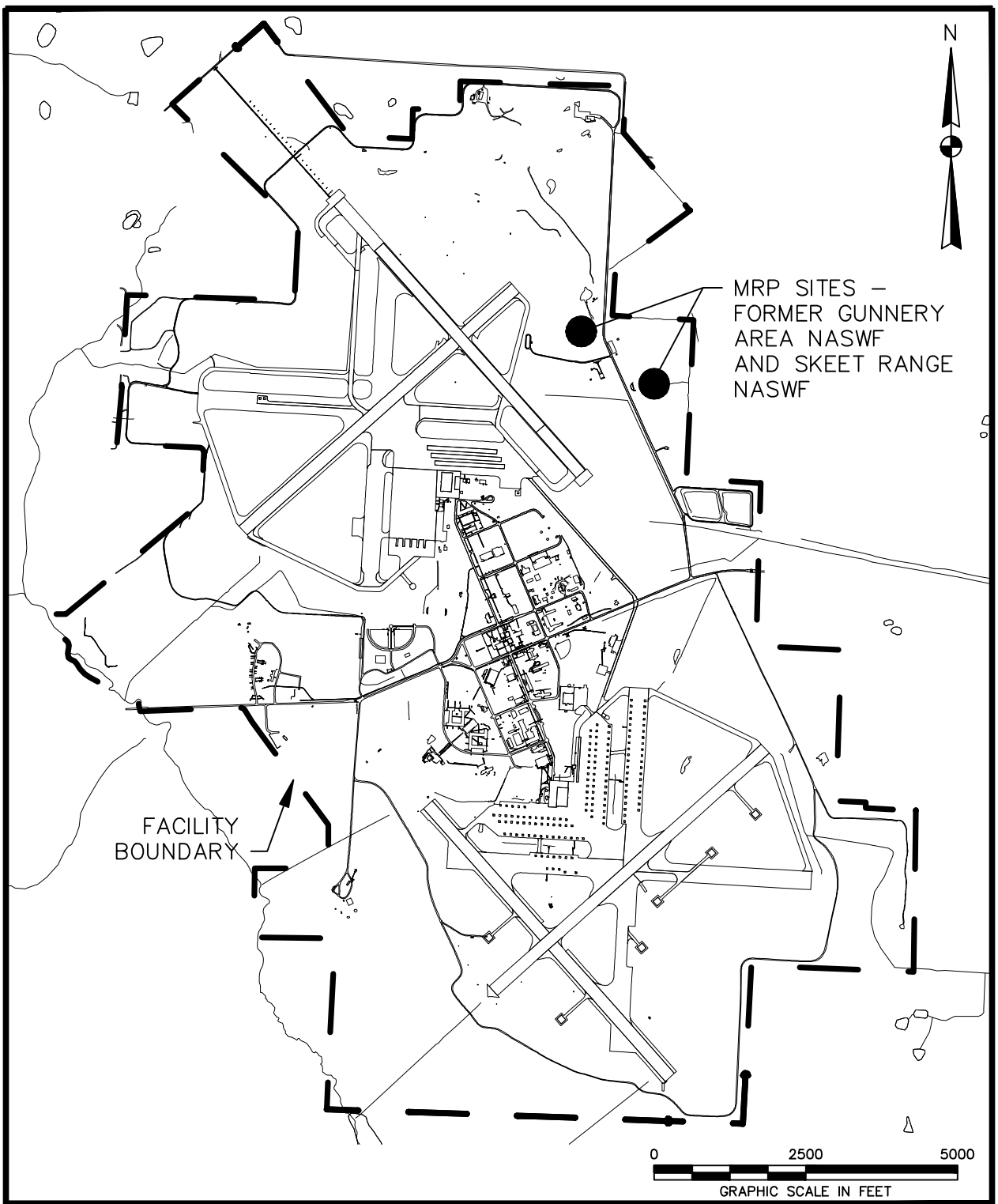

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2.0 FACILITY BACKGROUND AND PHYSICAL SETTING

2.1 NAS WHITING FIELD BACKGROUND AND PHYSICAL SETTING

2.1.1 Regulatory Framework

The regulatory framework for managing Navy MMRP sites is guided by federal, state, and local laws, as well as DoD and Navy regulations and guidance, and provides the necessary information for Navy-decision makers. The key legislation, policy, and guidance directing the program includes, but is not limited to, the following:

The Defense Environmental Restoration Program (DERP) established the MMRP in September 2001 to identify and respond to environmental and explosive safety hazards posed by unexploded ordnance (UXO), discarded military munitions (DMM), and MC at closed, transferred, or transferring ranges. MMRP eligible sites include “other than operational” ranges where UXO, DMM, or MC are known or suspected and the release occurred prior to September 2002. This SI Report addresses two “non-operational” SARs at NAS Whiting Field.

The National Defense Authorization Act (fiscal year 2002) reinforced the DoD’s 2001 DERP Management Guidance by tasking the DoD to develop and maintain an inventory of defense sites that are known or suspected to contain MEC and MC.

The 2001 DERP Management Guidance and the 2002 National Defense Authorization Act, described above, established the MMRP. The DoD provides program guidance and methods for conducting a baseline inventory of defense sites containing, or potentially containing, MEC and MC. The Navy baseline inventory of sites was completed in Fiscal Year 2002 and was used to establish the sites where PAs are needed to further evaluate the potential for MEC and MC. If the findings within the PA Reports indicate further investigation of a site is warranted, then the SI is initiated to collect site-specific environmental data and determine whether further response actions are necessary to address MC.

The primary goal of the MMRP SI is to collect an appropriate amount of data to ensure a decision for each site can be made regarding whether an RI/Feasibility Study (RI/FS) is required, whether a site requires an immediate response, or whether the site qualifies for no further action (NFA).

2.1.2 History

The HRS score for NAS Whiting Field was generated in 1993. The score was sufficient to place NAS Whiting Field on the National Priorities List (NPL); therefore, in January 1994, USEPA placed NAS Whiting Field on a list of sites proposed for inclusion on the NPL (40 CFR 300; FR 18 January 1994), and on May 31, 1994, NAS Whiting Field was placed on the NPL effective June 30, 1994 (40 CFR Part 300; FR 31 May 1994).

The Former Gunnery Area has an aerial extent of approximately 18 acres. Munitions use was most likely limited to small arms ammunition from 12, 16, and 20 gauge and .410 caliber shotguns. Although the closure date for this range is not known, its use was most likely discontinued in the 1970s when the Skeet Range NAS Whiting Field became operational (Figure x-x).

The Skeet Range has an aerial extent of approximately 12 acres. NAS Whiting Field Skeet Club and military personnel used the range from 1970 until 2000, when it was officially closed. The NAS Whiting Field Skeet Club and military personnel used the range from 1970, when it was originally constructed, until 2000, when it was officially closed. Munitions use at the range was limited to small arms ammunition, primarily from 12, 16, and 20 gauge and .410 caliber shotguns (Malcolm Pirnie, 2005).

2.1.3 Location and Setting

NAS Whiting Field is located in Santa Rosa County, in Florida's northwest coastal area, approximately 5.5 miles north of Milton and 25 miles northeast of Pensacola, Florida. Mobile, Alabama, is approximately 70 miles west of the NAS, and Tallahassee, the capital of Florida, is 174 miles to the east. The installation was constructed in the early 1940s and has served as a naval aviation training facility since then. The installation encompasses approximately 3,842 acres containing two airfields (North and South Fields) and a central industrial area that provides the support facilities for flight and academic training. A summary and description of historic operations at the facility are presented in Appendix A of the NAS Whiting Field General Information Report (GIR) [ABB Environmental Services, Inc. (ABB-ES), 1998]. The general location of NAS Whiting Field is presented on **Figure 1-1**.

Land surrounding NAS Whiting Field consists primarily of agricultural land to the north, and forested areas to the south, west, and east. Located on an upland area, elevations at NAS Whiting Field range from 50 to 190 ft above sea level. The facility is bounded by low-lying receiving water: Clear Creek to the west and south, and Big Coldwater Creek to the east; both are tributaries to the Blackwater River. The Blackwater River discharges to the estuarine waters of the East Bay of the Escambia Bay coastal system. Both Clear Creek and Big Coldwater Creek are classified by the FDEP as Class II Waters Recreation-

Propagation and Management of Fish and Wildlife. Blackwater River is classified as Outstanding Florida Water. Outstanding Waters are considered to be of exceptional recreational and ecological significance.

General base-wide information for NAS Whiting Field including climate, topography, geology, soil and vegetation types, hydrology, hydrogeology, cultural and natural resources, and threatened, endangered, and protected species are presented in the PA (Malcolm Pirnie, 2005).

2.1.4 Current Land Use and Anticipated Future Land Use

NAS Whiting Field is an active military facility and is expected to remain active for the foreseeable future. Current land use at NAS Whiting Field consists of various aviation-related military training, housing, and support facilities and large industrial complexes for major repairs and refurbishment of aircraft. NAS Whiting Field provides the support facilities for flight and academic training. Other land uses on base include, equipment and materials storage, maintenance areas, and recreational facilities for military personnel. No changes in the site's current land use designation are expected in the foreseeable future.

The current land use patterns at the site are well established, thereby reducing the uncertainty associated with land use assumptions. Access to NAS Whiting Field is restricted to military personnel, civilian employees, and authorized visitors. The installation is surrounded by a perimeter fence. Signs posted on the fence warn that trespassing is not permitted. People entering the facility must pass through staffed entrance gates. Within installation boundaries, certain contaminated sites are fenced. The use of facility operated public supply wells providing on-site treated water will continue. The current land use and future use will be the same.

2.2 GENERAL FACILITY PHYSICAL/ENVIRONMENTAL CHARACTERISTICS

2.2.1 Climate

The climate at NAS Whiting Field is humid, sub-tropical and is characterized by short, mild winters and long, warm summers. The average monthly temperature in the wintertime is 54 degrees Fahrenheit (ºF), while the average monthly temperature in the summertime is 80 ºF. The average annual temperature for NAS Whiting Field is 68 ºF [Naval Energy and Environmental Support Activity (NEESA), 1992]. There is an average of nine freezes per year; however, temperatures in the area rarely fall below 15 – 20 ºF. Winds are controlled by the Atlantic Bermuda High Pressure area and ocean-land heating differentials. Southerly winds from the Bermuda High warm the land during the summer days, resulting in amplified sea breezes. As land masses cool, the sea breeze reverses to a land breeze. The net effect is a clockwise

rotation of surface wind every 24 hours during the summer season. During the winter season, the influence of the Bermuda High is negligible, and northerly winds prevail (NEESA, 1983).

The average annual precipitation totals around 62 inches or less, with the wettest month being July, which has an average precipitation of 7.2 inches, and the driest month being November, which has an average precipitation of 3.4 inches (NEESA,1992). Snowfall rarely occurs, and hailstorms infrequently occur in very restricted areas. Rainfall is well-distributed, but peaks during the months of April through September when 55 percent of the annual rainfall occurs. Summer rain occurs in near-daily showers and thunderstorms over small areas, followed by broader areas of light rains in the winter. Infrequent rain events with moderate to high precipitation occur during the spring and fall seasons. Severe weather includes thunderstorms, tornadoes, tropical storms, and hurricanes. Hurricane season is June through November; however, the greatest frequency of hurricanes in the Gulf of Mexico occurs between August and October. The Florida Panhandle averages one hurricane every 17 years and is impacted by fringe effects of hurricanes every five years. The last hurricanes to affect the general area were Hurricanes Erin and Opal in 1995, Hurricane Ivan in 2004, and Hurricanes Dennis and Katrina in 2005.

2.2.2 Topography

Elevation at NAS Whiting Field is about 190 feet above mean sea level (msl) with a drop in elevation of approximately 150 feet to Clear Creek at 45 feet above msl. NAS Whiting Field is drained by an extensive storm sewer drainage system constructed in the mid-1940s. Extensive slope contouring and paved drainage ditches channel water from NAS Whiting Field to Clear Creek and to Big Coldwater Creek.

2.2.3 Regional Geology

A general geologic interpretation from the land surface to approximately 150 feet below ground surface (bgs) is presented in subsection 1.4.5 of the GIR (ABB-ES, 1998). Further detail for this interval is presented in Chapter Three of the RI/FS Technical Memorandum No. 2 Geologic Assessment (ABB-ES, 1995).

Shallow surficial fine sands are present over much of the facility to a depth of approximately 28 feet bgs. These fine sands have a high percentage of clays and silts that form a layer typically found across the facility. Typically below this clayey silty upper layer are loose quartz sands (28 to 85 feet bgs). Impermeable silty or clay layers are typically located at approximately 85 to 105 feet bgs.

2.2.4 Soil and Vegetation

Nine soil types are present within the boundaries of NAS Whiting Field based on a review of the *Soil Survey of Santa Rosa County, Florida* (U. S. Department of Agriculture [USDA], Soil Conservation Service, 1980). The Former Gunnery Area and Skeet Range are located in an area underlain by Troop loamy sand (ABB-ES, 1098).

There are very few undisturbed habitats at NAS Whiting Field. The airport runway areas and by association the Former Gunnery Area and Skeet Range are maintained grassy areas, and the planting and harvesting of pine trees along their boarders has modified habitat conditions. The altered areas provide limited ecological wildlife habitat, and these areas may not represent the same diversity of ecological communities as the original habitat. These areas provide limited ecological habitat for plants and animals have been that have adapted to coexist in close proximity to human activities.

The MMRP Sites would be characterized as a maintained field. The regular mowing of this area prevents ecological succession, but several herbaceous plants are observed among the nearby grasses that are not as stressed and worn by direct interactions with site activities such as mowing. The plants likely to be found in nearby areas may include blackberries, rustweed, yellow wood sorrell, several asters and peas, plantain, yellow buttons, blue sage, mexican clover, ageratum, moss verbina, greenbrier, pineweed, cudweed, prickly pear cactus, yaupon holly, and several species of oak seedlings and several species of commercial pine.

These mowed, previously grassy areas provide for the habitat for limited number of invertebrates, small rodents, and birds; however, the occurrence of ecological receptors forging in these areas is expected to be minimal due to the presence of occasional human activity, and lack of adequate vegetative cover (ABB-ES, 1998).

2.2.5 Hydrology

Land surrounding NAS Whiting Field consists primarily of agricultural land to the northwest, residential and forested areas to the south and southwest, and forests along the remaining boundaries. Located within an upland area, elevations at NAS Whiting Field range from 50 to 190 feet above sea level. The facility is bounded by low-lying receiving waters: Clear Creek to the west and south and Big Coldwater Creek to the east. Both creeks are tributaries of the Blackwater River. The Blackwater River discharges to the estuarine waters of the East Bay of the Escambia Bay Coastal System (ABB-ES, 1998).

No aquatic habitat is present at the MMRP Sites. Precipitation unless heavy infiltrates into the Troup loamy sand rather than flow overland. The sites are bounded by swales on the sides adjacent to roadways and the swales likely receive runoff from the asphalt roads. Samples were not collected from the swales for this investigation.

2.2.6 Regional Hydrology

The NAS Whiting is directly underlain by the Sand-and-Gravel Aquifer, which is primarily composed of fine- to coarse-grained sands and gravels with varying percentages of clay. The Sand-and-Gravel Aquifer is the primary source of water for Santa Rosa County. Over 99 percent of potable, agricultural, and industrial water in the region is obtained from the Sand-and-Gravel Aquifer. The main source of potable water for NAS Whiting are three wells located on the facility that withdraw groundwater from the Sand-and-Gravel Aquifer [Agency for Toxic Substances and Disease Registry (ATSDR), 2006].

The Sand-and-Gravel Aquifer thickens across the Florida panhandle from east to west, and extends from the ground surface (water table) down to depths ranging from approximately 200 to 330 feet bgs [Northwest Florida Water Management District (NWFWMD), 2001; ATSDR, 2006]. For the most part, the Sand-and-Gravel Aquifer is composed of interbedded layers of sand and gravel; however, clay beds and lenses are also common throughout the aquifer and form local semi-confining units (USGS, 1990). Water in the aquifer is under unconfined conditions where the clay beds are thin or absent, and is under artesian conditions where such beds are thick. Recharge to the Sand-and-Gravel aquifer occurs from percolation and infiltration of local precipitation, which generally moves downward for primary discharge to streams, bays, sounds, or the coastlines (USGS, 1990). Because of surficial recharge to the aquifer, its susceptibility to contamination is high, particularly in the surficial zone. An example of contamination to the surficial zone is a site near Pensacola, where creosote waste products from a wood-preserving plant have been detected in large portions of the zone (USGS, 1990).

The Sand-and-Gravel Aquifer is informally subdivided into the surficial zone, the low permeability zone, and the main producing zone. The low permeability zone acts as a semiconfining layer that restricts the vertical flow of groundwater between the surficial zone and the main producing zone, which is used as the main source of drinking water throughout the area (NWFWMD, 2001). Yields of up to 1,000 gallons per minute (gpm) have been reported for wells completed in the surficial zone, and aquifer test data have shown transmissivities of 11,000 square feet per day (ft2/day). For the main producing zone, yields of more than 1,000 gpm are commonly reported for wells completed in this zone, and results of aquifer tests have shown transmissivities of as much as 20,000 ft2/day.

Potable water is found throughout the Sand-and-Gravel Aquifer, as its virtually insoluble, quartzrich composition results in total dissolved solid concentrations below 50 milligrams per liter (mg/L). Chloride concentrations are generally less than 50 mg/L; however, in some coastal regions concentrations are as high as 1,000 mg/L. Dissolved iron concentrations vary locally, with some areas having concentrations up to 4,300 micrograms per liter. Information from monitoring of the NTTC Corry Station production wells in a 1992 PA of NTTC Corry Station showed the pesticide, dieldrin, at concentrations above Florida Department of Environmental Protection (FDEP) acceptable levels. Elevated levels of the pesticide were concluded to be due to nearby urban and residential fertilization (NEESA, 1992).

The Sand-and-Gravel Aquifer overlies a sequence of predominately fine-grained sediments representing the Intermediate Aquifer System, which overlies Florida's largest producing aquifer, the Floridan Aquifer System (FAS). The confining nature of the Intermediate Aquifer System serves to restrict the exchange of water between the Sand-and-Gravel Aquifer and the FAS; therefore, for this investigation only the Sand-and-Gravel Aquifer will be discussed (NWFWMD, 2001).

2.3 ECOLOGICAL SUMMARY

2.3.1 Ecological Habitats

Ecological habitats at NAS Whiting Field consists of upland, wetland, and aquatic communities. The airport runway areas, which include the MMRP sites, are maintained grassy areas, and are considered upland areas. These are altered areas provide limited ecological wildlife habitat, and these areas may not represent the same diversity of ecological communities as the original habitat. These areas provide limited ecological habitat for plants and animals that have adapted to coexist close proximity to human activities. The MMRP sites are located adjacent to the perimeter road and away from heavily traveled areas. These sites represent a variety of habitats in either a transition phase (native communities reestablishing themselves) or as communities reaching their natural climax stage.

The MMRP Sites would be characterized as an upland maintained field. The regular mowing of this area prevents ecological succession, but several herbaceous plants are observed among the nearby grasses that are not as stressed and worn by direct interactions with site activities such as mowing. The plants likely to be found in nearby areas may include blackberries, rustweed, yellow wood sorrell, several asters and peas, plantain, yellow buttons, blue sage, mexican clover, ageratum, moss verbina, greenbrier, pineweed, cudweed, prickly pear cactus, yaupon holly, and several species of oak seedlings and several species of commercial pine.

These mowed, previously grassy areas provide for the habitat for limited number of invertebrates, small rodents, and birds; however, the occurrence of ecological receptors forging in these areas is expected to be minimal due to the presence of occasional human activity, and lack of adequate vegetative cover (ABB-ES, 1998).

3.0 GENERAL METHODOLOGY

3.1 SITE INSPECTION APPROACH

This section describes the sampling design, methods, and documentation utilized during the SI field activities performed April 26 through April 29, 2010, at the two non-operational SARs at NAS Whiting Field.

All SI field work was conducted in accordance with the procedures and methodologies described in the UFP-SAP (Tetra Tech, 2010), which was approved by the FDEP and the USEPA. The Standard Operating Procedures (SOPs) that governed the MC field work are included in Appendix D of the approved UFP-SAP (Tetra Tech, 2010). Sample log sheets, field documentation, site photographs, and other supporting documentation associated with the SIs are provided in Appendices A through E and referenced throughout this report.

3.1.1 Site Preparation Activities

3.1.1.1 Mobilization/Demobilization

Following approval of the project-specific UFP-SAP, Tetra Tech personnel began initial mobilization activities in April 2010 for the SI. The field team members reviewed the approved UFP-SAP, associated appendices, and the Health and Safety Plan (HASP) prior to the start of project activities.

Prior to collecting any samples at the sites, the Field Operations Leader (FOL) arrived at NAS Whiting Field and began on-site mobilization activities. Mobilization activities included the receipt of field equipment from vendors. Each piece of equipment was checked upon receipt to verify that it was in proper working condition. Daily safety meetings were held each morning by the FOL to briefly address the day's planned activities. Upon completion of all SI activities, sample location pin flags were removed from the sites, work areas were thoroughly cleaned, trash was bagged and properly disposed, investigation-derived waste (IDW) disposal is discussed in Section 3.1.9, the FOL shipped the equipment back to the third party vendor, and the field crew demobilized from the site.

3.1.1.2 Utility Clearance

Prior to all field activities, Tetra Tech personnel contacted Sunshine State One Call of Florida to begin the utility clearance process. A separate utility clearance ticket was processed for each site.

3.1.1.3 Vegetation Management

The amount of clearing required at the two MRP sites to facilitate sampling activities varied. A brief discussion on vegetation clearing requirements is provided in the two site-specific sections of this report.

3.1.1.4 Permitting

Prior to collection of any samples or performing surveys at NAS Whiting Field, an Excavation Permit was submitted and subsequently approved. A separate Excavation Permit was completed for each site.

3.1.2 Field Investigation Methods

3.1.1.5 Hand Auger

During the field event, all soil samples were collected with hand augers in accordance with SOP-05 (Appendix D of UFP-SAP).

The hand auger system consists of a stainless steel bucket bit (i.e. cylinders 6.5 inches long and 2.75-inches in diameter), a 3- or 4-foot extension rod, and a cross handle. A properly decontaminated bucket bit was attached to a clean extension rod, then to the cross handle. The area to be sampled was cleared of surface debris (i.e., leaves, twigs). The hand auger was turned into the ground to an initial depth of 6 inches. The auger was then removed and the sample material was placed into a Ziploc® bag. The sample identification (ID), date, time, and depth were marked on the bag with an indelible marker. The auger was then returned to the boring hole and sample material was removed and placed into a separate Ziploc® bag until reaching the final depth of 24-inches bgs. Again, the sample ID, date, time, and depth were marked on the bag with an indelible marker. Required information was completed on the Soil Sample Log Sheet and the chain-of-custody (COC) form. Excess soil core material was returned to the hole and tamped. If insufficient soil was available to fill the hole to the ground surface, then clean sand was used to “top off” the bore hole. All soil sampling equipment was decontaminated between sample locations in accordance with SOP-04 and as described in Section 3.1.8.

3.1.1.6 XRF Analysis

All soil samples collected during this SI field effort underwent field XRF analysis in accordance with SOP-09 of the UFP-SAP (Tetra Tech, 2010).

Prior to analyzing samples, the XRF was standardized in accordance with manufacturer instructions, and three known lead standards from the National Institute of Standards and Technology (NIST) were

analyzed to verify the accuracy of the instrument and to assess the stability, consistency, and accuracy of the results.

Sample processing prior to field XRF analysis consisted of thoroughly homogenizing each soil sample within a large Ziploc® bag, removing rocks and other debris, placing a portion of that sample in a small aluminum pan, drying the sample in an electronic convection oven, and then manually processing the dried sample material to eliminate clods and produce a fine uniform particle size. Due to the relatively dry sandy soil conditions at most sample locations, average drying time for each sample was approximately 10 to 15 minutes. Each sample was then transferred to a smaller thin-walled Ziploc® bag from which three separate XRF measurements were made, one from each end and one from the center of the sample bag. The average lead concentration of the three readings was used as the final XRF lead concentration for the sample.

During sample collection activities, all soil material was visually inspected in the field for the presence of bullets, bullet fragments, lead shot, and clay target fragments. Any observance of these materials was noted on the sample bag and subsequently on the respective soil sample log. Such samples were sieved prior to screening with the XRF in order to reduce erroneous readings. The soil material was again visually monitored in the field laboratory during processing for XRF analysis.

After the initial screening with the XRF, samples were selected for analysis of lead, PAHs, and other select parameters at the FBL. For metals, sample selection for FBL analysis was based on the field XRF lead concentration with samples selected having an XRF lead concentration range between 5 and 1,165 parts per million (ppm).

A general discussion of the correlation analyses is presented in Section 3.3, and a more detailed site-specific correlation analysis for each of the two SARs is discussed in their respective site-specific sections, with supporting documentation included in **Appendix E**.

3.1.3 Site Sampling Operations

The SI was limited to the investigation of surface soil (0- to 6-inch interval and 6- to 24-inch interval bgs). If XRF results of a perimeter sample location exceeded the PAL (indicating the presence of contaminants in the surface soil), then “step-out” samples would have been collected for both surface soil intervals to better define the perimeter of the site. No “step-out” samples were collected at either SAR.
Two (2) discretionary samples were collected at the Skeet Range and one (1) discretionary sample was collected at the Former Gunnery Area. Discretionary samples were selected by the FOL in areas where

accumulated clay pigeon fragments or lead shot were observed visually. These samples were collected at the surface soil interval of 0 to 6-inches bgs.

3.1.1.7 Surface Soil

The SI was limited to the evaluation of exposed, unpaved surface soil at the SARs at NAS Whiting Field. FDEP defines the surface soil interval as 0 to 2 feet bgs and requires data from two intervals including the 0 to 6 inch depth and the 6 to 24 inch depth to characterize surface soil. The vertical study boundary was limited to 2 feet bgs, because the CSMs indicated the penetration of soil by MC was not generally expected to be deeper than 1 foot bgs.

Surface soil samples were collected from areas known to be, or most likely to be, contaminated based on historical information. The Project Team selected locations and numbers of samples which, based on their experience, would support the attainment of the project objectives. This process biased the sampling toward areas most likely to have contamination. This strategy was utilized because only one sample needed only one parameter concentration in excess of an action level to conclude that additional evaluation (or an RI) was necessary.

At the SARs, the study area boundaries included areas of maximum shot fall and areas where the clay target fragments may have landed, as described in the CSMs for the two SARs.

Prior to collection of the soil samples, a site walkover was conducted by the FOL to assess whether any lead shot or bullets were visible on the surface, or in the very near surface, soil at various areas throughout the sites. The FOL observed and inspected the sites to determine which areas were most likely to be contaminated and had the authority to adjust the sample locations accordingly. No suspect areas were observed outside the planned sample locations that led the FOL to relocate the pre-determined sample locations; therefore, the FOL attempted to collect samples at or near the locations identified on sampling Figures 17-1 and 17-2 of the approved UFP-SAP (Tetra Tech, 2010). During sample collection activities, all soil material was visually inspected in the field for the presence of bullets, bullet fragments, lead shot, and clay target fragments. The soil material was again visually monitored in the field laboratory during processing for XRF analysis.

Soil samples were transported to the field office where a portion of the sample underwent XRF analysis for lead (See SOP-09). For soil samples selected for FBL select metals analysis, the sample portion that underwent XRF analysis was used to fill the required sample containers supplied by the FBL. For soil samples selected for FBL PAH, metals, SPLP, pH, CEC, and TOC analysis, a portion of the original unused (non-XRF) soil was retrieved from the sample bag and used to fill the required sample containers

supplied by the FBL. Sample labels were completed and affixed to each respective sample container. The samples were then packaged and shipped to the FBL in accordance with SOP-11. Field Forms are attached in Appendix A and include the Soil and Sediment Sample Log Sheet.

3.1.1.8 Subsurface Soil

No subsurface soil (greater than 2-feet bgs) samples were collected during the SI.

3.1.1.9 Groundwater

No groundwater samples were collected during the SI.

3.1.4 Field Sample Documentation

All field visual observations, including physical observation of bullets, bullet fragments, lead shot and pieces of clay targets, were recorded on the sample log sheets and in daily field records. Any bullets, bullet fragments, lead shot, or pieces of clay targets were removed prior to analysis because they do not reflect contamination that has migrated to soil. Documentation of bullets, bullet fragments, lead shot, and clay target pieces were important for interpreting spatial contaminant distributions.

The sample numbering scheme was in accordance with SOP-02 (Sample Identification and Nomenclature). Sample nomenclature included an abbreviated site location name, grid location ID, sample number, and sample depth. Sample documentation consisted of the completion of sample log sheets, COC forms, and field logbooks. Field documentation was completed per SOP-03 of the approved UFP-SAP (Tetra Tech, 2010). The sample log sheets contain information such as sample location and sample ID number, container requirements and analyses to be performed, and sample type, time, and date. Any unusual circumstances encountered during sample collection were noted on the form. COC forms were used to track each sample from collection, to receipt and analysis at the FBL. All field log sheets and field forms are included in Appendix A of this document. Site photographs are included as Appendix B.

Sample labeling was in accordance with SOP-01 of the approved UFP-SAP (Tetra Tech, 2010). Soil sample log sheets maintained for the samples collected during this SI are included in Appendix A and contain the following information, as appropriate for each sample:

- Sample location and sample ID
- Name of person(s) collecting the sample
- Sample collection method

- Sample depth, date, and time
- Brief soil description

3.1.5 Sample Handling, Packaging, and Shipping

Sample containers, packaging, and shipping were in accordance with SOP-07. Sample handling activities included field-related considerations concerning the selection of sample containers, allowable holding times, sample custody, and maintaining samples at the appropriate storage temperature. All sample containers shipped to the FBL were wrapped in bubble wrap and sealed in plastic Ziploc® bags to minimize the possibility of breakage during transport. The sample containers were then placed in a cooler lined with a large plastic garbage bag and covered with ice. A temperature blank was placed in each cooler prior to shipment. The plastic garbage bag was sealed with a knot, and the COC form(s) was sealed in a Ziploc® bag and taped to the inside of the cooler lid. Signed and dated custody seals were applied to opposite ends of the cooler and then covered with strapping tape to provide a tamper-evident seal. A Federal Express® airbill was applied to the shipping cooler. Tetra Tech maintained custody of the samples until they were relinquished to Federal Express®. The Federal Express® tracking number (airbill number) was recorded on the COC form(s), and the sender's copy of the airbill was maintained for shipment tracking, if needed. All samples were shipped to the FBL for overnight delivery and were received within sample holding times and within the required temperature range.

Laboratory sample custody procedures (receipt of samples, archiving, and disposal) were used according to Empirical Laboratories SOPs. Coolers are received and checked for proper temperature. A sample cooler receipt form was filled out to note conditions and any discrepancies. The COC form(s) were checked against the sample containers for correctness. Samples were logged into the laboratory information management system (LIMS) and given a unique log number that can be tracked through processing. The client was notified of any problems.

3.1.6 Quality Control Samples

Quality assurance (QA)/quality control (QC) samples were generated and collected during sampling activities to monitor both field and laboratory procedures, in accordance with the approved UFP-SAP (Tetra Tech, 2010). QC for the XRF analyzer included analyzing known NIST standards, a blank sample, and a known “clean” sample. QA/QC samples included field duplicates, equipment rinsate blanks, and temperature blanks. Field duplicate results are tabulated in Appendix C of this document. Types of QA/QC samples are briefly described as follows:

Field Duplicates - consisted of a single sample split into two portions. Field duplicates were collected at the rate of 1 in 20 during this field investigation to assess the overall precision of the sampling and analysis program.

Equipment Rinsate Blanks - obtained under representative field conditions by collecting the rinse water generated by running analyte-free water through or over sample collection equipment after decontamination and before use. Equipment rinsate blanks were analyzed for the same chemical constituents as the associated environmental samples. These samples demonstrate the effectiveness of the field decontamination procedures.

Temperature Blanks - used to determine if samples were adequately cooled during shipment. Temperature blanks consisted of analyte-free water supplied by the FBL. One temperature blank was submitted to the laboratory in each cooler, and the temperature was checked upon receipt at the laboratory.

3.1.7 Global Positioning System

Prior to field mobilization, all Geographic Information System (GIS) grade sample coordinates were uploaded into a hand-held GPS unit capable of sub-meter accuracy (i.e., Trimble GeoHX). The GPS was then used in the field to locate all sampling points. The GPS coordinate system was set up so all data points were collected in North American Datum of 1983 (NAD83) Florida State Plane coordinates.

Upon locating the sample points with the GPS, the locations were marked with a brightly colored pin flag with the sample ID written on each flag. Once all samples were collected at a site, the field team marked each sample location with a short length of polyvinyl chloride (PVC), and pin flags were removed. In locations that were not maintained (i.e. mowed), the PVC was allowed to extend approximately 12 inches above the ground surface. For sample locations in areas mowed regularly, the PVC was driven nearly flush with the ground surface. The PVC was used as a semi-permanent aide for future location of sampling points.

Once all samples at a site were collected, a field team member returned to each individual sample location and updated the GPS coordinates by collecting actual sample location coordinates. GPS coordinates were collected at each location for a minimum of 1 minute during periods when satellite reception was optimal (i.e., greater than six available satellites). Each evening, when sample locations were updated with the GPS, the coordinates were transferred from the GPS unit to a personal computer via Microsoft ActiveSync and Trimble Data Transfer Utility. The data was then uploaded to the Tetra Tech electronic MMRP Data Depository. This transfer allowed a GIS Technician to perform a differential

correction which calculates correction factors for each data point and reports coordinates with greater accuracy. The GIS Tech then produced a site figure with the corrected GPS data and placed it in the MMRP Data Dictionary, which was then available to the FOL. This entire process was typically completed in a 24-hour period and allowed the FOL to retrieve a sample location figure for each site to determine if the GPS coordinates appeared correct in relation to site features while still in the field.

3.1.8 Decontamination Procedures

Reusable (non-dedicated) sampling equipment (e.g., hand augers) was decontaminated prior to beginning sampling and between sample locations.

Two 5-gallon buckets, a scrub brush, and deionized (DI) water were utilized in the decontamination process for the hand augers. Each bucket was filled with approximately 2 to 3 gallons of clean water. In one bucket a small amount of phosphate-free detergent (Liqui-Nox®) was mixed into the water. Prior to sample collection, and between sample locations, the auger bit was placed in the water/detergent mix and scrubbed clean. The auger was then transferred to the second bucket for a clean rinse. The auger received a final rinse with DI water. If the auger was not immediately used, it was wrapped in clean aluminum foil.

At the conclusion of SI field activities, the FOL completed final decontamination of all equipment, which was then shipped back to the appropriate vendor(s).

3.1.9 Investigation-Derived Waste

IDW was generated during the site investigations. IDW included, personal protective equipment (PPE), excess soil, and decontamination fluids. PPE were properly bagged and disposed of in NAS Whiting Field facility dumpsters. Excess soil was returned to the boring from which it was collected. The limited (less than 5 gallons) decontamination fluid used for cleaning the hand augers at each site was disposed at each respective site.

3.1.10 Record Keeping

SI records including daily activity logs, sample log sheets, and COC forms were completed in accordance with SOP-03. Information recorded daily included field activities, weather conditions, identity, and arrival and departure times of personnel, as well as management issues, etc. Copies of daily activity records are included in Appendix A.

3.2 ANALYTICAL METHODOLOGY

3.2.1 Analytical Methods

Chemical analysis for select metals (antimony, arsenic, copper, lead, tin, and zinc), PAHs, SPLP, pH, TOC, and CEC were performed by Empirical Laboratories located in Nashville, Tennessee, which is a Naval Facilities Engineering Service Center (NFESC) and CERCLA approved laboratory. All analyses were performed in accordance with the analytical methods identified in Worksheet #30 of the approved UFP-SAP (Tetra Tech, 2010).

3.2.2 Data Evaluation

3.2.1.1 Data Quality Review

This section describes the data review processes used to determine whether analytical laboratory data were of acceptable technical quality for use in decision making. The review began with data validation, which is a comparison of data quality indicators (DQIs) to prescribed acceptance criteria. The DQIs used are measures to assess the bias and precision of the analytical calibrations and sample analyses. The output of this review was a set of alphabetic flags such as “U,” “J,” “R,” or combinations thereof that may have been assigned to individual results based on the validation effort. These flags were used to infer the general quality of the data. Also evaluated were the measures of data completeness, sensitivity, comparability and representativeness.

3.2.1.2 Data Validation Process

Limited data validation conducted to evaluate false positives included evaluations of data completeness, holding time compliance, calibrations, field QC and laboratory-generated blanks, field duplicate precision, and detection limits for the data collected during the SI. The data packages provided by the analytical laboratories are expansive enough to allow future complete formal data validation, if necessary.

Assignment of data qualification flags conformed to USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (June, 2008), and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Validation (USEPA, 2004) guidelines to the greatest extent practicable for non-Contract Laboratory Program Data. Data validation specifications require that various data qualifiers be assigned when a deficiency is detected or when a result is less than its detection limit. If no qualifier is assigned to a result that has been validated, the data user is assured that no technical deficiencies were identified during validation. The qualification flags used are defined as follows:

“U” - Indicates that the chemical was not detected at the numerical detection limit (sample-specific detection limit) noted. Non-detected results from the laboratory are reported in this manner. This qualifier is also added to a positive result (reported by the laboratory) if the detected concentration is determined to be attributable to contamination introduced during field sampling or laboratory analysis.

“UJ” - Indicates that the chemical was not detected; however, the detection limit (sample-specific detection limit) is considered to be estimated based on problems encountered during laboratory analysis. The associated numerical detection limit is regarded as inaccurate or imprecise.

“J” - Indicates that the chemical was detected; however, the associated numerical result is not a precise representation of the concentration that is actually present in the sample. The laboratory reported concentration is considered to be an estimate of the true concentration.

“UR” - Indicates that the chemical may or may not be present. The non-detected analytical result reported by the laboratory is considered to be unreliable and unusable. This qualifier is applied in cases of gross technical deficiencies (e.g., holding time missed by two times the specified time limit, severe calibration non-compliance, or extremely low analyte recovery).

“R” - Indicates that the chemical may or may not be present. The positive analytical result reported by the laboratory is considered to be unreliable and unusable. This qualifier is applied in cases of gross technical deficiencies.

The preceding data qualifiers may be categorized as indicative of major or minor problems. Major problems are defined as issues that result in the rejection of data and qualification with “UR” or “R” data validation qualifiers. These data are considered invalid and are not used for decision-making purposes unless they are used in a qualitative way and their use is justified and documented. Minor problems are defined as issues resulting in the estimation of data and qualification with “U”, “J”, and “UJ” qualifiers. Estimated analytical results are considered to be suitable for decision-making purposes unless the data use requirements are very stringent and the qualifier indicates a deficiency that is incompatible with the intended data use. A “U” qualifier does not necessarily indicate that a data deficiency exists because all non-detect values are flagged with the “U” qualifier regardless of whether a quality deficiency has been detected.

Data Validation Outputs

After data were validated, a list was developed of non-conformities requiring data qualifier flags that were used to alert the data user to inaccurate or imprecise data. The reviewer then prepared a technical memorandum presenting qualification of the data, if necessary, and the rationale for making such qualifications (see **Appendix D**). The net result was a data package that had been carefully reviewed for its adherence to prescribed technical requirements. Pertinent quality estimates are summarized in a more quantitative manner in the following section.

Data Quality Review

DQIs are parameters monitored to help establish the quality of data generated during an investigation. Some of the DQIs are generated from analysis of field samples (e.g., field duplicates) and some are generated from the analysis of laboratory samples (e.g., laboratory duplicates). Individually, field and laboratory DQIs provide measures of the performance of the respective investigative operations (field or laboratory). During data validation, individual QC results were evaluated. If individual QC results were acceptable, no validation flag was assigned to an analytical result; otherwise, a flag indicating the type of QC deficiency was assigned to the result.

Completeness

Completeness is a measure of the number of valid samples or measurements that are available relative to the number of samples or measurements that were intended to be generated. For this project, completeness was measured on two different bases:

Samples collected – a measure of the usable samples collected compared to those intended to be collected.

Laboratory measurements – a measure of the amount of usable valid laboratory measurements per matrix for each target analyte.

Usable valid samples (or results) were those judged, after data assessment, to represent the sampling populations and to have not been disqualified for use through data validation or additional data review. Completeness was determined using the following equation:

$$\%C = \frac{V}{T} \times 100$$

where %C = percent completeness
V = number of samples (or results) determined to be valid
T = total number of planned samples (or results)

Sensitivity and Quantitation Limits

Sensitivity is the ability of the method or instrument to detect the target analytes at the level of interest. The quantitation limit (QL) is the minimum concentration of an analyte that can be routinely identified and quantified above the method detection limit (MDL) by a laboratory. Sensitivity can be measured by calculating the percent recovery of the analytes at the QL. The sample QLs, the low point instrument calibration standard, matrix interferences, and sample dilutions will be evaluated to assess whether the sensitivity goals were met.

The MDLs reported by the laboratory were generally less than the screening levels specified in the laboratory scope-of-work with the exception of SPLP antimony results. The laboratory made an error in the analysis of the SPLP metal samples, in which they did not concentrate the samples in order to achieve the lower limits. Therefore, due to elevated MDLs, it is uncertain whether or not total antimony is present at concentrations greater than the screening level at the sites investigated at Pensacola. For sites having an SPLP for antimony in exceedance of the PAL, additional samples may need to be collected and analyzed for SPLP metals to verify results. This will be addressed as needed for each site investigated at NAS Pensacola as part of this SI.

Accuracy

Accuracy requirements for field measurements are typically ensured through control over sample collection and handling and through routine instrument calibration. Field accuracies were monitored through the use of blanks to detect cross-contamination and by adherence to monitoring procedures that prevent sample contamination or degradation. One equipment rinsate blank was collected during the SI to assess cross-contamination via sample collection equipment. The blank was obtained under representative field conditions by collecting the rinse water generated by running analyte-free water through sample collection equipment after decontamination and before use. The rinsate blank was analyzed for the same chemical constituents as the associated environmental samples.

Accuracy in the laboratory was measured through the comparison of a spiked sample or laboratory control sample (LCS) result to a known or calculated value and was expressed as a percent recovery (%R). It was also assessed by monitoring the analytical recovery of select surrogate compounds added

to samples that are analyzed by organic chromatographic methods. LCSs were used to assess the accuracy of laboratory operations with minimal sample matrix effects. Matrix spike (MS) and surrogate compound analyses measure the combined accuracy effects of the sample matrix, sample preparation, and sample measurement. LCS and MS analyses were performed at a frequency of 1 per 20 associated samples of like matrix. Laboratory accuracy was assessed by comparing calculated %R values to accuracy control limits specified by the laboratory using SW-846 methods.

Percent recovery is calculated using the following equation:

$$\%R = \frac{Ss - So}{S} \times 100$$

where %R = percent recovery
Ss = result of spiked sample
So = result of non-spiked sample
S = concentration of spiked amount.

Precision

Precision is a measure of the degree to which two or more measurements are in agreement and describes the reproducibility of measurements of the same parameter for samples analyzed under similar conditions. Precision for chemical parameters is expressed as a relative percent difference (RPD), which is defined as the ratio of the difference to the mean for the two values being evaluated. RPDs are used to evaluate both field and laboratory duplicate precision and are calculated as follows:

$$RPD = \frac{|V1 - V2|}{(V1 + V2)/2} \times 100$$

where RPD = relative percent difference
V1, V2 = two results obtained by analyzing duplicate samples

The precision estimates obtained from duplicate field samples encompass the combined uncertainty associated with sample collection, homogenization, splitting, handling, laboratory and field storage (as applicable), preparation for analysis, and analysis. In contrast, precision estimates obtained from analyzing duplicate laboratory samples incorporate only homogenization, subsampling, preparation for analysis, laboratory storage (if applicable), and analysis uncertainties.

Comparability

Comparability is defined as the confidence with which one data set can be compared to another (e.g., among sampling points and among sampling events). Comparability was achieved by using standardized sampling and analysis methods and standardized data reporting formats. Comparability of field data was ensured by following the UFP-SAP (Tetra Tech, 2010), and comparability of laboratory measurements was achieved primarily through the use and documentation of standard sampling and analytical methods. Results were reported in units that ensured comparability with previous data and with current state and federal standards and guidelines. Comparability of laboratory measurements was assessed primarily through the use of QC samples and through adherence to the laboratory's QA plans.

Representativeness

Representativeness is an expression of the degree to which data accurately and precisely depict the actual characteristics of a population or environmental condition existing at the site. The UFP-SAP (Tetra Tech, 2010) and use of standardized sampling, sample handling, sample analysis, and data reporting procedures were designed so that the final data would accurately represent actual site conditions. It is believed that all reported data are adequately representative of site conditions.

3.3 CORRELATION BETWEEN X-RAY FLUORESCENCE AND FIXED-BASE LABORATORY

Correlation Analysis

From soil samples that were analyzed in the field using XRF and also at the FBL, a regression analysis was conducted to evaluate the correlation between the FBL lead results and XRF lead results. To evaluate the regression analysis, the Pearson Correlation and R-squared value were calculated. The Pearson Correlation is a measure of the strength of the linear relationship between two or more variables with a range of -1 to +1. The value of -1 represents a perfect negative correlation (i.e., as one variable decreases the other increases proportionally); whereas, a value of +1 represents a perfect positive correlation (i.e., as one variable increases the other increases proportionally). A value of 0 represents a lack of correlation.

The correlation analysis results for the two SARs are presented in Sections 4.0 and 5.0, with supporting documentation included in Appendix E.

3.4 DATA COMPARISON TO PROJECT ACTION LIMITS

This investigation requires that field measurements and FBL chemical data be used to determine whether further investigation is necessary. To conduct comparisons of site data to USEPA and FDEP screening values, the laboratory QLs must be low enough to measure MC concentrations to regulatory values.

The screening values (PALs) used to evaluate the chemical concentrations detected in site media and to decide whether further site investigation is warranted are listed in Worksheet #15 of the UFP-SAP.

The USEPA has identified seven PAHs as potentially carcinogenic, these include: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)-pyrene. Of these PAHs, benzo(a)pyrene has been subjected to the most toxicological study and the USEPA has used the toxicological data to establish quantitative toxicological parameters (cancer slope factors and inhalation unit risks). All seven of these PAHs have a similar chemical structure and similar chemical properties. For example, these PAHs have relatively low solubility in water, have low potential to volatilize into the air, and have a propensity for adsorbing to soil rather than dissolving in water once they are in the environment. Laboratory studies suggest that these chemicals act similarly from the perspective of carcinogenicity and that the carcinogenic potency of the individual PAHs can be evaluated with reference to the carcinogenic potency of benzo(a)pyrene. Therefore, the USEPA has developed a toxicity equivalency factor (TEF) for each potentially carcinogenic PAH that can be used to convert the concentration of that PAH to an equivalent concentration of benzo(a)pyrene. Since benzo(a)pyrene is often abbreviated BaP, this process is known as determining the BaP equivalent concentration.

The TEFs for the seven potentially carcinogenic PAHs are given in the table below:

PAH	TEF
Benzo(a)pyrene	1.0
Benz(a)anthracene	0.1
Benzo(b)fluoranthene	0.1
Benzo(k)fluoranthene	0.01
Chrysene	0.001
Dibenz(a,h)anthracene	1.0
Indeno(1,2,3-c,d)pyrene	0.1

The BaP equivalent concentration was calculated for each sample using the following four step process:

First, for any potentially carcinogenic PAH that was not detected, half the reporting limit was used as the concentration for that PAH. Second, the concentration of each potentially carcinogenic PAH was multiplied by its TEF to give its BaP equivalent concentration. Third, the BaP equivalent concentrations for all potentially carcinogenic PAHs were summed to give the total BaP equivalent concentration. Fourth, if no potentially carcinogenic PAHs were detected in a sample, the reporting limit for benzo(a)pyrene was used as the total BaP equivalent concentration.

For both sites at NAS Whiting Field PAHs are a concern. Site-specific detection tables (Tables 4-3 and 5-3) present the concentrations of potentially carcinogenic PAHs in each discrete surface soil sample submitted for analysis of PAHs. These tables also provide the TEFs and the resulting total BaP equivalent concentration for each sample. The total BaP equivalent concentrations are compared to risk-based screening levels (RBSLs) for BaP for direct contact exposures to soil (i.e., incidental ingestion, dermal contact, and inhalation of constituents emitted from soil to air).

If individual MC analytes (inorganics or PAHs) are detected in any sample at concentrations that exceed PALs, the Project Team may recommend proceeding to an RI for the site. If MC concentrations in the samples do not exceed PALs in all samples, then NFA for MCs may be recommended for that particular site.

Detailed discussions regarding site-specific PAL evaluations for the two SARs are presented in Sections 4.0 and 5.0 of this report.

4.0 FORMER GUNNERY AREA

4.1 SITE BACKGROUND

The Former Gunnery Area, which was used for skeet shooting, is located in the North Field area and consists of approximately 18 acres of open grassy field just south of the installation golf course (**Figure 4-1**). Munitions use was most likely limited to small arms ammunition from 12-, 16-, and 20-gauge and .410-caliber shotguns. Although the closure date for this range is not known, use was most likely discontinued in the 1970s when the Skeet Range was constructed and became operational. The exact quantity of shotgun ammunition deployed or fired at the range is unknown. Firing records were not available, and based on the information obtained during the data collection process, other munitions types, including special consideration munitions (i.e., chemical warfare materiel filled munitions, electrically fused munitions, and/or munitions containing depleted uranium), are not known nor suspected to have been used at the site.

Buildings associated with the Former Gunnery Area, including the Gunnery Range House (Building 1473) and the Gunnery Magazine (Building 1488), have been demolished and removed. Only the three concrete firing arcs and the footprint of the former shed remain. The closest building or structure to the site is the operational pistol range, approximately 350 feet to the south.

A visual survey of the Former Gunnery Area NAS Whiting Field was conducted on June 4, 2003. During the visual survey three firing arcs and the area where a former shed was located were noted. During both PA and SI site walks, target fragments were observed on the ground surface. The observed fragments consisted of small pieces of clay pigeon targets.

4.1.1 Historical Munitions Usage Information

When the range was in use, the clay targets were likely launched from a control system by means of a mechanical device within the shed. The target would pass across the field of view, downrange of the individual on the firing line, and a shotgun was fired at the clay targets. Fired shotgun pellets missing the targets would continue unimpeded on a parabolic trajectory to the north toward the area that is now part of the golf course. Intact targets would also follow a parabolic trajectory breaking on impact with the ground surface creating an increase of clay pigeon fragments in the impact area. Targets that were hit would fragment in the air and fall to the ground surface in a random pattern. Shot pellets that impacted clay targets would continue on a slightly revised trajectory and fall to the ground downrange. The Former

Gunnery Area was used only for small arms training and there is no known historical evidence of explosives use at the site and no evidence of MEC. Therefore, MEC was not suspected to be present.

4.1.2 Munitions Constituents

For shotgun ammunition and clay targets, the primary MC of concern includes lead from shot from the shotgun shells and PAHs from pitch tar used as mastic in the clay matrix of the pigeons. Other associated MC less likely to be of concern may include antimony and arsenic, which may be present in lead at low levels. Because clay targets were identified at the former range, PAHs associated with the targets may also be present at the site. PAHs present in the clay targets tend to be tightly bound in the petroleum pitch and limestone matrix of the target and become available to the environment over time as the petroleum pitch is weathered and breaks down. These MC components are not consumed when the munitions items function as they are designed. Therefore, these MC may exist at the Former Gunnery Area NAS Whiting Field.

4.2 SITE FIELDWORK

4.2.1 Site Field Activities

The SI field program for the Former Gunnery Area included collection of surface soil at two depths (0- to 6- and 6- to 24-inches bgs) to identify COPCs (e.g., metals and PAHs) that may exist as a result of past operations at the range. All samples were analyzed in the field utilizing XRF with a subset of those samples chosen for submittal to the FBL for select metals analysis. A correlation study comparing XRF and FBL analytical data was completed after the field effort to establish laboratory equivalent lead concentrations based on the field measurements, and to use as a correlation analysis between XRF and FBL lead concentrations. This correlation is discussed in Section 4.5. Four of the collected samples were submitted to the FBL from the Former Gunnery Area and analyzed for select metals by SPLP and four more of the samples were analyzed for pH, CEC, and TOC.

Soil sample locations were selected based on a bias toward areas that were believed to be most likely contaminated by past operations at the site. Sample locations are presented in a spatial grid pattern to evenly cover the entire area of the Former Gunnery Area and Skeet Range. Tetra Tech provided recommendations and received approval from the Navy, FDEP, and USEPA before proceeding with the implementation of the sampling plan. Prior to initiating sample collection, all sample locations were marked with brightly colored pin flags bearing the sample location ID number. Proposed sample locations identified in the approved UFP-SAP were located by a Trimble sub-meter GPS unit. Upon collection of all the samples at the SAR, the GPS was used to update the sample coordinates using the horizontal datum:

NAD83 Florida State Plane Coordinate System North. To aid in relocating sample locations in the future, a section of one-half inch PVC was driven into the ground at the sample point and the visible end was spray painted orange. All sample locations were laid out as proposed in the approved UFP-SAP (Tetra Tech, 2010).

Photographs associated with the sampling activities at the Former Gunnery Area are presented in **Appendix B.**

The area encompassing the Former Gunnery Area was covered with grassy vegetation; however, minimal vegetation clearance was required to accommodate sample collection.

4.2.2 Work Plan Deviations

There were no deviations from the UFP-SAP (Tetra Tech, 2010) for the Former Gunnery Area.

4.2.3 Field Data Collection

Seventy-five soil samples were collected from 38 sample locations during the SI at the Former Gunnery Area. A 0 to 6-inch and a 6 to 24-inch bgs sample were collected at each location via hand auger. All samples underwent field XRF analysis for lead and 21 samples were subsequently chosen for select metals (antimony, arsenic, copper, lead, tin, and zinc) analysis at the FBL. Seventeen of the 21 soil samples were from the 0 to 6-inch bgs range and five were from the 6 to 24-inch bgs range. When available, the majority of samples chosen for FBL analysis were selected from samples having an XRF lead concentration ranging between 100 and 300 ppm; the lead field PAL was 200 milligrams per kilogram (mg/kg). Otherwise, samples representing the entire site were selected from the range of XRF lead concentrations. All samples were placed in large Ziploc® bags and thoroughly homogenized prior to processing a portion for XRF analysis. For all samples selected for FBL analysis, a portion of the sample was placed in the appropriate sample jar and shipped to the FBL for select analyses.

Twenty-nine of the 75 soil samples were selected for PAH analysis at the FBL. Fifteen of the 29 soil samples were from the 0- to 6-inch bgs interval range and 14 were from the 6- to 24-inch interval range. These samples were pre-determined according to Worksheet #17 of the UFP-SAP (Tetra Tech, 2010) sampling design and rationale.

Four of the collected samples were submitted to the FBL from the Former Gunnery Area and analyzed for select metals SPLP and four more of the collected samples were analyzed for pH, CEC, and TOC.

Table 4-1 provides a summary of the samples collected and their respective analysis at the Former Gunnery Area, and **Figure 4-2** shows all sampling locations. Soil sample log sheets are included in **Appendix A** of this document.

4.3 SITE INSPECTION DATA COLLECTION RESULTS

4.3.1 Munitions Constituents Sampling Results

Soil samples collected at the Former Gunnery Area were compared to respective PALs, as listed in Worksheet #15 of the UFP-SAP (Tetra Tech, 2010). The complete MC analytical results are presented in **Appendix C** and the data validation reports are presented in **Appendix D**.

Table 4-2 summarizes the XRF and FBL lead results at the Former Gunnery Area. The lead screening level (PAL) for the FBL analyses was 400 mg/kg, and was based on the FDEP residential soil cleanup target level (SCTL).

Figure 4-2 presents the lead detections in soil at the Former Gunnery Area. The data comparison to PALs is discussed in Section 4.6.

4.4 DATA PRESENTATION/DATA USABILITY

4.4.1 Data Quality Review of Samples at the Former Gunnery Area

This section contains a description of the data review processes used to determine whether analytical laboratory data collected during the sampling field effort for the Former Gunnery Area were of acceptable quality for use in decision-making. The review began with data validation, which is a comparison of DQIs against the prescribed acceptance criteria. The DQIs are measures used to assess the completeness, sensitivity, accuracy, precision, comparability, and representativeness of the sample collection and sample analysis process. The output of this review was a set of alphabetic flags such as “U,” “J”, “R,” or combinations thereof, assigned to individual results based on the validation effort. These flags were used to infer the general quality of the data and if data quality meets the data quality objectives (DQOs) of the project. The DQOs presented in the approved UFP-SAP (Tetra Tech, 2010) were maintained through the course of the sampling event. Worksheets #15 and #19 of the UFP-SAP present the analytical methods and compounds analyzed.

4.4.1.1 Data Validation Process

All of the FBL sample results were validated according to multiple specifications. Sample data validation followed the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October, 1999) and the USEPA Contract Laboratory National Functional Guidelines for Inorganic Data Validation (October, 2004) guidelines.

Several samples analyzed for various parameters were qualified due to numerous issues. **Table D-1 (Appendix D)** outlines the specific qualification reasons for each sample according to the parameter.

4.4.1.2 Data Quality Review

Some of the DQIs are generated from the analysis of field samples (e.g., field duplicates) while others are from the analysis of FBL samples (e.g., laboratory duplicates). Individually, field and FBL DQIs provide measures of the performance of the respective investigative operations (field or laboratory). If individual QC results were unacceptable, there was an assignment of a validation flag indicating the type of QC deficiency impacting the result. Supporting documentation regarding the data presentation and usability for the Former Gunnery Area is presented in **Appendix D**.

4.4.1.3 Completeness

The sample collection and analytical completeness for the Former Gunnery Area was 100 percent.

4.4.1.4 Sensitivity

The project quantitation limit goals (PQLGs) for each analyte are listed in Worksheet #15 of the UFP-SAP (Tetra Tech, 2010). Analytical sensitivity for the Former Gunnery Area data was satisfactory to meet the DQOs presented in the UFP-SAP, except for dibenzo(a,h)anthracene. All nondetected dibenzo(a,h)anthracene results exceeded the PAL. It was known prior to sampling that the PAL for dibenzo(a,h)anthracene could not be met by the laboratory. The uncertainty in reporting dibenzo(a,h)anthracene results to the laboratory MDL is not expected to impact the data quality.

4.4.1.5 Field and Laboratory Accuracy

FBL results were qualified because of LCS, MS, surrogate, internal standard, and calibration noncompliances. These noncompliances resulted in the qualification of data and are considered to be

acceptable for risk assessment. Overall, the laboratory accuracy was acceptable and no data were rejected. There were no quality control deficiencies noted for field accuracy.

4.4.1.6 Field and Laboratory Precision

FBL results were qualified for antimony, arsenic, iron, and manganese for one field duplicate pair because of a percent difference greater than 50 percent. The overall field duplicate precision was acceptable. There was no quality control deficiencies noted for the field precision in the Former Gunnery Area data.

4.4.1.7 Comparability

No comparability issues were noted for the Former Gunnery Range during the data validation process.

4.4.1.8 Representativeness

The UFP-SAP (Tetra Tech, 2010) and the use of standardized sampling, sample handling, sample analysis, and data reporting procedures were designed so that the final data would be accurate representations of actual site conditions. Based upon the field logs indicating the conditions during sample collection and FBL audits, all reported data are adequately representative of site conditions at the Former Gunnery Area.

4.5 LEAD CORRELATION BETWEEN FIELD X-RAY FLUORESCENCE ANALYSIS AND FIXED-BASE LABORATORY ANALYSIS

From the samples that were analyzed in the field using XRF and also at the FBL, a regression analysis was conducted to evaluate the correlation between the FBL lead results and XRF lead results. To evaluate the regression analysis, the Pearson Correlation and the R-squared value were calculated. The Pearson Correlation is a measure of the strength of the linear relationship between two or more variables with a range of -1 to +1. The value of -1 represents a perfect negative correlation (as one variable decreases the other increases proportionally); whereas, a value of +1 represents a perfect positive correlation (as one variable increases the other increases proportionally). A value of 0 represents a lack of correlation. The strength of the linear relationship increases as the correlation moves away from 0 toward either -1 or 1. Correlation values close to -1 and 1 indicate that the points lie close to a straight line. The extreme values -1 and 1 occur only in the case of a perfect linear relationship. The coefficient of determination, R^2, is the correlation squared and can be thought of as the amount of variation about the regression line that can be explained by the XRF concentrations. R^2 values between 0 and 0.30 are

considered weak, 0.30 to 0.7 are considered moderate, and greater than 0.80 are considered to indicate a very strong relationship between the two measurement methods. The maximum possible value is 1.

The correlation analyses were conducted to determine if XRF techniques can be used to delineate contamination at the sites. As stated in the SAP, an acceptable correlation between the XRF and FBL will be between 0.65 and 1. Note that the correlation analyses establish a relationship for the observed concentration ranges. The relationship should not be extrapolated to concentrations outside the observed concentrations.

The scatterplot of the XRF and FBL lead concentrations for the Former Gunnery Area is provided in **Appendix E**. The concentrations of lead at the Former Gunnery Area were all less than 1,300 mg/kg. The correlation between the XRF and FBL concentrations is 0.96 and the corresponding R^2 value is 0.91. The correlation indicates a strong linear relationship. The correlation between the XRF and FBL is acceptable as outlined by the SAP. FBL concentrations can be predicted from XRF concentrations ranging from non-detect to 1,020 mg/kg using the following equation:

$$FBL = -41.3 + 1.2*XRF$$

Table 4-2 presents the samples that were used in the correlation analysis and includes the average field XRF lead concentration and the associated FBL lead concentration, where applicable. **Table 4-2** also presents the predicted FBL lead concentration for those samples not analyzed at the FBL. The regression analysis is also included in **Appendix E**.

4.6 DATA COMPARISON TO PROJECT ACTION LIMITS

4.6.1 Identification of Chemicals Exceeding Project Action Limits

Twenty-one of the 75 soil samples collected from the Former Gunnery Area were shipped to the FBL for select metals analysis, representing a range of lead concentrations as determined by field screening. **Table 4-3** summarizes the analytical results as compared to the calculated screening values (PALs). If a parameter exceeded the PAL at any sampling point, the parameter was highlighted.

4.6.1.1 Lead

Lead was detected at the Former Gunnery Area. Three samples and one duplicate had concentrations that exceeded the lead PAL of 400 mg/kg and the detections were all “J” qualified (Table 4-3). **Figure 4-2** presents all lead detections, including FBL, predicted values, and XRF, where applicable.

4.6.1.2 Other Metals

Twenty-one samples were chosen from the Former Gunnery Area to undergo select metals analysis at the FBL. Samples were selected from locations to provide an overall coverage of the investigation area. A comparison of the FBL analytical results to the PALs can be found listed in Worksheet #15 of the UFP-SAP (Tetra Tech, 2010). Below is a description of the select metals FBL results.

Antimony

Antimony was detected in several samples analyzed at the FBL for the Former Gunnery Area. All concentrations were below the antimony PAL of 27 mg/kg (Table 4-3).

Arsenic

Arsenic was detected in several samples analyzed at the FBL for the Former Gunnery Area. Two samples and one duplicate had concentrations that exceeded the arsenic PAL of 3.2 mg/kg (Table 4-3).

Copper

Copper was detected at the Former Gunnery Area. All concentrations were well below the copper PAL of 150 mg/kg (Table 4-3).

Tin

Although tin was detected at the Former Gunnery Area in one sample, the concentration was well below the tin PAL of 47,000 mg/kg, and the detection was qualified “J” indicating the chemical was an estimated detection result; however, the associated numerical result is not a precise representation of the concentration actually present in the sample. The laboratory reported concentration is considered to be an estimate of the true concentration (Table 4-3).

Zinc

Zinc was detected at the Former Gunnery Area, all concentrations were well below the zinc PAL of 26,000 mg/kg (Table 4-3).

4.6.1.3 PAHs

Twenty-nine samples were chosen from the Former Gunnery Area to undergo select PAH analysis at the FBL. Samples were chosen from locations pre-determined per the UFP-SAP (Tetra Tech 2010). A comparison of the FBL analytical results to the PALs can be found listed in Worksheet #15 of the UFP-SAP. The number of PAH exceedances (excluding duplicates, unless it is the only detection) and range of detections are shown in Table 4-3 and summarized below:

- Twenty-two for BaP equivalent with detections ranging from 0.10 to 406.3 mg/kg (PAL: 0.1 mg/kg),
- Nineteen for benzo(a)anthracene with detections ranging from 0.105 to 245 mg/kg (PAL: 0.15 mg/kg),
- Twenty-two for benzo(a)pyrene with detections ranging from 0.263 to 273 mg/kg (PAL: 0.1 mg/kg),
- Twenty-two for benzo(b)fluoranthene with detections ranging from 0.417 to 346 mg/kg (PAL: 0.15 mg/kg),
- Eleven for benzo(k)fluoranthene with detections ranging from to 0.064 to 172 mg/kg (PAL: 1.5 mg/kg),
- Eight for chrysene with detections ranging from 0.108 to 323 mg/kg (PAL: 15 mg/kg),
- Twelve for dibenzo(a,h)anthracene with detections ranging from 0.542 to 47.1 mg/kg (PAL: 0.015 mg/kg), and
- Seventeen for indeno(1,2,3-cd)pyrene with detections ranging from 0.316 to 251 mg/kg (PAL: 0.15 mg/kg).

Figure 4-3 presents all BaP equivalent exceedances at the Former Gunnery Area.

4.6.1.4 SPLP

SPLP is useful in determining whether a potentially contaminated material, left in situ, will leach analytes to groundwater when exposed to precipitation induced infiltration.

Four samples from the Former Gunnery Area (GA-SS-C1-01, GA-SS-E2-01, GA-SS-G2-02, and GA-SS-J6-01, and GA-SS-J6-01-D) were shipped to the FBL for SPLP analysis. The samples were chosen from sample locations exhibiting a range (high to low) of XRF lead concentrations. Soil samples GA-SS-C1-01 and GA-SS-J6-01-D exhibited an exceedance of antimony at concentrations of 22.4 and 93.9J µg/l, respectively, exceeding the PAL of 6 µg/l. Soil samples GA-SS-C1-01, GA-SS-E2-01, GA-SS-J6-01 and GA-SS-J6-01-D (all 0- to 6-inch bgs) exhibited lead concentrations: 20, 24.4, 1,490, and 1,500 µg/l, respectively, exceeding the PAL of 15 µg/l. These samples had detections of 15 additional metals that did not exceed the PAL or had no regulatory criteria for comparison. The highest XRF lead concentration at Former Gunnery Area (GA-SS-J6-01) was 1,020 mg/kg and its respective SPLP for lead was 1,490 µg/L (Table 4-3).

SPLP results are included on **Figure 4-2** along with the corresponding FBL lead concentration.

4.6.1.5 Soil Parameters

Four soil samples, determined to be uncontaminated with lead via XRF, were chosen from the Former Gunnery Area and shipped to the FBL for TOC, CEC, and pH analysis. This soil parameter data is useful in determining MC environmental fate and transport, if contamination is detected. The soil samples GA-SS-C2-02 GA-SS-C2-02-D, GA-SS-G2-02, GA-SS-G2.5-02, and GA-SS-J1-02 had a CEC of 3.06, 3.28, 3.75, 2.99, and 2.13 milliequivalents (MEQ)/100, TOCs of 7,080, 6,180, 5,990, 4,820, and 6,060 mg/kg, and pH was 5.59, 5.94, 4.59, 5.08, and 5.44 standard units (S.U.), respectively. The CEC value was qualified “J” indicating the associated numerical result is not a precise representation of the concentration that is actually present in the sample. The laboratory reported concentration with a “J” qualifier is considered to be an estimate of the true concentration.

4.7 UPDATED CONCEPTUAL SITE MODEL

A key element of the CSM is the exposure pathway analysis. For MC, a complete or potentially complete exposure pathway must include the following components: 1) a source (e.g., locations where MC are expected to be found); 2) an exposure medium (e.g., surface soil); 3) an exposure route (e.g., dermal contact); and 4) receptors (e.g., Navy personnel, construction workers, recreational users, authorized visitors). If the point of exposure is not at the same location as the source, the pathway may also include a release mechanism (e.g., erosion) and a transport medium (e.g., surface water).

Figure 4-4 provides a graphical representation of the current understanding of the Former Gunnery Area. The figure identifies the exposure pathways where site receptors could come in contact with, or be

impacted by, MC. **Figure 4-5** presents a three-dimensional depiction of the CSM for a typical skeet range. Based on the analytical information obtained during the SI, MC does exist at the site and detected concentrations pose a risk to potential receptors.

Human receptors could potentially come in contact with or remove soil from the site that was impacted by MC. Potential receptors include Navy and civilian personnel (e.g., security), authorized contractors, visitors, trespassers, and future residents.

Since one of the primary MC of concern at the Former Gunnery Area includes metals (i.e. lead), and inhalation due to volatilization is not a concern, an incomplete pathway exists for all potential receptors through this exposure route.

Based on the current land use of the Former Gunnery Area, food crops are not grown at the site so an incomplete exposure pathway currently exists for Navy personnel, contractors, and visitors/trespassers; however, agricultural usage is a potential for future residents. The site is grassy and may be travelled by game; therefore, a complete exposure pathway does exist for the visitor/trespasser/recreational user and future resident.

MC may migrate from soil to surface water/sediment through surface water runoff. Potential receptors include authorized Navy personnel and contractors working in the area. Visitors/trespassers and future residents may also come into contact with surface water/sediment at the site. Complete exposure pathways exist for these receptors via incidental ingestion and dermal contact.

Soil also represents a source medium when considering release mechanisms such as groundwater contamination via leaching. MC contamination of groundwater via leaching mechanisms may occur; however, no activities are conducted at the site that would result in contact with groundwater. The depth to groundwater at the Former Gunnery Area is approximately 80 feet bgs. Because there are no human receptors identified for groundwater on or downgradient of the site, exposure pathways are considered to be incomplete for all receptors. A complete exposure pathway does exist via ingestion and dermal contact for the potential future resident who may install wells at the site.

Metals concentrations (i.e. lead) detected at the site exceeded USEPA and FDEP criteria. The mechanism for exposure to surface soil for Navy personnel would be maintenance of the grass and maintenance of the golf course at the facility. For contractors, the potential mechanism for exposure would likely involve in any vegetation clearing or trenching conducted at the site. Visitors/trespassers and

future residents could come into contact with surface soil at the range. Complete exposure pathways exist for all receptors via ingestion, inhalation (dust), and dermal contact.

Any MC in the surface soil has the potential to migrate to subsurface soil via leaching mechanisms. Contractors involved in silviculture or construction related trenching/excavation activities may use earthmoving equipment around the site, subjecting themselves to the subsurface soil. Future residents may also be subject to subsurface soil. Therefore, complete exposure pathways exist for these receptors via incidental ingestion, dermal contact, and inhalation of dust. Navy personnel and site visitors/trespassers are unlikely to come in contact with MC in the subsurface soil, since no intrusive activities at the range would be conducted by these groups. Therefore, exposure pathways are incomplete for these receptors.

4.8 CONCLUSIONS

Seventy-five soil samples were collected from 38 locations at depths of 0- to 6- and 6- to 24-inches bgs at the Former Gunnery Area. All samples underwent field XRF analysis for lead and 21 of the samples were subsequently shipped to the FBL for select metals analyses. Nine of the 75 soil samples analyzed in the field with XRF at the Former Gunnery Area had average lead concentrations exceeding the field PAL of 200 mg/kg with detected concentrations ranging between 5.67 and 1,020 mg/kg. Four of the samples sent to the FBL had lead concentrations greater than the FBL PAL of 400 mg/kg.

Arsenic was detected in two of the 21 samples sent to FBL at concentrations above its respective PAL of 3.2 mg/kg. Arsenic concentrations ranged from 4.2 to 7.79 mg/kg.

Arsenic is detected frequently across Whiting Field in both surface and subsurface samples analyzed for TAL inorganics. In some cases arsenic is found at concentrations exceeding primary or secondary FDEP criteria. Based on a review of observed arsenic values in surface and subsurface soils across NAS Whiting Field and surrounding outlying fields, slightly elevated arsenic values have also been determined to be naturally occurring when no facility activity has been identified as a potential cause of the elevated concentrations (FDEP, 2001) (Tetra Tech, 2005).

Twenty-nine samples were selected from the Former Gunnery Area to undergo PAH analyses at the FBL, and 18 samples had PAL exceedances. The calculated BaP equivalent for 22 of the 29 samples exceeded the PAL of 0.1 mg/kg.

Four samples were selected for SPLP analysis. Soil sample GA-SS-G2-E2 (6- to 24-inch bgs) had no detections of select parameters. The remaining three samples had detections of arsenic, copper, lead, antimony, and zinc. All three of these samples exceeded the lead PAL of 15 µg/L and two samples exceeded the antimony PAL of 6 µg/L. The highest XRF lead concentration at Former Gunnery Area (GA-SS-J6-01) was 1,020 ppm and its respective SPLP for lead was 1,490 µg/L.

4.9 RECOMMENDATIONS

The purpose of the SI is to identify possible contaminant releases that require further investigation or pose a threat to human health and the environment. Sites that require further investigation and pose an unacceptable risk to human health and the environment may be designated as RI sites. Sites that do not require further investigation and do not pose an unacceptable risk to human health and the environment may be designated as NFA sites.

Four samples analyzed at the FBL for lead analyses resulted in exceedances of the PAL for lead. The highest lead concentrations were from the 0- to 6-inch bgs sampling interval. The average lead concentrations for samples collected from the 0- to 6-inch bgs, using the FBL concentrations and the combined FBL analyses and predicted FBL concentrations, were less than the PAL of 400 mg/kg for lead.

Eighteen samples analyzed for PAHs had PAL exceedances. The calculated BaP equivalent for 22 of the 29 samples exceeded the PAL. In addition, the exposure concentration represented by the 95 percent upper confidence limit (UCL) of the mean for the BaP equivalent was significantly greater than the PAL or residential SCTL of 0.1 mg/kg.

Of the four samples that underwent FBL SPLP metals analysis, three exceeded PALs for lead and antimony, indicating a potential for contaminants to leach to subsurface soil.

Based on the results of the SI at the Former Gunnery Area, an RI is recommended per the preliminary goals outlined in the UFP-SAP. Because the site does contain soil with exceedances of screening criteria, it is recommended that soil samples exceeding the lead SCTL be further investigated, SPLP data be further delineated vertically, PAH contamination be further delineated horizontally and vertically, and potential risks from exposure to PAHs and lead be determined. Groundwater sampling may be required pending SPLP and other data.

TABLE 4-1

SAMPLE COLLECTION AND ANALYSIS SUMMARY
FORMER GUNNERY AREA
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

SAMPLE ID		SAMPLE METHOD	SAMPLE DEPTH	XRF (LEAD)	SELECT METALS (SW846-6010B)	PAH (SW 846-8270)	Ph, CEC, TOC	SPLP
GA-SS-A0-01	4/28/2010	HA	0 to 0.5	X		X		
GA-SS-A0-02	4/28/2010	HA	0.5 to 2.0	X		X		
GA-SS-A1-01	4/28/2010	HA	0 to 0.5	X	X	X		
GA-SS-A1-02	4/28/2010	HA	0.5 to 2.0	X		X		
GA-SS-C1-01	4/28/2010	HA	0 to 0.5	X	X	X		X
GA-SS-C1-02	4/28/2010	HA	0.5 to 2.0	X		X		
GA-SS-C2-01	4/28/2010	HA	0 to 0.5	X	X	X		
GA-SS-C2-02	4/28/2010	HA	0.5 to 2.0	X	X	X	X	
GA-SS-C3-01	4/28/2010	HA	0 to 0.5	X	X			
GA-SS-C3-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-C5-01	4/28/2010	HA	0 to 0.5	X	X			
GA-SS-C5-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-D5-01	4/28/2010	HA	0 to 0.5	X				
GA-SS-D5-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-E1-01	4/28/2010	HA	0 to 0.5	X		X		
GA-SS-E1-02	4/28/2010	HA	0.5 to 2.0	X		X		
GA-SS-E2-01	4/28/2010	HA	0 to 0.5	X	X			X
GA-SS-E2-02	4/28/2010	HA	0.5 to 2.0	X		X		
GA-SS-E3-01	4/28/2010	HA	0 to 0.5	X				
GA-SS-E3-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-E4-01	4/28/2010	HA	0 to 0.5	X	X			
GA-SS-E4-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-E5-01	4/28/2010	HA	0 to 0.5	X				
GA-SS-E5-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-E6-01	4/28/2010	HA	0 to 0.5	X	X			
GA-SS-E6-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-E7-01	4/28/2010	HA	0 to 0.5	X				
GA-SS-E7-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-F5-01	4/28/2010	HA	0 to 0.5	X				
GA-SS-F5-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-G1-01	4/28/2010	HA	0 to 0.5	X		X		
GA-SS-G1-02	4/28/2010	HA	0.5 to 2.0	X		X		
GA-SS-G2-01	4/28/2010	HA	0 to 0.5	X		X		
GA-SS-G2-02	4/28/2010	HA	0.5 to 2.0	X	X		X	X
GA-SS-G2.5-01	4/28/2010	HA	0 to 0.5	X		X		
GA-SS-G2.5-02	4/28/2010	HA	0.5 to 2.0	X		X	X	
GA-SS-G3-01	4/28/2010	HA	0 to 0.5	X				
GA-SS-G3-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-G4-01	4/28/2010	HA	0 to 0.5	X				
GA-SS-G4-02	4/28/2010	HA	0.5 to 2.0	X				

TABLE 4-1

SAMPLE COLLECTION AND ANALYSIS SUMMARY
FORMER GUNNERY AREA
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

SAMPLE ID		SAMPLE METHOD	SAMPLE DEPTH	XRF (LEAD)	SELECT METALS (SW846-6010B)	PAH (SW 846-8270)	Ph, CEC, TOC	SPLP
GA-SS-G5-01	4/28/2010	HA	0 to 0.5	X	X			
GA-SS-G5-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-G6-01	4/28/2010	HA	0 to 0.5	X				
GA-SS-G6-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-G7-01	4/28/2010	HA	0 to 0.5	X	X			
GA-SS-G7-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-H5-01	4/28/2010	HA	0 to 0.5	X				
GA-SS-H5-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-J1-01	4/28/2010	HA	0 to 0.5	X		X		
GA-SS-J1-02	4/28/2010	HA	0.5 to 2.0	X		X	X	
GA-SS-J2-01	4/28/2010	HA	0 to 0.5	X	X	X		
GA-SS-J2-02	4/28/2010	HA	0.5 to 2.0	X		X		
GA-SS-J3-01	4/28/2010	HA	0 to 0.5	X				
GA-SS-J3-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-J4-01	4/28/2010	HA	0 to 0.5	X				
GA-SS-J4-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-J5-01	4/28/2010	HA	0 to 0.5	X				
GA-SS-J5-02	4/28/2010	HA	0.5 to 2.0	X	X			
GA-SS-J6-01	4/28/2010	HA	0 to 0.5	X	X			X
GA-SS-J6-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-J7-01	4/28/2010	HA	0 to 0.5	X	X			
GA-SS-J7-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-K5-01	4/28/2010	HA	0 to 0.5	X				
GA-SS-K5-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-L1-01	4/28/2010	HA	0 to 0.5	X	X	X		
GA-SS-L1-02	4/28/2010	HA	0.5 to 2.0	X		X		
GA-SS-L2-01	4/28/2010	HA	0 to 0.5	X		X		
GA-SS-L2-02	4/28/2010	HA	0.5 to 2.0	X	X	X		
GA-SS-L3-01	4/28/2010	HA	0 to 0.5	X				
GA-SS-L3-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-L5-01	4/28/2010	HA	0 to 0.5	X				
GA-SS-L5-02	4/28/2010	HA	0.5 to 2.0	X				
GA-SS-N1-01	4/28/2010	HA	0 to 0.5	X		X		
GA-SS-N1-02	4/28/2010	HA	0.5 to 2.0	X		X		
GA-SS-DS01	4/28/2010	HA	0 to 0.5	X	X	X	X	

mg/kg = milligram per kilogram
NA = Not applicable
ND = Not detected
ppm = parts per million
XRF = X-ray flourescence
- = indicates sample was not selected for analysis at the FBL

Note: When lead is not detected in a sample analyzed with the XRF, 3.5 ppm is used as the default concentration which is one-half of the XRF reporting limit (7.0).

TABLE 4-2

XRF AND FBL SURFACE SOIL MC LEAD DETECTIONS
FORMER GUNNERY AREA
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

SAMPLE ID	SAMPLE DATE	XRF ANALYSIS					FBL ANALYSIS	PREDICTED FBL VALUE
		DATE	1st (ppm)	2nd (ppm)	3rd (ppm)	Avg (ppm)	Lead (mg/kg)	Lead (mg/kg)
GA-SS-A0-01	4/28/2010	4/28/2010	47	42	61	50.00	-	18.7
GA-SS-A0-02	4/28/2010	4/28/2010	7	3	7	5.67	-	ND
GA-SS-A1-01	4/28/2010	4/28/2010	138	178	132	149.33	116	NA
GA-SS-A1-02	4/28/2010	4/29/2010	12	14	5	10.33	-	ND
GA-SS-C1-01	4/28/2010	4/29/2010	151	115	165	143.67	101	131
GA-SS-C1-02	4/28/2010	4/29/2010	24	41	32	32.33	-	ND
GA-SS-C2-01	4/28/2010	4/28/2010	332	342	341	338.33	350	NA
GA-SS-C2-02	4/28/2010	4/28/2010	14	7	9	10.00	16.3	ND
GA-SS-C3-01	4/28/2010	4/29/2010	422	524	459	468.33	352	NA
GA-SS-C3-02	4/28/2010	4/29/2010	35	16	ND	25.50	-	ND
GA-SS-C5-01	4/28/2010	4/29/2010	28	52	104	61.33	-	32.3
GA-SS-C5-02	4/28/2010	4/29/2010	225	209	224	219.33	44.1	NA
GA-SS-D5-01	4/28/2010	4/28/2010	411	394	430	411.67	503	NA
GA-SS-D5-02	4/28/2010	4/28/2010	127	112	126	121.67	-	104.7
GA-SS-E1-01	4/28/2010	4/29/2010	134	179	122	145.00	-	133
GA-SS-E1-02	4/28/2010	4/29/2010	ND	4	ND	4.00	-	ND
GA-SS-E2-01	4/28/2010	4/29/2010	312	498	249	353.00	133	NA
GA-SS-E2-02	4/28/2010	4/28/2010	12	5	2	6.33	-	ND
GA-SS-E3-01	4/28/2010	4/29/2010	57	59	34	50.00	-	18.7
GA-SS-E3-02	4/28/2010	4/29/2010	11	16	17	14.67	-	ND
GA-SS-E4-01	4/28/2010	4/29/2010	607	664	698	656.33	699	NA
GA-SS-E4-02	4/28/2010	4/29/2010	16	ND	ND	16.00	-	ND
GA-SS-E5-01	4/28/2010	4/29/2010	58	61	53	57.33	-	27.5
GA-SS-E5-02	4/28/2010	4/29/2010	ND	13	13	13.00	-	ND
GA-SS-E6-01	4/28/2010	4/28/2010	309	383	389	360.33	465	NA
GA-SS-E6-02	4/28/2010	4/28/2010	13	8	13	11.33	-	ND
GA-SS-E7-01	4/28/2010	4/28/2010	91	77	65	77.67	-	51.9
GA-SS-E7-02	4/28/2010	4/28/2010	ND	2	5	2.33	-	ND
GA-SS-F5-01	4/28/2010	4/29/2010	22	34	24	26.67	-	ND
GA-SS-F5-02	4/28/2010	4/29/2010	ND	ND	ND	ND	-	ND
GA-SS-G1-01	4/28/2010	4/29/2010	58	60	39	52.33	-	21.5
GA-SS-G1-02	4/28/2010	4/29/2010	ND	ND	ND	ND	-	ND
GA-SS-G2-01	4/28/2010	4/29/2010	24	42	25	30.33	-	ND
GA-SS-G2-02	4/28/2010	4/29/2010	ND	ND	ND	ND	4.22	ND
GA-SS-G2.5-01	4/28/2010	4/29/2010	35	27	22	28.00	-	ND
GA-SS-G2.5-02	4/28/2010	4/29/2010	ND	ND	ND	ND	4.7	ND
GA-SS-G3-01	4/28/2010	4/29/2010	22	34	26	27.33	-	ND
GA-SS-G3-02	4/28/2010	4/29/2010	ND	ND	ND	ND	-	ND
GA-SS-G4-01	4/28/2010	4/29/2010	28	49	37	38.00	-	4.3
GA-SS-G4-02	4/28/2010	4/29/2010	13	14	22	16.33	-	ND

TABLE 4-2

XRF AND FBL SURFACE SOIL MC LEAD DETECTIONS
FORMER GUNNERY AREA
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

SAMPLE ID	SAMPLE DATE	XRF ANALYSIS					FBL ANALYSIS	PREDICTED FBL VALUE
		DATE	1st (ppm)	2nd (ppm)	3rd (ppm)	Avg (ppm)	Lead (mg/kg)	Lead (mg/kg)
GA-SS-G5-01	4/28/2010	4/29/2010	239	213	210	220.67	156	NA
GA-SS-G5-02	4/28/2010	4/29/2010	38	45	46	43.00	-	10.3
GA-SS-G6-01	4/28/2010	4/29/2010	28	46	42	38.67	-	5.1
GA-SS-G6-02	4/28/2010	4/29/2010	ND	ND	ND	ND	-	ND
GA-SS-G7-01	4/28/2010	4/29/2010	93	122	98	104.33	92.3	NA
GA-SS-G7-02	4/28/2010	4/29/2010	ND	ND	ND	ND	-	ND
GA-SS-H5-01	4/28/2010	4/29/2010	34	30	126	63.33	-	34.7
GA-SS-H5-02	4/28/2010	4/29/2010	ND	ND	ND	ND	-	ND
GA-SS-J1-01	4/28/2010	4/29/2010	141	149	146	145.33	-	133
GA-SS-J1-02	4/28/2010	4/29/2010	ND	ND	ND	ND	-	ND
GA-SS-J2-01	4/28/2010	4/29/2010	155	112	148	138.33	121	NA
GA-SS-J2-02	4/28/2010	4/29/2010	ND	ND	ND	ND	-	ND
GA-SS-J3-01	4/28/2010	4/29/2010	271	98	139	169.33	-	162
GA-SS-J3-02	4/28/2010	4/29/2010	ND	ND	12	12.00	-	ND
GA-SS-J4-01	4/28/2010	4/29/2010	41	48	50	46.33	-	14.3
GA-SS-J4-02	4/28/2010	4/29/2010	ND	ND	ND	ND	-	ND
GA-SS-J5-01	4/28/2010	4/29/2010	142	162	125	143.00	-	130
GA-SS-J5-02	4/28/2010	4/29/2010	27	31	32	30.00	25.1	NA
GA-SS-J6-01	4/28/2010	4/29/2010	909	1085	1066	1020.00	1300	NA
GA-SS-J6-02	4/28/2010	4/29/2010	ND	ND	ND	ND	-	ND
GA-SS-J7-01	4/28/2010	4/29/2010	ND	16	ND	16.00	23.1	NA
GA-SS-J7-02	4/28/2010	4/29/2010	37	33	34	34.67	-	0.304
GA-SS-K5-01	4/28/2010	4/29/2010	82	105	88	91.67	-	68.7
GA-SS-K5-02	4/28/2010	4/29/2010	17	ND	19	12.00	-	ND
GA-SS-L1-01	4/28/2010	4/29/2010	145	230	174	183.00	235	NA
GA-SS-L1-02	4/28/2010	4/29/2010	ND	ND	ND	ND	-	ND
GA-SS-L2-01	4/28/2010	4/29/2010	38	50	49	45.67	-	13.5
GA-SS-L2-02	4/28/2010	4/29/2010	ND	ND	ND	ND	4.27	NA
GA-SS-L3-01	4/28/2010	4/29/2010	14	ND	13	9.00	-	ND
GA-SS-L3-02	4/28/2010	4/29/2010	ND	ND	ND	ND	-	ND
GA-SS-L5-01	4/28/2010	4/29/2010	82	103	84	89.67	-	66.3
GA-SS-L5-02	4/28/2010	4/29/2010	15	11	11	12.33	-	ND
GA-SS-N1-01	4/28/2010	4/29/2010	150	169	145	154.67	-	144
GA-SS-N1-02	4/28/2010	4/29/2010	20	20	14	18.00	-	ND
GA-SS-DS01	4/28/2010	4/29/2010	16	ND	12	9.33	27.5	NA

mg/kg = milligram per kilogram
NA = Not applicable
ND = Not detected
ppm = parts per million
XRF = X-ray flourescence
- = indicates sample was not selected for analysis at the FBL

Note: When lead is not detected in a sample analyzed with the XRF, 3.5 ppm is used as the default concentration which is one-half of the XRF reporting limit (7.0).

TABLE 4-3

FBL SURFACE SOIL MC METALS AND PAH DETECTION
FORMER GUNNERY AREA
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON. FLORIDA

LOCATION			GA-SB-A0		GA-SB-A1		GA-SB-C1		GA-SB-C2				GA-SB-C3	
SAMPLE ID	Project		GA-SS-A0-01	GA-SS-A0-02	GA-SS-A1-01	GA-SS-A1-02	GA-SS-C1-01	GA-SS-C1-02	GA-SS-C2-01	GA-SS-C2-02	GA-SS-C2-02-AVG	GA-SS-C2-02-D	GA-SS-C3-01	GA-SS-C3-02
SAMPLE DATE	Action		20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428
TOP DEPTH	Limit		0	0.5	0	0.5	0	0.5	0	0.5	0.5	0.5	0	0.5
BOTTOM DEPTH			0.5	2	0.5	2	0.5	2	0.5	2	2	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)														
1-METHYLNAPHTHALENE	200	[1]	0.107 U	0.105 U	1.08 U	0.104 U	1.09 U	1.47 J	1.45 J	0.107 U	0.107 U	0.107 U	NA	NA
2-METHYLNAPHTHALENE	210	[1]	0.0376 U	0.0367 U	0.915 J	0.0365 U	0.381 U	2.01 J	1.79 J	0.0376 U	0.03755 U	0.0375 U	NA	NA
ACENAPHTHENE	2400	[1]	0.11 J	0.0272 U	7.68	0.0271 U	0.993 J	11.9	10	0.0279 U	0.0279 U	0.0279 U	NA	NA
ANTHRACENE	21000	[1]	0.276 J	0.0283 U	13.6	0.0281 U	1.91 J	20.6	14.9	0.029 U	0.02895 U	0.0289 U	NA	NA
BAP EQUIVALENT	0.1	[2]	**4.21093**	**0.48091**	**113.12**	**0.381**	**42.6898**	**308.357**	**406.343**	**0.47914**	**0.52931**	**0.57948**	NA	NA
BENZO(A)ANTHRACENE	0.15	[3]	**2.42**	**0.183 J**	**80.3**	0.123 J	**24.3**	**225**	**245**	**0.181 J**	**0.207 J**	**0.233 J**	NA	NA
BENZO(A)PYRENE	0.1	[2]	**2.71**	**0.345 J**	**71.6**	**0.263 J**	**28.3 J**	**211**	**273**	**0.338 J**	**0.376 J**	**0.414**	NA	NA
BENZO(B)FLUORANTHENE	0.15	[3]	**3.41**	**0.493**	**99.5**	**0.417**	**38.5 J**	**265**	**346**	**0.527**	**0.5915**	**0.656**	NA	NA
BENZO(G,H,I)PERYLENE	2500	[1]	2.03	0.285 J	58.3	0.256 J	18.6 J	141 J	235 J	0.32 J	0.36 J	0.4	NA	NA
BENZO(K)FLUORANTHENE	1.5	[3]	**1.87**	0.217 J	**39.9**	0.0994 J	**16.1 J**	**130**	**172**	0.14 J	0.18 J	0.22 J	NA	NA
CHRYSENE	15	[3]	3.23	0.24 J	**101**	0.157 J	**28.8**	**257**	**323**	0.236 J	0.2805 J	0.325 J	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015	[3]	**0.663**	0.0628 U	**16.5**	0.0625 U	**5.97 J**	**31.4 J**	**47.1 J**	0.0644 U	0.06435 U	0.0643 U	NA	NA
FLUORANTHENE	3200	[1]	3.41	0.275 J	153	0.175 J	37.7	352	334	0.275 J	0.305 J	0.335 J	NA	NA
FLUORENE	160	[1]	0.0279 U	0.0272 U	3.97	0.0271 U	0.283 U	6.27	4.15	0.0279 U	0.0279 U	0.0279 U	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15	[3]	**2.33**	**0.345 J**	**65.4**	**0.316 J**	**19.5 J**	**154 J**	**251 J**	**0.365**	**0.392**	**0.419**	NA	NA
NAPHTHALENE	55	[1]	0.0468 J	0.0335 U	2.32 J	0.0334 U	0.66 J	6.44	6	0.0344 U	0.03435 U	0.0343 U	NA	NA
PHENANTHRENE	2200	[1]	1.21	0.0764 J	50	0.024 U	9.59	69.3	56.8	0.0568 J	0.05895 J	0.0611 J	NA	NA
PYRENE	2400	[1]	4.91	0.324 J	137	0.17 J	33.3	274	304	0.225 J	0.2575 J	0.29 J	NA	NA
INORGANICS (MG/KG)														
ANTIMONY	27	[4]	NA	NA	0.351 J	NA	0.275 UJ	NA	0.374 J	0.274 UJ	0.274 UJ	NA	0.458 J	NA
ARSENIC	3.2	[5]	NA	NA	2.03	NA	2.06	NA	2.79	1.44	1.44	NA	2.94	NA
COPPER	150	[4]	NA	NA	3.78	NA	3.1	NA	3.8	3.04	3.04	NA	4.18	NA
LEAD	400	[4]	NA	NA	116	NA	101 J	NA	350 J	16.3 J	16.3 J	NA	352 J	NA
LEAD-CALC	400	[4]	18.7	10 U	138	10 U	131	10 U	365	10 U	10 U	NA	**521**	10 U
TIN	47000	[4]	NA	NA	2.63 U	NA	2.75 U	NA	2.79 U	2.74 U	2.74 U	NA	2.74 U	NA
ZINC	26000	[4]	NA	NA	4.78 J	NA	7.28 J	NA	8 J	4.2 J	4.2 J	NA	4.86 J	NA
SPLP INORGANICS (UG/L)														
ALUMINUM	NC		NA	NA	NA	NA	4190	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	6	[6]	NA	NA	NA	NA	1.25 U	NA	NA	NA	NA	NA	NA	NA
ARSENIC	50	[6]	NA	NA	NA	NA	1.42 J	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC		NA	NA	NA	NA	169	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NC		NA	NA	NA	NA	0.25 U	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NC		NA	NA	NA	NA	2340	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC		NA	NA	NA	NA	2.02	NA	NA	NA	NA	NA	NA	NA
COPPER	100	[7]	NA	NA	NA	NA	1.95 J	NA	NA	NA	NA	NA	NA	NA
IRON	NC		NA	NA	NA	NA	1650	NA	NA	NA	NA	NA	NA	NA
LEAD	15	[6]	NA	NA	NA	NA	**20**	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC		NA	NA	NA	NA	726 J	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NC		NA	NA	NA	NA	133	NA	NA	NA	NA	NA	NA	NA
NICKEL	NC		NA	NA	NA	NA	1.37 J	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NC		NA	NA	NA	NA	1070 J	NA	NA	NA	NA	NA	NA	NA
SODIUM	NC		NA	NA	NA	NA	11000 J	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NC		NA	NA	NA	NA	4.15	NA	NA	NA	NA	NA	NA	NA
ZINC	500	[7]	NA	NA	NA	NA	70.2 J	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)														
LEAD	200	[4]	50	5.67	149.3	10.33	143.7	32.33	**338.3**	10	10	NA	**468.3**	20.33
MISCELLANEOUS PARAMETERS (MEQ/100)														
CATION EXCHANGE CAPACITY	NC		NA	NA	NA	NA	NA	NA	NA	3.06 J	3.17 J	3.28 J	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)														
TOTAL ORGANIC CARBON	NC		NA	NA	NA	NA	NA	NA	NA	7080	6630	6180	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)														
PH	NC		NA	NA	NA	NA	NA	NA	NA	5.59	5.765	5.94	NA	NA

TABLE 4-3

FBL SURFACE SOIL MC METALS AND PAH DETECTION
FORMER GUNNERY AREA
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON. FLORIDA

LOCATION			GA-SB-C5		GA-SB-D5		GA-SB-DS1	GA-SB-E1		GA-SB-E2		GA-SB-E3	
SAMPLE ID	Project		GA-SS-C5-01	GA-SS-C5-02	GA-SS-D5-01	GA-SS-D5-02	GA-SB-DS1	GA-SS-E1-01	GA-SS-E1-02	GA-SS-E2-01	GA-SS-E2-02	GA-SS-E3-01	GA-SS-E3-02
SAMPLE DATE	Action		20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428
TOP DEPTH	Limit		0	0.5	0	0.5	0	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH			0.5	2	0.5	2	0.5	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)													
1-METHYLNAPHTHALENE	200	[1]	NA	NA	NA	NA	0.107 U	1.07 U	0.106 U	0.108 U	0.105 U	NA	NA
2-METHYLNAPHTHALENE	210	[1]	NA	NA	NA	NA	0.0375 U	0.376 U	0.0369 U	0.0377 U	0.0368 U	NA	NA
ACENAPHTHENE	2400	[1]	NA	NA	NA	NA	0.0278 U	2.23 J	0.0274 U	0.028 U	0.0273 U	NA	NA
ANTHRACENE	21000	[1]	NA	NA	NA	NA	0.0289 U	3.34 J	0.0285 U	0.029 U	0.0284 U	NA	NA
BAP EQUIVALENT	0.1	[2]	NA	NA	NA	NA	0.0246 U	**83.0213**	**0.56976**	**0.10694**	0.0242 U	NA	NA
BENZO(A)ANTHRACENE	0.15	[3]	NA	NA	NA	NA	0.0386 U	**55.3**	**0.298 J**	0.0387 U	0.0378 U	NA	NA
BENZO(A)PYRENE	0.1	[2]	NA	NA	NA	NA	0.0246 U	**55.3 J**	**0.406**	0.0247 U	0.0242 U	NA	NA
BENZO(B)FLUORANTHENE	0.15	[3]	NA	NA	NA	NA	0.0343 U	**70.5 J**	**0.633**	**0.577 J**	0.0336 U	NA	NA
BENZO(G,H,I)PERYLENE	2500	[1]	NA	NA	NA	NA	0.075 U	44.1 J	0.353	0.0753 U	0.0735 U	NA	NA
BENZO(K)FLUORANTHENE	1.5	[3]	NA	NA	NA	NA	0.0418 U	**33.5 J**	0.212 J	0.042 U	0.041 U	NA	NA
CHRYSENE	15	[3]	NA	NA	NA	NA	0.0332 U	**66.3**	0.386	0.0333 U	0.0326 U	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015	[3]	NA	NA	NA	NA	0.0643 U	**10.5 J**	0.0633 U	0.0645 U	0.063 U	NA	NA
FLUORANTHENE	3200	[1]	NA	NA	NA	NA	0.0578 U	71	0.49	0.0594 J	0.0567 U	NA	NA
FLUORENE	160	[1]	NA	NA	NA	NA	0.0278 U	0.663 J	0.0274 U	0.028 U	0.0273 U	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15	[3]	NA	NA	NA	NA	0.0493 U	**42.4 J**	**0.365**	0.0495 U	0.0483 U	NA	NA
NAPHTHALENE	55	[1]	NA	NA	NA	NA	0.0343 U	1.04 J	0.0338 U	0.0344 U	0.0336 U	NA	NA
PHENANTHRENE	2200	[1]	NA	NA	NA	NA	0.0246 U	19.3	0.0977 J	0.0247 U	0.0242 U	NA	NA
PYRENE	2400	[1]	NA	NA	NA	NA	0.0428 U	74.6	0.431	0.0581 J	0.042 U	NA	NA
INORGANICS (MG/KG)													
ANTIMONY	27	[4]	NA	0.263 UJ	0.331 J	NA	1.43 J	NA	NA	0.265 UJ	NA	NA	NA
ARSENIC	3.2	[5]	NA	1.19	2.33	NA	1.34 J	NA	NA	1.06	NA	NA	NA
COPPER	150	[4]	NA	2.91	3.78	NA	111	NA	NA	1.8	NA	NA	NA
LEAD	400	[4]	NA	44.1 J	**503 J**	NA	27.5 J	NA	NA	133 J	NA	NA	NA
LEAD-CALC	400	[4]	32.3	222	**453**	104.7	10 U	133	10 U	382	10 U	18.7	10 U
TIN	47000	[4]	NA	2.63 U	2.9 U	NA	4.94 J	NA	NA	2.65 U	NA	NA	NA
ZINC	26000	[4]	NA	3.04 J	4.18 J	NA	1720 J	NA	NA	3.7 J	NA	NA	NA
SPLP INORGANICS (UG/L)													
ALUMINUM	NC		NA	NA	NA	NA	NA	NA	NA	1820	NA	NA	NA
ANTIMONY	6	[6]	NA	NA	NA	NA	NA	NA	NA	**22.4**	NA	NA	NA
ARSENIC	50	[6]	NA	NA	NA	NA	NA	NA	NA	8.96	NA	NA	NA
BARIUM	NC		NA	NA	NA	NA	NA	NA	NA	185	NA	NA	NA
CADMIUM	NC		NA	NA	NA	NA	NA	NA	NA	0.25 U	NA	NA	NA
CALCIUM	NC		NA	NA	NA	NA	NA	NA	NA	1660	NA	NA	NA
CHROMIUM	NC		NA	NA	NA	NA	NA	NA	NA	0.98 J	NA	NA	NA
COPPER	100	[7]	NA	NA	NA	NA	NA	NA	NA	4.8	NA	NA	NA
IRON	NC		NA	NA	NA	NA	NA	NA	NA	769	NA	NA	NA
LEAD	15	[6]	NA	NA	NA	NA	NA	NA	NA	**24.4**	NA	NA	NA
MAGNESIUM	NC		NA	NA	NA	NA	NA	NA	NA	657 J	NA	NA	NA
MANGANESE	NC		NA	NA	NA	NA	NA	NA	NA	69.3	NA	NA	NA
NICKEL	NC		NA	NA	NA	NA	NA	NA	NA	0.8 J	NA	NA	NA
POTASSIUM	NC		NA	NA	NA	NA	NA	NA	NA	694 J	NA	NA	NA
SODIUM	NC		NA	NA	NA	NA	NA	NA	NA	1530 J	NA	NA	NA
VANADIUM	NC		NA	NA	NA	NA	NA	NA	NA	2.12 J	NA	NA	NA
ZINC	500	[7]	NA	NA	NA	NA	NA	NA	NA	72.1 J	NA	NA	NA
XRF INORGANICS (MG/KG)													
LEAD	200	[4]	61.33	**219.3**	**411.7**	121.7	12.67	145	8	**353**	6.33	50	14.67
MISCELLANEOUS PARAMETERS (MEQ/100)													
CATION EXCHANGE CAPACITY	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)													
TOTAL ORGANIC CARBON	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)													
PH	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4-3

FBL SURFACE SOIL MC METALS AND PAH DETECTION
FORMER GUNNERY AREA
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON. FLORIDA

LOCATION			GA-SB-E4		GA-SB-E5		GA-SB-E6		GA-SB-E7		GA-SB-F5		GA-SB-G1	
SAMPLE ID	Project		GA-SS-E4-01	GA-SS-E4-02	GA-SS-E5-01	GA-SS-E5-02	GA-SS-E6-01	GA-SS-E6-02	GA-SS-E7-01	GA-SS-E7-02	GA-SS-F5-01	GA-SS-F5-02	GA-SS-G1-01	GA-SS-G1-02
SAMPLE DATE	Action		20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428
TOP DEPTH	Limit		0	0.5	0	0.5	0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH			0.5	2	0.5	2	0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)														
1-METHYLNAPHTHALENE	200	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.66 J	0.105 U
2-METHYLNAPHTHALENE	210	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.28 J	0.0367 U
ACENAPHTHENE	2400	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.1	0.0273 U
ANTHRACENE	21000	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13.5	0.0283 U
BAP EQUIVALENT	0.1	[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**316.542**	**0.57791**
BENZO(A)ANTHRACENE	0.15	[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**198**	**0.172 J**
BENZO(A)PYRENE	0.1	[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**213**	**0.455**
BENZO(B)FLUORANTHENE	0.15	[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**286**	**0.699**
BENZO(G,H,I)PERYLENE	2500	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	172 J	0.407
BENZO(K)FLUORANTHENE	1.5	[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**139**	0.168 J
CHRYSENE	15	[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**252**	0.219 J
DIBENZO(A,H)ANTHRACENE	0.015	[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**33.3 J**	0.063 U
FLUORANTHENE	3200	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	307	0.261 J
FLUORENE	160	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.55	0.0273 U
INDENO(1,2,3-CD)PYRENE	0.15	[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**202 J**	0.0483 U
NAPHTHALENE	55	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.77	0.0336 U
PHENANTHRENE	2200	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	46.5	0.0241 U
PYRENE	2400	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	250	0.257 J
INORGANICS (MG/KG)														
ANTIMONY	27	[4]	1.2 J	NA	NA	NA	1.34 J	NA	NA	NA	NA	NA	NA	NA
ARSENIC	3.2	[5]	3.18	NA	NA	NA	2.11	NA	NA	NA	NA	NA	NA	NA
COPPER	150	[4]	4	NA	NA	NA	2.35	NA	NA	NA	NA	NA	NA	NA
LEAD	400	[4]	**669 J**	NA	NA	NA	**465 J**	NA	NA	NA	NA	NA	NA	NA
LEAD-CALC	400	[4]	**746**	10 U	27.5	10 U	391	10 U	51.9	10 U	10 U	10 U	21.5	10 U
TIN	47000	[4]	3.57 U	NA	NA	NA	2.72 U	NA	NA	NA	NA	NA	NA	NA
ZINC	26000	[4]	5.39 J	NA	NA	NA	3.33 J	NA	NA	NA	NA	NA	NA	NA
SPLP INORGANICS (UG/L)														
ALUMINUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	6	[6]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	50	[6]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	100	[7]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	15	[6]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	500	[7]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)														
LEAD	200	[4]	**656.3**	12	57.33	12	**360.3**	11.33	77.67	5.67	26.67	10 U	52.33	10 U
MISCELLANEOUS PARAMETERS (MEQ/100)														
CATION EXCHANGE CAPACITY	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)														
TOTAL ORGANIC CARBON	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)														
PH	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4-3

FBL SURFACE SOIL MC METALS AND PAH DETECTION
FORMER GUNNERY AREA
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON. FLORIDA

LOCATION			GA-SB-G2		GA-SB-G2.5			GA-SB-G3		GA-SB-G4		GA-SB-G5	
SAMPLE ID	Project		GA-SS-G2-01	GA-SS-G2-02	GA-SS-G2.5-01	GA-SS-G2.5-02	GA-SS-G2.5-02-D	GA-SS-G3-01	GA-SS-G3-02	GA-SS-G4-01	GA-SS-G4-02	GA-SS-G5-01	GA-SS-G5-02
SAMPLE DATE	Action		20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428
TOP DEPTH	Limit		0	0.5	0	0.5	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH			0.5	2	0.5	2	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)													
1-METHYLNAPHTHALENE	200	[1]	0.111 U	0.107 U	0.107 U	0.106 U	0.106 U	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	210	[1]	0.039 U	0.0373 U	0.0375 U	0.0371 U	0.0372 U	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	2400	[1]	0.029 U	0.0277 U	0.0278 U	0.0275 U	0.0276 U	NA	NA	NA	NA	NA	NA
ANTHRACENE	21000	[1]	0.0301 U	0.0288 U	0.0289 U	0.0286 U	0.0287 U	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	0.1	[2]	0.0256 U	0.0245 U	0.0246 U	0.0243 U	0.0244 U	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.15	[3]	0.0401 U	0.0384 U	0.0385 U	0.0381 U	0.0383 U	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	0.1	[2]	0.0256 U	0.0245 U	0.0246 U	0.0243 U	0.0244 U	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.15	[3]	0.0357 U	0.0341 U	0.0342 U	0.0339 U	0.034 U	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	2500	[1]	0.078 U	0.0746 U	0.0749 U	0.0741 U	0.0744 U	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	1.5	[3]	0.0435 U	0.0416 U	0.0417 U	0.0413 U	0.0414 U	NA	NA	NA	NA	NA	NA
CHRYSENE	15	[3]	0.0346 U	0.033 U	0.0332 U	0.0328 U	0.0329 U	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015	[3]	0.0669 U	0.064 U	0.0642 U	0.0635 U	0.0638 U	NA	NA	NA	NA	NA	NA
FLUORANTHENE	3200	[1]	0.0602 U	0.0576 U	0.0578 U	0.0572 U	0.0574 U	NA	NA	NA	NA	NA	NA
FLUORENE	160	[1]	0.029 U	0.0277 U	0.0278 U	0.0275 U	0.0276 U	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15	[3]	0.0513 U	0.049 U	0.0492 U	0.0487 U	0.0489 U	NA	NA	NA	NA	NA	NA
NAPHTHALENE	55	[1]	0.0357 U	0.0341 U	0.0342 U	0.0339 U	0.034 U	NA	NA	NA	NA	NA	NA
PHENANTHRENE	2200	[1]	0.0256 U	0.0245 U	0.0246 U	0.0243 U	0.0244 U	NA	NA	NA	NA	NA	NA
PYRENE	2400	[1]	0.0446 U	0.0426 U	0.0428 U	0.0423 U	0.0425 U	NA	NA	NA	NA	NA	NA
INORGANICS (MG/KG)													
ANTIMONY	27	[4]	NA	0.267 UJ	NA	0.262 UJ	NA	NA	NA	NA	NA	0.434 J	NA
ARSENIC	3.2	[5]	NA	1.22	NA	1	NA	NA	NA	NA	NA	1.1	NA
COPPER	150	[4]	NA	2.63	NA	2.25	NA	NA	NA	NA	NA	2.08	NA
LEAD	400	[4]	NA	4.22 J	NA	4.7 J	NA	NA	NA	NA	NA	156 J	NA
LEAD-CALC	400	[4]	10 U	10 U	10 U	10 U	NA	10 U	10 U	4.3	10 U	224	10.3
TIN	47000	[4]	NA	2.67 U	NA	2.62 U	NA	NA	NA	NA	NA	2.62 U	NA
ZINC	26000	[4]	NA	3.46 J	NA	3.19 J	NA	NA	NA	NA	NA	3.06 J	NA
SPLP INORGANICS (UG/L)													
ALUMINUM	NC		NA	48.4 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	6	[6]	NA	1.25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	50	[6]	NA	0.75 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC		NA	43	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NC		NA	0.25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NC		NA	597 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC		NA	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	100	[7]	NA	1.25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NC		NA	54.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	15	[6]	NA	0.72 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC		NA	250 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NC		NA	16.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NC		NA	0.75 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NC		NA	250 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NC		NA	699 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NC		NA	1.25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	500	[7]	NA	17.7 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)													
LEAD	200	[4]	30.33	10 U	28	10 U	NA	27.33	10 U	38	16.33	**220.7**	43
MISCELLANEOUS PARAMETERS (MEQ/100)													
CATION EXCHANGE CAPACITY	NC		NA	3.75 J	NA	2.99 J	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)													
TOTAL ORGANIC CARBON	NC		NA	5990	NA	4820	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)													
PH	NC		NA	4.59	NA	5.08	NA	NA	NA	NA	NA	NA	NA

TABLE 4-3

FBL SURFACE SOIL MC METALS AND PAH DETECTION
FORMER GUNNERY AREA
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON. FLORIDA

LOCATION			GA-SB-G6		GA-SB-G7		GA-SB-H5		GA-SB-J1		GA-SB-J2		GA-SB-J3	
SAMPLE ID	Project		GA-SS-G6-01	GA-SS-G6-02	GA-SS-G7-01	GA-SS-G7-02	GA-SS-H5-01	GA-SS-H5-02	GA-SS-J1-01	GA-SS-J1-02	GA-SS-J2-01	GA-SS-J2-02	GA-SS-J3-01	GA-SS-J3-02
SAMPLE DATE	Action		20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100427	20100428	20100428	20100428	20100428
TOP DEPTH	Limit		0	0.5	0	0.5	0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH			0.5	2	0.5	2	0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)														
1-METHYLNAPHTHALENE	200	[1]	NA	NA	NA	NA	NA	NA	1.31 J	0.528 U	0.11 U	0.105 U	NA	NA
2-METHYLNAPHTHALENE	210	[1]	NA	NA	NA	NA	NA	NA	1.95 J	0.185 U	0.0385 U	0.0369 U	NA	NA
ACENAPHTHENE	2400	[1]	NA	NA	NA	NA	NA	NA	16.5	0.247 J	0.0286 U	0.0274 U	NA	NA
ANTHRACENE	21000	[1]	NA	NA	NA	NA	NA	NA	31.7	2.6	0.0297 U	0.0285 U	NA	NA
BAP EQUIVALENT	0.1	[2]	NA	NA	NA	NA	NA	NA	**331.111**	**11.38**	**0.51668**	0.0242 U	NA	NA
BENZO(A)ANTHRACENE	0.15	[3]	NA	NA	NA	NA	NA	NA	**227**	**8.59**	0.105 J	0.038 U	NA	NA
BENZO(A)PYRENE	0.1	[2]	NA	NA	NA	NA	NA	NA	**228**	**7.09 J**	**0.405**	0.0242 U	NA	NA
BENZO(B)FLUORANTHENE	0.15	[3]	NA	NA	NA	NA	NA	NA	**314**	**9.42 J**	**0.649**	0.0337 U	NA	NA
BENZO(G,H,I)PERYLENE	2500	[1]	NA	NA	NA	NA	NA	NA	168 J	4.29 J	0.077 U	0.0738 U	NA	NA
BENZO(K)FLUORANTHENE	1.5	[3]	NA	NA	NA	NA	NA	NA	**116**	**4.68 J**	0.064 J	0.0411 U	NA	NA
CHRYSENE	15	[3]	NA	NA	NA	NA	NA	NA	**251**	9.16	0.108 J	0.0327 U	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015	[3]	NA	NA	NA	NA	NA	NA	**29.6 J**	**1.93 J**	0.066 U	0.0633 U	NA	NA
FLUORANTHENE	3200	[1]	NA	NA	NA	NA	NA	NA	392	16.7	0.155 J	0.0569 U	NA	NA
FLUORENE	160	[1]	NA	NA	NA	NA	NA	NA	9.11	0.377 J	0.0286 U	0.0274 U	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15	[3]	NA	NA	NA	NA	NA	NA	**180 J**	**5.03 J**	0.0506 U	0.0485 U	NA	NA
NAPHTHALENE	55	[1]	NA	NA	NA	NA	NA	NA	8.27	0.169 U	0.0352 U	0.0337 U	NA	NA
PHENANTHRENE	2200	[1]	NA	NA	NA	NA	NA	NA	146	8.97	0.0253 U	0.0242 U	NA	NA
PYRENE	2400	[1]	NA	NA	NA	NA	NA	NA	326	15.2	0.132 J	0.0422 U	NA	NA
INORGANICS (MG/KG)														
ANTIMONY	27	[4]	NA	NA	0.274 U	NA	NA	NA	NA	NA	0.275 U	NA	NA	NA
ARSENIC	3.2	[5]	NA	NA	**7.79**	NA	NA	NA	NA	NA	1.6	NA	NA	NA
COPPER	150	[4]	NA	NA	2.75	NA	NA	NA	NA	NA	2.73	NA	NA	NA
LEAD	400	[4]	NA	NA	92.3	NA	NA	NA	NA	NA	121	NA	NA	NA
LEAD-CALC	400	[4]	5.1	10 U	83.9	10 U	34.7	10 U	133	10 U	125	10 U	162	10 U
TIN	47000	[4]	NA	NA	2.74 U	NA	NA	NA	NA	NA	2.75 U	NA	NA	NA
ZINC	26000	[4]	NA	NA	3.93 J	NA	NA	NA	NA	NA	3.62 J	NA	NA	NA
SPLP INORGANICS (UG/L)														
ALUMINUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	6	[6]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	50	[6]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	100	[7]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	15	[6]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	500	[7]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)														
LEAD	200	[4]	38.67	10 U	104.3	10 U	63.33	10 U	145.3	10 U	138.3	10 U	169.3	10.67
MISCELLANEOUS PARAMETERS (MEQ/100)														
CATION EXCHANGE CAPACITY	NC		NA	NA	NA	NA	NA	NA	NA	2.13 J	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)														
TOTAL ORGANIC CARBON	NC		NA	NA	NA	NA	NA	NA	NA	6060	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)														
PH	NC		NA	NA	NA	NA	NA	NA	NA	5.44	NA	NA	NA	NA

TABLE 4-3

FBL SURFACE SOIL MC METALS AND PAH DETECTION
FORMER GUNNERY AREA
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON. FLORIDA

LOCATION			GA-SB-J4		GA-SB-J5		GA-SB-J6				GA-SB-J7	
SAMPLE ID	Project		GA-SS-J4-01	GA-SS-J4-02	GA-SS-J5-01	GA-SS-J5-02	GA-SS-J6-01	GA-SS-J6-01-AVG	GA-SS-J6-01-D	GA-SS-J6-02	GA-SS-J7-01	GA-SS-J7-02
SAMPLE DATE	Action		20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428
TOP DEPTH	Limit		0	0.5	0	0.5	0	0	0	0.5	0	0.5
BOTTOM DEPTH			0.5	2	0.5	2	0.5	0.5	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)												
1-METHYLNAPHTHALENE	200	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	210	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	2400	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	21000	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	0.1	[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.15	[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	0.1	[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.15	[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	2500	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	1.5	[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	15	[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015	[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	3200	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	160	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15	[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	55	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	2200	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	2400	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INORGANICS (MG/KG)												
ANTIMONY	27	[4]	NA	NA	NA	0.261 U	2.27	2.195 J	2.12 J	NA	0.273 U	NA
ARSENIC	3.2	[5]	NA	NA	NA	0.728	**5.05**	**4.625 J**	**4.2 J**	NA	3.13 J	NA
COPPER	150	[4]	NA	NA	NA	1.75	2.34	2.46	2.58	NA	3.37	NA
LEAD	400	[4]	NA	NA	NA	25.1	**1300 J**	**1225 J**	**1150 J**	NA	23.1 J	NA
LEAD-CALC	400	[4]	14.3	10 U	130	10 U	**1183**	**1183**	NA	10 U	10 U	0.304
TIN	47000	[4]	NA	NA	NA	2.61 U	2.66 U	2.675 U	2.69 U	NA	2.73 U	NA
ZINC	26000	[4]	NA	NA	NA	2.59 J	3.14 J	3.675 J	4.21 J	NA	5.81 J	NA
SPLP INORGANICS (UG/L)												
ALUMINUM	NC		NA	NA	NA	NA	1690	1915	2140	NA	NA	NA
ANTIMONY	6	[6]	NA	NA	NA	NA	1.45 J	**47.675 J**	**93.9 J**	NA	NA	NA
ARSENIC	50	[6]	NA	NA	NA	NA	0.75 UJ	9.5375 J	18.7 J	NA	NA	NA
BARIUM	NC		NA	NA	NA	NA	126	138.5	151	NA	NA	NA
CADMIUM	NC		NA	NA	NA	NA	0.42 J	0.2725 J	0.25 U	NA	NA	NA
CALCIUM	NC		NA	NA	NA	NA	854 J	833 J	812 J	NA	NA	NA
CHROMIUM	NC		NA	NA	NA	NA	0.5 U	0.675 J	1.1 J	NA	NA	NA
COPPER	100	[7]	NA	NA	NA	NA	1.5 J	1.455 J	1.41 J	NA	NA	NA
IRON	NC		NA	NA	NA	NA	7.5 UJ	434.375 J	865 J	NA	NA	NA
LEAD	15	[6]	NA	NA	NA	NA	**1490**	**1495**	**1500**	NA	NA	NA
MAGNESIUM	NC		NA	NA	NA	NA	250 U	196 J	267 J	NA	NA	NA
MANGANESE	NC		NA	NA	NA	NA	24.2 J	30.8 J	37.4 J	NA	NA	NA
NICKEL	NC		NA	NA	NA	NA	0.81 J	0.84 J	0.87 J	NA	NA	NA
POTASSIUM	NC		NA	NA	NA	NA	609 J	539.5 J	470 J	NA	NA	NA
SODIUM	NC		NA	NA	NA	NA	1080 J	1095 J	1110 J	NA	NA	NA
VANADIUM	NC		NA	NA	NA	NA	1.25 U	1.4475 J	2.27 J	NA	NA	NA
ZINC	500	[7]	NA	NA	NA	NA	54.7 J	57.4 J	60.1 J	NA	NA	NA
XRF INORGANICS (MG/KG)												
LEAD	200	[4]	46.33	10 U	143	30	**1020**	**1020**	NA	10 U	12	34.67
MISCELLANEOUS PARAMETERS (MEQ/100)												
CATION EXCHANGE CAPACITY	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)												
TOTAL ORGANIC CARBON	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)												
PH	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4-3

FBL SURFACE SOIL MC METALS AND PAH DETECTION
FORMER GUNNERY AREA
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON. FLORIDA

LOCATION	Project Action Limit		GA-SB-K5		GA-SB-L1		GA-SB-L2		GA-SB-L5		GA-SB-N1		GA-SS-L3	
SAMPLE ID			GA-SS-K5-01	GA-SS-K5-02	GA-SS-L1-01	GA-SS-L1-02	GA-SS-L2-01	GA-SS-L2-02	GA-SS-L5-01	GA-SS-L5-02	GA-SS-N1-01	GA-SS-N1-02	GA-SS-L3-01	GA-SS-L3-02
SAMPLE DATE			20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428
TOP DEPTH			0	0.5	0	0.5	0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH			0.5	2	0.5	2	0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)														
1-METHYLNAPHTHALENE	200	[1]	NA	NA	1.09 U	0.105 U	0.536 U	0.104 U	NA	NA	0.527 UJ	0.104 U	NA	NA
2-METHYLNAPHTHALENE	210	[1]	NA	NA	1.17 J	0.0368 U	0.188 U	0.0366 U	NA	NA	0.185 UJ	0.0364 U	NA	NA
ACENAPHTHENE	2400	[1]	NA	NA	6.07	0.0274 U	0.139 U	0.0272 U	NA	NA	0.137 UJ	0.027 U	NA	NA
ANTHRACENE	21000	[1]	NA	NA	11.9	0.186 J	0.308 J	0.0282 U	NA	NA	0.142 UJ	0.0281 U	NA	NA
BAP EQUIVALENT	0.1	[2]	NA	NA	**219.172**	**2.62173**	**7.76851**	**1.17649**	NA	NA	**2.98735**	**0.50784**	NA	NA
BENZO(A)ANTHRACENE	0.15	[3]	NA	NA	**134**	**1.3**	**3.61**	**0.59**	NA	NA	**1.49 J**	0.109 J	NA	NA
BENZO(A)PYRENE	0.1	[2]	NA	NA	**146**	**1.59**	**4.66**	**0.873**	NA	NA	**2.16 J**	**0.399**	NA	NA
BENZO(B)FLUORANTHENE	0.15	[3]	NA	NA	**202**	**2.1**	**6.35**	**1.3**	NA	NA	**3.15 J**	**0.634**	NA	NA
BENZO(G,H,I)PERYLENE	2500	[1]	NA	NA	101 J	1.15	3.67	0.617	NA	NA	1.76 J	0.0727 U	NA	NA
BENZO(K)FLUORANTHENE	1.5	[3]	NA	NA	**71.5**	0.919	**3.18**	0.411	NA	NA	1.14 J	0.0861 J	NA	NA
CHRYSENE	15	[3]	NA	NA	**157**	1.54	4.71	0.73	NA	NA	1.95 J	0.142 J	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015	[3]	NA	NA	**27.2**	**0.542**	**1.66 J**	0.0627 U	NA	NA	0.316 UJ	0.0623 U	NA	NA
FLUORANTHENE	3200	[1]	NA	NA	196	2.09	5.57	0.784	NA	NA	2.75 J	0.16 J	NA	NA
FLUORENE	160	[1]	NA	NA	3.44 J	0.0274 U	0.139 U	0.0272 U	NA	NA	0.137 UJ	0.027 U	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15	[3]	NA	NA	**115 J**	**1.39**	**4.16**	**0.783**	NA	NA	**1.92 J**	0.0478 U	NA	NA
NAPHTHALENE	55	[1]	NA	NA	4.68	0.0337 U	0.171 U	0.0334 U	NA	NA	0.169 UJ	0.0332 U	NA	NA
PHENANTHRENE	2200	[1]	NA	NA	45.8	0.725	1.53 J	0.199 J	NA	NA	0.621 J	0.0239 U	NA	NA
PYRENE	2400	[1]	NA	NA	165	1.72	4.89	0.847	NA	NA	2.53 J	0.159 J	NA	NA
INORGANICS (MG/KG)														
ANTIMONY	27	[4]	NA	NA	0.503 J	NA	NA	0.262 U	NA	NA	NA	NA	NA	NA
ARSENIC	3.2	[5]	NA	NA	1.86 J	NA	NA	0.83 J	NA	NA	NA	NA	NA	NA
COPPER	150	[4]	NA	NA	2.13	NA	NA	1.79	NA	NA	NA	NA	NA	NA
LEAD	400	[4]	NA	NA	235 J	NA	NA	4.27 J	NA	NA	NA	NA	NA	NA
LEAD-CALC	400	[4]	68.7	10 U	178	10 U	13.5	10 U	66.3	10 U	144	10 U	10 U	10 U
TIN	47000	[4]	NA	NA	2.69 U	NA	NA	2.62 U	NA	NA	NA	NA	NA	NA
ZINC	26000	[4]	NA	NA	9.89 J	NA	NA	4.12 J	NA	NA	NA	NA	NA	NA
SPLP INORGANICS (UG/L)														
ALUMINUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	6	[6]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	50	[6]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	100	[7]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	15	[6]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	500	[7]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)														
LEAD	200	[4]	91.67	15.33	183	10 U	45.67	10 U	89.67	12.33	154.7	18	12.33	10 U
MISCELLANEOUS PARAMETERS (MEQ/100)														
CATION EXCHANGE CAPACITY	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)														
TOTAL ORGANIC CARBON	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)														
PH	NC		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

[1] - FDEP SCTL
[2] - SCTLs
[3] - USEPA Residential SSL
[4] - FDEP Residential SCTL
[5] - Background
[6] - FDEP MCL
[7] - FDEP Secondary Drinking Water Criteria

N

LEGEND

INSTALLATION BOUNDARY

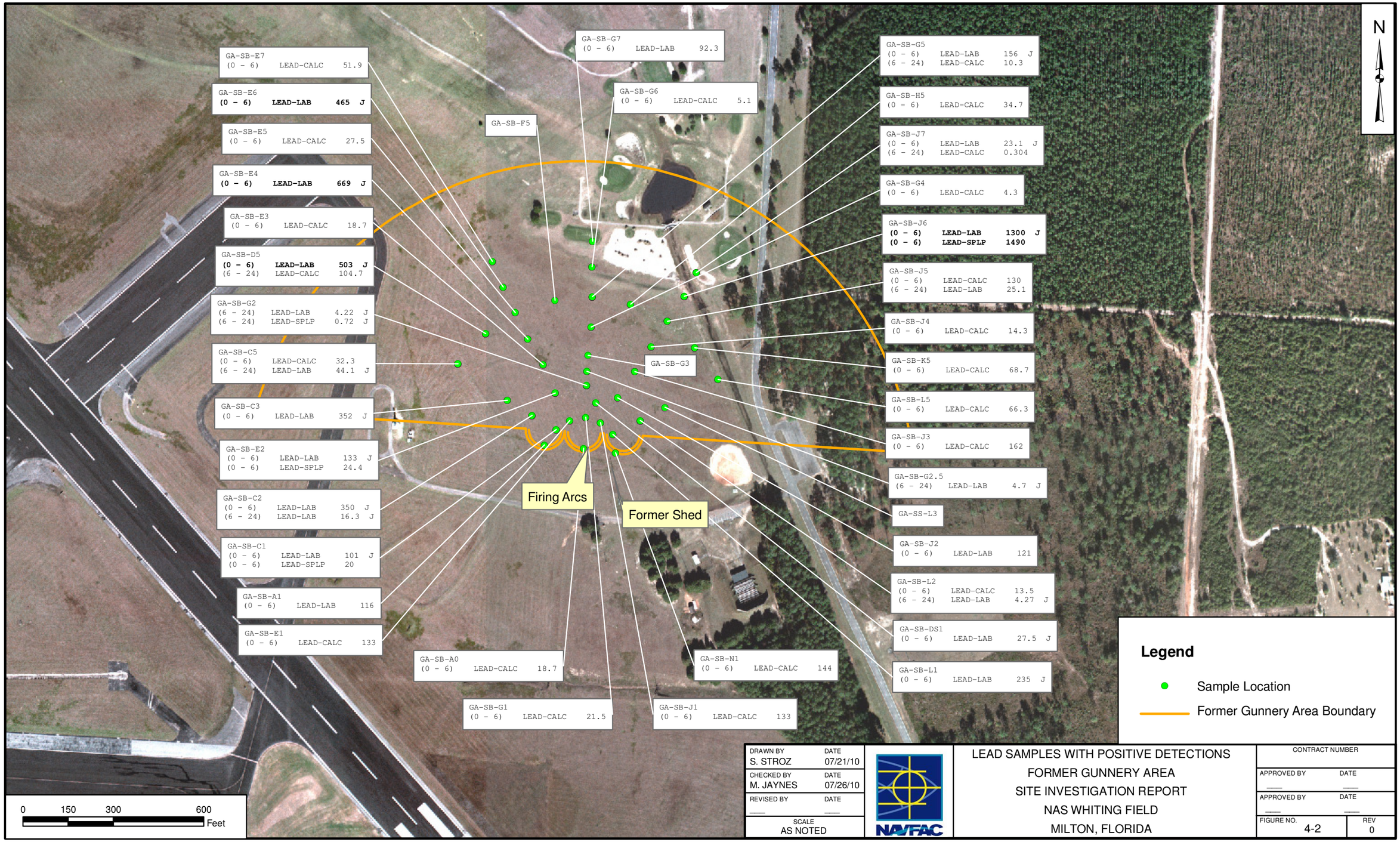
SITE BOUNDARY

0 200 400

SCALE: 1" = 200'

DRAWN BY BH	DATE 5/28/08	SITE MAP FORMER GUNNERY AREA MRP SITE INVESTIGATION REPORT NAS WHITING FIELD MILTON, FLORIDA	CONTRACT NO. 0852
CHECKED BY	DATE		OWNER NO. 0000
REVISED BY	DATE		APPROVED BY / DATE
SCALE AS NOTED			DRAWING NO. FIGURE 4–1 / REV. 0

P:\GIS\WHITINGFIELD_NAS\MAPDOCS\MXD\FORMER_GUNNERY_LEAD_DETECTS.MXD 07/26/10 SS



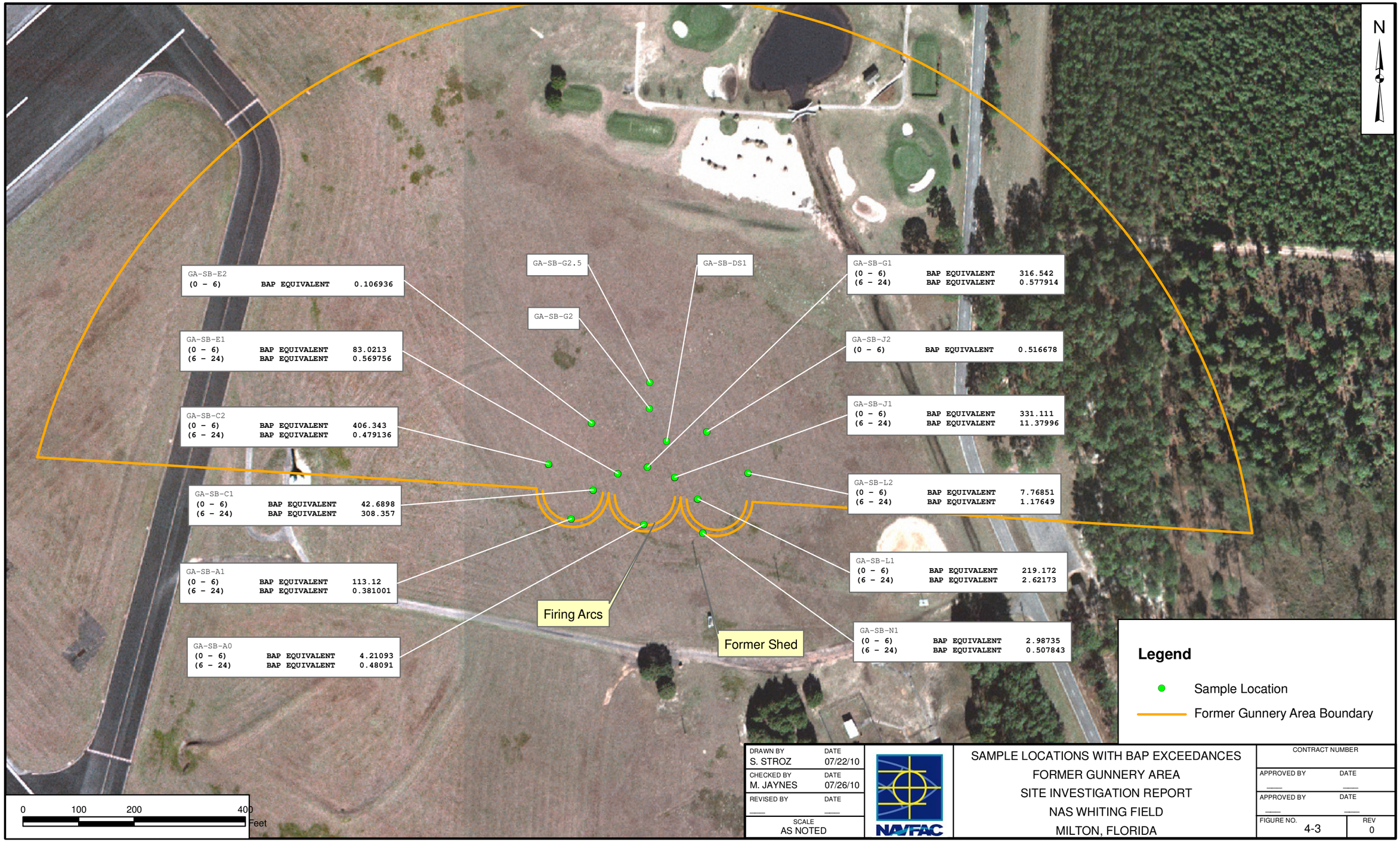
DRAWN BY	DATE
S. STROZ	07/21/10
CHECKED BY	DATE
M. JAYNES	07/26/10
REVISED BY	DATE
___	___
SCALE	
AS NOTED	

NAVFAC

LEAD SAMPLES WITH POSITIVE DETECTIONS
FORMER GUNNERY AREA
SITE INVESTIGATION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

CONTRACT NUMBER	
APPROVED BY ___	DATE ___
APPROVED BY ___	DATE ___
FIGURE NO. 4-2	REV 0

P:\GIS\WHITINGFIELD_NAS\MAPDOCS\MXD\FORMER_GUNNERY_BAP.MXD 07/26/10 SS



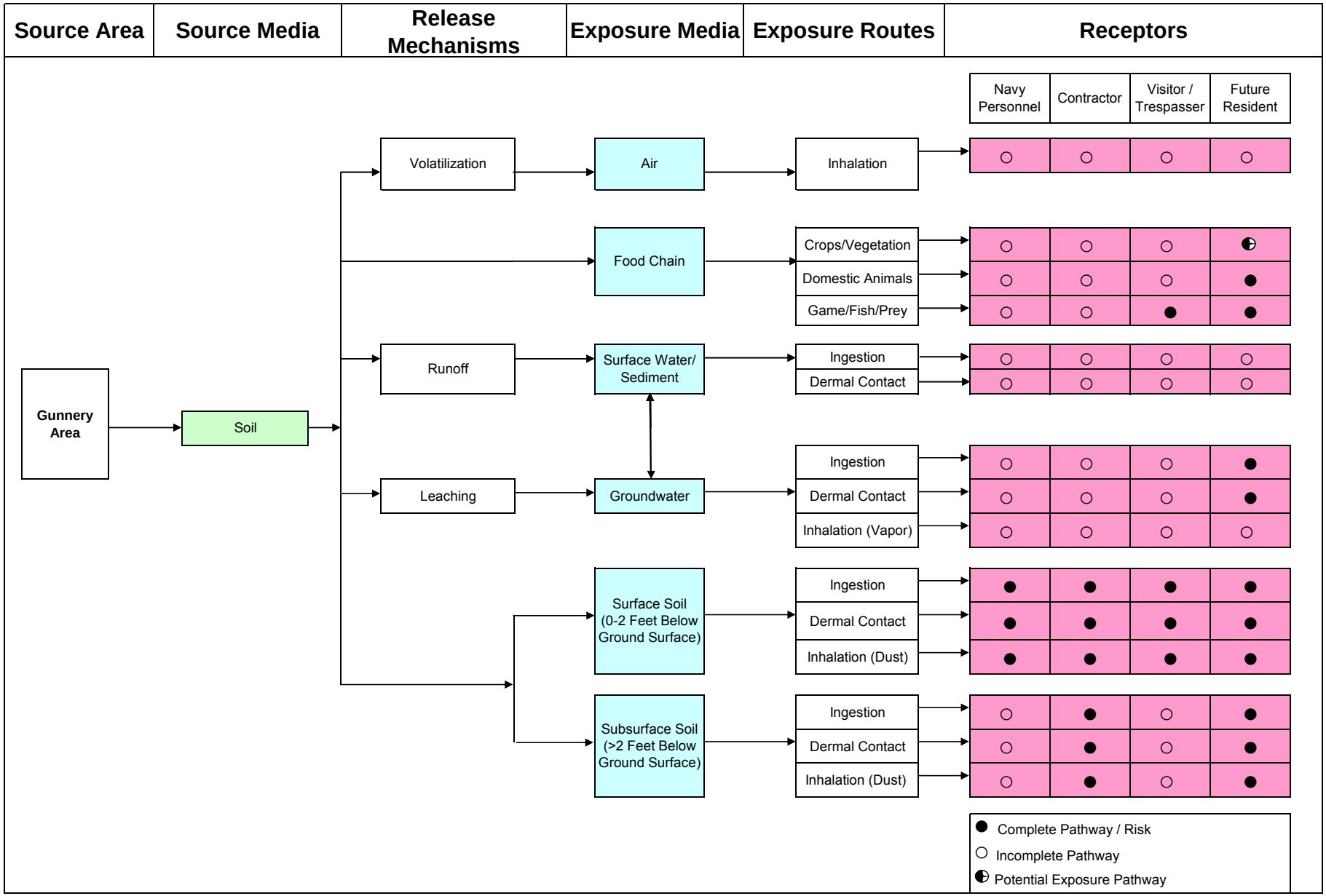
DRAWN BY S. STROZ	DATE 07/22/10	SAMPLE LOCATIONS WITH BAP EXCEEDANCES FORMER GUNNERY AREA SITE INVESTIGATION REPORT NAS WHITING FIELD MILTON, FLORIDA	CONTRACT NUMBER
CHECKED BY M. JAYNES	DATE 07/26/10		APPROVED BY ___ DATE ___
REVISED BY ___	DATE ___		APPROVED BY ___ DATE ___
SCALE AS NOTED			FIGURE NO. 4-3 REV 0

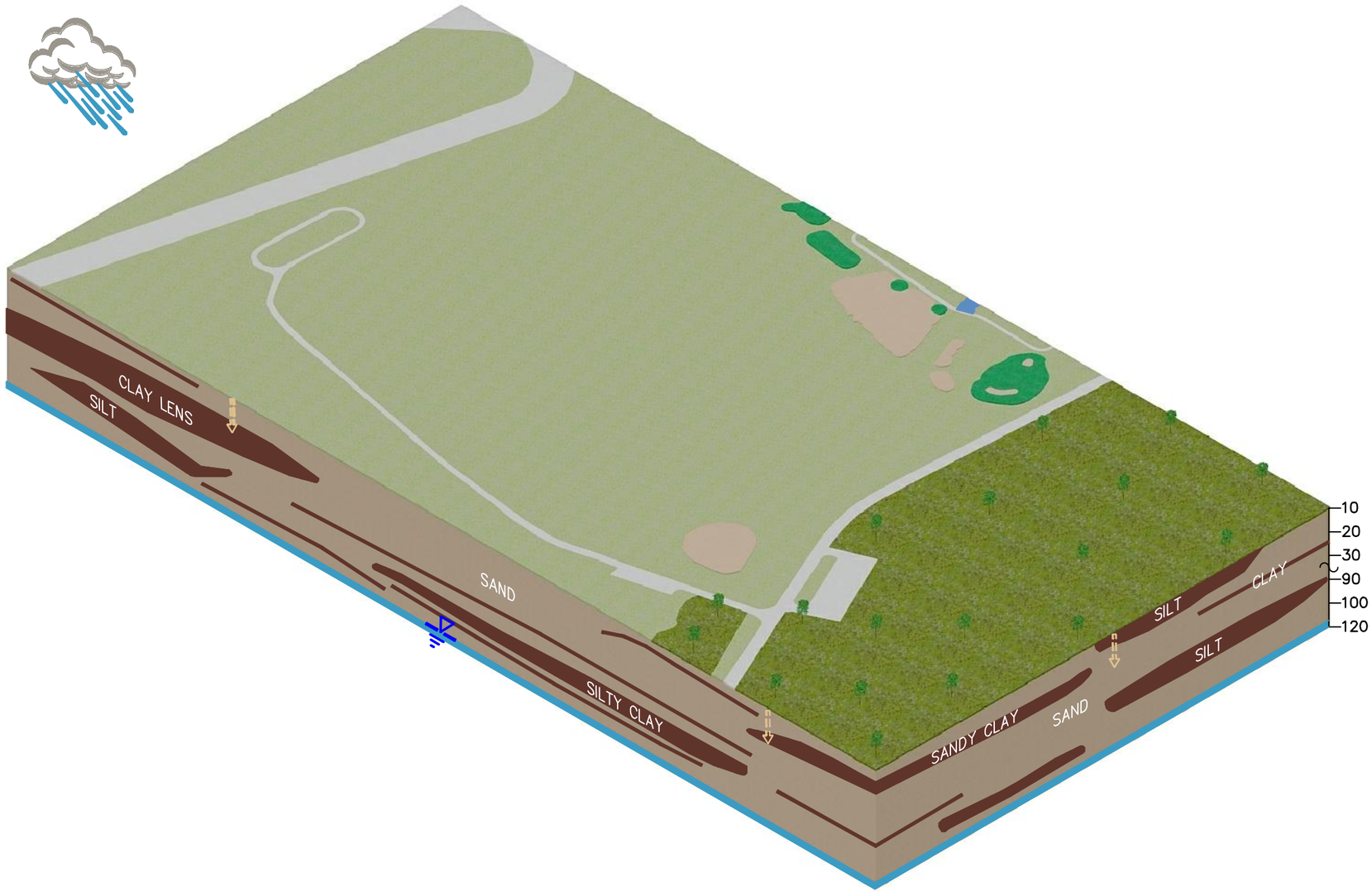
FIGURE 4-4

MC EXPOSURE PATHWAY ANALYSIS

GUNNERY AREA

NAS WHITING FIELD, WHITING FIELD, FLORIDA





LEGEND

WATER TABLE

INFILTRATION

DRAWN BY CK	DATE 7-27-10	
CHECKED BY	DATE	
REVISED BY	DATE	
SCALE NOT TO SCALE		

NAVFAC

CONCEPTUAL SITE MODEL
FORMER GUNNERY AREA
SITE INVESTIGATION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

CONTRACT NO. 0852	
OWNER NO.	
APPROVED BY	DATE
DRAWING NO. FIGURE 4-5	REV. 0

R:\0852\CSM\0852CSM01.dwg PIT CARLY.KRAMER 7/27/2010 3:12:47 PM

5.0 SKEET RANGE

5.1 SITE BACKGROUND

The Skeet Range covers approximately 12 acres and is located in the North Field area, east of the operational pistol range and south of the installation golf course and picnic area (**Figure 5-1**). During both PA and SI site visits, broken clay targets were observed on the ground surface approximately 100 to 300 feet east of the former firing arc. A stockpile of broken clay targets was also noted approximately 80 to 100 feet northeast of the firing arc. The locations where the broken clay targets were observed within the site boundary and are consistent with where the clay targets would be expected based on guidance documents. The surface danger zone (SDZ) is the portion of the former range that represented the area where the weapons, when fired from the firing arc, could endanger personnel. The surface, or primary danger zone, was used to define the area between the firing arc and the target area, the impact area, the ricochet trajectory area, and the secondary danger area. The secondary danger area was established to provide a safety buffer while shooting was in progress.

A series of site walks were conducted by the SI project planning team in late 2007 and early 2008. Like typical skeet ranges the clay pigeon targets were launched from a control system by means of a mechanical device. The clay pigeon target would pass across the field of view, down-range of the individual on the firing line. The shooter aimed the shotgun and fired to impact and break the clay target with the fired metal pellets. The clay pigeon target fragments accumulated during skeet range activities either as impacted fragments when hit by pellets or as larger pieces when missed and broke on impact with the ground.

While the range is still in place, currently archery targets are present and in use at the Skeet Range NAS Whiting Field. The range is mowed, but shrubs, bushes, and other low-lying vegetation have re-established along the range perimeter and are encroaching in some areas. Based on discussions with installation personnel, there are no plans to utilize the site for other purposes. Land use in the area is designated as mixed use and includes outdoor recreation (e.g., golf course, picnic area) and training (e.g., operational pistol range). Although no change in land use in the immediate vicinity of the site is planned, extension of runways and clear zones to the west of the site may be required to support the Joint Primary Air Training System (JPATS).

5.1.1 Historical Munitions Usage Information

The NAS Whiting Field Skeet Club used the range for recreational purposes, primarily on Wednesdays and Sundays, and held an annual "turkey shoot." Military personnel may have used the Skeet Range for moving target orientation training during this period. Munitions use was limited to small arms ammunition from 12, 16, and 20 gauge and .410 caliber shotguns. The Skeet Range was used sporadically between 1998, when it became inactive, and 2000, when it was officially closed. Two skeet buildings, the firing arc, a scorekeeper's table, and an archery target were present during the PA site visit, but have since been removed from the site. A portion of the range is mowed regularly, but shrubs, bushes, and other low-lying vegetation have re-established along the range perimeter.

5.1.2 Munitions Constituents

For shotgun ammunition and clay targets, the primary MC of concern includes lead from shot and PAHs from pitch tar used in clay pigeons. Other associated MC less likely to be of concern may include antimony and arsenic, which may be present in lead at low levels. Because clay targets were identified at the former range, PAHs associated with the targets may also be present at the site. PAHs present in the clay targets tend to be tightly bound in the petroleum pitch and limestone matrix of the target and become available to the environment over time as the petroleum pitch is weathered and breaks down. These MC components are not consumed when the munitions items function as they are designed. Therefore, these MC may exist at the Skeet Range NAS Whiting Field.

5.2 SITE FIELDWORK

5.2.1 Site Field Activities

The SI field program for the Skeet Range included collection of surface soil at two depths (0- to 6- and 6- to 24-inches bgs) to identify COPCs (e.g., metals) that may exist as a result of past operations at the range. All samples were analyzed in the field utilizing XRF with a subset of those samples chosen for submittal to the FBL for select metals analysis. A correlation study comparing XRF and FBL analytical data was completed after the field effort to establish laboratory equivalent lead concentrations based on the field measurements, and to use as a correlation analysis between XRF and FBL lead concentrations. This correlation is discussed in Section 5.5. In addition, four of the samples submitted to the FBL were analyzed for select metals SPLP, and four other samples were analyzed for pH, CEC, and TOC.

Soil sample locations were selected based on a bias toward areas that were believed to be most likely contaminated by past operations at the site. Sample locations are presented in a spatial grid pattern to

evenly cover the entire area of the Skeet Range. Tetra Tech provided recommendations and received approval from the Navy, FDEP, and USEPA before proceeding with the implementation of the sampling plan. Prior to initiating sample collection, all sample locations were marked by brightly colored pin flags bearing the sample location ID number. Proposed sample locations identified in the approved UFP-SAP were located by a Trimble sub-meter GPS unit. Upon collection of all the samples at the SAR, the GPS was used to update the sample coordinates using the horizontal datum: NAD83 Florida State Plane Coordinate System North. To aid in relocating sample locations in the future, a section of one-half inch PVC was driven into the ground at the sample point and the visible end was spray painted orange. All sample locations were laid out as proposed in the approved UFP-SAP (Tetra Tech, 2010).

Photographs associated with the sampling activities at the Skeet Range are presented in **Appendix B**.

The area encompassing the Skeet Range was covered with grassy vegetation and minimal vegetation clearance was required to accommodate sample collection.

5.2.2 Work Plan Deviations

There were no deviations from the UFP-SAP (Tetra Tech, 2010) for the Skeet Range.

5.2.3 Field Data Collection

Seventy-six soil samples were collected from 39 sample locations during the SI at the Skeet Range. A 0- to 6-inch and a 6- to 24-inch bgs sample were collected at each location via hand auger. All samples underwent field XRF analysis for lead and 22 samples were subsequently chosen for select metals (antimony, arsenic, copper, lead, tin, and zinc) analysis at the FBL. Sixteen of the 22 soil samples were from the 0- to 6-inch bgs range and 6 were from the 6- to 24-inch bgs range. When available, the majority of samples chosen for FBL analysis were selected from samples having an XRF lead concentration ranging between 100 and 300 ppm, which includes the lead field PAL of 200 mg/kg; otherwise, samples representing the entire site were selected from the range of detected XRF lead concentrations.

Twenty-six of the 76 soil samples were selected for PAH analysis at the FBL. Fourteen of the 26 soil samples were from the 0- to 6-inch bgs interval range and 12 were from the 6- to 24-inch interval range. These samples were pre-determined according to Worksheet #17 of the UFP-SAP (Tetra Tech, 2010) sampling design and rationale.

All samples were placed in large Ziploc® bags and thoroughly homogenized prior to processing a portion for XRF analysis. For all samples selected for FBL analysis, a portion of the sample was placed in the appropriate sample jar and shipped to the FBL for select analyses. **Table 5-1** provides a summary of the samples collected and their respective analysis at the Skeet Range, and **Figure 5-2** shows all sampling locations. Soil sample log sheets are included in **Appendix A** of this document.

5.3 SITE INSPECTION DATA COLLECTION RESULTS

5.3.1 Munitions Constituents Sampling Results

Soil samples collected at the Skeet Range were compared to respective PALs as listed in Worksheet #15 of the UFP-SAP (Tetra Tech, 2010). The complete MC analytical results are presented in **Appendix C** and the data validation reports are presented in **Appendix D**.

Table 5-2 summarizes the XRF and FBL lead results at the Skeet Range. The lead screening level (PAL) for the FBL analyses was 400 mg/kg, and was based on the FDEP residential SCTL.

Figure 5-2 presents all lead detections in soil at the Skeet Range. The data comparison to PALs is discussed in Section 5.6.

5.4 DATA PRESENTATION/DATA USABILITY

5.4.1 Data Quality Review of Samples at the Skeet Range

This section contains a description of the data review processes used to determine whether analytical laboratory data collected during the sampling field effort for the Skeet Range were of acceptable quality for use in decision-making. The review began with data validation, which is a comparison of DQIs against the prescribed acceptance criteria. The DQIs are measures used to assess the completeness, sensitivity, accuracy, precision, comparability, and representativeness of the sample collection and sample analysis process. The output of this review was a set of alphabetic flags such as “U,” “J”, “R,” or combinations thereof, assigned to individual results based on the validation effort. These flags were used to infer the general quality of the data and if data quality meets the DQOs of the project. The DQOs presented in the approved UFP-SAP (Tetra Tech, 2010) were maintained through the course of the sampling event. Worksheets #15 and #19 of the UFP-SAP present the analytical methods and compounds analyzed.

5.4.1.1 Data Validation Process

All of the FBL sample results were validated according to multiple specifications. Sample data validation followed the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October, 1999) and the USEPA Contract Laboratory National Functional Guidelines for Inorganic Data Validation (October, 2004) guidelines.

Several samples analyzed for various parameters were qualified due to numerous issues. **Table D-1 (Appendix D)** outlines the specific qualification reasons for each sample according to the parameter.

5.4.1.2 Data Quality Review

Some of the DQIs are generated from the analysis of field samples (e.g., field duplicates) while others are from the analysis of FBL samples (e.g., laboratory duplicates). Individually, field and FBL DQIs provide measures of the performance of the respective investigative operations (field or laboratory). If individual QC results were unacceptable, there was an assignment of a validation flag indicating the type of QC deficiency impacting the result. Supporting documentation regarding the data presentation and usability for the Skeet Range is presented in **Appendix D**.

5.4.1.3 Completeness

The sample collection and analytical completeness for the Skeet Range was 100 percent.

5.4.1.4 Sensitivity

The PQLGs for each analyte are listed in Worksheet #15 of the UFP-SAP (Tetra Tech, 2010). Analytical sensitivity for the Skeet Range data was satisfactory to meet the DQOs presented in the UFP-SAP, except for dibenzo(a,h)anthracene. All nondetected dibenzo(a,h)anthracene results exceeded the PAL. It was known prior to sampling that the PAL for dibenzo(a,h)anthracene could not be met by the laboratory. The uncertainty in reporting dibenzo(a,h)anthracene results to the laboratory MDL is not expected to impact the data quality. The nondetected results for indeno(1,2,3-cd)pyrene in samples SR-SS-E1-02 and SR-SS-G1-02 exceeded the PAL due to a dilution for several PAHs. Two sample results exceeding the PAL for indeno(1,2,3-cd)pyrene should not have an impact on data quality.

5.4.1.5 Field and Laboratory Accuracy

FBL results were qualified because of LCS, MS, surrogate, internal standard, and calibration noncompliances. These noncompliances resulted in the qualification of data and are considered to be acceptable for risk assessment. Overall, the laboratory accuracy was acceptable and no data were rejected. There were no quality control deficiencies noted for field accuracy.

5.4.1.6 Field and Laboratory Precision

FBL results were qualified for several metals and PAHs because of percent differences greater than 50 percent. The lack of sample homogeneity could result in a greater uncertainty for several samples but the overall field duplicate precision was acceptable. There were no quality control deficiencies noted for the field precision in the Skeet Range data.

5.4.1.7 Comparability

No comparability issues were noted for the Skeet Range during the data validation process.

5.4.1.8 Representativeness

The UFP-SAP (Tetra Tech, 2010) and the use of standardized sampling, sample handling, sample analysis, and data reporting procedures were designed so that the final data would be accurate representations of actual site conditions. Based upon the field logs indicating the conditions during sample collection and FBL audits, all reported data are adequately representative of site conditions at the Skeet Range.

5.5 CORRELATION BETWEEN FIELD X-RAY FLUORESCENCE ANALYSIS AND FIXED-BASE LABORATORY ANALYSIS

From the samples that were analyzed in the field using XRF and also at the FBL, a regression analysis was conducted to evaluate the correlation between the FBL and the XRF lead results. To evaluate the regression analysis, the Pearson Correlation and the R-squared value were calculated. The Pearson Correlation is a measure of the strength of the linear relationship between two or more variables with a range of -1 to +1. The value of -1 represents a perfect negative correlation (as one variable decreases the other increases proportionally); whereas, a value of +1 represents a perfect positive correlation (as one variable increases the other increases proportionally). A value of 0 represents a lack of correlation.

The scatterplot of the XRF and FBL lead concentrations for NASWF Skeet Range is provided in **Appendix E**. The majority of the concentrations were less than 200 mg/kg. The correlation between the XRF and FBL concentrations is 0.96 while the R^2 value is 0.93 indicating a strong trend between the XRF and FBL data. However, there were two samples that had concentrations greater than 368 mg/kg. These concentrations do not follow the same general linear trend as the rest of the samples. The correlation between the XRF and FBL concentrations without these two concentrations (i.e., potential outliers) is 0.81 and the corresponding R^2 value is 0.66. The correlation indicates a strong linear relationship. The correlation between the XRF and FBL is acceptable as outlined by the UFP-SAP. FBL concentrations can be predicted from XRF concentrations ranging from non-detect to 136 mg/kg using the following equation:

$$FBL = 8.9 + 0.57*XRF$$

Table 5-2 presents the samples that were used in the correlation analysis and includes the average field XRF lead concentration and the associated FBL lead concentration, where applicable. **Table 5-2** also presents the predicted FBL lead concentration for those samples not analyzed at the FBL. The regression analysis is included in **Appendix E**.

5.6 DATA COMPARISON TO PROJECT ACTION LIMITS

5.6.1 Identification of Chemicals Exceeding Project Action Limits

Twenty-two of the 76 soil samples collected from the Skeet Range were shipped to the FBL for select metals analysis, representing a range of lead concentrations as determined by field screening. **Table 5-3** summarizes the analytical results as compared to the calculated screening values (PALs). If a parameter exceeded the PAL at any sampling point, the parameter was highlighted.

5.6.1.1 Lead

Lead was detected in only one soil sample at the Skeet Range; SR-SS-FS-01 had a concentration of 455 mg/kg, exceeding the FBL lead PAL of 400 mg/kg (Table 5-3).

5.6.1.2 Other Metals

Twenty-two samples were selected from the Skeet Range to undergo select metals analysis at the FBL. Samples were chosen from locations providing an overall coverage of the investigation area. A

comparison of the FBL analytical results to the PALs listed in Worksheet #15 of the UFP-SAP (Tetra Tech, 2010). Below is a description of the select metals FBL results:

Antimony

Although antimony was detected at the Skeet Range, all concentrations were well below the antimony PAL of 27 mg/kg (Table 5-3).

Arsenic

Arsenic was detected in several samples analyzed at the FBL for the Skeet Range. One sample SR-SS-AO-01 and the duplicate of that sample had concentrations of 5.91 and 6.49 mg/kg, respectively, exceeding the arsenic PAL of 3.2 mg/kg (Table 5-3).

Arsenic is detected frequently across Whiting Field in both surface and subsurface samples analyzed for TAL inorganics. In some cases, arsenic is found at concentrations exceeding primary or secondary FDEP criteria. Based on a review of observed arsenic values in surface and subsurface soils across NAS Whiting Field and surrounding outlying fields, slightly elevated arsenic values have also been determined to be naturally occurring when no facility activity has been identified as a potential cause of the elevated concentrations (FDEP, 2001) (Tetra Tech, 2005).

Copper

Although copper was detected at the Skeet Range, all concentrations were well below the copper PAL of 150 mg/kg (Table 5-3).

Tin

Tin was not detected in any of the 22 samples analyzed for metals at the FBL for the Skeet Range.

Zinc

Although zinc was detected at the Skeet Range, all concentrations were well below the zinc PAL of 26,000 mg/kg (Table 5-3).

5.6.1.3 PAHs

Twenty-six samples were chosen from the Skeet Range to undergo select PAH analysis at the FBL. Samples were selected from locations predetermined and described in the UFP-SAP (Tetra Tech 2010). A comparison of the FBL analytical results to the PALs can be found listed in Worksheet #15 of the UFP-SAP. The number of PAH soil sample exceedances of PALs (excluding duplicates, unless it is the only detection) and concentration ranges from minimum to maximum of all detections are summarized below:

- Fourteen for BaP equivalent with detections ranging from 0.317 to 32.22 mg/kg (PAL: 0.1 mg/kg),
- Fourteen for benzo(a)anthracene with detections ranging from 0.075 to 18 mg/kg (PAL: 0.15 mg/kg),
- Fourteen for benzo(a)pyrene with detections ranging from 0.241 to 22.9 mg/kg (PAL: 0.1 mg/kg),
- Fourteen for benzo(b)fluoranthene with detections ranging from 0.329 to 17.4 mg/kg (PAL: 0.15 mg/kg),
- Four for benzo(k)fluoranthene with detections ranging from to 0.05 to 7.9 mg/kg (PAL: 1.5 mg/kg),
- Three for chrysene with detections ranging from 0.112 to 27.5 mg/kg (PAL: 15.0 mg/kg),
- Four for dibenzo(a,h)anthracene with detections ranging from 0.351 to 4.42 mg/kg (PAL: 0.015 mg/kg), and
- Eight for indeno(1,2,3-cd)pyrene with detections ranging from 0.261 to 12.6 mg/kg (PAL: 0.15 mg/kg).

Figure 5-3 presents all BaP equivalent exceedences at the Skeet Range.

5.6.1.4 SPLP

SPLP is useful in determining whether a potentially contaminated material, left in situ, will leach toxic substances into local groundwater when exposed to normal weathering.

Four samples from the Skeet Range (SR-SS-E7-02, SR-SS-F5-02, SR-SS-F5-02-D, SR-SS-J1-01, and SR-SS-L2-02) were shipped to the FBL for SPLP metals analysis. The samples were chosen from the sample locations exhibiting a range (high to low) of XRF lead concentrations. These soil samples had

XRF screening detections of arsenic, copper, lead, antimony, and zinc. Soil sample SR-SS-F5-02 (6- to 24-inch bgs) exhibited a lead concentration of 73.3 mg/kg, which is below the FBL PAL of 400 mg/kg. The highest XRF lead concentration at the Skeet Range sent to the FBL for SPLP (SR-SS-F5-02) was 135 ppm and its respective SPLP for lead was 66.4 µg/L. Analysis of the duplicate sample of SR-SS-F5-02 revealed SPLP exceedances for antimony of 6.81 µg/L relative to the PAL of 6.0 µg/L, and an exceedance of 2,000 µg/L of lead relative to the PAL of 15 µg/L, indicating a potential for leachate mobility in the soil.

SPLP results are included on **Figure 5-2** along with the corresponding FBL lead concentration.

5.6.1.5 Soil Parameters

Four soil samples, determined to be uncontaminated with lead via XRF, were chosen from the Skeet Range and shipped to the FBL for TOC, CEC, and pH analysis. This soil parameter data is useful in determining MC environmental fate and transport, if contamination is detected. The soil samples SR-SS-A0-01, SR-SS-G2-01, SR-SS-G4-02, and SR-SS-L2-02 had a CEC of 4.22, 3.28, 7.86, and 2.4 MEQ/100, TOCs of 6,180, 6,060, 2,520, and 3,850 mg/kg, and pH was 5.94, 5.44, 4.93, and 5.66 S.U., respectively. The CEC value was qualified “J” indicating that the associated numerical result is not a precise representation of the concentration that is actually present in the sample. The laboratory reported concentration is considered to be an estimate of the true concentration.

5.7 UPDATED CONCEPTUAL SITE MODEL

A key element of the CSM is the exposure pathway analysis. For MC, a complete or potentially complete exposure pathway must include the following components: 1) a source (e.g., locations where MC are expected to be found); 2) an exposure medium (e.g., surface soil); 3) an exposure route (e.g., dermal contact); and 4) receptors (e.g., Navy personnel, construction workers, recreational users, authorized visitors). If the point of exposure is not at the same location as the source, the pathway may also include a release mechanism (e.g., erosion) and a transport medium (e.g., surface water).

Figure 5-4 provides a graphical representation of the current understanding of the Skeet Range. The figure identifies the exposure pathways where site receptors could come in contact with, or be impacted by, MC. **Figure 5-5** presents a three-dimensional depiction of the CSM for a typical skeet range. Based on the analytical information obtained during the SI, MC does exist at the site.

Human receptors could potentially come into contact with, or remove soil from the site that was impacted by MC. Potential receptors include Navy and civilian personnel (e.g., security), authorized contractors, visitors, trespassers, and future residents.

Since the primary MC of concern at the Skeet Range includes metals (i.e., lead), and inhalation due to volatilization is not a concern, an incomplete pathway exists for all potential receptors through this exposure route. The site is wooded and may contain game; therefore, a complete exposure pathway does exist for the visitor/trespasser and future resident.

MC may migrate from soil to surface water/sediment through surface water runoff. Additionally, the shallow groundwater present on the site may discharge to surface water such as wetlands within the area. Potential receptors include authorized Navy personnel and contractors working in the area. Visitors/trespassers and future residents may also come into contact with surface water/sediment at the site. Complete exposure pathways exist for these receptors via incidental ingestion and dermal contact.

Soil also represents a source medium when considering release mechanisms such as groundwater contamination via leaching. MC contamination of groundwater via leaching mechanisms may occur; however, no activities are conducted at the site that would result in contact with groundwater. The depth to groundwater is approximately 90 to 100 feet bgs. The depth to groundwater would make contact during site activities like silviculture unlikely. Because there are no human receptors identified for groundwater on, or downgradient of the site, exposure pathways are considered to be incomplete for all receptors. Also, the SPLP analysis indicated that this pathway is of concern. A complete exposure pathway does exist via ingestion and dermal contact for the potential future resident who may install wells at the site.

Although detected at the site, metals (i.e. lead) concentrations were very low. The mechanism for exposure to surface soil for Navy personnel would be maintenance of the dirt roadway that runs through the facility. For contractors, the potential mechanism for exposure would likely be involved in any vegetation clearing conducted at the site. Visitors/trespassers could come into contact with surface soil at the range. Future residents would also come into contact with the surface soil. Complete exposure pathways exist for all receptors via ingestion, inhalation (dust), and dermal contact.

Any MC in the surface soil has the potential to migrate to subsurface soil via leaching mechanisms. Contractors involved in silviculture activities may use earthmoving equipment around the site, subjecting themselves to the subsurface soil. Future residents may also be subjected to subsurface soil. Therefore, complete exposure pathways exist for these receptors via incidental ingestion, dermal contact, and

inhalation of dust. Navy personnel and site visitors/trespassers are unlikely to come in contact with MC in the subsurface soil, since no intrusive activities at the range would be conducted by these groups. Therefore, exposure pathways are incomplete for these receptors.

5.8 CONCLUSIONS

Seventy-six soil samples were collected from 38 locations at depths of 0- to 6- and 6- to 24-inches bgs at the Skeet Range. All samples underwent field XRF analysis for lead and 22 of the samples were subsequently shipped to the FBL for select metals analyses. Two of the 76 soil samples analyzed in the field with XRF at the Skeet Range had average lead concentrations exceeding the field PAL of 200 mg/kg. One of the 22 samples shipped to the FBL had lead concentrations greater than the PAL of 400 mg/kg.

Arsenic was detected in one of the 22 samples sent to FBL at concentrations above its respective PAL of 3.2 mg/kg.

Twenty-six samples were selected from the Skeet Range to undergo PAH analyses at the FBL, and 18 of the samples had PAL exceedances. The calculated BaP equivalent for 12 of the 30 samples also exceeded the PAL of 0.1 mg/kg.

Four samples from the Skeet Range were shipped to the FBL for SPLP metals analysis. The samples were chosen from the sample locations exhibiting a range (high to low) of XRF lead concentrations. Soil samples had detections of arsenic, copper, lead, antimony, and zinc. Only soil sample SR-SS-F5-02 (6 to 24 inch bgs) exceeded the lead PAL of 15 µg/L. The highest XRF lead concentration at the Skeet Range sent to the FBL for SPLP (SR-SS-F5-02) was 135 ppm and its respective SPLP for lead was 66.4 µg/L.

5.9 RECOMMENDATIONS

The purpose of the SI is to identify possible contaminant releases that require further investigation or pose a threat to human health and the environment. Sites that require further investigation and pose an unacceptable risk to human health and the environment may be designated as RI sites. Sites that do not require further investigation and do not pose an unacceptable risk to human health and the environment may be designated as NFA sites.

One of 22 samples analyzed at the FBL for lead resulted in an exceedance of the PAL for lead. The average lead concentrations for samples collected from the 0- to 6-inch bgs, solely using the FBL concentrations and the combined FBL analyses and predicted FBL concentrations, was well below the PAL of 400 mg/kg for lead.

Eighteen samples analyzed for PAHs had PAL exceedances. The calculated BaP equivalent for 12 of the 26 samples exceeded the PAL. In addition, the exposure concentration represented by the 95 percent UCL of the mean for the BaP equivalent was significantly greater than the PAL or residential SCTL of 0.1 mg/kg.

Of the four samples that underwent FBL SPLP metals analysis, only one exceeded the lead PAL of 15 µg/L.

Based on the results of the SI at the Skeet Range, an RI is recommended per the preliminary goals outlined in the UFP-SAP. Because the site does contain soil with exceedances of screening criteria, it is recommended that soil samples exceeding the lead SCTL be further investigated, SPLP data be further delineated vertically, PAH contamination be further delineated vertically and horizontally, and potential risks from exposure to PAHs and lead be determined. Groundwater sampling may be required pending SPLP and other data.

TABLE 5-1

SAMPLE COLLECTION AND ANALYSIS SUMMARY
SKEET RANGE
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

		SAMPLE METHOD	SAMPLE DEPTH	XRF (LEAD)	SELECT METALS (SW846-6010B)	PAH (SW 846-8270)	Ph, CEC, TOC	SPLP
SR-SS-A0-01	4/27/2010	HA	0 to 0.5	X	X	X	X	
SR-SS-A0-02	4/27/2010	HA	0.5 to 2.0	X	X	X		
SR-SS-A1-01	4/27/2010	HA	0 to 0.5	X		X		
SR-SS-A1-02	4/27/2010	HA	0.5 to 2.0	X	X	X		
SR-SS-C1-01	4/27/2010	HA	0 to 0.5	X		X		
SR-SS-C1-02	4/27/2010	HA	0.5 to 2.0	X		X		
SR-SS-C2-01	4/27/2010	HA	0 to 0.5	X	X	X		
SR-SS-C2-02	4/27/2010	HA	0.5 to 2.0	X		X		
SR-SS-C3-01	4/27/2010	HA	0 to 0.5	X				
SR-SS-C3-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-C5-01	4/27/2010	HA	0 to 0.5	X				
SR-SS-C5-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-D5-01	4/27/2010	HA	0 to 0.5	X	X			
SR-SS-D5-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-E1-01	4/27/2010	HA	0 to 0.5	X	X	X		
SR-SS-E1-02	4/27/2010	HA	0.5 to 2.0	X		X		
SR-SS-E2-01	4/27/2010	HA	0 to 0.5	X				
SR-SS-E2-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-E3-01	4/27/2010	HA	0 to 0.5	X				
SR-SS-E3-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-E4-01	4/27/2010	HA	0 to 0.5	X	X			
SR-SS-E4-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-E5-01	4/27/2010	HA	0 to 0.5	X				
SR-SS-E5-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-E6-01	4/27/2010	HA	0 to 0.5	X				
SR-SS-E6-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-E7-01	4/27/2010	HA	0 to 0.5	X				
SR-SS-E7-02	4/27/2010	HA	0.5 to 2.0	X	X			X
SR-SS-F5-01	4/27/2010	HA	0 to 0.5	X	X			
SR-SS-F5-02	4/27/2010	HA	0.5 to 2.0	X	X			X
SR-SS-G1-01	4/27/2010	HA	0 to 0.5	X	X	X		
SR-SS-G1-02	4/27/2010	HA	0.5 to 2.0	X	X	X		
SR-SS-G2-01	4/27/2010	HA	0 to 0.5	X		X	X	
SR-SS-G2-02	4/27/2010	HA	0.5 to 2.0	X		X		
SR-SS-G2.5-01	4/27/2010	HA	0 to 0.5	X		X		
SR-SS-G2.5-02	4/27/2010	HA	0.5 to 2.0	X		X		
SR-SS-G3-01	4/27/2010	HA	0 to 0.5	X	X			
SR-SS-G3-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-G4-01	4/27/2010	HA	0 to 0.5	X	X			
SR-SS-G4-02	4/27/2010	HA	0.5 to 2.0	X	X		X	

TABLE 5-1

SAMPLE COLLECTION AND ANALYSIS SUMMARY
SKEET RANGE
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

		SAMPLE METHOD	SAMPLE DEPTH	XRF (LEAD)	SELECT METALS (SW846-6010B)	PAH (SW 846-8270)	Ph, CEC, TOC	SPLP
SR-SS-G5-01	4/27/2010	HA	0 to 0.5	X				
SR-SS-G5-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-G6-01	4/27/2010	HA	0 to 0.5	X	X			
SR-SS-G6-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-G7-01	4/27/2010	HA	0 to 0.5	X	X			
SR-SS-G7-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-H5-01	4/27/2010	HA	0 to 0.5	X				
SR-SS-H5-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-J1-01	4/27/2010	HA	0 to 0.5	X	X			X
SR-SS-J1-02	4/27/2010	HA	0.5 to 2.0	X		X		
SR-SS-J2-01	4/27/2010	HA	0 to 0.5	X		X		
SR-SS-J2-02	4/27/2010	HA	0.5 to 2.0	X		X		
SR-SS-J3-01	4/27/2010	HA	0 to 0.5	X				
SR-SS-J3-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-J4-01	4/27/2010	HA	0 to 0.5	X				
SR-SS-J4-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-J5-01	4/27/2010	HA	0 to 0.5	X				
SR-SS-J5-01	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-J6-01	4/27/2010	HA	0 to 0.5	X	X			
SR-SS-J6-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-J7-01	4/27/2010	HA	0 to 0.5	X				
SR-SS-J7-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-K5-01	4/27/2010	HA	0 to 0.5	X				
SR-SS-K5-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-L1-01	4/27/2010	HA	0 to 0.5	X	X	X		
SR-SS-L1-02	4/27/2010	HA	0.5 to 2.0	X		X		
SR-SS-L2-01	4/27/2010	HA	0 to 0.5	X		X		
SR-SS-L2-02	4/27/2010	HA	0.5 to 2.0	X		X		X
SR-SS-L3-01	4/27/2010	HA	0 to 0.5	X				
SR-SS-L3-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-L5-01	4/27/2010	HA	0 to 0.5	X				
SR-SS-L5-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-N1-01	4/27/2010	HA	0 to 0.5	X				
SR-SS-N1-02	4/27/2010	HA	0.5 to 2.0	X				
SR-SS-DS01	4/27/2010	HA	0 to 0.5	X	X	X		
SR-SS-DS02	4/27/2010	HA	0 to 0.5	X	X	X		

mg/kg = milligram per kilogram
NA = Not applicable
ND = Not detected
ppm = parts per million
XRF = X-ray flourescence
- = indicates sample was not selected for analysis at the FBL

Note: When lead is not detected in a sample analyzed with the XRF, 3.5 ppm is used as the default concentration which is one-half of the XRF reporting limit (7.0).

TABLE 5-2

XRF AND FBL SURFACE SOIL MC LEAD DETECTIONS
SKEET RANGE
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

SAMPLE ID	SAMPLE DATE	XRF ANALYSIS					FBL ANALYSIS	PREDICTED FBL VALUE
		DATE	1st (ppm)	2nd (ppm)	3rd (ppm)	Avg (ppm)	Lead (mg/kg)	Lead (mg/kg)
SR-SS-A0-01	4/27/2010	4/27/2010	13	ND	ND	11.00	9.56	NA
SR-SS-A0-02	4/27/2010	4/27/2010	ND	ND	ND	10.00	-	14.6
SR-SS-A1-01	4/27/2010	4/27/2010	ND	ND	ND	10.00	-	14.60
SR-SS-A1-02	4/27/2010	4/27/2010	12	ND	ND	10.67	12.40	NA
SR-SS-C1-01	4/27/2010	4/28/2010	12	9	8	9.67	-	14.40
SR-SS-C1-02	4/27/2010	4/28/2010	ND	ND	ND	10.00	-	14.60
SR-SS-C2-01	4/27/2010	4/28/2010	4	ND	3	5.67	3.10	NA
SR-SS-C2-02	4/27/2010	4/28/2010	ND	1	ND	7.00	-	12.90
SR-SS-C3-01	4/27/2010	4/28/2010	5	ND	2	5.67	-	12.10
SR-SS-C3-02	4/27/2010	4/28/2010	ND	3	ND	7.67	-	13.10
SR-SS-C5-01	4/27/2010	4/28/2010	2	2	5	3.00	-	10.60
SR-SS-C5-02	4/27/2010	4/28/2010	31	88	90	69.67	-	48.60
SR-SS-D5-01	4/27/2010	4/28/2010	45	40	41	42.00	51.00	NA
SR-SS-D5-02	4/27/2010	4/28/2010	3	8	2	4.33	-	11.40
SR-SS-E1-01	4/27/2010	4/27/2010	26	38	39	34.33	34.00	NA
SR-SS-E1-02	4/27/2010	4/27/2010	ND	ND	ND	10.00	-	14.60
SR-SS-E2-01	4/27/2010	4/27/2010	ND	ND	ND	10.00	-	14.60
SR-SS-E2-02	4/27/2010	4/27/2010	ND	ND	ND	10.00	-	14.60
SR-SS-E3-01	4/27/2010	4/28/2010	10	18	4	10.67	-	15.00
SR-SS-E3-02	4/27/2010	4/28/2010	ND	ND	3	7.67	-	13.30
SR-SS-E4-01	4/27/2010	4/28/2010	197	101	91	129.67	60.50	NA
SR-SS-E4-02	4/27/2010	4/28/2010	18	67	13	32.67	-	27.50
SR-SS-E5-01	4/27/2010	4/28/2010	32	47	33	37.33	-	30.20
SR-SS-E5-02	4/27/2010	4/28/2010	16	11	22	16.33	-	18.20
SR-SS-E6-01	4/27/2010	4/27/2010	32	27	38	32.33	-	27.30
SR-SS-E6-02	4/27/2010	4/27/2010	43	47	23	37.67	-	30.40
SR-SS-E7-01	4/27/2010	4/28/2010	93	102	80	91.67	-	61.20
SR-SS-E7-02	4/27/2010	4/28/2010	127	74	67	89.33	37.90	NA
SR-SS-F5-01	4/27/2010	4/28/2010	454	461	2579	1164.67	455.00	NA
SR-SS-F5-02	4/27/2010	4/28/2010	124	164	118	135.33	73.30	NA
SR-SS-G1-01	4/27/2010	4/28/2010	19	8	22	16.33	17.30	NA
SR-SS-G1-02	4/27/2010	4/28/2010	ND	3	ND	7.67	5.45	NA
SR-SS-G2-01	4/27/2010	4/28/2010	9	ND	2	7.00	-	12.90
SR-SS-G2-02	4/27/2010	4/27/2010	ND	ND	ND	10.00	-	14.60
SR-SS-G2.5-01	4/27/2010	4/27/2010	13	12	ND	11.67	-	15.60
SR-SS-G2.5-02	4/27/2010	4/27/2010	ND	ND	ND	10.00	-	14.60
SR-SS-G3-01	4/27/2010	4/28/2010	28	14	18	20.00	25.40	NA
SR-SS-G3-02	4/27/2010	4/28/2010	9	ND	6	8.33	-	13.60
SR-SS-G4-01	4/27/2010	4/28/2010	19	12	19	16.67	29.00	NA
SR-SS-G4-02	4/27/2010	4/28/2010	4	1	ND	5.00	7.34	NA

TABLE 5-2

XRF AND FBL SURFACE SOIL MC LEAD DETECTIONS
SKEET RANGE
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

SAMPLE ID	SAMPLE DATE	XRF ANALYSIS					FBL ANALYSIS	PREDICTED FBL VALUE
		DATE	1st (ppm)	2nd (ppm)	3rd (ppm)	Avg (ppm)	Lead (mg/kg)	Lead (mg/kg)
SR-SS-G5-01	4/27/2010	4/28/2010	ND	ND	ND	10.00	-	14.60
SR-SS-G5-02	4/27/2010	4/28/2010	ND	5	6	7.00	-	12.90
SR-SS-G6-01	4/27/2010	4/28/2010	273	392	440	368.33	259.00	NA
SR-SS-G6-02	4/27/2010	4/28/2010	6	14	16	12.00	-	15.70
SR-SS-G7-01	4/27/2010	4/28/2010	71	57	36	54.67	94.10	NA
SR-SS-G7-02	4/27/2010	4/28/2010	19	10	8	12.33	-	15.90
SR-SS-H5-01	4/27/2010	4/28/2010	8	3	11	7.33	-	13.10
SR-SS-H5-02	4/27/2010	4/28/2010	14	38	3	18.33	-	19.30
SR-SS-J1-01	4/27/2010	4/27/2010	ND	20	16	15.33	11.70	NA
SR-SS-J1-02	4/27/2010	4/28/2010	ND	9	2	7.00	-	12.90
SR-SS-J2-01	4/27/2010	4/27/2010	ND	ND	ND	10.00	-	14.6
SR-SS-J2-02	4/27/2010	4/28/2010	3	12	2	5.67	-	12.10
SR-SS-J3-01	4/27/2010	4/28/2010	2	ND	ND	7.33	-	13.10
SR-SS-J3-02	4/27/2010	4/27/2010	ND	ND	ND	10.00	-	14.60
SR-SS-J4-01	4/27/2010	4/28/2010	28	26	32	28.67	-	25.20
SR-SS-J4-02	4/27/2010	4/28/2010	8	13	6	9.00	-	14.00
SR-SS-J5-01	4/27/2010	4/28/2010	11	12	6	9.67	-	14.40
SR-SS-J5-01	4/27/2010	4/28/2010	5	ND	7	7.33	-	13.10
SR-SS-J6-01	4/27/2010	4/28/2010	111	126	118	118.33	104.00	NA
SR-SS-J6-02	4/27/2010	4/28/2010	6	7	4	5.67	-	12.00
SR-SS-J7-01	4/27/2010	4/27/2010	ND	13	ND	11.00	-	15.20
SR-SS-J7-02	4/27/2010	4/28/2010	ND	ND	ND	10.00	-	14.60
SR-SS-K5-01	4/27/2010	4/27/2010	100	90	87	92.33	-	61.50
SR-SS-K5-02	4/27/2010	4/28/2010	10	8	9	9.00	-	14.00
SR-SS-L1-01	4/27/2010	4/28/2010	18	23	20	20.33	2.77	NA
SR-SS-L1-02	4/27/2010	4/28/2010	ND	ND	2	7.33	-	13.10
SR-SS-L2-01	4/27/2010	4/27/2010	22	27	33	27.33	-	24.50
SR-SS-L2-02	4/27/2010	4/27/2010	ND	ND	ND	10.00	3.04	NA
SR-SS-L3-01	4/27/2010	4/28/2010	ND	2	ND	7.33	-	20.50
SR-SS-L3-01	4/27/2010	4/28/2010	8	ND	ND	9.33	-	14.60
SR-SS-L5-01	4/27/2010	4/27/2010	34	17	ND	20.33	-	12.70
SR-SS-L5-02	4/27/2010	4/27/2010	ND	ND	ND	10.00	-	11.80
SR-SS-N1-01	4/27/2010	4/28/2010	0	ND	ND	6.67	-	13.10
SR-SS-N1-02	4/27/2010	4/28/2010	1	ND	4	5.00	-	14.20

mg/kg = milligram per kilogram
NA = Not applicable
ND = Not detected
ppm = parts per million
XRF = X-ray flourescence
- = indicates sample was not selected for analysis at the FBL

Note: When lead is not detected in a sample analyzed with the XRF, 3.5 ppm is used as the default concentration which is one-half of the XRF reporting limit (7.0).

TABLE 5-3

FBL SURFACE SOIL MC METALS AND PAH DETECTIONS
SKEET RANGE
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

LOCATION			SR-SB-A0				SR-SB-A1		SR-SB-C1	
SAMPLE ID	Project		SR-SS-A0-01	SR-SS-A0-01-AVG	SR-SS-A0-01-DUP	SR-SS-A0-02	SR-SS-A1-01	SR-SS-A1-02	SR-SS-C1-01	SR-SS-C1-02
SAMPLE DATE	Action		20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
TOP DEPTH	Limit		0	0	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH			0.5	0.5	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)										
ACENAPHTHENE	2400	[1]	0.0281 U	0.02815 U	0.0282 U	0.0282 U	0.0275 U	0.0272 U	0.105 J	0.0274 U
ANTHRACENE	21000	[1]	0.0292 U	0.02925 U	0.0293 U	0.0293 U	0.0285 U	0.0283 U	0.0838 J	0.0285 U
BAP EQUIVALENT	0.1	[2]	**0.317**	**0.385**	**0.453**	0.0249 U	0.0243 U	0.0241 U	**2.0262**	**0.4391**
BENZO(A)ANTHRACENE	0.15	[3]	0.0755 J	0.11675 J	**0.158 J**	0.0391 U	0.0381 U	0.0377 U	**0.932**	**0.18 J**
BENZO(A)PYRENE	0.1	[2]	**0.241 J**	**0.3005 J**	**0.36**	0.0249 U	0.0243 U	0.0241 U	**1.35**	**0.325 J**
BENZO(B)FLUORANTHENE	0.15	[3]	**0.332 J**	**0.372 J**	**0.412**	0.0347 U	0.0338 U	0.0335 U	**1.34**	**0.376**
BENZO(G,H,I)PERYLENE	2500	[1]	0.209 J	0.225 J	0.241 J	0.0759 UJ	0.074 U	0.0733 U	0.95	0.255 J
BENZO(K)FLUORANTHENE	1.5	[3]	0.0422 U	0.04505 J	0.069 J	0.0423 U	0.0412 U	0.0409 U	0.531	0.05 J
CHRYSENE	15	[3]	0.112 J	0.18 J	0.248 J	0.0336 U	0.0328 U	0.0325 U	1.35	0.284 J
DIBENZO(A,H)ANTHRACENE	0.015	[3]	0.0649 U	0.065 U	0.0651 U	0.0651 UJ	0.0634 U	0.0629 U	**0.351**	0.0632 U
FLUORANTHENE	3200	[1]	0.0584 U	0.0701 J	0.111 J	0.0586 U	0.0571 U	0.0566 U	0.903	0.0791 J
INDENO(1,2,3-CD)PYRENE	0.15	[3]	0.0497 U	0.0498 U	0.0499 U	0.0499 UJ	0.0486 U	0.0482 U	**0.913**	**0.261 J**
PHENANTHRENE	2200	[1]	0.0249 U	0.040475 J	0.0685 J	0.0249 U	0.0243 U	0.0241 U	0.377	0.0575 J
PYRENE	2400	[1]	0.108 J	0.1845 J	0.261 J	0.0434 U	0.0423 U	0.0419 U	1.3	0.249 J
METALS (MG/KG)										
ANTIMONY	27	[4]	0.266 UJ	0.268 UJ	0.27 U	NA	NA	0.261 UJ	NA	NA
ARSENIC	3.2	[5]	**5.91**	**6.2**	**6.49**	NA	NA	0.783	NA	NA
COPPER	150	[4]	2.81	2.82	2.83	NA	NA	1.92	NA	NA
LEAD	400	[4]	9.56	10.83	12.1	NA	NA	12.4	NA	NA
LEAD-CALC	400	[4]	15.2	15.2	NA	14.6	14.6	15	14.4	14.6
ZINC	26000	[4]	7.72	7.9 J	8.08 J	NA	NA	2.59	NA	NA
SPLP METALS (UG/L)										
ALUMINUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	6	[6]	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	50	[6]	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
COPPER	100	[7]	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NC		NA	NA	NA	NA	NA	NA	NA	NA
LEAD	15	[6]	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NC		NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NC		NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
ZINC	500	[7]	NA	NA	NA	NA	NA	NA	NA	NA
XRF (MG/KG)										
LEAD	200	[4]	11	11	NA	10 U	10 U	10.67	9.67	10 U
MISCELLANEOUS PARAMETERS (MEQ/100)										
CATION EXCHANGE CAPACITY	NC		4.22 J	3.66 J	3.1 J	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)										
TOTAL ORGANIC CARBON	NC		6180	6235	6290	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)										
PH	NC		5.94	5.645	5.35	NA	NA	NA	NA	NA

TABLE 5-3

FBL SURFACE SOIL MC METALS AND PAH DETECTIONS
SKEET RANGE
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

LOCATION	Project Action Limit	SR-SB-C2		SR-SB-C3		SR-SB-C5		SR-SB-D5	
SAMPLE ID		SR-SS-C2-01	SR-SS-C2-02	SR-SS-C3-01	SR-SS-C3-02	SR-SS-C5-01	SR-SS-C5-02	SR-SS-D5-01	SR-SS-D5-02
SAMPLE DATE		20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
TOP DEPTH		0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH		0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)									
ACENAPHTHENE	2400 [1]	0.0273 U	0.0269 U	NA	NA	NA	NA	NA	NA
ANTHRACENE	21000 [1]	0.0283 U	0.0279 U	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	0.1 [2]	0.0241 U	0.0238 U	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.15 [3]	0.0378 U	0.0372 U	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	0.1 [2]	0.0241 U	0.0238 U	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.15 [3]	0.0336 U	0.0331 U	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	2500 [1]	0.0735 U	0.0723 U	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	1.5 [3]	0.0409 U	0.0403 U	NA	NA	NA	NA	NA	NA
CHRYSENE	15 [3]	0.0325 U	0.032 U	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015 [3]	0.063 U	0.062 U	NA	NA	NA	NA	NA	NA
FLUORANTHENE	3200 [1]	0.0567 U	0.0558 U	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15 [3]	0.0483 U	0.0475 U	NA	NA	NA	NA	NA	NA
PHENANTHRENE	2200 [1]	0.0241 U	0.0238 U	NA	NA	NA	NA	NA	NA
PYRENE	2400 [1]	0.042 U	0.0413 U	NA	NA	NA	NA	NA	NA
METALS (MG/KG)									
ANTIMONY	27 [4]	0.265 UJ	NA	NA	NA	NA	NA	0.267 UJ	NA
ARSENIC	3.2 [5]	0.981	NA	NA	NA	NA	NA	0.998	NA
COPPER	150 [4]	2.35	NA	NA	NA	NA	NA	2.16	NA
LEAD	400 [4]	3.1	NA	NA	NA	NA	NA	51	NA
LEAD-CALC	400 [4]	12.1	12.9	12.1	13.3	10.6	48.6	32.8	11.4
ZINC	26000 [4]	2.93	NA	NA	NA	NA	NA	2.66	NA
SPLP METALS (UG/L)									
ALUMINUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	6 [6]	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	50 [6]	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	100 [7]	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NC	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	15 [6]	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NC	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NC	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	500 [7]	NA	NA	NA	NA	NA	NA	NA	NA
XRF (MG/KG)									
LEAD	200 [4]	5.67	7	5.67	7.67	3	69.67	42	4.3
MISCELLANEOUS PARAMETERS (MEQ/100)									
CATION EXCHANGE CAPACITY	NC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)									
TOTAL ORGANIC CARBON	NC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)									
PH	NC	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 5-3

FBL SURFACE SOIL MC METALS AND PAH DETECTIONS
SKEET RANGE
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

LOCATION			SR-SB-DS1	SR-SB-DS2	SR-SB-E1		SR-SB-E2		SR-SB-E3	
SAMPLE ID	Project		SR-SB-DS1	SR-SB-DS2	SR-SS-E1-01	SR-SS-E1-02	SR-SS-E2-01	SR-SS-E2-02	SR-SS-E3-01	SR-SS-E3-02
SAMPLE DATE	Action		20100428	20100428	20100427	20100427	20100427	20100427	20100427	20100427
TOP DEPTH	Limit		0	0	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH			0.5	0.5	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)										
ACENAPHTHENE	2400	[1]	0.14 U	0.283 U	0.748 J	0.275 U	NA	NA	NA	NA
ANTHRACENE	21000	[1]	0.146 U	0.294 U	0.99 J	0.285 U	NA	NA	NA	NA
BAP EQUIVALENT	0.1	[2]	**3.6636**	**24.612**	**19.653**	**7.1254**	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.15	[3]	**1.93**	**17.5**	**10.1**	**3.77**	NA	NA	NA	NA
BENZO(A)PYRENE	0.1	[2]	**2.88 J**	**20.9 J**	**13.4**	**6**	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.15	[3]	**2.62 J**	**9.86 J**	**10.7**	**3.97**	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	2500	[1]	2.13 J	11 J	9.84	4.4	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	1.5	[3]	0.574 J	**2.39 J**	**4.05**	0.464 J	NA	NA	NA	NA
CHRYSENE	15	[3]	2.9	**27.5**	**15.3**	5.96	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015	[3]	0.324 UJ	0.652 UJ	**3.35 J**	0.633 U	NA	NA	NA	NA
FLUORANTHENE	3200	[1]	1.02 J	3.97	7.21	0.656	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15	[3]	**1.58 J**	**5.99 J**	**7.67**	0.486 U	NA	NA	NA	NA
PHENANTHRENE	2200	[1]	0.688 J	4.66	4.92	1.2 J	NA	NA	NA	NA
PYRENE	2400	[1]	2.59	23.9	17	5.49	NA	NA	NA	NA
METALS (MG/KG)										
ANTIMONY	27	[4]	0.265 U	0.275 U	0.269 UJ	NA	NA	NA	NA	NA
ARSENIC	3.2	[5]	1.03	0.749	2.21	NA	NA	NA	NA	NA
COPPER	150	[4]	1.89	1.71	2.79	NA	NA	NA	NA	NA
LEAD	400	[4]	2.43	3.32	34	NA	NA	NA	NA	NA
LEAD-CALC	400	[4]	NA	NA	28.5	14.6	14.6	14.6	15	13.3
ZINC	26000	[4]	2.5 J	2.34 J	5.85	NA	NA	NA	NA	NA
SPLP METALS (UG/L)										
ALUMINUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	6	[6]	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	50	[6]	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
COPPER	100	[7]	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NC		NA	NA	NA	NA	NA	NA	NA	NA
LEAD	15	[6]	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NC		NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NC		NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
ZINC	500	[7]	NA	NA	NA	NA	NA	NA	NA	NA
XRF (MG/KG)										
LEAD	200	[4]	NA	NA	34.33	10 U	10 U	10 U	10.67	7.67
MISCELLANEOUS PARAMETERS (MEQ/100)										
CATION EXCHANGE CAPACITY	NC		NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)										
TOTAL ORGANIC CARBON	NC		NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)										
PH	NC		NA	NA	NA	NA	NA	NA	NA	NA

TABLE 5-3

FBL SURFACE SOIL MC METALS AND PAH DETECTIONS
SKEET RANGE
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

LOCATION	Project Action Limit	SR-SB-E4		SR-SB-E5		SR-SB-E6		SR-SB-E7	
SAMPLE ID		SR-SS-E4-01	SR-SS-E4-02	SR-SS-E5-01	SR-SS-E5-02	SR-SS-E6-01	SR-SS-E6-02	SR-SS-E7-01	SR-SS-E7-02
SAMPLE DATE		20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
TOP DEPTH		0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH		0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)									
ACENAPHTHENE	2400 [1]	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	21000 [1]	NA	NA	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	0.1 [2]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.15 [3]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	0.1 [2]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.15 [3]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	2500 [1]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	1.5 [3]	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	15 [3]	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015 [3]	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	3200 [1]	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15 [3]	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	2200 [1]	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	2400 [1]	NA	NA	NA	NA	NA	NA	NA	NA
METALS (MG/KG)									
ANTIMONY	27 [4]	0.277 UJ	NA	NA	NA	NA	NA	NA	0.283 UJ
ARSENIC	3.2 [5]	1.11	NA	NA	NA	NA	NA	NA	2.44
COPPER	150 [4]	2.34	NA	NA	NA	NA	NA	NA	3.77
LEAD	400 [4]	60.5	NA	NA	NA	NA	NA	NA	37.9
LEAD-CALC	400 [4]	82.8	27.5	30.2	18.2	27.3	30.4	61.2	59.8
ZINC	26000 [4]	3.06	NA	NA	NA	NA	NA	NA	6.09
SPLP METALS (UG/L)									
ALUMINUM	NC	NA	NA	NA	NA	NA	NA	NA	58.3 J
ANTIMONY	6 [6]	NA	NA	NA	NA	NA	NA	NA	1.25 U
ARSENIC	50 [6]	NA	NA	NA	NA	NA	NA	NA	0.75 UJ
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA	49.2 J
CALCIUM	NC	NA	NA	NA	NA	NA	NA	NA	523 J
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA	0.5 U
COPPER	100 [7]	NA	NA	NA	NA	NA	NA	NA	1.25 U
IRON	NC	NA	NA	NA	NA	NA	NA	NA	22.4 J
LEAD	15 [6]	NA	NA	NA	NA	NA	NA	NA	7.3 J
MAGNESIUM	NC	NA	NA	NA	NA	NA	NA	NA	347 J
MANGANESE	NC	NA	NA	NA	NA	NA	NA	NA	20.9 J
NICKEL	NC	NA	NA	NA	NA	NA	NA	NA	0.75 U
POTASSIUM	NC	NA	NA	NA	NA	NA	NA	NA	250 U
SODIUM	NC	NA	NA	NA	NA	NA	NA	NA	10200 J
VANADIUM	NC	NA	NA	NA	NA	NA	NA	NA	1.25 U
ZINC	500 [7]	NA	NA	NA	NA	NA	NA	NA	18.3 J
XRF (MG/KG)									
LEAD	200 [4]	129.7	32.67	37.33	16.33	32.33	37.67	91.67	89.33
MISCELLANEOUS PARAMETERS (MEQ/100)									
CATION EXCHANGE CAPACITY	NC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)									
TOTAL ORGANIC CARBON	NC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)									
PH	NC	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 5-3

FBL SURFACE SOIL MC METALS AND PAH DETECTIONS
SKEET RANGE
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

LOCATION			SR-SB-F5				SR-SB-G1		SR-SB-G2	
SAMPLE ID	Project		SR-SS-F5-01	SR-SS-F5-02	SR-SS-F5-02-AVG	SR-SS-F5-02-D	SR-SS-G1-01	SR-SS-G1-02	SR-SS-G2-01	SR-SS-G2-02
SAMPLE DATE	Action		20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
TOP DEPTH	Limit		0	0.5	0.5	0.5	0	0.5	0	0.5
BOTTOM DEPTH			0.5	2	2	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)										
ACENAPHTHENE	2400	[1]	NA	NA	NA	NA	0.277 U	0.137 U	0.0276 U	0.0275 U
ANTHRACENE	21000	[1]	NA	NA	NA	NA	0.288 U	0.142 U	0.0286 U	0.0285 U
BAP EQUIVALENT	0.1	[2]	NA	NA	NA	NA	**11.196**	**1.9745**	0.0244 U	0.0243 U
BENZO(A)ANTHRACENE	0.15	[3]	NA	NA	NA	NA	**4.6**	**0.701 J**	0.0382 U	0.038 U
BENZO(A)PYRENE	0.1	[2]	NA	NA	NA	NA	**6.87**	**1.56 J**	0.0244 U	0.0243 U
BENZO(B)FLUORANTHENE	0.15	[3]	NA	NA	NA	NA	**5.64**	**1.72 J**	0.034 U	0.0338 U
BENZO(G,H,I)PERYLENE	2500	[1]	NA	NA	NA	NA	4.88	1.21 J	0.0743 U	0.0739 U
BENZO(K)FLUORANTHENE	1.5	[3]	NA	NA	NA	NA	**1.84 J**	0.205 U	0.0414 U	0.0412 U
CHRYSENE	15	[3]	NA	NA	NA	NA	8.41	1.24 J	0.0329 U	0.0327 U
DIBENZO(A,H)ANTHRACENE	0.015	[3]	NA	NA	NA	NA	**2.86 J**	0.316 U	0.0637 U	0.0634 U
FLUORANTHENE	3200	[1]	NA	NA	NA	NA	2.06 J	0.284 U	0.0573 U	0.057 U
INDENO(1,2,3-CD)PYRENE	0.15	[3]	NA	NA	NA	NA	**4.15**	0.242 U	0.0488 U	0.0486 U
PHENANTHRENE	2200	[1]	NA	NA	NA	NA	1.69 J	0.121 U	0.0244 U	0.0243 U
PYRENE	2400	[1]	NA	NA	NA	NA	8.48	1.1 J	0.0424 U	0.0422 U
METALS (MG/KG)										
ANTIMONY	27	[4]	0.398 J	0.279 UJ	NA	NA	0.264 UJ	0.259 UJ	NA	NA
ARSENIC	3.2	[5]	2.3	1.49	NA	NA	1.08	0.806	NA	NA
COPPER	150	[4]	3.55	3.04	NA	NA	1.83	1.6	NA	NA
LEAD	400	[4]	**455**	73.3	NA	NA	17.3	5.45	NA	NA
LEAD-CALC	400	[4]	NA	86	NA	NA	18.2	13.3	12.9	14.6
ZINC	26000	[4]	4.84	4.9	NA	NA	2.89	2.94	NA	NA
SPLP METALS (UG/L)										
ALUMINUM	NC		NA	87.8 J	355.9 J	624 J	NA	NA	NA	NA
ANTIMONY	6	[6]	NA	1.66 J	4.235 J	**6.81**	NA	NA	NA	NA
ARSENIC	50	[6]	NA	0.75 UJ	1.1525 J	1.93 J	NA	NA	NA	NA
BARIUM	NC		NA	102 J	158 J	214 J	NA	NA	NA	NA
CALCIUM	NC		NA	708 J	914 J	1120 J	NA	NA	NA	NA
CHROMIUM	NC		NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA
COPPER	100	[7]	NA	1.25 U	1.25 U	1.25 U	NA	NA	NA	NA
IRON	NC		NA	17 J	16.2 J	15.4 J	NA	NA	NA	NA
LEAD	15	[6]	NA	**66.4 J**	**1033.2 J**	**2000 J**	NA	NA	NA	NA
MAGNESIUM	NC		NA	250 U	250 U	250 U	NA	NA	NA	NA
MANGANESE	NC		NA	40.1 J	65.15 J	90.2 J	NA	NA	NA	NA
NICKEL	NC		NA	0.98 J	1.84 J	2.7	NA	NA	NA	NA
POTASSIUM	NC		NA	250 U	250 U	250 U	NA	NA	NA	NA
SODIUM	NC		NA	10100 J	5409 J	718 J	NA	NA	NA	NA
VANADIUM	NC		NA	1.25 U	1.25 U	1.25 U	NA	NA	NA	NA
ZINC	500	[7]	NA	32.9 J	41.1 J	49.3 J	NA	NA	NA	NA
XRF (MG/KG)										
LEAD	200	[4]	**1164.7**	135.3	135.3	NA	16.33	7.67	7	10 U
MISCELLANEOUS PARAMETERS (MEQ/100)										
CATION EXCHANGE CAPACITY	NC		NA	NA	NA	NA	NA	NA	3.28 J	NA
MISCELLANEOUS PARAMETERS (MG/KG)										
TOTAL ORGANIC CARBON	NC		NA	NA	NA	NA	NA	NA	6060	NA
MISCELLANEOUS PARAMETERS (S.U.)										
PH	NC		NA	NA	NA	NA	NA	NA	5.44	NA

TABLE 5-3

FBL SURFACE SOIL MC METALS AND PAH DETECTIONS
SKEET RANGE
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

LOCATION			SR-SB-G2.5		SR-SB-G3		SR-SB-G4		SR-SB-G5	
SAMPLE ID	Project		SR-SS-G2.5-01	SR-SS-G2.5-02	SR-SS-G3-01	SR-SS-G3-02	SR-SS-G4-01	SR-SS-G4-02	SR-SS-G5-01	SR-SS-G5-02
SAMPLE DATE	Action		20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
TOP DEPTH	Limit		0.5	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH			1	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)										
ACENAPHTHENE	2400	[1]	0.0281 U	0.0275 U	NA	NA	NA	NA	NA	NA
ANTHRACENE	21000	[1]	0.0292 U	0.0286 U	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	0.1	[2]	0.0248 U	0.0244 U	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.15	[3]	0.0389 U	0.0381 U	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	0.1	[2]	0.0248 U	0.0244 U	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.15	[3]	0.0346 U	0.0339 U	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	2500	[1]	0.0756 U	0.0741 U	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	1.5	[3]	0.0421 U	0.0413 U	NA	NA	NA	NA	NA	NA
CHRYSENE	15	[3]	0.0335 U	0.0328 U	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015	[3]	0.0648 U	0.0635 U	NA	NA	NA	NA	NA	NA
FLUORANTHENE	3200	[1]	0.0583 U	0.0572 U	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15	[3]	0.0497 U	0.0487 U	NA	NA	NA	NA	NA	NA
PHENANTHRENE	2200	[1]	0.0248 U	0.0244 U	NA	NA	NA	NA	NA	NA
PYRENE	2400	[1]	0.0432 U	0.0423 U	NA	NA	NA	NA	NA	NA
METALS (MG/KG)										
ANTIMONY	27	[4]	NA	NA	0.273 UJ	NA	0.272 UJ	0.262 U	NA	NA
ARSENIC	3.2	[5]	NA	NA	1.08	NA	0.827	0.759	NA	NA
COPPER	150	[4]	NA	NA	2.68	NA	2.29	2.1	NA	NA
LEAD	400	[4]	NA	NA	25.4	NA	29	7.34	NA	NA
LEAD-CALC	400	[4]	15.6	14.6	20.3	13.6	18.4	11.8	14.6	12.9
ZINC	26000	[4]	NA	NA	3.86	NA	3.21	3.33	NA	NA
SPLP METALS (UG/L)										
ALUMINUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	6	[6]	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	50	[6]	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
COPPER	100	[7]	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NC		NA	NA	NA	NA	NA	NA	NA	NA
LEAD	15	[6]	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NC		NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NC		NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NC		NA	NA	NA	NA	NA	NA	NA	NA
ZINC	500	[7]	NA	NA	NA	NA	NA	NA	NA	NA
XRF (MG/KG)										
LEAD	200	[4]	11.67	10 U	20	8.33	16.67	5	10 U	7
MISCELLANEOUS PARAMETERS (MEQ/100)										
CATION EXCHANGE CAPACITY	NC		NA	NA	NA	NA	NA	7.86 J	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)										
TOTAL ORGANIC CARBON	NC		NA	NA	NA	NA	NA	2520	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)										
PH	NC		NA	NA	NA	NA	NA	4.93	NA	NA

TABLE 5-3

FBL SURFACE SOIL MC METALS AND PAH DETECTIONS
SKEET RANGE
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

LOCATION			SR-SB-G6		SR-SB-G7		SR-SB-H5	
SAMPLE ID	Project		SR-SS-G6-01	SR-SS-G6-02	SR-SS-G7-01	SR-SS-G7-02	SR-SS-H5-01	SR-SS-H5-02
SAMPLE DATE	Action		20100427	20100427	20100427	20100427	20100427	20100427
TOP DEPTH	Limit		0	0.5	0	0.5	0	0.5
BOTTOM DEPTH			0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)								
ACENAPHTHENE	2400	[1]	NA	NA	NA	NA	NA	NA
ANTHRACENE	21000	[1]	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	0.1	[2]	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.15	[3]	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	0.1	[2]	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.15	[3]	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	2500	[1]	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	1.5	[3]	NA	NA	NA	NA	NA	NA
CHRYSENE	15	[3]	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015	[3]	NA	NA	NA	NA	NA	NA
FLUORANTHENE	3200	[1]	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15	[3]	NA	NA	NA	NA	NA	NA
PHENANTHRENE	2200	[1]	NA	NA	NA	NA	NA	NA
PYRENE	2400	[1]	NA	NA	NA	NA	NA	NA
METALS (MG/KG)								
ANTIMONY	27	[4]	0.278 J	NA	0.28 U	NA	NA	NA
ARSENIC	3.2	[5]	1.41	NA	1.52	NA	NA	NA
COPPER	150	[4]	2.82	NA	3.09	NA	NA	NA
LEAD	400	[4]	259	NA	94.1	NA	NA	NA
LEAD-CALC	400	[4]	NA	15.7	40.1	15.9	13.1	19.3
ZINC	26000	[4]	4.01	NA	4.52	NA	NA	NA
SPLP METALS (UG/L)								
ALUMINUM	NC		NA	NA	NA	NA	NA	NA
ANTIMONY	6	[6]	NA	NA	NA	NA	NA	NA
ARSENIC	50	[6]	NA	NA	NA	NA	NA	NA
BARIUM	NC		NA	NA	NA	NA	NA	NA
CALCIUM	NC		NA	NA	NA	NA	NA	NA
CHROMIUM	NC		NA	NA	NA	NA	NA	NA
COPPER	100	[7]	NA	NA	NA	NA	NA	NA
IRON	NC		NA	NA	NA	NA	NA	NA
LEAD	15	[6]	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC		NA	NA	NA	NA	NA	NA
MANGANESE	NC		NA	NA	NA	NA	NA	NA
NICKEL	NC		NA	NA	NA	NA	NA	NA
POTASSIUM	NC		NA	NA	NA	NA	NA	NA
SODIUM	NC		NA	NA	NA	NA	NA	NA
VANADIUM	NC		NA	NA	NA	NA	NA	NA
ZINC	500	[7]	NA	NA	NA	NA	NA	NA
XRF (MG/KG)								
LEAD	200	[4]	**368.3**	12	54.67	12.33	7.33	18.33
MISCELLANEOUS PARAMETERS (MEQ/100)								
CATION EXCHANGE CAPACITY	NC		NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)								
TOTAL ORGANIC CARBON	NC		NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)								
PH	NC		NA	NA	NA	NA	NA	NA

TABLE 5-3

FBL SURFACE SOIL MC METALS AND PAH DETECTIONS
SKEET RANGE
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

LOCATION	Project Action Limit		SR-SB-J1				SR-SB-J2		SR-SB-J3	
SAMPLE ID			SR-SS-J1-01	SR-SS-J1-02	SR-SS-J1-02-AVG	SR-SS-J1-02-DUP	SR-SS-J2-01	SR-SS-J2-02	SR-SS-J3-01	SR-SS-J3-02
SAMPLE DATE			20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
TOP DEPTH			0	0.5	0.5	0.5	0	0.5	0	0.5
BOTTOM DEPTH			0.5	2	2	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)										
ACENAPHTHENE	2400	[1]	1.11 J	0.0275 U	0.02745 U	0.0274 U	0.0288 U	0.0291 U	NA	NA
ANTHRACENE	21000	[1]	1.64 J	0.0286 U	0.02855 U	0.0285 U	0.0299 U	0.0302 U	NA	NA
BAP EQUIVALENT	0.1	[2]	**32.224**	**0.3808**	**0.9568**	**1.5328**	**0.3819**	0.0258 U	NA	NA
BENZO(A)ANTHRACENE	0.15	[3]	**18 J**	0.127 J	**0.5475 J**	**0.968 J**	0.128 J	0.0403 U	NA	NA
BENZO(A)PYRENE	0.1	[2]	**22.9 J**	**0.3 J**	**0.8 J**	**1.3 J**	**0.3 J**	0.0258 U	NA	NA
BENZO(B)FLUORANTHENE	0.15	[3]	**17.4 J**	**0.335 J**	**0.477 J**	**0.619 J**	**0.329 J**	0.0358 U	NA	NA
BENZO(G,H,I)PERYLENE	2500	[1]	14.2 J	0.238 J	0.4885 J	0.739 J	0.246 J	0.0784 U	NA	NA
BENZO(K)FLUORANTHENE	1.5	[3]	**7.9 J**	0.0413 U	0.080825 J	0.141 J	0.0432 U	0.0437 U	NA	NA
CHRYSENE	15	[3]	**24.9 J**	0.228 J	0.899 J	1.57 J	0.217 J	0.0347 U	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015	[3]	**4.42 J**	0.0635 U	0.06335 UJ	0.0632 UJ	0.0664 U	0.0672 U	NA	NA
FLUORANTHENE	3200	[1]	12.2 J	0.0572 U	0.05705 U	0.0569 U	0.0598 U	0.0605 U	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15	[3]	**12.6 J**	0.0487 U	**0.2097 J**	**0.395 J**	0.0509 U	0.0515 U	NA	NA
PHENANTHRENE	2200	[1]	8.46 J	0.0244 U	0.1496 J	0.287 J	0.0255 U	0.0258 U	NA	NA
PYRENE	2400	[1]	27.6 J	0.197 J	1.1435 J	2.09 J	0.186 J	0.0448 U	NA	NA
METALS (MG/KG)										
ANTIMONY	27	[4]	0.27 U	NA	NA	NA	NA	NA	NA	NA
ARSENIC	3.2	[5]	0.977	NA	NA	NA	NA	NA	NA	NA
COPPER	150	[4]	1.83	NA	NA	NA	NA	NA	NA	NA
LEAD	400	[4]	11.7	NA	NA	NA	NA	NA	NA	NA
LEAD-CALC	400	[4]	17.6	12.9	12.9	NA	14.6	12.1	13.1	14.6
ZINC	26000	[4]	3.03	NA	NA	NA	NA	NA	NA	NA
SPLP METALS (UG/L)										
ALUMINUM	NC		6980 J	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	6	[6]	1.25 U	NA	NA	NA	NA	NA	NA	NA
ARSENIC	50	[6]	1.38 J	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC		157 J	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NC		9110	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC		17.1	NA	NA	NA	NA	NA	NA	NA
COPPER	100	[7]	1.7 J	NA	NA	NA	NA	NA	NA	NA
IRON	NC		2600	NA	NA	NA	NA	NA	NA	NA
LEAD	15	[6]	14.7 J	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC		1040 J	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NC		30.7 J	NA	NA	NA	NA	NA	NA	NA
NICKEL	NC		1.53 J	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NC		363 J	NA	NA	NA	NA	NA	NA	NA
SODIUM	NC		10200 J	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NC		6.65	NA	NA	NA	NA	NA	NA	NA
ZINC	500	[7]	21.5 J	NA	NA	NA	NA	NA	NA	NA
XRF (MG/KG)										
LEAD	200	[4]	15.33	7	7	NA	10 U	5.67	7.33	10 U
MISCELLANEOUS PARAMETERS (MEQ/100)										
CATION EXCHANGE CAPACITY	NC		NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)										
TOTAL ORGANIC CARBON	NC		NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)										
PH	NC		NA	NA	NA	NA	NA	NA	NA	NA

TABLE 5-3

FBL SURFACE SOIL MC METALS AND PAH DETECTIONS
SKEET RANGE
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

LOCATION	Project Action Limit	SR-SB-J4		SR-SB-J5		SR-SB-J6		SR-SB-J7	
SAMPLE ID		SR-SS-J4-01	SR-SS-J4-02	SR-SS-J5-01	SR-SS-J5-02	SR-SS-J6-01	SR-SS-J6-02	SR-SS-J7-01	SR-SS-J7-02
SAMPLE DATE		20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
TOP DEPTH		0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH		0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)									
ACENAPHTHENE	2400 [1]	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	21000 [1]	NA	NA	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	0.1 [2]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.15 [3]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	0.1 [2]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.15 [3]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	2500 [1]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	1.5 [3]	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	15 [3]	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015 [3]	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	3200 [1]	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15 [3]	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	2200 [1]	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	2400 [1]	NA	NA	NA	NA	NA	NA	NA	NA
METALS (MG/KG)									
ANTIMONY	27 [4]	NA	NA	NA	NA	0.271 U	NA	NA	NA
ARSENIC	3.2 [5]	NA	NA	NA	NA	1.55	NA	NA	NA
COPPER	150 [4]	NA	NA	NA	NA	2.73	NA	NA	NA
LEAD	400 [4]	NA	NA	NA	NA	104	NA	NA	NA
LEAD-CALC	400 [4]	25.2	14	14.4	13.1	76.3	12.1	15.2	14.6
ZINC	26000 [4]	NA	NA	NA	NA	3.84	NA	NA	NA
SPLP METALS (UG/L)									
ALUMINUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	6 [6]	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	50 [6]	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	100 [7]	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NC	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	15 [6]	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NC	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NC	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	500 [7]	NA	NA	NA	NA	NA	NA	NA	NA
XRF (MG/KG)									
LEAD	200 [4]	28.67	9	9.67	7.33	118.3	5.67	11	10 U
MISCELLANEOUS PARAMETERS (MEQ/100)									
CATION EXCHANGE CAPACITY	NC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)									
TOTAL ORGANIC CARBON	NC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)									
PH	NC	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 5-3

FBL SURFACE SOIL MC METALS AND PAH DETECTIONS
SKEET RANGE
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

LOCATION	Project Action Limit	SR-SB-K5		SR-SB-L1		SR-SB-L2		SR-SB-L5	
SAMPLE ID		SR-SS-K5-01	SR-SS-K5-02	SR-SS-L1-01	SR-SS-L1-02	SR-SS-L2-01	SR-SS-L2-02	SR-SS-L5-01	SR-SS-L5-02
SAMPLE DATE		20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
TOP DEPTH		0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH		0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)									
ACENAPHTHENE	2400 [1]	NA	NA	0.0278 U	0.0276 U	0.0272 U	0.0271 U	NA	NA
ANTHRACENE	21000 [1]	NA	NA	0.0289 U	0.0287 U	0.0283 U	0.0282 U	NA	NA
BAP EQUIVALENT	0.1 [2]	NA	NA	**0.9239**	0.0244 U	**0.9726**	0.024 U	NA	NA
BENZO(A)ANTHRACENE	0.15 [3]	NA	NA	**0.487**	0.0382 U	**0.517**	0.0376 U	NA	NA
BENZO(A)PYRENE	0.1 [2]	NA	NA	**0.787**	0.0244 U	**0.834**	0.024 UJ	NA	NA
BENZO(B)FLUORANTHENE	0.15 [3]	NA	NA	**0.517**	0.034 U	**0.515**	0.0334 UJ	NA	NA
BENZO(G,H,I)PERYLENE	2500 [1]	NA	NA	0.41	0.0744 U	0.465	0.073 UJ	NA	NA
BENZO(K)FLUORANTHENE	1.5 [3]	NA	NA	0.111 J	0.0414 U	0.079 J	0.0407 UJ	NA	NA
CHRYSENE	15 [3]	NA	NA	0.858	0.0329 U	0.834	0.0323 U	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015 [3]	NA	NA	0.0641 U	0.0637 U	0.0628 U	0.0626 UJ	NA	NA
FLUORANTHENE	3200 [1]	NA	NA	0.124 J	0.0574 U	0.104 J	0.0563 U	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15 [3]	NA	NA	0.0492 U	0.0489 U	0.0482 U	0.048 UJ	NA	NA
PHENANTHRENE	2200 [1]	NA	NA	0.18 J	0.0244 U	0.142 J	0.024 U	NA	NA
PYRENE	2400 [1]	NA	NA	0.797	0.0425 U	0.923	0.0417 U	NA	NA
METALS (MG/KG)									
ANTIMONY	27 [4]	NA	NA	0.271 U	NA	NA	0.265 U	NA	NA
ARSENIC	3.2 [5]	NA	NA	0.963	NA	NA	0.704	NA	NA
COPPER	150 [4]	NA	NA	2.25	NA	NA	1.53	NA	NA
LEAD	400 [4]	NA	NA	2.77	NA	NA	3.04	NA	NA
LEAD-CALC	400 [4]	61.5	14	20.5	13.1	24.5	14.6	20.5	14.6
ZINC	26000 [4]	NA	NA	2.8	NA	NA	2.26	NA	NA
SPLP METALS (UG/L)									
ALUMINUM	NC	NA	NA	NA	NA	NA	9780 J	NA	NA
ANTIMONY	6 [6]	NA	NA	NA	NA	NA	1.25 U	NA	NA
ARSENIC	50 [6]	NA	NA	NA	NA	NA	1.55 J	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	188 J	NA	NA
CALCIUM	NC	NA	NA	NA	NA	NA	1480	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	3.86	NA	NA
COPPER	100 [7]	NA	NA	NA	NA	NA	2.52	NA	NA
IRON	NC	NA	NA	NA	NA	NA	3660	NA	NA
LEAD	15 [6]	NA	NA	NA	NA	NA	1.53 J	NA	NA
MAGNESIUM	NC	NA	NA	NA	NA	NA	662 J	NA	NA
MANGANESE	NC	NA	NA	NA	NA	NA	42.7 J	NA	NA
NICKEL	NC	NA	NA	NA	NA	NA	2.07 J	NA	NA
POTASSIUM	NC	NA	NA	NA	NA	NA	287 J	NA	NA
SODIUM	NC	NA	NA	NA	NA	NA	1270 J	NA	NA
VANADIUM	NC	NA	NA	NA	NA	NA	9	NA	NA
ZINC	500 [7]	NA	NA	NA	NA	NA	53.4 J	NA	NA
XRF (MG/KG)									
LEAD	200 [4]	92.33	9	20.33	7.33	27.33	10 U	20.33	10 U
MISCELLANEOUS PARAMETERS (MEQ/100)									
CATION EXCHANGE CAPACITY	NC	NA	NA	NA	NA	NA	2.4 J	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)									
TOTAL ORGANIC CARBON	NC	NA	NA	NA	NA	NA	3850	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)									
PH	NC	NA	NA	NA	NA	NA	5.66	NA	NA

TABLE 5-3

FBL SURFACE SOIL MC METALS AND PAH DETECTIONS
SKEET RANGE
SITE INSPECTION REPORT
NAS WHITING FIELD
MILTON, FLORIDA

LOCATION			SR-SB-N1		SR-SS-L3	
SAMPLE ID	Project		SR-SS-N1-01	SR-SS-N1-02	SR-SS-L3-01	SR-SS-L3-02
SAMPLE DATE	Action		20100427	20100427	20100427	20100427
TOP DEPTH	Limit		0	0.5	0	0.5
BOTTOM DEPTH			0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)						
ACENAPHTHENE	2400	[1]	NA	NA	NA	NA
ANTHRACENE	21000	[1]	NA	NA	NA	NA
BAP EQUIVALENT	0.1	[2]	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.15	[3]	NA	NA	NA	NA
BENZO(A)PYRENE	0.1	[2]	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.15	[3]	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	2500	[1]	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	1.5	[3]	NA	NA	NA	NA
CHRYSENE	15	[3]	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015	[3]	NA	NA	NA	NA
FLUORANTHENE	3200	[1]	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15	[3]	NA	NA	NA	NA
PHENANTHRENE	2200	[1]	NA	NA	NA	NA
PYRENE	2400	[1]	NA	NA	NA	NA
METALS (MG/KG)						
ANTIMONY	27	[4]	NA	NA	NA	NA
ARSENIC	3.2	[5]	NA	NA	NA	NA
COPPER	150	[4]	NA	NA	NA	NA
LEAD	400	[4]	NA	NA	NA	NA
LEAD-CALC	400	[4]	12.7	11.8	13.1	14.2
ZINC	26000	[4]	NA	NA	NA	NA
SPLP METALS (UG/L)						
ALUMINUM	NC		NA	NA	NA	NA
ANTIMONY	6	[6]	NA	NA	NA	NA
ARSENIC	50	[6]	NA	NA	NA	NA
BARIUM	NC		NA	NA	NA	NA
CALCIUM	NC		NA	NA	NA	NA
CHROMIUM	NC		NA	NA	NA	NA
COPPER	100	[7]	NA	NA	NA	NA
IRON	NC		NA	NA	NA	NA
LEAD	15	[6]	NA	NA	NA	NA
MAGNESIUM	NC		NA	NA	NA	NA
MANGANESE	NC		NA	NA	NA	NA
NICKEL	NC		NA	NA	NA	NA
POTASSIUM	NC		NA	NA	NA	NA
SODIUM	NC		NA	NA	NA	NA
VANADIUM	NC		NA	NA	NA	NA
ZINC	500	[7]	NA	NA	NA	NA
XRF (MG/KG)						
LEAD	200	[4]	6.67	5	7.33	9.33
MISCELLANEOUS PARAMETERS (MEQ/100)						
CATION EXCHANGE CAPACITY	NC		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)						
TOTAL ORGANIC CARBON	NC		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)						
PH	NC		NA	NA	NA	NA

[1] - FDEP SCTL
[2] - SCTLs
[3] - USEPA Residential SSL
[4] - FDEP Residential SCTL
[5] - Background
[6] - FDEP MCL
[7] - FDEP Secondary Drinking Water Criteria

N

LEGEND

INSTALLATION BOUNDARY

SITE BOUNDARY

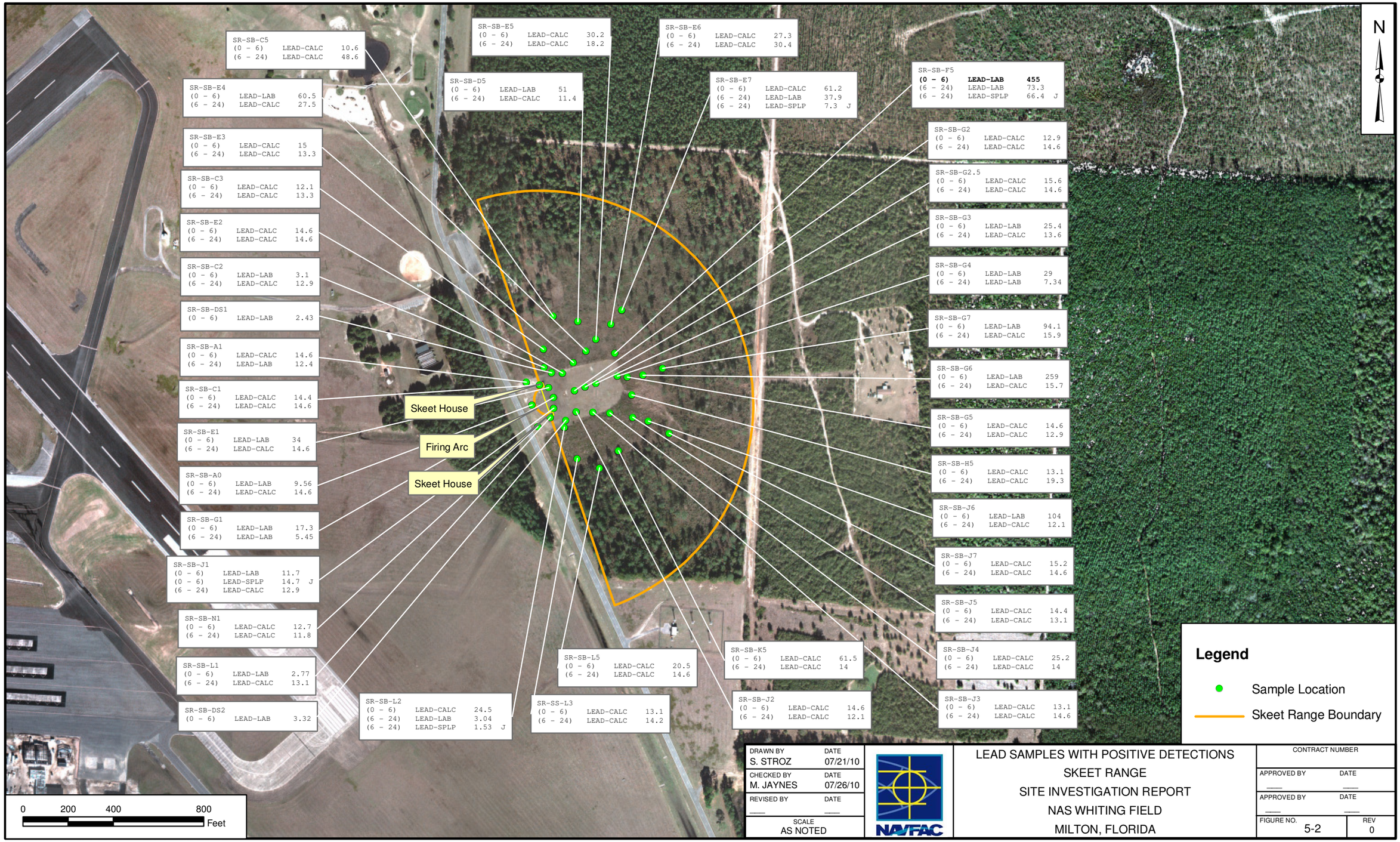
0 200 400

SCALE: 1" = 200'

DRAWN BY BH	DATE 5/28/08	SITE MAP SKEET RANGE MRP SITE INVESTIGATION REPORT NAS WHITING FIELD MILTON, FLORIDA	CONTRACT NO. 0852
CHECKED BY	DATE		OWNER NO. 0000
REVISED BY	DATE		APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 5–1 / REV. 0

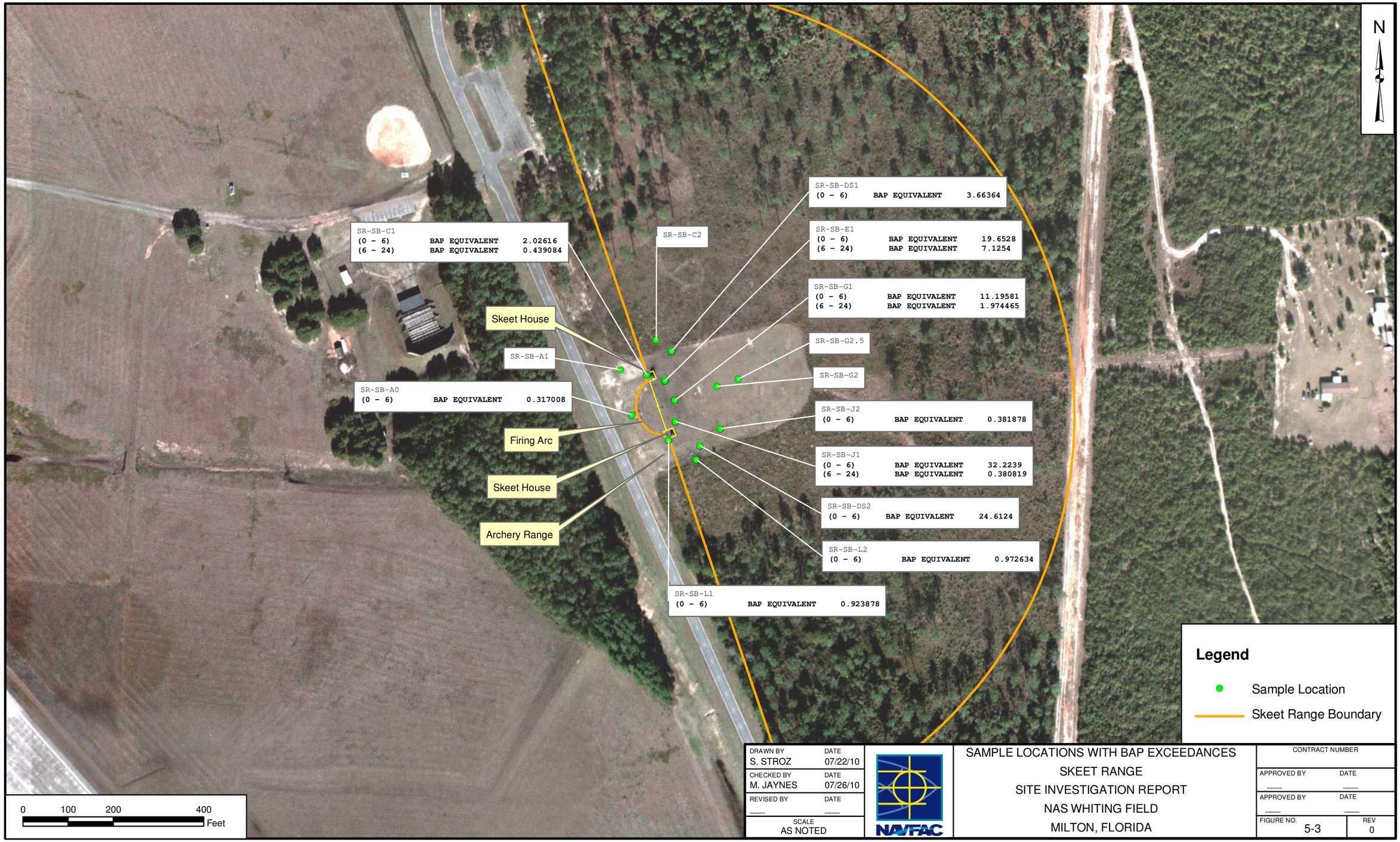
NAVFAC

P:\GIS\WHITINGFIELD_NAS\MAPDOCS\MXD\SKEET_RANGE_LEAD_POSITIVE_DETECTS.MXD 07/26/10 SS



DRAWN BY S. STROZ	DATE 07/21/10	LEAD SAMPLES WITH POSITIVE DETECTIONS SKEET RANGE SITE INVESTIGATION REPORT NAS WHITING FIELD MILTON, FLORIDA	CONTRACT NUMBER
CHECKED BY M. JAYNES	DATE 07/26/10		APPROVED BY ___ DATE ___
REVISED BY ___	DATE ___		APPROVED BY ___ DATE ___
SCALE AS NOTED			FIGURE NO. 5-2 / REV 0

P:\GIS\WHITINGFIELD_NAS\MAPDOCS\MXD\SKEET_RANGE_BAP.MXD 07/26/10 SS



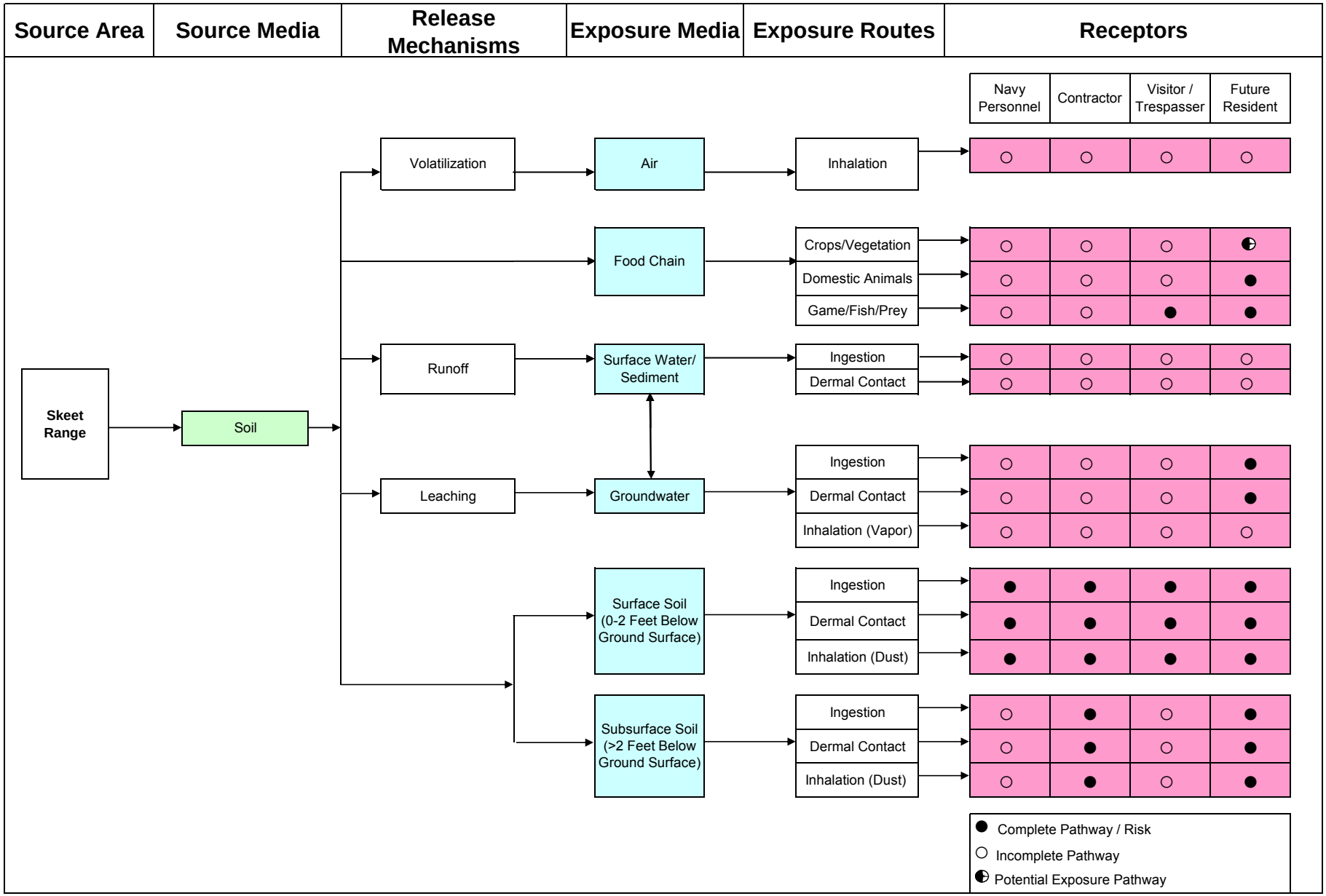
DRAWN BY S. STROZ	DATE 07/22/10	SAMPLE LOCATIONS WITH BAP EXCEEDANCES SKEET RANGE SITE INVESTIGATION REPORT NAS WHITING FIELD MILTON, FLORIDA	CONTRACT NUMBER
CHECKED BY M. JAYNES	DATE 07/26/10		APPROVED BY ___ DATE ___
REVISED BY ___	DATE ___		APPROVED BY ___ DATE ___
SCALE AS NOTED			FIGURE NO. 5-3 / REV 0

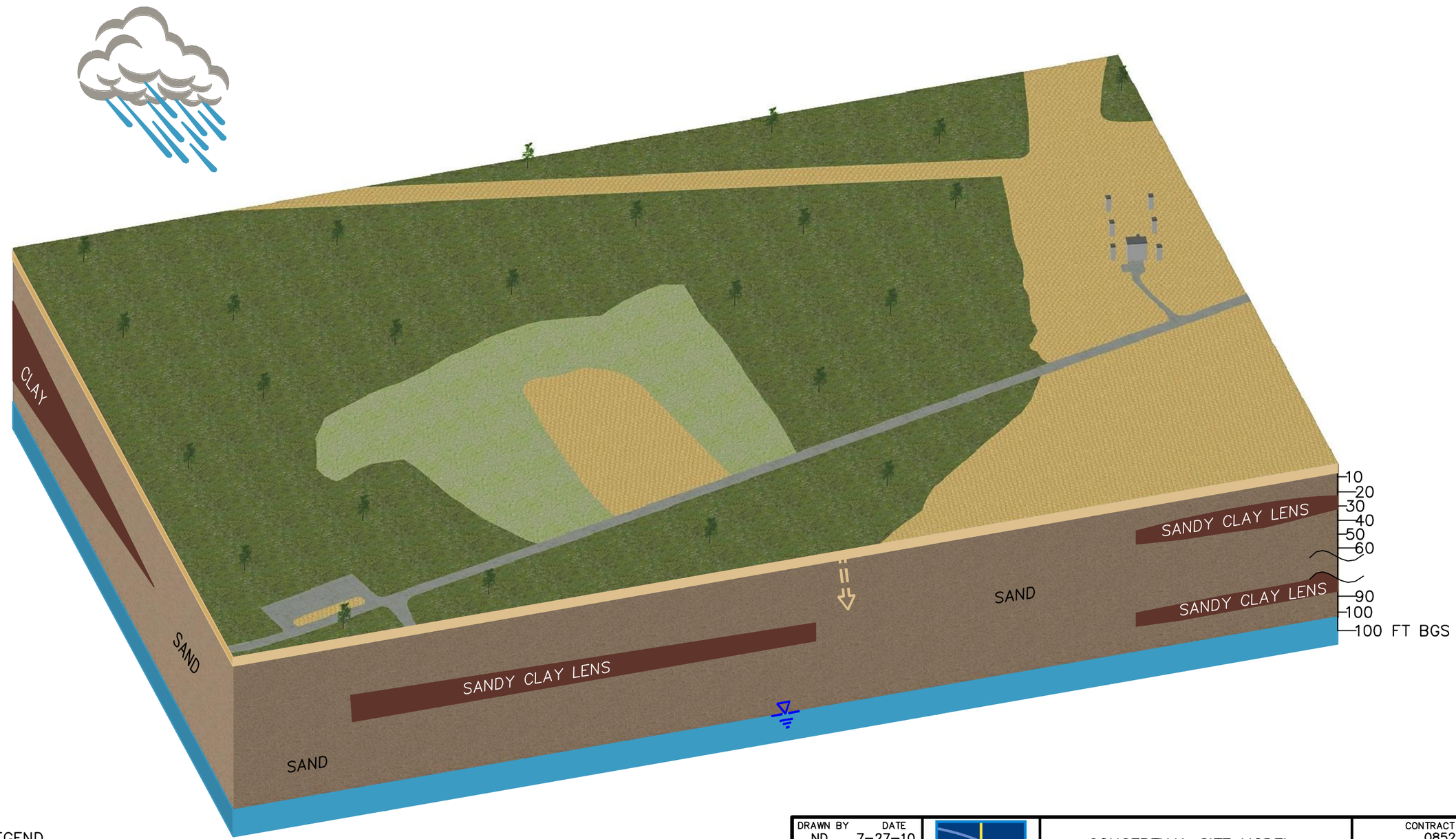
FIGURE 5-4

MC EXPOSURE PATHWAY ANALYSIS

SKEET RANGE

NAS WHITING FIELD, WHITING FIELD, FLORIDA





LEGEND

WATER TABLE

INFILTRATION

DRAWN BY ND	DATE 7-27-10	CONCEPTUAL SITE MODEL SKEET RANGE SITE INVESTIGATION REPORT NAS WHITING FIELD MILTON, FLORIDA	CONTRACT NO. 0852
CHECKED BY	DATE		OWNER NO.
REVISED BY	DATE		APPROVED BY / DATE
SCALE NOT TO SCALE			DRAWING NO. FIGURE 5-5 / REV. 0

R:\0852\CSM\0852CSM03.dwg PIT CARLY.KRAMER 7/27/2010 3:04:51 PM

6.0 REFERENCES

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APPENDIX A

FIELD FORMS

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-C2-01/02
Sample Location: GA-SB-C2
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/28	1025	0-6"	dark brown	org. sandy
Method:		6-24"	brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-E2-01/02
Sample Location: GA-SB-E2
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/28	1030	0-6"	brown	Sand
Method:		6-24"	light brown	Sand
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-EL-01/02
Sample Location: GA-SB-EL
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/26	1125	0-6"	brown	sand w/ some org.
Method:		6-24"	light brown	sand
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-AO-01/02
Sample Location: GA-SB-AO
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/28	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	0945	0-6"	brown	sand
Method:		6-24"	light brown	sand
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-C3-01/02
Sample Location: GA-SB-C3
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/28	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1030	0-6	brown	Sand
Method:		6-24	brown	sand
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-E1-01/02
Sample Location: GA-SB-E1
Sampled By: hmo
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/26	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1020	0-6"	brown	sand
Method:		6-24"	light brown	sand
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-E4-01/02
Sample Location: GA SB E4
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/28	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1100	0-6"	orange/brown	Sand some clay
Method:		6-24"	orange/brown	Sand
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[/] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-ES-01/02
Sample Location: GA-SB-ES
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/28	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1110	0-6"	brown	sand
Method:		6-24"	brown	sand
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[/] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-CS-01/02
Sample Location: GA-SS-CS
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/26	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1145	0-6"	redbrown	Sand w/ clay
Method:		6-24"	redbrown	Sand w/ clay
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[X] Surface Soil
[ ] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: GA-SS-11-01/02
Sample Location: GA-SB-11
Sampled By: MAB
C.O.C. No.:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/28	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1015	0-6"	dark brown	sand w/ org.
Method:		6-24"	light brown	sand
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-G1-01/02
Sample Location: GA-SB-G1
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/28	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:	1010	0-6	brown	Sandy
		6-24	lightbrown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Uniting
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-A1-0102
Sample Location: GA-SB-A1
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/28	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:	1000	0-6"	dark brown	sand w/ some org.
		6-24"	brown	sand
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[/] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-L1-01/02
Sample Location: GA-SB-L1
Sampled By: MKB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/28	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1005	0-6"	dark brown	Sand,
Method:		6-24"	brown	Sand
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-E3-01/02
Sample Location: GA-SS-E3-
Sampled By: MD
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/28	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1045	0-6"	brown	Sand
Method:		6-24"	brown	Sand
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-C1-01/02
Sample Location: GA-SB-C1
Sampled By: MYB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/26	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1020	0-6"	dark brown	Sand w/ org.
Method:		6-24"	dark brown	Sand w/ some org.
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-N1-01/02
Sample Location: GA-SB-N1
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/28	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	0950	0-6"	brown	sand
Method:		12-24"	light brown	sand
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

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SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-DS1
Sample Location: GA-SB-DS1
Sampled By: MJ
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/28	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1730	0-6"	Brown	Sand/Organic
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

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SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting Field
Project No.:

Sample ID No.: GA-SS-G7 01 ~~02~~ CR
Sample Location: GA-SB-G7
Sampled By: MJ/CR
C.O.C. No.:

[✓] Surface Soil
[ ] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/28/10	0-6"	Brown	Sand
Time: 1600			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

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Project Site Name: Whiting Field
Project No.:

Sample ID No.: GA-SS-67-02
Sample Location: GA-SB-67
Sampled By:
C.O.C. No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/28/10	6"-24"	Tan	Sand
Time: 1602			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

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Project Site Name: Whiting Field
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-LS-01
Sample Location: GA-SB-LS
Sampled By:
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/28/10	0"-6"	Brown	Sand/Organic
Time: 1445			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

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Project Site Name: Whiting Field
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-L5-02
Sample Location: GA-SB-L5
Sampled By:
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/28/10 Time: 1448 Method: Monitor Reading (ppm):	6"-24"	Tan	Sand

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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Project Site Name: Whiting Field
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-GS-01
Sample Location: GA-SB-GS
Sampled By:
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/28/10	0"-6"	Brown/Gray	Sand/Organic
Time: 1620			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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Project Site Name: Whiting Field
Project No.:

/[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-G5-02
Sample Location: GA-SB-G5
Sampled By:
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/28/10 Time: 1622 Method: Monitor Reading (ppm):	6"-24"	Brown/Tan	Sand

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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Project Site Name: Whiting Field
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-G2.5-01
Sample Location: GA-SB-G2.5
Sampled By:
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/28/10 Time: 1510 Method: Monitor Reading (ppm):	0"-6"	Brown	Sand / Some Organic

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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Project Site Name: Whiting Field
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-G.25-02
Sample Location:
Sampled By:
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/28/10	6" - 24"	Brown / Gray	Sand
Time: 1512			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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Project Site Name: Whiting Field
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-L3-01
Sample Location: GA-SB-L3
Sampled By:
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/28/10 Time: 1438 Method: Monitor Reading (ppm):	0"-6"	Brown/ Tan	Sand

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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Project Site Name: Whiting Field
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-L3-02
Sample Location: GA-SB-L3
Sampled By:
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/28/10	6" - 24"	Brown / Tan	Sand
Time: 1440			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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Project Site Name: Whiting Field
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-G6-01
Sample Location: GA-SB-G6
Sampled By:
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/28/10 Time: 1615 Method: Monitor Reading (ppm):	0" - 6"	Brown / Gray	Sand

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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Project Site Name: Whiting Field
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-GB-02
Sample Location: GA-SB-02
Sampled By:
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/28/10	6"-24"	Tan	Sand
Time: 1618			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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Project Site Name: Whiting Field
Project No.:

Sample ID No.: GA-SS-K5-01
Sample Location: GA-SB-K5-1
Sampled By:
C.O.C. No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/28/10	0"-6"	Gray	Sand / Some Organic
Time: 1545			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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Project Site Name: Whiting Field
Project No.:

Sample ID No.: GA-SS-K5-02
Sample Location: GA-SB-K5
Sampled By:
C.O.C. No.:

[x] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/28/10	6"-24"	Tan/Brown	Sand
Time: 1548			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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Project Site Name: Whiting Field
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-G4-01
Sample Location: GA-SD-G4
Sampled By:
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/28/16	0"-6"	Brown/Gray	Sand/
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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Project Site Name: Whiting Field
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-G4-02
Sample Location: GA-SB-G4
Sampled By:
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/28/10	6"-24"	Tan / Some Gray	Sand
Time: 1525			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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Project Site Name: Whiting Field
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-J2-01
Sample Location: GA-SB-J2
Sampled By:
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/28/10	0"-6"	Brown/Gray	Sand/Some Organic
Time: 1900			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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Project Site Name: Whiting
Project No.:

Sample ID No.: GA-SS-J7-01102
Sample Location: GA-SB-J7
Sampled By:
C.O.C. No.:

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/28	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1710	0"-6"	Red/Gray	Sand
Method:	1712	6"-24"	Red/Tan	Sand
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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Project Site Name: Whiting
Project No.:

Sample ID No.: GA-SS-H5-01102
Sample Location: GA-SB-H5
Sampled By:
C.O.C. No.:

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/28	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:	1630	0"-6"	Tan/Gray	Sand
	1633	6"-24"	Tan/Gray	Sand
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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Project Site Name: Whiting
Project No.:

[x] Surface Soil
[ ] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: GA-SS-J3-01/02
Sample Location: GA-SB-J3
Sampled By:
C.O.C. No.:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/28	1428	0"-6"	Gray	Sand / Some Organic
Method:	1430	6"-24"	Tan/Brown	Sand
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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Project Site Name: Whiting
Project No.:

Sample ID No.: GA-SS-F5-01/02
Sample Location: GA-SB-F5
Sampled By:
C.O.C. No.:

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/28	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:	1530	0"-6"	Tan/Gray	Sand
	1532	6"-24"	Tan	Sand
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

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Project Site Name: whiting
Project No.:

Sample ID No.: GA-SS-G2-01/02
Sample Location: GA-SB-G2
Sampled By:
C.O.C. No.:

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/28	1500	0"-6"	Gray	Sand / Some Organic
Method:	1505	6"-24"	Brown	Sand
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

* More on back

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GA-SS-DS-01/02
Sample Location: GA-SB-DS
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/28	1145	0-6"	red/brown	Sandy some org
Method:		6-24"	brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: whiting
Project No.:

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Sample ID No.: GA-SS-J5-01102
Sample Location: GA-SB-J5
Sampled By:
C.O.C. No.:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/28	1700	0-6"	Gray	Sand
Method:	1702	6"-24"	Tan/Gray	Sand
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

[✓] Surface Soil
[ ] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: GA-SS-G3-01/02
Sample Location: GA-SB-G3
Sampled By:
C.O.C. No.:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/28	1740	0"-6"	Brown/Gray	Sand/Some organic
Method:	1743	6"-24"	Tan/Brown	Sand
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

[x] Surface Soil
[ ] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: GA-SS-L2-01/02
Sample Location: GA-SB-L2
Sampled By:
C.O.C. No.:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/28	1420	0"-6"	Gray/Brown	Sand
Method:	1423	6"-24"	Brown	Sand
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

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SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

[x] Surface Soil
[ ] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: GA-SS-J6-01/02
Sample Location: GA-SB-J6
Sampled By:
C.O.C. No.:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/28	1655	0"-6"	Gray, Brown, Red	Sand
Method:	1657	6"-24"	Tan / Red	Sand
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

[x] Surface Soil
[ ] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: GA-SS-J4-01/02
Sample Location: GA-SB-J4
Sampled By:
C.O.C. No.:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
04/28	1645	0"-6"	Gray/Tan	Sand
Method:	1648	6"-24"	Tan	Sand
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

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SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

Sample ID No.: GA-SS-J2-02
Sample Location: GA-SB-J2
Sampled By:
C.O.C. No.:

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/28/10 Time: 1405 Method: Monitor Reading (ppm):	6"-24"	Brown/ Tan	Sand

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting SR
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-G1-01/02
Sample Location: SR-SB-G1
Sampled By: MJB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/27			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

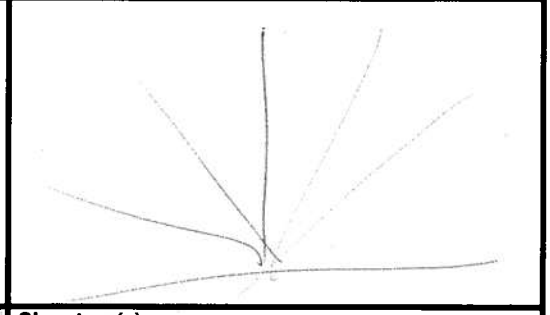
Date: 4/27	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	0900	0-6	light brown	sandy w/ some org.
Method:		6-24	light brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

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SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

Sample ID No.: SR-SS-J1-01/02
Sample Location: SR-SB-J1
Sampled By: MB
C.O.C. No.:

[X] Surface Soil
[ ] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/27	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1025	0-6	light brown	sandy some org. slight moist
Method:		6-24	light brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

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SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

[x] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-J5-01/02
Sample Location: SR-SB-J5
Sampled By: MJ
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/27	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1105	0-6"	dark brown	sandy Slt. Mst
Method:		6-24"	dark brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle If Applicable:

MS/MSD	Duplicate ID No.:

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SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-K5-0102
Sample Location: SR-SB-K5
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/27 ~~0913~~	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	0930	0-6"	dark brown	Sandy, some org.
Method:		6-24"	light brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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Project Site Name: Whiting
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-J6-01/02
Sample Location: SR-SB-J6
Sampled By: MJ
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/27	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1123	0-6"	dark brown	sandy
Method:		6-24"	dark brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

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SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

[/] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-13-01/02
Sample Location: SR-SB-13
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/27	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1000	0-6"	dark brown	sandy
Method:		6-24"	light brown	sandy
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

[] Surface Soil
[✓] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-E7-01/02
Sample Location: SR-SS-E7
Sampled By: MJB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1145	0-6"	dark brown	sandy
Method:		6-24"	light brown	sandy w/ some clay
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

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Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-L5-01/02
Sample Location: SR-SS-L5
Sampled By: MJ
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/27	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1015	0-6"	dark brown	sandy
Method:		6-24"	orange/brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

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Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: whiting
Project No.:

Sample ID No.: SR-SS-J7-01/02
Sample Location: SR-SS-J7
Sampled By: MJ
C.O.C. No.:

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	0940	0-6"	brown	sandy
Method:		6-24"	light brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

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Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

Sample ID No.: SR-SS-E3-01/02
Sample Location: SR-SS-E3
Sampled By: MB
C.O.C. No.:

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	1055	0-6"	brown	sandy
Method:		6-24"	brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: whiting
Project No.:

Sample ID No.: SR-SS-L3-01/02
Sample Location: SR-SB-L3
Sampled By: MJ
C.O.C. No.:

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	1025	0-6"	dark brown	sand y
Method:		6-24"	orange/brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-J1-01/02
Sample Location: SR-SB-J1
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	1030	0-6	brown	sandy
Method:		6-24	brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-ES-01/02
Sample Location: SR-SB-E5
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	1115	0-6'	dark brown	sandy some org.
Method:		6-24'	brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

[/] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-N1-01/02
Sample Location: SR-SB-N1
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	1040	0-6"	brown	sandy
Method:		6-24"	brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-G2-01/02
Sample Location: SR-SB-G2
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/27	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:	0855	0-6"	dark brown	sandy some org.
		6-24"	brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-L2-01/02
Sample Location: SR-SB-L2
Sampled By: MJ
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	0905	0-6"	brown	Sandy
Method:		6-24"	lightbrown	Sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

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SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: Whiting
Project No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-G4-01/02
Sample Location: SR-SB-G4
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	0955	0-6"	dark brown	Sandy
Method:		6-24"	brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-E1-01/02
Sample Location: SR-SB-E1
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	0930	0-6"	dark brown/brown	org. w/ some sand
Method:		6-24"	orange/brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-C1-01/02
Sample Location: SR-SB-C1
Sampled By: MAB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	0940	0-6"	dark brown	sandy, some org.
Method:		6-24"	brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-E4-01/02
Sample Location: SR-SB-E4
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	1100	0-6"	dark brown	sandy w/ org.
Method:		6-24"	brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-J2-01/02
Sample Location: SR-SB-J2
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	1015	0-6"	brown	Sandy
Method:		6-24"	light brown	Sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-E6-01/02
Sample Location: SR-SB-E6
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	1130	0-6"	dark brown	sandy some org.
Method:		6-24"	brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-A1-01/OR
Sample Location: SR-SB-A1
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	0945	0-6"	brown	sandy
Method:		6-62"	light brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-E2-01/02
Sample Location: SR-SB-E2
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	0920	0-6"	brown	sandy
Method:		6-24"	orange/brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-AD-01/02
Sample Location: SR-SB-AD
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	0910	0-6"	dark brown	sandy, some org
Method:		6-24"	brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-G2S-01/02
Sample Location: SR-SB-G2.5
Sampled By: MB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	0850	0-6"	dark brown	sandy
Method:		6-24"	brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-G3-01/02
Sample Location: SR-SB-G3
Sampled By: MKB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	0840	0-6"	dark brown	sandy yo / org.
Method:		6-24"	brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[x] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-C2-01/02
Sample Location: SR-SB-C2
Sampled By: MJ
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	1455	0-6"	brown	sandy
Method:		6-24"	orange brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[x] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-C3-01/02
Sample Location: SR-SB-C3
Sampled By: MJ
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/27	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1505	0-6"	light brown	sandy
Method:		6-24"	orange brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-F5-01/02
Sample Location: SR-SB-F5
Sampled By: MT
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	1600	0-6"	dark brown	sandy w/ org.
Method:		6-24"	brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-HS-01/02
Sample Location: SR-SB-HS
Sampled By: MJ
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	1340	0-6"	brown	Sandy
Method:		6-24"	brown	Sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-GS-01/02
Sample Location: SR-SB-GS
Sampled By: MJ
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	1400	0-6"	dark brown	sandy w/ org.
Method:		6-24"	light brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-G6-01/02
Sample Location: SR-SB-G6
Sampled By: MJ
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	1415	0-6"	dark brown	Sandy
Method:		6-24"	brown	Sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-CS-01/02
Sample Location: SR-SB-CS
Sampled By: mf
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	1525	0-6"	brown	sandy
Method:		6-24"	light brown	sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: whiting
Project No.:

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-J4-01/02
Sample Location: SR-SB-J4
Sampled By: MJ
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	1620	0-6"	brown	Sandy
Method:		6-24"	brown	Sandy
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-DS-01/02
Sample Location: SR-SB-DS
Sampled By: MJ
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 4/27	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1535	0-6"	brown	sandy
Method:		6-24"	light brown	sandy
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Whiting
Project No.:

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SR-SS-G7-01/02
Sample Location: SR-SB-G7
Sampled By: MJ
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4/27	1430	0-6"	brown	Sandy
Method:		6-24"	brown	Sandy
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

APPENDIX B

SITE PHOTOGRAPHS

NAS Whiting Field

SITE: Former Gunnery Area	**PHOTOGRAPHER:** Mike Jaynes **VIEW:** South	**DESCRIPTION:** Former Gunnery Area site overview.	1 04/26/10

SITE: Former Gunnery Area	**PHOTOGRAPHER:** Mike Jaynes **VIEW:** North	**DESCRIPTION:** Tetra Tech representative surveying (GPS) sample locations.	2 4/26/10

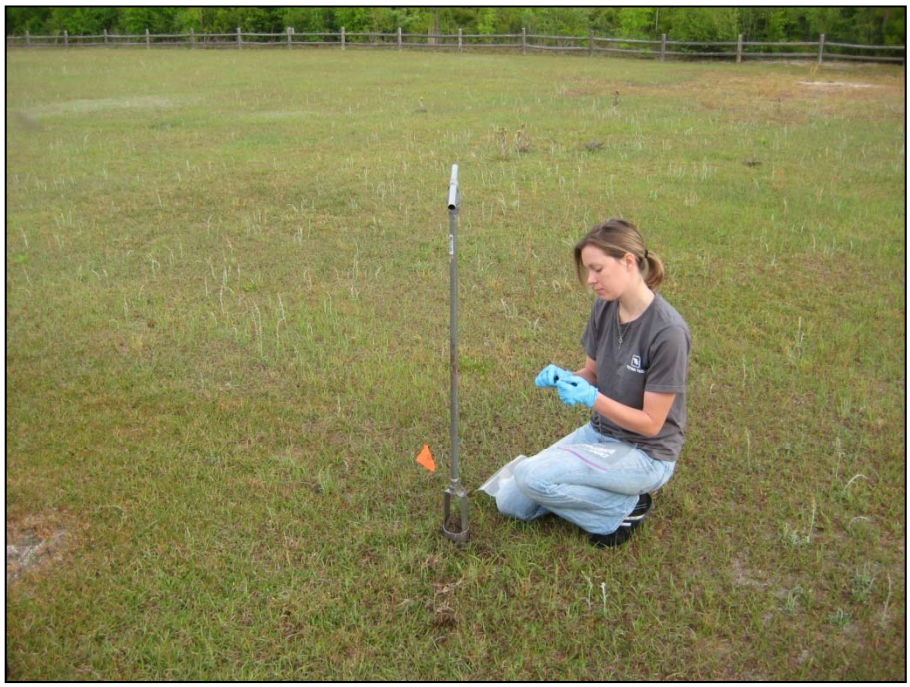
NAS Whiting Field

SITE: Former Gunnery Area	**PHOTOGRAPHER:** Mike Jaynes **VIEW:** North	**DESCRIPTION:** Former Gunnery Area sample location that fell within the golf course area.	3 04/26/10

SITE: Former Gunnery Area	**PHOTOGRAPHER:** Mike Jaynes **VIEW:** NA	**DESCRIPTION:** Discretionary sample location, shell casing fragments visible.	4 4/26/10

NAS Whiting Field

SITE: Skeet Range	**PHOTOGRAPHER:** Mike Jaynes **VIEW:** West	**DESCRIPTION:** Skeet Range site overview.	5 04/26/10



SITE: Skeet Range	**PHOTOGRAPHER:** Mike Jayne **VIEW:** Northwest	**DESCRIPTION:** Tetra Tech representative collecting a soil sample.	6 4/27/10

NAS Whiting Field

SITE: Skeet Range	**PHOTOGRAPHER:** Mike Jaynes **VIEW:** NA	**DESCRIPTION:** Example of soil sample location boring after sample collection.	7 04/27/10

SITE: Skeet Range	**PHOTOGRAPHER:** Mike Jaynes **VIEW:** NA	**DESCRIPTION:** Example of soil sample location boring upon sample completion (final site conditions).	8 4/26/10

NAS Whiting Field

SITE: Skeet Range	**PHOTOGRAPHER:** Mike Jaynes **VIEW:** Southwest	**DESCRIPTION:** Skeet Range discretionary sample location , one of two (clay pigeon fragments visible in large piles).	9 04/27/10

SITE: Skeet Range	**PHOTOGRAPHER:** Mike Jaynes **VIEW:** Southwest	**DESCRIPTION:** Example of discretionary sample location boring upon sample completion (final site conditions).	10 4/27/10

APPENDIX C

ANALYTICAL RESULTS

SURFACE SOIL FREQUENCY OF DETECTION
FORMER GUNNERY AREA
MILTON FLORIDA

Parameter	Frequency of Detection	Minimum Detection		Maximum Detection		Location of Maximum Detection	Sample of Maximum Detection	Range of Nondetects	Average of Positive Detections	Average of all Results	Standard Deviation
Polycyclic Aromatic Hydrocarbons (MG/KG)											
1-METHYLNAPHTHALENE	4/29	1.31	J	1.66	J	GA-SB-G1	GA-SS-G1-01	0.104 - 1.09	1.4725	0.338172	0.494697387
2-METHYLNAPHTHALENE	6/29	0.915	J	2.28	J	GA-SB-G1	GA-SS-G1-01	0.0364 - 0.381	1.685833	0.383018	0.714658861
ACENAPHTHENE	10/29	0.11	J	16.5		GA-SB-J1	GA-SS-J1-01	0.027 - 0.139	6.583	2.282856	4.498454523
ANTHRACENE	12/29	0.186	J	31.7		GA-SB-J1	GA-SS-J1-01	0.0281 - 0.142	9.568333	3.969679	7.848715579
BAP EQUIVALENT	22/29	0.106936		406.343		GA-SB-C2	GA-SS-C2-01	0.0242 - 0.0256	84.280518	63.939911	122.6558809
BENZO(A)ANTHRACENE	21/29	0.105	J	245		GA-SB-C2	GA-SS-C2-01	0.0378 - 0.0401	57.528428	41.663832	79.99831844
BENZO(A)PYRENE	21/29	0.263	J	273		GA-SB-C2	GA-SS-C2-01	0.0242 - 0.0256	59.425333	43.03553	83.04112592
BENZO(B)FLUORANTHENE	22/29	0.417		346		GA-SB-C2	GA-SS-C2-01	0.0336 - 0.0357	75.087431	56.967009	109.1423233
BENZO(G,H,I)PERYLENE	19/29	0.256	J	235	J	GA-SB-C2	GA-SS-C2-01	0.0727 - 0.078	50.167263	32.881121	64.77768544
BENZO(K)FLUORANTHENE	21/29	0.064	J	172		GA-SB-C2	GA-SS-C2-01	0.041 - 0.0435	34.820309	25.220466	49.61949376
CHRYSENE	21/29	0.108	J	323		GA-SB-C2	GA-SS-C2-01	0.0326 - 0.0346	69.473928	50.313283	97.04019468
DIBENZO(A,H)ANTHRACENE	12/29	0.542		47.1	J	GA-SB-C2	GA-SS-C2-01	0.0623 - 0.316	17.197083	7.139082	13.19716881
FLUORANTHENE	22/29	0.0594	J	392		GA-SB-J1	GA-SS-J1-01	0.0567 - 0.0602	85.267472	64.692639	124.0141054
FLUORENE	8/29	0.377	J	9.11		GA-SB-J1	GA-SS-J1-01	0.027 - 0.283	4.19125	1.174423	2.379528399
INDENO(1,2,3-CD)PYRENE	18/29	0.316	J	251	J	GA-SB-C2	GA-SS-C2-01	0.0478 - 0.0513	58.1295	36.0897	71.18497596
NAPHTHALENE	9/29	0.0468	J	9.77		GA-SB-G1	GA-SS-G1-01	0.0332 - 0.171	4.358533	1.371391	2.774947762
PHENANTHRENE	17/29	0.0568	J	146		GA-SB-J1	GA-SS-J1-01	0.0239 - 0.0256	26.869297	15.756037	32.43399182
PYRENE	22/29	0.0581	J	326		GA-SB-J1	GA-SS-J1-01	0.042 - 0.0446	72.535709	55.032251	103.7506928
Inorganics (MG/KG)											
ANTIMONY	10/21	0.331	J	2.27		GA-SB-J6	GA-SS-J6-01	0.261 - 0.275	0.8616	0.480547	0.568808028
ARSENIC	21/21	0.728		7.79		GA-SB-G7	GA-SS-G7-01	-	2.207285	2.207285	1.607617714
COPPER	21/21	1.75		111		GA-SB-DS1	GA-SB-DS1	-	7.984761	7.984761	23.61590536
LEAD	21/21	4.22	J	1300	J	GA-SB-J6	GA-SS-J6-01	-	222.26619	222.26619	297.8785275
LEAD-CALC	35/75	0.304		1183		GA-SB-J6	GA-SS-J6-01	10 - 10	181.077257	87.169386	187.8952528
TIN	1/21	4.94	J	4.94	J	GA-SB-DS1	GA-SB-DS1	2.61 - 3.57	4.94	1.541071	0.785358426
ZINC	21/21	2.59	J	1720	J	GA-SB-DS1	GA-SB-DS1	-	86.290714	86.290714	374.3342513

Parameter	Frequency of Detection	Minimum Detection		Maximum Detection		Location of Maximum Detection	Sample of Maximum Detection	Range of Nondetects	Average of Positive Detections	Average of all Results	Standard Deviation
SPLP Inorganics (UG/L)											
ALUMINUM	4/4	48.4	J	4190		GA-SB-C1	GA-SS-C1-01	-	1993.35	1993.35	1697.477606
ANTIMONY	2/4	1.45	J	93.9	J	GA-SB-J6	GA-SS-J6-01-D	1.25 - 1.25	35.0375	17.83125	22.38774195
ARSENIC	3/4	1.42	J	18.7	J	GA-SB-J6	GA-SS-J6-01-D	0.75 - 0.75	6.639166	5.073125	4.84617176
BARIUM	4/4	43		185		GA-SB-E2	GA-SS-E2-01	-	133.875	133.875	63.57983826
CADMIUM	1/4	0.42	J	0.42	J	GA-SB-J6	GA-SS-J6-01	0.25 - 0.25	0.2725	0.161875	0.07375
CALCIUM	4/4	597	J	2340		GA-SB-C1	GA-SS-C1-01	-	1357.5	1357.5	797.9709686
CHROMIUM	3/4	0.98	J	2.02		GA-SB-C1	GA-SS-C1-01	0.5 - 0.5	1.225	0.98125	0.754435495
COPPER	3/4	1.41	J	4.8		GA-SB-E2	GA-SS-E2-01	1.25 - 1.25	2.735	2.2075	1.812725848
IRON	4/4	54.1		1650		GA-SB-C1	GA-SS-C1-01	7.5 - 7.5	726.86875	726.86875	681.2040154
LEAD	4/4	0.72	J	1500		GA-SB-J6	GA-SS-J6-01-D	-	385.03	385.03	740.0514565
MAGNESIUM	3/4	267	J	726	J	GA-SB-C1	GA-SS-C1-01	250 - 250	526.333333	426	309.2259153
MANGANESE	4/4	16.1		133		GA-SB-C1	GA-SS-C1-01	-	62.3	62.3	52.19891442
NICKEL	3/4	0.8	J	1.37	J	GA-SB-C1	GA-SS-C1-01	0.75 - 0.75	1.003333	0.84625	0.407663566
POTASSIUM	3/4	470	J	1070	J	GA-SB-C1	GA-SS-C1-01	250 - 250	767.833333	607.125	391.0746678
SODIUM	4/4	699	J	11000	J	GA-SB-C1	GA-SS-C1-01	-	3581	3581	4957.629877
VANADIUM	3/4	2.12	J	4.15		GA-SB-C1	GA-SS-C1-01	1.25 - 1.25	2.5725	2.085625	1.505927697
ZINC	4/4	17.7	J	72.1	J	GA-SB-E2	GA-SS-E2-01	-	54.35	54.35	25.29038025
XRF Inorganics (MG/KG)											
LEAD	60/75	5.67		1020		GA-SB-J6	GA-SS-J6-01	10 - 10	114.763666	92.810933	163.4070245
Miscellaneous Parameters (MEQ/100)											
CATION EXCHANGE CAPACITY	4/4	2.13	J	3.75	J	GA-SB-G2	GA-SS-G2-02	-	3.01	3.01	0.670323305
PH	4/4	4.59		5.94		GA-SB-C2	GA-SS-C2-02-D	-	5.21875	5.21875	0.503957257
TOTAL ORGANIC CARBON	4/4	4820		7080		GA-SB-C2	GA-SS-C2-02	-	5875	5875	759.4954466

Associated Samples:

GA-SB-DS1
GA-SS-A0-01
GA-SS-A0-02
GA-SS-A1-01
GA-SS-A1-02
GA-SS-C1-01
GA-SS-C1-02
GA-SS-C2-01
GA-SS-C2-02
GA-SS-C2-02-AVG
GA-SS-C2-02-D
GA-SS-C3-01
GA-SS-C3-02
GA-SS-C5-01
GA-SS-C5-02
GA-SS-D5-01
GA-SS-D5-02
GA-SS-E1-01
GA-SS-E1-02
GA-SS-E2-01
GA-SS-E2-02
GA-SS-E3-01
GA-SS-E3-02
GA-SS-E4-01
GA-SS-E4-02
GA-SS-E5-01
GA-SS-E5-02
GA-SS-E6-01
GA-SS-E6-02
GA-SS-E7-01
GA-SS-E7-02
GA-SS-F5-01
GA-SS-F5-02
GA-SS-G1-01
GA-SS-G1-02
GA-SS-G2-01
GA-SS-G2-02
GA-SS-G2.5-01
GA-SS-G2.5-02
GA-SS-G2.5-02-AVG
GA-SS-G2.5-02-D
GA-SS-G3-01
GA-SS-G3-02
GA-SS-G4-01
GA-SS-G4-02
GA-SS-G5-01
GA-SS-G5-02
GA-SS-G6-01
GA-SS-G6-02
GA-SS-G7-01
GA-SS-G7-02
GA-SS-H5-01
GA-SS-H5-02
GA-SS-J1-01
GA-SS-J1-02
GA-SS-J2-01
GA-SS-J2-02
GA-SS-J3-01
GA-SS-J3-02
GA-SS-J4-01
GA-SS-J4-02
GA-SS-J5-01
GA-SS-J5-02
GA-SS-J6-01
GA-SS-J6-01-AVG
GA-SS-J6-01-D
GA-SS-J6-02
GA-SS-J7-01
GA-SS-J7-02
GA-SS-K5-01
GA-SS-K5-02
GA-SS-L1-01
GA-SS-L1-02
GA-SS-L2-01
GA-SS-L2-02
GA-SS-L3-01
GA-SS-L3-02
GA-SS-L5-01
GA-SS-L5-02
GA-SS-N1-01
GA-SS-N1-02

LOCATION	GA-SB-A0		GA-SB-A1		GA-SB-C1		GA-SB-C2				GA-SB-C3	
SAMPLE ID	GA-SS-A0-01	GA-SS-A0-02	GA-SS-A1-01	GA-SS-A1-02	GA-SS-C1-01	GA-SS-C1-02	GA-SS-C2-01	GA-SS-C2-02	GA-SS-C2-02-AVG	GA-SS-C2-02-D	GA-SS-C3-01	GA-SS-C3-02
SAMPLE DATE	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0.5	0	0.5	0	0.5	0	0.5	0.5	0.5	0	0.5
BOTTOM DEPTH	0.5	2	0.5	2	0.5	2	0.5	2	2	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)												
1-METHYLNAPHTHALENE	0.107 U	0.105 U	1.08 U	0.104 U	1.09 U	1.47 J	1.45 J	0.107 U	0.107 U	0.107 U	NA	NA
2-METHYLNAPHTHALENE	0.0376 U	0.0367 U	0.915 J	0.0365 U	0.381 U	2.01 J	1.79 J	0.0376 U	0.03755 U	0.0375 U	NA	NA
ACENAPHTHENE	0.11 J	0.0272 U	7.68	0.0271 U	0.993 J	11.9	10	0.0279 U	0.0279 U	0.0279 U	NA	NA
ACENAPHTHYLENE	0.0215 U	0.0209 U	0.215 U	0.0208 U	0.218 U	0.215 U	0.224 U	0.0215 U	0.02145 U	0.0214 U	NA	NA
ANTHRACENE	0.276 J	0.0283 U	13.6	0.0281 U	1.91 J	20.6	14.9	0.029 U	0.02895 U	0.0289 U	NA	NA
BAP EQUIVALENT	4.21093	0.48091	113.12	0.381001	42.6898	308.357	406.343	0.479136	0.529306	0.579475	NA	NA
BENZO(A)ANTHRACENE	2.42	0.183 J	80.3	0.123 J	24.3	225	245	0.181 J	0.207 J	0.233 J	NA	NA
BENZO(A)PYRENE	2.71	0.345 J	71.6	0.263 J	28.3 J	211	273	0.338 J	0.376 J	0.414	NA	NA
BENZO(B)FLUORANTHENE	3.41	0.493	99.5	0.417	38.5 J	265	346	0.527	0.5915	0.656	NA	NA
BENZO(G,H,I)PERYLENE	2.03	0.285 J	58.3	0.256 J	18.6 J	141 J	235 J	0.32 J	0.36 J	0.40	NA	NA
BENZO(K)FLUORANTHENE	1.87	0.217 J	39.9	0.0994 J	16.1 J	130	172	0.14 J	0.18 J	0.22 J	NA	NA
CHRYSENE	3.23	0.24 J	101	0.157 J	28.8	257	323	0.236 J	0.2805 J	0.325 J	NA	NA
DIBENZO(A,H)ANTHRACENE	0.663	0.0628 U	16.5	0.0625 U	5.97 J	31.4 J	47.1 J	0.0644 U	0.06435 U	0.0643 U	NA	NA
FLUORANTHENE	3.41	0.275 J	153	0.175 J	37.7	352	334	0.275 J	0.305 J	0.335 J	NA	NA
FLUORENE	0.0279 U	0.0272 U	3.97	0.0271 U	0.283 U	6.27	4.15	0.0279 U	0.0279 U	0.0279 U	NA	NA
INDENO(1,2,3-CD)PYRENE	2.33	0.345 J	65.4	0.316 J	19.5 J	154 J	251 J	0.365	0.392	0.419	NA	NA
NAPHTHALENE	0.0468 J	0.0335 U	2.32 J	0.0334 U	0.66 J	6.44	6	0.0344 U	0.03435 U	0.0343 U	NA	NA
PHENANTHRENE	1.21	0.0764 J	50	0.024 U	9.59	69.3	56.8	0.0568 J	0.05895 J	0.0611 J	NA	NA
PYRENE	4.91	0.324 J	137	0.17 J	33.3	274	304	0.225 J	0.2575 J	0.29 J	NA	NA
INORGANICS (MG/KG)												
ANTIMONY	NA	NA	0.351 J	NA	0.275 UJ	NA	0.374 J	0.274 UJ	0.274 UJ	NA	0.458 J	NA
ARSENIC	NA	NA	2.03	NA	2.06	NA	2.79	1.44	1.44	NA	2.94	NA
COPPER	NA	NA	3.78	NA	3.1	NA	3.8	3.04	3.04	NA	4.18	NA
LEAD	NA	NA	116	NA	101 J	NA	350 J	16.3 J	16.3 J	NA	352 J	NA
LEAD-CALC	18.7	10 U	138	10 U	131	10 U	365	10 U	10 U	NA	521	10 U
TIN	NA	NA	2.63 U	NA	2.75 U	NA	2.79 U	2.74 U	2.74 U	NA	2.74 U	NA
ZINC	NA	NA	4.78 J	NA	7.28 J	NA	8 J	4.2 J	4.2 J	NA	4.86 J	NA
SPLP INORGANICS (UG/L)												
ALUMINUM	NA	NA	NA	NA	4190	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	1.25 U	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	1.42 J	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	169	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	0.25 U	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	0.25 U	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	2340	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	2.02	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	1.25 U	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	1.95 J	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	1650	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	20	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	726 J	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	133	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	0.08 U	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	1.37 J	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	1070 J	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	0.75 U	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	0.25 U	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	11000 J	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	0.75 U	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	4.15	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	70.2 J	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)												
LEAD	50	5.67	149.3	10.33	143.7	32.33	338.3	10	10	NA	468.3	20.33
MISCELLANEOUS PARAMETERS (MEQ/100)												
CATION EXCHANGE CAPACITY	NA	NA	NA	NA	NA	NA	NA	3.06 J	3.17 J	3.28 J	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)												
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	7080	6630	6180	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)												
PH	NA	NA	NA	NA	NA	NA	NA	5.59	5.765	5.94	NA	NA

LOCATION	GA-SB-C5		GA-SB-D5		GA-SB-DS1	GA-SB-E1		GA-SB-E2		GA-SB-E3		GA-SB-E4	
SAMPLE ID	GA-SS-C5-01	GA-SS-C5-02	GA-SS-D5-01	GA-SS-D5-02	GA-SB-DS1	GA-SS-E1-01	GA-SS-E1-02	GA-SS-E2-01	GA-SS-E2-02	GA-SS-E3-01	GA-SS-E3-02	GA-SS-E4-01	GA-SS-E4-02
SAMPLE DATE	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0.5	0	0.5	0	0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH	0.5	2	0.5	2	0.5	0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)													
1-METHYLNAPHTHALENE	NA	NA	NA	NA	0.107 U	1.07 U	0.106 U	0.108 U	0.105 U	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	0.0375 U	0.376 U	0.0369 U	0.0377 U	0.0368 U	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	0.0278 U	2.23 J	0.0274 U	0.028 U	0.0273 U	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	0.0214 U	0.215 U	0.0211 U	0.0215 U	0.021 U	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	0.0289 U	3.34 J	0.0285 U	0.029 U	0.0284 U	NA	NA	NA	NA
BAP EQUIVALENT	NA	NA	NA	NA	0.0246 U	83.0213	0.569756	0.106936	0.0242 U	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	0.0386 U	55.3	0.298 J	0.0387 U	0.0378 U	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	0.0246 U	55.3 J	0.406	0.0247 U	0.0242 U	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	0.0343 U	70.5 J	0.633	0.577 J	0.0336 U	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	0.075 U	44.1 J	0.353	0.0753 U	0.0735 U	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	0.0418 U	33.5 J	0.212 J	0.042 U	0.041 U	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	0.0332 U	66.3	0.386	0.0333 U	0.0326 U	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	0.0643 U	10.5 J	0.0633 U	0.0645 U	0.063 U	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	0.0578 U	71	0.49	0.0594 J	0.0567 U	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	0.0278 U	0.663 J	0.0274 U	0.028 U	0.0273 U	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	0.0493 U	42.4 J	0.365	0.0495 U	0.0483 U	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	0.0343 U	1.04 J	0.0338 U	0.0344 U	0.0336 U	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	0.0246 U	19.3	0.0977 J	0.0247 U	0.0242 U	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	0.0428 U	74.6	0.431	0.0581 J	0.042 U	NA	NA	NA	NA
INORGANICS (MG/KG)													
ANTIMONY	NA	0.263 UJ	0.331 J	NA	1.43 J	NA	NA	0.265 UJ	NA	NA	NA	1.2 J	NA
ARSENIC	NA	1.19	2.33	NA	1.34 J	NA	NA	1.06	NA	NA	NA	3.18	NA
COPPER	NA	2.91	3.78	NA	111	NA	NA	1.8	NA	NA	NA	4	NA
LEAD	NA	44.1 J	503 J	NA	27.5 J	NA	NA	133 J	NA	NA	NA	669 J	NA
LEAD-CALC	32.3	222	453	104.7	10 U	133	10 U	382	10 U	18.7	10 U	746	10 U
TIN	NA	2.63 U	2.9 U	NA	4.94 J	NA	NA	2.65 U	NA	NA	NA	3.57 U	NA
ZINC	NA	3.04 J	4.18 J	NA	1720 J	NA	NA	3.7 J	NA	NA	NA	5.39 J	NA
SPLP INORGANICS (UG/L)													
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	1820	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	22.4	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	8.96	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	185	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	0.25 U	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	0.25 U	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	1660	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	0.98 J	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	1.25 U	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	4.8	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	769	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	24.4	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	657 J	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	69.3	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	0.08 U	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	0.80 J	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	694 J	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	0.75 U	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	0.25 U	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	1530 J	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	0.75 U	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	2.12 J	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	72.1 J	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)													
LEAD	61.33	219.3	411.7	121.7	12.67	145	8	353	6.33	50	14.67	656.3	12
MISCELLANEOUS PARAMETERS (MEQ/100)													
CATION EXCHANGE CAPACITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)													
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)													
PH	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	GA-SB-E5		GA-SB-E6		GA-SB-E7		GA-SB-F5		GA-SB-G1		GA-SB-G2		
SAMPLE ID	GA-SS-E5-01	GA-SS-E5-02	GA-SS-E6-01	GA-SS-E6-02	GA-SS-E7-01	GA-SS-E7-02	GA-SS-F5-01	GA-SS-F5-02	GA-SS-G1-01	GA-SS-G1-02	GA-SS-G2-01	GA-SS-G2-02	GA-SS-G2.5-01
SAMPLE DATE	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0.5	0	0.5	0	0.5	0	0.5	0	0.5	0	0.5	0.5
BOTTOM DEPTH	0.5	2	0.5	2	0.5	2	0.5	2	0.5	2	0.5	2	1
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)													
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	1.66 J	0.105 U	0.111 U	0.107 U	0.107 U
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	2.28 J	0.0367 U	0.039 U	0.0373 U	0.0375 U
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	10.1	0.0273 U	0.029 U	0.0277 U	0.0278 U
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	0.215 U	0.021 U	0.0223 U	0.0213 U	0.0214 U
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	13.5	0.0283 U	0.0301 U	0.0288 U	0.0289 U
BAP EQUIVALENT	NA	NA	NA	NA	NA	NA	NA	NA	316.542	0.577914	0.0256 U	0.0245 U	0.0246 U
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	198	0.172 J	0.0401 U	0.0384 U	0.0385 U
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	213	0.455	0.0256 U	0.0245 U	0.0246 U
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	286	0.699	0.0357 U	0.0341 U	0.0342 U
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	172 J	0.407	0.078 U	0.0746 U	0.0749 U
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	139	0.168 J	0.0435 U	0.0416 U	0.0417 U
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	252	0.219 J	0.0346 U	0.033 U	0.0332 U
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	33.3 J	0.063 U	0.0669 U	0.064 U	0.0642 U
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	307	0.261 J	0.0602 U	0.0576 U	0.0578 U
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	5.55	0.0273 U	0.029 U	0.0277 U	0.0278 U
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	202 J	0.0483 U	0.0513 U	0.049 U	0.0492 U
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	9.77	0.0336 U	0.0357 U	0.0341 U	0.0342 U
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	46.5	0.0241 U	0.0256 U	0.0245 U	0.0246 U
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	250	0.257 J	0.0446 U	0.0426 U	0.0428 U
INORGANICS (MG/KG)													
ANTIMONY	NA	NA	1.34 J	NA	NA	NA	NA	NA	NA	NA	NA	0.267 UJ	NA
ARSENIC	NA	NA	2.11	NA	NA	NA	NA	NA	NA	NA	NA	1.22	NA
COPPER	NA	NA	2.35	NA	NA	NA	NA	NA	NA	NA	NA	2.63	NA
LEAD	NA	NA	465 J	NA	NA	NA	NA	NA	NA	NA	NA	4.22 J	NA
LEAD-CALC	27.5	10 U	391	10 U	51.9	10 U	10 U	10 U	21.5	10 U	10 U	10 U	10 U
TIN	NA	NA	2.72 U	NA	NA	NA	NA	NA	NA	NA	NA	2.67 U	NA
ZINC	NA	NA	3.33 J	NA	NA	NA	NA	NA	NA	NA	NA	3.46 J	NA
SPLP INORGANICS (UG/L)													
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	48.4 J	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.25 U	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.75 U	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	43	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.25 U	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.25 U	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	597 J	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.50 U	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.25 U	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.25 U	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	54.1	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.72 J	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	250 U	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16.1	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08 U	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.75 U	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	250 U	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.75 U	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.25 U	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	699 J	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.75 U	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.25 U	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17.7 J	NA
XRF INORGANICS (MG/KG)													
LEAD	57.33	12	360.3	11.33	77.67	5.67	26.67	10 U	52.33	10 U	30.33	10 U	28
MISCELLANEOUS PARAMETERS (MEQ/100)													
CATION EXCHANGE CAPACITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.75 J	NA
MISCELLANEOUS PARAMETERS (MG/KG)													
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5990	NA
MISCELLANEOUS PARAMETERS (S.U.)													
PH	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.59	NA

LOCATION	GA-SB-G2.5			GA-SB-G3		GA-SB-G4		GA-SB-G5		GA-SB-G6		GA-SB-G7	
SAMPLE ID	GA-SS-G2.5-02	GA-SS-G2.5-02-	GA-SS-G2.5-02-D	GA-SS-G3-01	GA-SS-G3-02	GA-SS-G4-01	GA-SS-G4-02	GA-SS-G5-01	GA-SS-G5-02	GA-SS-G6-01	GA-SS-G6-02	GA-SS-G7-01	GA-SS-G7-02
SAMPLE DATE	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428
SAMPLE CODE	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0.5	0.5	0.5	0	0.5	0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH	2	2	2	0.5	2	0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)													
1-METHYLNAPHTHALENE	0.106 U	0.106 U	0.106 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	0.0371 U	0.03715 U	0.0372 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	0.0275 U	0.02755 U	0.0276 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	0.0212 U	0.02125 U	0.0213 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	0.0286 U	0.02865 U	0.0287 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	0.0243 U	0.02435 U	0.0244 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.0381 U	0.0382 U	0.0383 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	0.0243 U	0.02435 U	0.0244 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.0339 U	0.03395 U	0.034 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	0.0741 U	0.07425 U	0.0744 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	0.0413 U	0.04135 U	0.0414 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	0.0328 U	0.03285 U	0.0329 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.0635 U	0.06365 U	0.0638 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	0.0572 U	0.0573 U	0.0574 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	0.0275 U	0.02755 U	0.0276 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.0487 U	0.0488 U	0.0489 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.0339 U	0.03395 U	0.034 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	0.0243 U	0.02435 U	0.0244 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	0.0423 U	0.0424 U	0.0425 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INORGANICS (MG/KG)													
ANTIMONY	0.262 UJ	0.262 UJ	NA	NA	NA	NA	NA	0.434 J	NA	NA	NA	0.274 U	NA
ARSENIC	1	1	NA	NA	NA	NA	NA	1.1	NA	NA	NA	7.79	NA
COPPER	2.25	2.25	NA	NA	NA	NA	NA	2.08	NA	NA	NA	2.75	NA
LEAD	4.7 J	4.7 J	NA	NA	NA	NA	NA	156 J	NA	NA	NA	92.3	NA
LEAD-CALC	10 U	10 U	NA	10 U	10 U	4.3	10 U	224	10.3	5.1	10 U	83.9	10 U
TIN	2.62 U	2.62 U	NA	NA	NA	NA	NA	2.62 U	NA	NA	NA	2.74 U	NA
ZINC	3.19 J	3.19 J	NA	NA	NA	NA	NA	3.06 J	NA	NA	NA	3.93 J	NA
SPLP INORGANICS (UG/L)													
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)													
LEAD	10 U	10 U	NA	27.33	10 U	38	16.33	220.7	43	38.67	10 U	104.3	10 U
MISCELLANEOUS PARAMETERS (MEQ/100)													
CATION EXCHANGE CAPACITY	2.99 J	2.99 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)													
TOTAL ORGANIC CARBON	4820	4820	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)													
PH	5.08	5.08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	GA-SB-H5		GA-SB-J1		GA-SB-J2		GA-SB-J3		GA-SB-J4		GA-SB-J5		
SAMPLE ID	GA-SS-H5-01	GA-SS-H5-02	GA-SS-J1-01	GA-SS-J1-02	GA-SS-J2-01	GA-SS-J2-02	GA-SS-J3-01	GA-SS-J3-02	GA-SS-J4-01	GA-SS-J4-02	GA-SS-J5-01	GA-SS-J5-02	GA-SS-J6-01
SAMPLE DATE	20100428	20100428	20100428	20100427	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0.5	0	0.5	0	0.5	0	0.5	0	0.5	0	0.5	0
BOTTOM DEPTH	0.5	2	0.5	2	0.5	2	0.5	2	0.5	2	0.5	2	0.5
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)													
1-METHYLNAPHTHALENE	NA	NA	1.31 J	0.528 U	0.11 U	0.105 U	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	1.95 J	0.185 U	0.0385 U	0.0369 U	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	16.5	0.247 J	0.0286 U	0.0274 U	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	0.216 U	0.106 U	0.022 U	0.0211 U	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	31.7	2.6	0.0297 U	0.0285 U	NA	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	NA	NA	331.111	11.37996	0.516678	0.0242 U	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	227	8.59	0.105 J	0.038 U	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	228	7.09 J	0.405	0.0242 U	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	314	9.42 J	0.649	0.0337 U	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	168 J	4.29 J	0.077 U	0.0738 U	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	116	4.68 J	0.064 J	0.0411 U	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	251	9.16	0.108 J	0.0327 U	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	29.6 J	1.93 J	0.066 U	0.0633 U	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	392	16.7	0.155 J	0.0569 U	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	9.11	0.377 J	0.0286 U	0.0274 U	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	180 J	5.03 J	0.0506 U	0.0485 U	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	8.27	0.169 U	0.0352 U	0.0337 U	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	146	8.97	0.0253 U	0.0242 U	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	326	15.2	0.132 J	0.0422 U	NA	NA	NA	NA	NA	NA	NA
INORGANICS (MG/KG)													
ANTIMONY	NA	NA	NA	NA	0.275 U	NA	NA	NA	NA	NA	NA	0.261 U	2.27
ARSENIC	NA	NA	NA	NA	1.6	NA	NA	NA	NA	NA	NA	0.728	5.05
COPPER	NA	NA	NA	NA	2.73	NA	NA	NA	NA	NA	NA	1.75	2.34
LEAD	NA	NA	NA	NA	121	NA	NA	NA	NA	NA	NA	25.1	1300 J
LEAD-CALC	34.7	10 U	133	10 U	125	10 U	162	10 U	14.3	10 U	130	10 U	1183
TIN	NA	NA	NA	NA	2.75 U	NA	NA	NA	NA	NA	NA	2.61 U	2.66 U
ZINC	NA	NA	NA	NA	3.62 J	NA	NA	NA	NA	NA	NA	2.59 J	3.14 J
SPLP INORGANICS (UG/L)													
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1690
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.45 J
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.75 UJ
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	126
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.25 U
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.42 J
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	854 J
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.50 U
COBALT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.25 U
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.5 J
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.5 UJ
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1490
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	250 U
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	24.2 J
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08 U
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.81 J
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	609 J
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.75 U
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.25 U
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1080 J
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.75 U
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.25 U
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	54.7 J
XRF INORGANICS (MG/KG)													
LEAD	63.33	10 U	145.3	10 U	138.3	10 U	169.3	10.67	46.33	10 U	143	30	1020
MISCELLANEOUS PARAMETERS (MEQ/100)													
CATION EXCHANGE CAPACITY	NA	NA	NA	2.13 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)													
TOTAL ORGANIC CARBON	NA	NA	NA	6060	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)													
PH	NA	NA	NA	5.44	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	GA-SB-J6			GA-SB-J7		GA-SB-K5		GA-SB-L1		GA-SB-L2		GA-SB-L5	
SAMPLE ID	GA-SS-J6-01-AVG	GA-SS-J6-01-D	GA-SS-J6-02	GA-SS-J7-01	GA-SS-J7-02	GA-SS-K5-01	GA-SS-K5-02	GA-SS-L1-01	GA-SS-L1-02	GA-SS-L2-01	GA-SS-L2-02	GA-SS-L5-01	GA-SS-L5-02
SAMPLE DATE	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428
SAMPLE CODE	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0.5	0	0.5	0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH	0.5	0.5	2	0.5	2	0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)													
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	1.09 U	0.105 U	0.536 U	0.104 U	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	1.17 J	0.0368 U	0.188 U	0.0366 U	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	6.07	0.0274 U	0.139 U	0.0272 U	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	0.218 U	0.021 U	0.107 U	0.0209 U	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	11.9	0.186 J	0.308 J	0.0282 U	NA	NA
BAP EQUIVALENT	NA	NA	NA	NA	NA	NA	NA	219.172	2.62173	7.76851	1.17649	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	134	1.3	3.61	0.59	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	146	1.59	4.66	0.873	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	202	2.1	6.35	1.3	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	101 J	1.15	3.67	0.617	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	71.5	0.919	3.18	0.411	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	157	1.54	4.71	0.73	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	27.2	0.542	1.66 J	0.0627 U	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	196	2.09	5.57	0.784	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	3.44 J	0.0274 U	0.139 U	0.0272 U	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	115 J	1.39	4.16	0.783	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	4.68	0.0337 U	0.171 U	0.0334 U	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	45.8	0.725	1.53 J	0.199 J	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	165	1.72	4.89	0.847	NA	NA
INORGANICS (MG/KG)													
ANTIMONY	2.195 J	2.12 J	NA	0.273 U	NA	NA	NA	0.503 J	NA	NA	0.262 U	NA	NA
ARSENIC	4.625 J	4.2 J	NA	3.13 J	NA	NA	NA	1.86 J	NA	NA	0.83 J	NA	NA
COPPER	2.46	2.58	NA	3.37	NA	NA	NA	2.13	NA	NA	1.79	NA	NA
LEAD	1225 J	1150 J	NA	23.1 J	NA	NA	NA	235 J	NA	NA	4.27 J	NA	NA
LEAD-CALC	1183	NA	10 U	10 U	0.304	68.7	10 U	178	10 U	13.5	10 U	66.3	10 U
TIN	2.675 U	2.69 U	NA	2.73 U	NA	NA	NA	2.69 U	NA	NA	2.62 U	NA	NA
ZINC	3.675 J	4.21 J	NA	5.81 J	NA	NA	NA	9.89 J	NA	NA	4.12 J	NA	NA
SPLP INORGANICS (UG/L)													
ALUMINUM	1915	2140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	47.675 J	93.9 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	9.5375 J	18.7 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	138.5	151	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	0.25 U	0.25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	0.2725 J	0.25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	833 J	812 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	0.675 J	1.1 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	1.25 U	1.25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	1.455 J	1.41 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	434.375 J	865 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	1495	1500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	196 J	267 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	30.8 J	37.4 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.08 U	0.08 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	0.84 J	0.87 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	539.5 J	470 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	0.75 U	0.75 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	0.25 U	0.25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	1095 J	1110 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	0.75 U	0.75 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	1.4475 J	2.27 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	57.4 J	60.1 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)													
LEAD	1020	NA	10 U	12	34.67	91.67	15.33	183	10 U	45.67	10 U	89.67	12.33
MISCELLANEOUS PARAMETERS (MEQ/100)													
CATION EXCHANGE CAPACITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)													
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)													
PH	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	GA-SB-N1		GA-SS-L3	
SAMPLE ID	GA-SS-N1-01	GA-SS-N1-02	GA-SS-L3-01	GA-SS-L3-02
SAMPLE DATE	20100428	20100428	20100428	20100428
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS
TOP DEPTH	0	0.5	0	0.5
BOTTOM DEPTH	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)				
1-METHYLNAPHTHALENE	0.527 UJ	0.104 U	NA	NA
2-METHYLNAPHTHALENE	0.185 UJ	0.0364 U	NA	NA
ACENAPHTHENE	0.137 UJ	0.027 U	NA	NA
ACENAPHTHYLENE	0.105 UJ	0.0208 U	NA	NA
ANTHRACENE	0.142 UJ	0.0281 U	NA	NA
BAP EQUIVALENT	2.98735	0.507843	NA	NA
BENZO(A)ANTHRACENE	1.49 J	0.109 J	NA	NA
BENZO(A)PYRENE	2.16 J	0.399	NA	NA
BENZO(B)FLUORANTHENE	3.15 J	0.634	NA	NA
BENZO(G,H,I)PERYLENE	1.76 J	0.0727 U	NA	NA
BENZO(K)FLUORANTHENE	1.14 J	0.0861 J	NA	NA
CHRYSENE	1.95 J	0.142 J	NA	NA
DIBENZO(A,H)ANTHRACENE	0.316 UJ	0.0623 U	NA	NA
FLUORANTHENE	2.75 J	0.16 J	NA	NA
FLUORENE	0.137 UJ	0.027 U	NA	NA
INDENO(1,2,3-CD)PYRENE	1.92 J	0.0478 U	NA	NA
NAPHTHALENE	0.169 UJ	0.0332 U	NA	NA
PHENANTHRENE	0.621 J	0.0239 U	NA	NA
PYRENE	2.53 J	0.159 J	NA	NA
INORGANICS (MG/KG)				
ANTIMONY	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA
COPPER	NA	NA	NA	NA
LEAD	NA	NA	NA	NA
LEAD-CALC	144	10 U	10 U	10 U
TIN	NA	NA	NA	NA
ZINC	NA	NA	NA	NA
SPLP INORGANICS (UG/L)				
ALUMINUM	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA
COBALT	NA	NA	NA	NA
COPPER	NA	NA	NA	NA
IRON	NA	NA	NA	NA
LEAD	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA
SILVER	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA
ZINC	NA	NA	NA	NA
XRF INORGANICS (MG/KG)				
LEAD	154.7	18	12.33	10 U
MISCELLANEOUS PARAMETERS (MEQ/100)				
CATION EXCHANGE CAPACITY	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)				
TOTAL ORGANIC CARBON	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)				
PH	NA	NA	NA	NA

LOCATION		GA-SB-A0		GA-SB-A1		GA-SB-C1	
SAMPLE ID		GA-SS-A0-01	GA-SS-A0-02	GA-SS-A1-01	GA-SS-A1-02	GA-SS-C1-01	GA-SS-C1-02
SAMPLE DATE		20100428	20100428	20100428	20100428	20100428	20100428
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO
SAMPLE TYPE	Project	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	Action	SS	SS	SS	SS	SS	SS
TOP DEPTH	Limit	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH		0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)							
1-METHYLNAPHTHALENE	200 [1]	0.107 U	0.105 U	1.08 U	0.104 U	1.09 U	1.47 J
2-METHYLNAPHTHALENE	210 [1]	0.0376 U	0.0367 U	0.915 J	0.0365 U	0.381 U	2.01 J
ACENAPHTHENE	2400 [1]	0.11 J	0.0272 U	7.68	0.0271 U	0.993 J	11.9
ANTHRACENE	21000 [1]	0.276 J	0.0283 U	13.6	0.0281 U	1.91 J	20.6
BAP EQUIVALENT	0.1 [2]	**4.21093**	**0.48091**	**113.12**	**0.381**	**42.6898**	**308.357**
BENZO(A)ANTHRACENE	0.15 [3]	**2.42**	**0.183 J**	**80.3**	0.123 J	**24.3**	**225**
BENZO(A)PYRENE	0.1 [2]	**2.71**	**0.345 J**	**71.6**	**0.263 J**	**28.3 J**	**211**
BENZO(B)FLUORANTHENE	0.15 [3]	**3.41**	**0.493**	**99.5**	**0.417**	**38.5 J**	**265**
BENZO(G,H,I)PERYLENE	2500 [1]	2.03	0.285 J	58.3	0.256 J	18.6 J	141 J
BENZO(K)FLUORANTHENE	1.5 [3]	**1.87**	0.217 J	**39.9**	0.0994 J	**16.1 J**	**130**
CHRYSENE	15 [3]	3.23	0.24 J	**101**	0.157 J	**28.8**	**257**
DIBENZO(A,H)ANTHRACENE	0.015 [3]	**0.663**	0.0628 U	**16.5**	0.0625 U	**5.97 J**	**31.4 J**
FLUORANTHENE	3200 [1]	3.41	0.275 J	153	0.175 J	37.7	352
FLUORENE	160 [1]	0.0279 U	0.0272 U	3.97	0.0271 U	0.283 U	6.27
INDENO(1,2,3-CD)PYRENE	0.15 [3]	**2.33**	**0.345 J**	**65.4**	**0.316 J**	**19.5 J**	**154 J**
NAPHTHALENE	55 [1]	0.0468 J	0.0335 U	2.32 J	0.0334 U	0.66 J	6.44
PHENANTHRENE	2200 [1]	1.21	0.0764 J	50	0.024 U	9.59	69.3
PYRENE	2400 [1]	4.91	0.324 J	137	0.17 J	33.3	274
INORGANICS (MG/KG)							
ANTIMONY	27 [4]	NA	NA	0.351 J	NA	0.275 UJ	NA
ARSENIC	3.2 [5]	NA	NA	2.03	NA	2.06	NA
COPPER	150 [4]	NA	NA	3.78	NA	3.1	NA
LEAD	400 [4]	NA	NA	116	NA	101 J	NA
LEAD-CALC	400 [4]	18.7	10 U	138	10 U	131	10 U
TIN	47000 [4]	NA	NA	2.63 U	NA	2.75 U	NA
ZINC	26000 [4]	NA	NA	4.78 J	NA	7.28 J	NA
SPLP INORGANICS (UG/L)							
ALUMINUM	NC	NA	NA	NA	NA	4190	NA
ANTIMONY	6 [6]	NA	NA	NA	NA	1.25 U	NA
ARSENIC	50 [6]	NA	NA	NA	NA	1.42 J	NA
BARIUM	NC	NA	NA	NA	NA	169	NA
CADMIUM	NC	NA	NA	NA	NA	0.25 U	NA
CALCIUM	NC	NA	NA	NA	NA	2340	NA
CHROMIUM	NC	NA	NA	NA	NA	2.02	NA
COPPER	100 [7]	NA	NA	NA	NA	1.95 J	NA
IRON	NC	NA	NA	NA	NA	1650	NA
LEAD	15 [6]	NA	NA	NA	NA	**20**	NA
MAGNESIUM	NC	NA	NA	NA	NA	726 J	NA
MANGANESE	NC	NA	NA	NA	NA	133	NA
NICKEL	NC	NA	NA	NA	NA	1.37 J	NA
POTASSIUM	NC	NA	NA	NA	NA	1070 J	NA
SODIUM	NC	NA	NA	NA	NA	11000 J	NA
VANADIUM	NC	NA	NA	NA	NA	4.15	NA
ZINC	500 [7]	NA	NA	NA	NA	70.2 J	NA
XRF INORGANICS (MG/KG)							
LEAD	15 [6]	**50**	5.67	**149.3**	10.33	**143.7**	**32.33**
MISCELLANEOUS PARAMETERS (MEQ/100)							
CATION EXCHANGE CAPACITY	NC	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NC	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)							
PH	NC	NA	NA	NA	NA	NA	NA

[1] - FDEP SCTL
[2] - SCTLs
[3] - USEPA Residential SSL
[4] - FDEP Residential SCTL
[5] - Background
[6] - FDEP MCL
[7] - FDEP Secondary Drinking Water Criteria

LOCATION	GA-SB-C2				GA-SB-C3		GA-SB-C5		GA-SB-D5	
SAMPLE ID	GA-SS-C2-01	GA-SS-C2-02	GA-SS-C2-02-AVG	GA-SS-C2-02-D	GA-SS-C3-01	GA-SS-C3-02	GA-SS-C5-01	GA-SS-C5-02	GA-SS-D5-01	GA-SS-D5-02
SAMPLE DATE	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428
SAMPLE CODE	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0.5	0.5	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH	0.5	2	2	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)										
1-METHYLNAPHTHALENE	1.45 J	0.107 U	0.107 U	0.107 U	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	1.79 J	0.0376 U	0.03755 U	0.0375 U	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	10	0.0279 U	0.0279 U	0.0279 U	NA	NA	NA	NA	NA	NA
ANTHRACENE	14.9	0.029 U	0.02895 U	0.0289 U	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	**406.343**	**0.47914**	**0.52931**	**0.57948**	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	**245**	**0.181 J**	**0.207 J**	**0.233 J**	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	**273**	**0.338 J**	**0.376 J**	**0.414**	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	**346**	**0.527**	**0.5915**	**0.656**	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	235 J	0.32 J	0.36 J	0.4	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	**172**	0.14 J	0.18 J	0.22 J	NA	NA	NA	NA	NA	NA
CHRYSENE	**323**	0.236 J	0.2805 J	0.325 J	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	**47.1 J**	0.0644 U	0.06435 U	0.0643 U	NA	NA	NA	NA	NA	NA
FLUORANTHENE	334	0.275 J	0.305 J	0.335 J	NA	NA	NA	NA	NA	NA
FLUORENE	4.15	0.0279 U	0.0279 U	0.0279 U	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	**251 J**	**0.365**	**0.392**	**0.419**	NA	NA	NA	NA	NA	NA
NAPHTHALENE	6	0.0344 U	0.03435 U	0.0343 U	NA	NA	NA	NA	NA	NA
PHENANTHRENE	56.8	0.0568 J	0.05895 J	0.0611 J	NA	NA	NA	NA	NA	NA
PYRENE	304	0.225 J	0.2575 J	0.29 J	NA	NA	NA	NA	NA	NA
INORGANICS (MG/KG)										
ANTIMONY	0.374 J	0.274 UJ	0.274 UJ	NA	0.458 J	NA	NA	0.263 UJ	0.331 J	NA
ARSENIC	2.79	1.44	1.44	NA	2.94	NA	NA	1.19	2.33	NA
COPPER	3.8	3.04	3.04	NA	4.18	NA	NA	2.91	3.78	NA
LEAD	350 J	16.3 J	16.3 J	NA	352 J	NA	NA	44.1 J	**503 J**	NA
LEAD-CALC	365	10 U	10 U	NA	**521**	10 U	32.3	222	**453**	104.7
TIN	2.79 U	2.74 U	2.74 U	NA	2.74 U	NA	NA	2.63 U	2.9 U	NA
ZINC	8 J	4.2 J	4.2 J	NA	4.86 J	NA	NA	3.04 J	4.18 J	NA
SPLP INORGANICS (UG/L)										
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)										
LEAD	**338.3**	10	10	NA	**468.3**	**20.33**	**61.33**	**219.3**	**411.7**	**121.7**
MISCELLANEOUS PARAMETERS (MEQ/100)										
CATION EXCHANGE CAPACITY	NA	3.06 J	3.17 J	3.28 J	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)										
TOTAL ORGANIC CARBON	NA	7080	6630	6180	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)										
PH	NA	5.59	5.765	5.94	NA	NA	NA	NA	NA	NA

[1] - FDEP SCTL
[2] - SCTLs
[3] - USEPA Residential SSL
[4] - FDEP Residential SCTL
[5] - Background
[6] - FDEP MCL
[7] - FDEP Secondary Drinking Water Criteria

LOCATION	GA-SB-DS1	GA-SB-E1		GA-SB-E2		GA-SB-E3		GA-SB-E4	
SAMPLE ID	GA-SB-DS1	GA-SS-E1-01	GA-SS-E1-02	GA-SS-E2-01	GA-SS-E2-02	GA-SS-E3-01	GA-SS-E3-02	GA-SS-E4-01	GA-SS-E4-02
SAMPLE DATE	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH	0.5	0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)									
1-METHYLNAPHTHALENE	0.107 U	1.07 U	0.106 U	0.108 U	0.105 U	NA	NA	NA	NA
2-METHYLNAPHTHALENE	0.0375 U	0.376 U	0.0369 U	0.0377 U	0.0368 U	NA	NA	NA	NA
ACENAPHTHENE	0.0278 U	2.23 J	0.0274 U	0.028 U	0.0273 U	NA	NA	NA	NA
ANTHRACENE	0.0289 U	3.34 J	0.0285 U	0.029 U	0.0284 U	NA	NA	NA	NA
BAP EQUIVALENT	0.0246 U	**83.0213**	**0.56976**	**0.10694**	0.0242 U	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.0386 U	**55.3**	**0.298 J**	0.0387 U	0.0378 U	NA	NA	NA	NA
BENZO(A)PYRENE	0.0246 U	**55.3 J**	**0.406**	0.0247 U	0.0242 U	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.0343 U	**70.5 J**	**0.633**	**0.577 J**	0.0336 U	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	0.075 U	44.1 J	0.353	0.0753 U	0.0735 U	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	0.0418 U	**33.5 J**	0.212 J	0.042 U	0.041 U	NA	NA	NA	NA
CHRYSENE	0.0332 U	**66.3**	0.386	0.0333 U	0.0326 U	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.0643 U	**10.5 J**	0.0633 U	0.0645 U	0.063 U	NA	NA	NA	NA
FLUORANTHENE	0.0578 U	71	0.49	0.0594 J	0.0567 U	NA	NA	NA	NA
FLUORENE	0.0278 U	0.663 J	0.0274 U	0.028 U	0.0273 U	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.0493 U	**42.4 J**	**0.365**	0.0495 U	0.0483 U	NA	NA	NA	NA
NAPHTHALENE	0.0343 U	1.04 J	0.0338 U	0.0344 U	0.0336 U	NA	NA	NA	NA
PHENANTHRENE	0.0246 U	19.3	0.0977 J	0.0247 U	0.0242 U	NA	NA	NA	NA
PYRENE	0.0428 U	74.6	0.431	0.0581 J	0.042 U	NA	NA	NA	NA
INORGANICS (MG/KG)									
ANTIMONY	1.43 J	NA	NA	0.265 UJ	NA	NA	NA	1.2 J	NA
ARSENIC	1.34 J	NA	NA	1.06	NA	NA	NA	3.18	NA
COPPER	111	NA	NA	1.8	NA	NA	NA	4	NA
LEAD	27.5 J	NA	NA	133 J	NA	NA	NA	**669 J**	NA
LEAD-CALC	10 U	133	10 U	382	10 U	18.7	10 U	**746**	10 U
TIN	4.94 J	NA	NA	2.65 U	NA	NA	NA	3.57 U	NA
ZINC	1720 J	NA	NA	3.7 J	NA	NA	NA	5.39 J	NA
SPLP INORGANICS (UG/L)									
ALUMINUM	NA	NA	NA	1820	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	**22.4**	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	8.96	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	185	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	0.25 U	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	1660	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	0.98 J	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	4.8	NA	NA	NA	NA	NA
IRON	NA	NA	NA	769	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	**24.4**	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	657 J	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	69.3	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	0.8 J	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	694 J	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	1530 J	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	2.12 J	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	72.1 J	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)									
LEAD	12.67	**145**	8	**353**	6.33	**50**	14.67	**656.3**	12
MISCELLANEOUS PARAMETERS (MEQ/100)									
CATION EXCHANGE CAPACITY	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)									
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)									
PH	NA	NA	NA	NA	NA	NA	NA	NA	NA

[1] - FDEP SCTL
[2] - SCTLs
[3] - USEPA Residential SSL
[4] - FDEP Residential SCTL
[5] - Background
[6] - FDEP MCL
[7] - FDEP Secondary Drinking Water Criteria

LOCATION	GA-SB-E5		GA-SB-E6		GA-SB-E7		GA-SB-F5		GA-SB-G1	
SAMPLE ID	GA-SS-E5-01	GA-SS-E5-02	GA-SS-E6-01	GA-SS-E6-02	GA-SS-E7-01	GA-SS-E7-02	GA-SS-F5-01	GA-SS-F5-02	GA-SS-G1-01	GA-SS-G1-02
SAMPLE DATE	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0.5	0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH	0.5	2	0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)										
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	1.66 J	0.105 U
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	2.28 J	0.0367 U
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	10.1	0.0273 U
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	13.5	0.0283 U
BAP EQUIVALENT	NA	NA	NA	NA	NA	NA	NA	NA	**316.542**	**0.57791**
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	**198**	**0.172 J**
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	**213**	**0.455**
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	**286**	**0.699**
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	172 J	0.407
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	**139**	0.168 J
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	**252**	0.219 J
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	**33.3 J**	0.063 U
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	307	0.261 J
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	5.55	0.0273 U
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	**202 J**	0.0483 U
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	9.77	0.0336 U
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	46.5	0.0241 U
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	250	0.257 J
INORGANICS (MG/KG)										
ANTIMONY	NA	NA	1.34 J	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	2.11	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	2.35	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	**465 J**	NA	NA	NA	NA	NA	NA	NA
LEAD-CALC	27.5	10 U	391	10 U	51.9	10 U	10 U	10 U	21.5	10 U
TIN	NA	NA	2.72 U	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	3.33 J	NA	NA	NA	NA	NA	NA	NA
SPLP INORGANICS (UG/L)										
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)										
LEAD	**57.33**	12	**360.3**	11.33	**77.67**	5.67	**26.67**	10 U	**52.33**	10 U
MISCELLANEOUS PARAMETERS (MEQ/100)										
CATION EXCHANGE CAPACITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)										
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)										
PH	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

[1] - FDEP SCTL
[2] - SCTLs
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[4] - FDEP Residential SCTL
[5] - Background
[6] - FDEP MCL
[7] - FDEP Secondary Drinking Water Criteria

LOCATION	GA-SB-G2		GA-SB-G2.5				GA-SB-G3		GA-SB-G4	
SAMPLE ID	GA-SS-G2-01	GA-SS-G2-02	GA-SS-G2.5-01	GA-SS-G2.5-02	GA-SS-G2.5-02-	GA-SS-G2.5-02-D	GA-SS-G3-01	GA-SS-G3-02	GA-SS-G4-01	GA-SS-G4-02
SAMPLE DATE	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0.5	0.5	0.5	0.5	0.5	0	0.5	0	0.5
BOTTOM DEPTH	0.5	2	1	2	2	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)										
1-METHYLNAPHTHALENE	0.111 U	0.107 U	0.107 U	0.106 U	0.106 U	0.106 U	NA	NA	NA	NA
2-METHYLNAPHTHALENE	0.039 U	0.0373 U	0.0375 U	0.0371 U	0.03715 U	0.0372 U	NA	NA	NA	NA
ACENAPHTHENE	0.029 U	0.0277 U	0.0278 U	0.0275 U	0.02755 U	0.0276 U	NA	NA	NA	NA
ANTHRACENE	0.0301 U	0.0288 U	0.0289 U	0.0286 U	0.02865 U	0.0287 U	NA	NA	NA	NA
BAP EQUIVALENT	0.0256 U	0.0245 U	0.0246 U	0.0243 U	0.02435 U	0.0244 U	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.0401 U	0.0384 U	0.0385 U	0.0381 U	0.0382 U	0.0383 U	NA	NA	NA	NA
BENZO(A)PYRENE	0.0256 U	0.0245 U	0.0246 U	0.0243 U	0.02435 U	0.0244 U	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.0357 U	0.0341 U	0.0342 U	0.0339 U	0.03395 U	0.034 U	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	0.078 U	0.0746 U	0.0749 U	0.0741 U	0.07425 U	0.0744 U	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	0.0435 U	0.0416 U	0.0417 U	0.0413 U	0.04135 U	0.0414 U	NA	NA	NA	NA
CHRYSENE	0.0346 U	0.033 U	0.0332 U	0.0328 U	0.03285 U	0.0329 U	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.0669 U	0.064 U	0.0642 U	0.0635 U	0.06365 U	0.0638 U	NA	NA	NA	NA
FLUORANTHENE	0.0602 U	0.0576 U	0.0578 U	0.0572 U	0.0573 U	0.0574 U	NA	NA	NA	NA
FLUORENE	0.029 U	0.0277 U	0.0278 U	0.0275 U	0.02755 U	0.0276 U	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.0513 U	0.049 U	0.0492 U	0.0487 U	0.0488 U	0.0489 U	NA	NA	NA	NA
NAPHTHALENE	0.0357 U	0.0341 U	0.0342 U	0.0339 U	0.03395 U	0.034 U	NA	NA	NA	NA
PHENANTHRENE	0.0256 U	0.0245 U	0.0246 U	0.0243 U	0.02435 U	0.0244 U	NA	NA	NA	NA
PYRENE	0.0446 U	0.0426 U	0.0428 U	0.0423 U	0.0424 U	0.0425 U	NA	NA	NA	NA
INORGANICS (MG/KG)										
ANTIMONY	NA	0.267 UJ	NA	0.262 UJ	0.262 UJ	NA	NA	NA	NA	NA
ARSENIC	NA	1.22	NA	1	1	NA	NA	NA	NA	NA
COPPER	NA	2.63	NA	2.25	2.25	NA	NA	NA	NA	NA
LEAD	NA	4.22 J	NA	4.7 J	4.7 J	NA	NA	NA	NA	NA
LEAD-CALC	10 U	10 U	10 U	10 U	10 U	NA	10 U	10 U	4.3	10 U
TIN	NA	2.67 U	NA	2.62 U	2.62 U	NA	NA	NA	NA	NA
ZINC	NA	3.46 J	NA	3.19 J	3.19 J	NA	NA	NA	NA	NA
SPLP INORGANICS (UG/L)										
ALUMINUM	NA	48.4 J	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	1.25 U	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	0.75 U	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	43	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	0.25 U	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	597 J	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	1.25 U	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	54.1	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	0.72 J	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	250 U	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	16.1	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	0.75 U	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	250 U	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	699 J	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	1.25 U	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	17.7 J	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)										
LEAD	**30.33**	10 U	**28**	10 U	10 U	NA	**27.33**	10 U	**38**	**16.33**
MISCELLANEOUS PARAMETERS (MEQ/100)										
CATION EXCHANGE CAPACITY	NA	3.75 J	NA	2.99 J	2.99 J	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)										
TOTAL ORGANIC CARBON	NA	5990	NA	4820	4820	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)										
PH	NA	4.59	NA	5.08	5.08	NA	NA	NA	NA	NA

[1] - FDEP SCTL
[2] - SCTLs
[3] - USEPA Residential SSL
[4] - FDEP Residential SCTL
[5] - Background
[6] - FDEP MCL
[7] - FDEP Secondary Drinking Water Criteria

LOCATION	GA-SB-G5		GA-SB-G6		GA-SB-G7		GA-SB-H5		GA-SB-J1	
SAMPLE ID	GA-SS-G5-01	GA-SS-G5-02	GA-SS-G6-01	GA-SS-G6-02	GA-SS-G7-01	GA-SS-G7-02	GA-SS-H5-01	GA-SS-H5-02	GA-SS-J1-01	GA-SS-J1-02
SAMPLE DATE	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100427
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0.5	0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH	0.5	2	0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)										
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	1.31 J	0.528 U
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	1.95 J	0.185 U
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	16.5	0.247 J
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	31.7	2.6
BAP EQUIVALENT	NA	NA	NA	NA	NA	NA	NA	NA	**331.111**	**11.38**
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	**227**	**8.59**
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	**228**	**7.09 J**
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	**314**	**9.42 J**
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	168 J	4.29 J
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	**116**	**4.68 J**
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	**251**	9.16
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	**29.6 J**	**1.93 J**
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	392	16.7
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	9.11	0.377 J
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	**180 J**	**5.03 J**
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	8.27	0.169 U
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	146	8.97
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	326	15.2
INORGANICS (MG/KG)										
ANTIMONY	0.434 J	NA	NA	NA	0.274 U	NA	NA	NA	NA	NA
ARSENIC	1.1	NA	NA	NA	**7.79**	NA	NA	NA	NA	NA
COPPER	2.08	NA	NA	NA	2.75	NA	NA	NA	NA	NA
LEAD	156 J	NA	NA	NA	92.3	NA	NA	NA	NA	NA
LEAD-CALC	224	10.3	5.1	10 U	83.9	10 U	34.7	10 U	133	10 U
TIN	2.62 U	NA	NA	NA	2.74 U	NA	NA	NA	NA	NA
ZINC	3.06 J	NA	NA	NA	3.93 J	NA	NA	NA	NA	NA
SPLP INORGANICS (UG/L)										
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)										
LEAD	**220.7**	**43**	**38.67**	10 U	**104.3**	10 U	**63.33**	10 U	**145.3**	10 U
MISCELLANEOUS PARAMETERS (MEQ/100)										
CATION EXCHANGE CAPACITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.13 J
MISCELLANEOUS PARAMETERS (MG/KG)										
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	6060
MISCELLANEOUS PARAMETERS (S.U.)										
PH	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.44

[1] - FDEP SCTL
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[5] - Background
[6] - FDEP MCL
[7] - FDEP Secondary Drinking Water Criteria

LOCATION	GA-SB-J2		GA-SB-J3		GA-SB-J4		GA-SB-J5	
SAMPLE ID	GA-SS-J2-01	GA-SS-J2-02	GA-SS-J3-01	GA-SS-J3-02	GA-SS-J4-01	GA-SS-J4-02	GA-SS-J5-01	GA-SS-J5-02
SAMPLE DATE	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH	0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)								
1-METHYLNAPHTHALENE	0.11 U	0.105 U	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	0.0385 U	0.0369 U	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	0.0286 U	0.0274 U	NA	NA	NA	NA	NA	NA
ANTHRACENE	0.0297 U	0.0285 U	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	**0.51668**	0.0242 U	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.105 J	0.038 U	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	**0.405**	0.0242 U	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	**0.649**	0.0337 U	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	0.077 U	0.0738 U	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	0.064 J	0.0411 U	NA	NA	NA	NA	NA	NA
CHRYSENE	0.108 J	0.0327 U	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.066 U	0.0633 U	NA	NA	NA	NA	NA	NA
FLUORANTHENE	0.155 J	0.0569 U	NA	NA	NA	NA	NA	NA
FLUORENE	0.0286 U	0.0274 U	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.0506 U	0.0485 U	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.0352 U	0.0337 U	NA	NA	NA	NA	NA	NA
PHENANTHRENE	0.0253 U	0.0242 U	NA	NA	NA	NA	NA	NA
PYRENE	0.132 J	0.0422 U	NA	NA	NA	NA	NA	NA
INORGANICS (MG/KG)								
ANTIMONY	0.275 U	NA	NA	NA	NA	NA	NA	0.261 U
ARSENIC	1.6	NA	NA	NA	NA	NA	NA	0.728
COPPER	2.73	NA	NA	NA	NA	NA	NA	1.75
LEAD	121	NA	NA	NA	NA	NA	NA	25.1
LEAD-CALC	125	10 U	162	10 U	14.3	10 U	130	10 U
TIN	2.75 U	NA	NA	NA	NA	NA	NA	2.61 U
ZINC	3.62 J	NA	NA	NA	NA	NA	NA	2.59 J
SPLP INORGANICS (UG/L)								
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)								
LEAD	**138.3**	10 U	**169.3**	10.67	**46.33**	10 U	**143**	**30**
MISCELLANEOUS PARAMETERS (MEQ/100)								
CATION EXCHANGE CAPACITY	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)								
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)								
PH	NA	NA	NA	NA	NA	NA	NA	NA

[1] - FDEP SCTL
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LOCATION	GA-SB-J6				GA-SB-J7		GA-SB-K5		GA-SB-L1	
SAMPLE ID	GA-SS-J6-01	GA-SS-J6-01-AVG	GA-SS-J6-01-D	GA-SS-J6-02	GA-SS-J7-01	GA-SS-J7-02	GA-SS-K5-01	GA-SS-K5-02	GA-SS-L1-01	GA-SS-L1-02
SAMPLE DATE	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428
SAMPLE CODE	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH	0.5	0.5	0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)										
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	1.09 U	0.105 U
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	1.17 J	0.0368 U
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	6.07	0.0274 U
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	11.9	0.186 J
BAP EQUIVALENT	NA	NA	NA	NA	NA	NA	NA	NA	**219.172**	**2.62173**
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	**134**	**1.3**
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	**146**	**1.59**
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	**202**	**2.1**
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	101 J	1.15
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	**71.5**	0.919
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	**157**	1.54
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	**27.2**	**0.542**
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	196	2.09
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	3.44 J	0.0274 U
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	**115 J**	**1.39**
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	4.68	0.0337 U
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	45.8	0.725
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	165	1.72
INORGANICS (MG/KG)										
ANTIMONY	2.27	2.195 J	2.12 J	NA	0.273 U	NA	NA	NA	0.503 J	NA
ARSENIC	**5.05**	**4.625 J**	**4.2 J**	NA	3.13 J	NA	NA	NA	1.86 J	NA
COPPER	2.34	2.46	2.58	NA	3.37	NA	NA	NA	2.13	NA
LEAD	**1300 J**	**1225 J**	**1150 J**	NA	23.1 J	NA	NA	NA	235 J	NA
LEAD-CALC	**1183**	**1183**	NA	10 U	10 U	0.304	68.7	10 U	178	10 U
TIN	2.66 U	2.675 U	2.69 U	NA	2.73 U	NA	NA	NA	2.69 U	NA
ZINC	3.14 J	3.675 J	4.21 J	NA	5.81 J	NA	NA	NA	9.89 J	NA
SPLP INORGANICS (UG/L)										
ALUMINUM	1690	1915	2140	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	1.45 J	**47.675 J**	**93.9 J**	NA	NA	NA	NA	NA	NA	NA
ARSENIC	0.75 UJ	9.5375 J	18.7 J	NA	NA	NA	NA	NA	NA	NA
BARIUM	126	138.5	151	NA	NA	NA	NA	NA	NA	NA
CADMIUM	0.42 J	0.2725 J	0.25 U	NA	NA	NA	NA	NA	NA	NA
CALCIUM	854 J	833 J	812 J	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	0.5 U	0.675 J	1.1 J	NA	NA	NA	NA	NA	NA	NA
COPPER	1.5 J	1.455 J	1.41 J	NA	NA	NA	NA	NA	NA	NA
IRON	7.5 UJ	434.375 J	865 J	NA	NA	NA	NA	NA	NA	NA
LEAD	**1490**	**1495**	**1500**	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	250 U	196 J	267 J	NA	NA	NA	NA	NA	NA	NA
MANGANESE	24.2 J	30.8 J	37.4 J	NA	NA	NA	NA	NA	NA	NA
NICKEL	0.81 J	0.84 J	0.87 J	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	609 J	539.5 J	470 J	NA	NA	NA	NA	NA	NA	NA
SODIUM	1080 J	1095 J	1110 J	NA	NA	NA	NA	NA	NA	NA
VANADIUM	1.25 U	1.4475 J	2.27 J	NA	NA	NA	NA	NA	NA	NA
ZINC	54.7 J	57.4 J	60.1 J	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)										
LEAD	**1020**	**1020**	NA	10 U	12	**34.67**	**91.67**	**15.33**	**183**	10 U
MISCELLANEOUS PARAMETERS (MEQ/100)										
CATION EXCHANGE CAPACITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)										
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)										
PH	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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LOCATION	GA-SB-L2		GA-SB-L5		GA-SB-N1		GA-SS-L3	
SAMPLE ID	GA-SS-L2-01	GA-SS-L2-02	GA-SS-L5-01	GA-SS-L5-02	GA-SS-N1-01	GA-SS-N1-02	GA-SS-L3-01	GA-SS-L3-02
SAMPLE DATE	20100428	20100428	20100428	20100428	20100428	20100428	20100428	20100428
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH	0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)								
1-METHYLNAPHTHALENE	0.536 U	0.104 U	NA	NA	0.527 UJ	0.104 U	NA	NA
2-METHYLNAPHTHALENE	0.188 U	0.0366 U	NA	NA	0.185 UJ	0.0364 U	NA	NA
ACENAPHTHENE	0.139 U	0.0272 U	NA	NA	0.137 UJ	0.027 U	NA	NA
ANTHRACENE	0.308 J	0.0282 U	NA	NA	0.142 UJ	0.0281 U	NA	NA
BAP EQUIVALENT	**7.76851**	**1.17649**	NA	NA	**2.98735**	**0.50784**	NA	NA
BENZO(A)ANTHRACENE	**3.61**	**0.59**	NA	NA	**1.49 J**	0.109 J	NA	NA
BENZO(A)PYRENE	**4.66**	**0.873**	NA	NA	**2.16 J**	**0.399**	NA	NA
BENZO(B)FLUORANTHENE	**6.35**	**1.3**	NA	NA	**3.15 J**	**0.634**	NA	NA
BENZO(G,H,I)PERYLENE	3.67	0.617	NA	NA	1.76 J	0.0727 U	NA	NA
BENZO(K)FLUORANTHENE	**3.18**	0.411	NA	NA	1.14 J	0.0861 J	NA	NA
CHRYSENE	4.71	0.73	NA	NA	1.95 J	0.142 J	NA	NA
DIBENZO(A,H)ANTHRACENE	**1.66 J**	0.0627 U	NA	NA	0.316 UJ	0.0623 U	NA	NA
FLUORANTHENE	5.57	0.784	NA	NA	2.75 J	0.16 J	NA	NA
FLUORENE	0.139 U	0.0272 U	NA	NA	0.137 UJ	0.027 U	NA	NA
INDENO(1,2,3-CD)PYRENE	**4.16**	**0.783**	NA	NA	**1.92 J**	0.0478 U	NA	NA
NAPHTHALENE	0.171 U	0.0334 U	NA	NA	0.169 UJ	0.0332 U	NA	NA
PHENANTHRENE	1.53 J	0.199 J	NA	NA	0.621 J	0.0239 U	NA	NA
PYRENE	4.89	0.847	NA	NA	2.53 J	0.159 J	NA	NA
INORGANICS (MG/KG)								
ANTIMONY	NA	0.262 U	NA	NA	NA	NA	NA	NA
ARSENIC	NA	0.83 J	NA	NA	NA	NA	NA	NA
COPPER	NA	1.79	NA	NA	NA	NA	NA	NA
LEAD	NA	4.27 J	NA	NA	NA	NA	NA	NA
LEAD-CALC	13.5	10 U	66.3	10 U	144	10 U	10 U	10 U
TIN	NA	2.62 U	NA	NA	NA	NA	NA	NA
ZINC	NA	4.12 J	NA	NA	NA	NA	NA	NA
SPLP INORGANICS (UG/L)								
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)								
LEAD	**45.67**	10 U	**89.67**	12.33	**154.7**	**18**	12.33	10 U
MISCELLANEOUS PARAMETERS (MEQ/100)								
CATION EXCHANGE CAPACITY	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)								
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)								
PH	NA	NA	NA	NA	NA	NA	NA	NA

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SURFACE SOIL FREQUENCY OF DETECTION
NASWF SKEET RANGE
MILTON FLORIDA

Parameter	Frequency of Detection	Minimum Detection		Maximum Detection		Location of Maximum Detection	Sample of Maximum Detection	Range of Nondetects	Average of Positive Detections	Average of all Results	Standard Deviation
Polycyclic Aromatic Hydrocarbons (MG/KG)											
ACENAPHTHENE	3/26	0.105	J	1.11	J	SR-SB-J1	SR-SS-J1-01	0.0269 - 0.283	0.654333	0.106469	0.251320938
ANTHRACENE	3/26	0.0838	J	1.64	J	SR-SB-J1	SR-SS-J1-01	0.0279 - 0.294	0.9046	0.136544	0.361591766
BAP EQUIVALENT	14/26	0.317008		32.2239		SR-SB-J1	SR-SS-J1-01	0.0238 - 0.0258	7.60956	4.103095	8.469733077
BENZO(A)ANTHRACENE	14/26	0.0755	J	18	J	SR-SB-J1	SR-SS-J1-01	0.0372 - 0.0403	4.25066	2.297648	5.04511643
BENZO(A)PYRENE	14/26	0.241	J	22.9	J	SR-SB-J1	SR-SS-J1-01	0.0238 - 0.0258	5.657607	3.052044	6.313733347
BENZO(B)FLUORANTHENE	14/26	0.329	J	17.4	J	SR-SB-J1	SR-SS-J1-01	0.0331 - 0.0358	3.988285	2.155388	4.261557612
BENZO(G,H,I)PERYLENE	14/26	0.209	J	14.2	J	SR-SB-J1	SR-SS-J1-01	0.0723 - 0.0784	3.621392	1.967148	3.845765319
BENZO(K)FLUORANTHENE	12/26	0.05	J	7.9	J	SR-SB-J1	SR-SS-J1-01	0.0403 - 0.205	1.509572	0.711064	1.739387922
CHRYSENE	14/26	0.112	J	27.5		SR-SB-DS2	SR-SB-DS2	0.032 - 0.0347	6.488	3.501138	7.515493031
DIBENZO(A,H)ANTHRACENE	4/26	0.351		4.42	J	SR-SB-J1	SR-SS-J1-01	0.062 - 0.652	2.74525	0.481483	1.154300628
FLUORANTHENE	11/26	0.0791	J	12.2	J	SR-SB-J1	SR-SS-J1-01	0.0558 - 0.284	2.581472	1.113116	2.763831688
INDENO(1,2,3-CD)PYRENE	8/26	0.261	J	12.6	J	SR-SB-J1	SR-SS-J1-01	0.0475 - 0.486	4.171709	1.312695	3.029286954
PHENANTHRENE	12/26	0.0575	J	8.46	J	SR-SB-J1	SR-SS-J1-01	0.0238 - 0.121	1.880381	0.876325	2.025083212
PYRENE	14/26	0.108	J	27.6	J	SR-SB-J1	SR-SS-J1-01	0.0413 - 0.0448	6.495928	3.507615	7.52774038
Inorganics (MG/KG)											
ANTIMONY	2/22	0.278	J	0.398	J	SR-SB-F5	SR-SS-F5-01	0.259 - 0.283	0.338	0.153363	0.062642824
ARSENIC	22/22	0.704		6.49		SR-SB-A0	SR-SS-A0-01-D	-	1.453045	1.453045	1.176854382
COPPER	22/22	1.53		3.77		SR-SB-E7	SR-SS-E7-02	-	2.413181	2.413181	0.616251235
LEAD	22/22	2.43		455		SR-SB-F5	SR-SS-F5-01	-	59.221818	59.221818	105.3711934
LEAD-CALC	72/72	10.6		86		SR-SB-F5	SR-SS-F5-02	-	21.611111	21.611111	16.81369793
ZINC	22/22	2.26		8.08	J	SR-SB-A0	SR-SS-A0-01-D	-	3.743181	3.743181	1.431547236

Parameter	Frequency of Detection	Minimum Detection		Maximum Detection		Location of Maximum Detection	Sample of Maximum Detection	Range of Nondetects	Average of Positive Detections	Average of all Results	Standard Deviation
SPLP Inorganics (UG/L)											
ALUMINUM	4/4	58.3	J	9780	J	SR-SB-L2	SR-SS-L2-02	-	4293.55	4293.55	4856.630426
ANTIMONY	1/4	1.66	J	6.81		SR-SB-F5	SR-SS-F5-02-D	1.25 - 1.25	4.235	1.5275	1.805
ARSENIC	3/4	1.38	J	1.93	J	SR-SB-F5	SR-SS-F5-02-D	0.75 - 0.75	1.360833	1.114375	0.519119346
BARIUM	4/4	49.2	J	214	J	SR-SB-F5	SR-SS-F5-02-D	-	138.05	138.05	60.95470996
CALCIUM	4/4	523	J	9110		SR-SB-J1	SR-SS-J1-01	-	3006.75	3006.75	4087.755813
CHROMIUM	2/4	3.86		17.1		SR-SB-J1	SR-SS-J1-01	0.5 - 0.5	10.48	5.365	8.006282949
COPPER	2/4	1.7	J	2.52		SR-SB-L2	SR-SS-L2-02	1.25 - 1.25	2.11	1.3675	0.920402991
IRON	4/4	15.4	J	3660		SR-SB-L2	SR-SS-L2-02	-	1574.65	1574.65	1847.365125
LEAD	4/4	1.53	J	2000	J	SR-SB-F5	SR-SS-F5-02-D	-	264.1825	264.1825	512.7066698
MAGNESIUM	3/4	347	J	1040	J	SR-SB-J1	SR-SS-J1-01	250 - 250	683	543.5	397.6216795
MANGANESE	4/4	20.9	J	90.2	J	SR-SB-F5	SR-SS-F5-02-D	-	39.8625	39.8625	19.07036859
NICKEL	3/4	0.98	J	2.7		SR-SB-F5	SR-SS-F5-02-D	0.75 - 0.75	1.813333	1.45375	0.752433552
POTASSIUM	2/4	287	J	363	J	SR-SB-J1	SR-SS-J1-01	250 - 250	325	225	119.5658814
SODIUM	4/4	718	J	10200	J	SR-SB-E7	SR-SS-E7-02	-	6769.75	6769.75	4306.279165
SODIUM	4/4	718	J	10200	J	SR-SB-J1	SR-SS-J1-01	-	6769.75	6769.75	4306.279165
VANADIUM	2/4	6.65		9		SR-SB-L2	SR-SS-L2-02	1.25 - 1.25	7.825	4.225	4.266194635
ZINC	4/4	18.3	J	53.4	J	SR-SB-L2	SR-SS-L2-02	-	33.575	33.575	16.62114617
XRF Inorganics (MG/KG)											
LEAD	60/74	3		1164.7		SR-SB-F5	SR-SS-F5-01	10 - 10	49.976666	41.467567	141.4935953
Miscellaneous Parameters (MEQ/100)											
CATION EXCHANGE CAPACITY	4/4	2.4	J	7.86	J	SR-SB-G4	SR-SS-G4-02	-	4.3	4.3	2.431295951
PH	4/4	4.93		5.94		SR-SB-A0	SR-SS-A0-01	-	5.41875	5.41875	0.340939266
TOTAL ORGANIC CARBON	4/4	2520		6290		SR-SB-A0	SR-SS-A0-01-D	-	4666.25	4666.25	1795.936965

Associated Samples:

SR-SB-DS1
SR-SB-DS2
SR-SS-A0-01
SR-SS-A0-01-AVG
SR-SS-A0-01-D
SR-SS-A0-02
SR-SS-A1-01
SR-SS-A1-02
SR-SS-C1-01
SR-SS-C1-02
SR-SS-C2-01
SR-SS-C2-02
SR-SS-C3-01
SR-SS-C3-02
SR-SS-C5-01
SR-SS-C5-02
SR-SS-D5-01
SR-SS-D5-02
SR-SS-E1-01
SR-SS-E1-02
SR-SS-E2-01
SR-SS-E2-02
SR-SS-E3-01
SR-SS-E3-02
SR-SS-E4-01
SR-SS-E4-02
SR-SS-E5-01
SR-SS-E5-02
SR-SS-E6-01
SR-SS-E6-02
SR-SS-E7-01
SR-SS-E7-02
SR-SS-F5-01
SR-SS-F5-02
SR-SS-F5-02-AVG
SR-SS-F5-02-D
SR-SS-G1-01
SR-SS-G1-02
SR-SS-G2-01
SR-SS-G2-02
SR-SS-G2.5-01
SR-SS-G2.5-02
SR-SS-G3-01
SR-SS-G3-02
SR-SS-G4-01
SR-SS-G4-02
SR-SS-G5-01
SR-SS-G5-02
SR-SS-G6-01
SR-SS-G6-02
SR-SS-G7-01
SR-SS-G7-02
SR-SS-H5-01
SR-SS-H5-02
SR-SS-J1-01
SR-SS-J1-02
SR-SS-J1-02-AVG
SR-SS-J1-02-D
SR-SS-J2-01
SR-SS-J2-02
SR-SS-J3-01
SR-SS-J3-02
SR-SS-J4-01
SR-SS-J4-02
SR-SS-J5-01
SR-SS-J5-02
SR-SS-J6-01
SR-SS-J6-02
SR-SS-J7-01
SR-SS-J7-02
SR-SS-K5-01
SR-SS-K5-02
SR-SS-L1-01
SR-SS-L1-02
SR-SS-L2-01
SR-SS-L2-02
SR-SS-L3-01
SR-SS-L3-02
SR-SS-L5-01
SR-SS-L5-02
SR-SS-N1-01
SR-SS-N1-02

LOCATION	SR-SB-A0				SR-SB-A1		SR-SB-C1		SR-SB-C2		SR-SB-C3	
SAMPLE ID	SR-SS-A0-01	SR-SS-A0-01-AVG	SR-SS-A0-01-D	SR-SS-A0-02	SR-SS-A1-01	SR-SS-A1-02	SR-SS-C1-01	SR-SS-C1-02	SR-SS-C2-01	SR-SS-C2-02	SR-SS-C3-01	SR-SS-C3-02
SAMPLE DATE	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
SAMPLE CODE	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0.5	0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH	0.5	0.5	0.5	2	0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)												
1-METHYLNAPHTHALENE	0.108 U	0.108 U	0.108 U	0.108 U	0.106 U	0.105 U	0.106 U	0.105 U	0.105 U	0.103 U	NA	NA
2-METHYLNAPHTHALENE	0.0378 U	0.03785 U	0.0379 U	0.038 U	0.037 U	0.0367 U	0.0373 U	0.0369 U	0.0367 U	0.0362 U	NA	NA
ACENAPHTHENE	0.0281 U	0.02815 U	0.0282 U	0.0282 U	0.0275 U	0.0272 U	0.105 J	0.0274 U	0.0273 U	0.0269 U	NA	NA
ACENAPHTHYLENE	0.0216 U	0.02165 U	0.0217 U	0.0217 U	0.0211 U	0.021 U	0.0213 U	0.0211 U	0.021 U	0.0207 U	NA	NA
ANTHRACENE	0.0292 U	0.02925 U	0.0293 U	0.0293 U	0.0285 U	0.0283 U	0.0838 J	0.0285 U	0.0283 U	0.0279 U	NA	NA
BAP EQUIVALENT	0.317008	0.384996	0.452983	0.0249 U	0.0243 U	0.0241 U	2.02616	0.439084	0.0241 U	0.0238 U	NA	NA
BENZO(A)ANTHRACENE	0.0755 J	0.11675 J	0.158 J	0.0391 U	0.0381 U	0.0377 U	0.932	0.18 J	0.0378 U	0.0372 U	NA	NA
BENZO(A)PYRENE	0.241 J	0.3005 J	0.36	0.0249 U	0.0243 U	0.0241 U	1.35	0.325 J	0.0241 U	0.0238 U	NA	NA
BENZO(B)FLUORANTHENE	0.332 J	0.372 J	0.412	0.0347 U	0.0338 U	0.0335 U	1.34	0.376	0.0336 U	0.0331 U	NA	NA
BENZO(G,H,I)PERYLENE	0.209 J	0.225 J	0.241 J	0.0759 UJ	0.074 U	0.0733 U	0.95	0.255 J	0.0735 U	0.0723 U	NA	NA
BENZO(K)FLUORANTHENE	0.0422 U	0.04505 J	0.069 J	0.0423 U	0.0412 U	0.0409 U	0.531	0.05 J	0.0409 U	0.0403 U	NA	NA
CHRYSENE	0.112 J	0.18 J	0.248 J	0.0336 U	0.0328 U	0.0325 U	1.35	0.284 J	0.0325 U	0.032 U	NA	NA
DIBENZO(A,H)ANTHRACENE	0.0649 U	0.065 U	0.0651 U	0.0651 UJ	0.0634 U	0.0629 U	0.351	0.0632 U	0.063 U	0.062 U	NA	NA
FLUORANTHENE	0.0584 U	0.0701 J	0.111 J	0.0586 U	0.0571 U	0.0566 U	0.903	0.0791 J	0.0567 U	0.0558 U	NA	NA
FLUORENE	0.0281 U	0.02815 U	0.0282 U	0.0282 U	0.0275 U	0.0272 U	0.0277 U	0.0274 U	0.0273 U	0.0269 U	NA	NA
INDENO(1,2,3-CD)PYRENE	0.0497 U	0.0498 U	0.0499 U	0.0499 UJ	0.0486 U	0.0482 U	0.913	0.261 J	0.0483 U	0.0475 U	NA	NA
NAPHTHALENE	0.0346 U	0.03465 U	0.0347 U	0.0347 U	0.0338 U	0.0335 U	0.0341 U	0.0337 U	0.0336 U	0.0331 U	NA	NA
PHENANTHRENE	0.0249 U	0.040475 J	0.0685 J	0.0249 U	0.0243 U	0.0241 U	0.377	0.0575 J	0.0241 U	0.0238 U	NA	NA
PYRENE	0.108 J	0.1845 J	0.261 J	0.0434 U	0.0423 U	0.0419 U	1.3	0.249 J	0.042 U	0.0413 U	NA	NA
INORGANICS (MG/KG)												
ANTIMONY	0.266 UJ	0.268 UJ	0.27 U	NA	NA	0.261 UJ	NA	NA	0.265 UJ	NA	NA	NA
ARSENIC	5.91	6.2	6.49	NA	NA	0.783	NA	NA	0.981	NA	NA	NA
COPPER	2.81	2.82	2.83	NA	NA	1.92	NA	NA	2.35	NA	NA	NA
LEAD	9.56	10.83	12.1	NA	NA	12.4	NA	NA	3.1	NA	NA	NA
LEAD-CALC	15.2	15.2	NA	14.6	14.6	15	14.4	14.6	12.1	12.9	12.1	13.3
TIN	2.66 U	2.68 U	2.7 U	NA	NA	2.61 U	NA	NA	2.65 U	NA	NA	NA
ZINC	7.72	7.9 J	8.08 J	NA	NA	2.59	NA	NA	2.93	NA	NA	NA
SPLP INORGANICS (UG/L)												
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)												
LEAD	11	11	NA	10 U	10 U	10.67	9.67	10 U	5.67	7	5.67	7.67
MISCELLANEOUS PARAMETERS (MEQ/100)												
CATION EXCHANGE CAPACITY	4.22 J	3.66 J	3.1 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)												
TOTAL ORGANIC CARBON	6180	6235	6290	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)												
PH	5.94	5.645	5.35	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	SR-SB-C5		SR-SB-D5		SR-SB-DS1	SR-SB-DS2	SR-SB-E1		SR-SB-E2		SR-SB-E3	
SAMPLE ID	SR-SS-C5-01	SR-SS-C5-02	SR-SS-D5-01	SR-SS-D5-02	SR-SB-DS1	SR-SB-DS2	SR-SS-E1-01	SR-SS-E1-02	SR-SS-E2-01	SR-SS-E2-02	SR-SS-E3-01	SR-SS-E3-02
SAMPLE DATE	20100427	20100427	20100427	20100427	20100428	20100428	20100427	20100427	20100427	20100427	20100427	20100427
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0.5	0	0.5	0	0	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH	0.5	2	0.5	2	0.5	0.5	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)												
1-METHYLNAPHTHALENE	NA	NA	NA	NA	0.54 U	1.09 U	1.09 U	1.06 U	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	0.189 U	0.381 U	0.382 U	0.37 U	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	0.14 U	0.283 U	0.748 J	0.275 U	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	0.108 U	0.217 U	0.218 U	0.211 U	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	0.146 U	0.294 U	0.99 J	0.285 U	NA	NA	NA	NA
BAP EQUIVALENT	NA	NA	NA	NA	3.66364	24.6124	19.6528	7.1254	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	1.93	17.5	10.1	3.77	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	2.88 J	20.9 J	13.4	6	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	2.62 J	9.86 J	10.7	3.97	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	2.13 J	11 J	9.84	4.4	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	0.574 J	2.39 J	4.05	0.464 J	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	2.9	27.5	15.3	5.96	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	0.324 UJ	0.652 UJ	3.35 J	0.633 U	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	1.02 J	3.97	7.21	0.656	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	0.14 U	0.283 U	0.284 U	0.275 U	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	1.58 J	5.99 J	7.67	0.486 U	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	0.173 U	0.348 U	0.35 U	0.338 U	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	0.688 J	4.66	4.92	1.2 J	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	2.59	23.9	17	5.49	NA	NA	NA	NA
INORGANICS (MG/KG)												
ANTIMONY	NA	NA	0.267 UJ	NA	0.265 U	0.275 U	0.269 UJ	NA	NA	NA	NA	NA
ARSENIC	NA	NA	0.998	NA	1.03	0.749	2.21	NA	NA	NA	NA	NA
COPPER	NA	NA	2.16	NA	1.89	1.71	2.79	NA	NA	NA	NA	NA
LEAD	NA	NA	51	NA	2.43	3.32	34	NA	NA	NA	NA	NA
LEAD-CALC	10.6	48.6	32.8	11.4	NA	NA	28.5	14.6	14.6	14.6	15	13.3
TIN	NA	NA	2.67 U	NA	2.65 U	2.75 U	2.69 U	NA	NA	NA	NA	NA
ZINC	NA	NA	2.66	NA	2.5 J	2.34 J	5.85	NA	NA	NA	NA	NA
SPLP INORGANICS (UG/L)												
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)												
LEAD	3	69.67	42	4.3	NA	NA	34.33	10 U	10 U	10 U	10.67	7.67
MISCELLANEOUS PARAMETERS (MEQ/100)												
CATION EXCHANGE CAPACITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)												
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)												
PH	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	SR-SB-E4		SR-SB-E5		SR-SB-E6		SR-SB-E7		SR-SB-F5			
SAMPLE ID	SR-SS-E4-01	SR-SS-E4-02	SR-SS-E5-01	SR-SS-E5-02	SR-SS-E6-01	SR-SS-E6-02	SR-SS-E7-01	SR-SS-E7-02	SR-SS-F5-01	SR-SS-F5-02	SR-SS-F5-02-AVG	SR-SS-F5-02-D
SAMPLE DATE	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0.5	0	0.5	0	0.5	0	0.5	0	0.5	0.5	0.5
BOTTOM DEPTH	0.5	2	0.5	2	0.5	2	0.5	2	0.5	2	2	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)												
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INORGANICS (MG/KG)												
ANTIMONY	0.277 UJ	NA	NA	NA	NA	NA	NA	0.283 UJ	0.398 J	0.279 UJ	0.279 UJ	NA
ARSENIC	1.11	NA	NA	NA	NA	NA	NA	2.44	2.3	1.49	1.49	NA
COPPER	2.34	NA	NA	NA	NA	NA	NA	3.77	3.55	3.04	3.04	NA
LEAD	60.5	NA	NA	NA	NA	NA	NA	37.9	455	73.3	73.3	NA
LEAD-CALC	82.8	27.5	30.2	18.2	27.3	30.4	61.2	59.8	NA	86	86	NA
TIN	2.77 U	NA	NA	NA	NA	NA	NA	2.83 U	2.87 U	2.79 U	2.79 U	NA
ZINC	3.06	NA	NA	NA	NA	NA	NA	6.09	4.84	4.9	4.9	NA
SPLP INORGANICS (UG/L)												
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	58.3 J	NA	87.8 J	355.9 J	624 J
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	1.25 U	NA	1.66 J	4.235 J	6.81
ARSENIC	NA	NA	NA	NA	NA	NA	NA	0.75 UJ	NA	0.75 UJ	1.1525 J	1.93 J
BARIUM	NA	NA	NA	NA	NA	NA	NA	49.2 J	NA	102 J	158 J	214 J
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	0.25 U	NA	0.25 U	0.25 U	0.25 U
CADMIUM	NA	NA	NA	NA	NA	NA	NA	0.25 U	NA	0.25 U	0.25 U	0.25 U
CALCIUM	NA	NA	NA	NA	NA	NA	NA	523 J	NA	708 J	914 J	1120 J
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	0.50 U	NA	0.50 U	0.50 U	0.50 U
COBALT	NA	NA	NA	NA	NA	NA	NA	1.25 U	NA	1.25 U	1.25 U	1.25 U
COPPER	NA	NA	NA	NA	NA	NA	NA	1.25 U	NA	1.25 U	1.25 U	1.25 U
IRON	NA	NA	NA	NA	NA	NA	NA	22.4 J	NA	17 J	16.2 J	15.4 J
LEAD	NA	NA	NA	NA	NA	NA	NA	7.3 J	NA	66.4 J	1033.2 J	2000 J
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	347 J	NA	250 U	250 U	250 U
MANGANESE	NA	NA	NA	NA	NA	NA	NA	20.9 J	NA	40.1 J	65.15 J	90.2 J
MERCURY	NA	NA	NA	NA	NA	NA	NA	0.08 U	NA	0.08 U	0.08 U	0.08 U
NICKEL	NA	NA	NA	NA	NA	NA	NA	0.75 U	NA	0.98 J	1.84 J	2.7
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	250 U	NA	250 U	250 U	250 U
SELENIUM	NA	NA	NA	NA	NA	NA	NA	0.75 U	NA	0.75 U	0.75 U	0.75 U
SILVER	NA	NA	NA	NA	NA	NA	NA	0.25 U	NA	0.25 U	0.25 U	0.25 U
SODIUM	NA	NA	NA	NA	NA	NA	NA	10200 J	NA	10100 J	5409 J	718 J
THALLIUM	NA	NA	NA	NA	NA	NA	NA	0.75 U	NA	0.75 U	0.75 U	0.75 U
VANADIUM	NA	NA	NA	NA	NA	NA	NA	1.25 U	NA	1.25 U	1.25 U	1.25 U
ZINC	NA	NA	NA	NA	NA	NA	NA	18.3 J	NA	32.9 J	41.1 J	49.3 J
XRF INORGANICS (MG/KG)												
LEAD	129.7	32.67	37.33	16.33	32.33	37.67	91.67	89.33	1164.7	135.3	135.3	NA
MISCELLANEOUS PARAMETERS (MEQ/100)												
CATION EXCHANGE CAPACITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)												
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)												
PH	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	SR-SB-G1		SR-SB-G2		SR-SB-G2.5		SR-SB-G3		SR-SB-G4		SR-SB-G5	
SAMPLE ID	SR-SS-G1-01	SR-SS-G1-02	SR-SS-G2-01	SR-SS-G2-02	SR-SS-G2.5-01	SR-SS-G2.5-02	SR-SS-G3-01	SR-SS-G3-02	SR-SS-G4-01	SR-SS-G4-02	SR-SS-G5-01	SR-SS-G5-02
SAMPLE DATE	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0.5	0	0.5	0.5	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH	0.5	2	0.5	2	1	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)												
1-METHYLNAPHTHALENE	1.07 U	0.526 U	0.106 U	0.106 U	0.108 U	0.106 U	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	0.373 U	0.184 U	0.0371 U	0.037 U	0.0378 U	0.0371 U	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	0.277 U	0.137 U	0.0276 U	0.0275 U	0.0281 U	0.0275 U	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	0.213 U	0.105 U	0.0212 U	0.0211 U	0.0216 U	0.0212 U	NA	NA	NA	NA	NA	NA
ANTHRACENE	0.288 U	0.142 U	0.0286 U	0.0285 U	0.0292 U	0.0286 U	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	11.19581	1.974465	0.0244 U	0.0243 U	0.0248 U	0.0244 U	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	4.6	0.701 J	0.0382 U	0.038 U	0.0389 U	0.0381 U	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	6.87	1.56 J	0.0244 U	0.0243 U	0.0248 U	0.0244 U	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	5.64	1.72 J	0.034 U	0.0338 U	0.0346 U	0.0339 U	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	4.88	1.21 J	0.0743 U	0.0739 U	0.0756 U	0.0741 U	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	1.84 J	0.205 U	0.0414 U	0.0412 U	0.0421 U	0.0413 U	NA	NA	NA	NA	NA	NA
CHRYSENE	8.41	1.24 J	0.0329 U	0.0327 U	0.0335 U	0.0328 U	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	2.86 J	0.316 U	0.0637 U	0.0634 U	0.0648 U	0.0635 U	NA	NA	NA	NA	NA	NA
FLUORANTHENE	2.06 J	0.284 U	0.0573 U	0.057 U	0.0583 U	0.0572 U	NA	NA	NA	NA	NA	NA
FLUORENE	0.277 U	0.137 U	0.0276 U	0.0275 U	0.0281 U	0.0275 U	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	4.15	0.242 U	0.0488 U	0.0486 U	0.0497 U	0.0487 U	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.341 U	0.168 U	0.034 U	0.0338 U	0.0346 U	0.0339 U	NA	NA	NA	NA	NA	NA
PHENANTHRENE	1.69 J	0.121 U	0.0244 U	0.0243 U	0.0248 U	0.0244 U	NA	NA	NA	NA	NA	NA
PYRENE	8.48	1.1 J	0.0424 U	0.0422 U	0.0432 U	0.0423 U	NA	NA	NA	NA	NA	NA
INORGANICS (MG/KG)												
ANTIMONY	0.264 UJ	0.259 UJ	NA	NA	NA	NA	0.273 UJ	NA	0.272 UJ	0.262 U	NA	NA
ARSENIC	1.08	0.806	NA	NA	NA	NA	1.08	NA	0.827	0.759	NA	NA
COPPER	1.83	1.6	NA	NA	NA	NA	2.68	NA	2.29	2.1	NA	NA
LEAD	17.3	5.45	NA	NA	NA	NA	25.4	NA	29	7.34	NA	NA
LEAD-CALC	18.2	13.3	12.9	14.6	15.6	14.6	20.3	13.6	18.4	11.8	14.6	12.9
TIN	2.64 U	2.59 U	NA	NA	NA	NA	2.73 U	NA	2.72 U	2.62 U	NA	NA
ZINC	2.89	2.94	NA	NA	NA	NA	3.86	NA	3.21	3.33	NA	NA
SPLP INORGANICS (UG/L)												
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)												
LEAD	16.33	7.67	7	10 U	11.67	10 U	20	8.33	16.67	5	10 U	7
MISCELLANEOUS PARAMETERS (MEQ/100)												
CATION EXCHANGE CAPACITY	NA	NA	3.28 J	NA	NA	NA	NA	NA	NA	7.86 J	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)												
TOTAL ORGANIC CARBON	NA	NA	6060	NA	NA	NA	NA	NA	NA	2520	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)												
PH	NA	NA	5.44	NA	NA	NA	NA	NA	NA	4.93	NA	NA

LOCATION	SR-SB-G6		SR-SB-G7		SR-SB-H5		SR-SB-J1				SR-SB-J2	
SAMPLE ID	SR-SS-G6-01	SR-SS-G6-02	SR-SS-G7-01	SR-SS-G7-02	SR-SS-H5-01	SR-SS-H5-02	SR-SS-J1-01	SR-SS-J1-02	SR-SS-J1-02-AVG	SR-SS-J1-02-D	SR-SS-J2-01	SR-SS-J2-02
SAMPLE DATE	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0.5	0	0.5	0	0.5	0	0.5	0.5	0.5	0	0.5
BOTTOM DEPTH	0.5	2	0.5	2	0.5	2	0.5	2	2	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)												
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	1.07 U	0.106 U	0.1055 U	0.105 U	0.111 U	0.112 U
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	0.375 U	0.0371 U	0.037 U	0.0369 U	0.0388 U	0.0392 U
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	1.11 J	0.0275 U	0.02745 U	0.0274 U	0.0288 U	0.0291 U
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	0.214 U	0.0212 U	0.02115 U	0.0211 U	0.0221 U	0.0224 U
ANTHRACENE	NA	NA	NA	NA	NA	NA	1.64 J	0.0286 U	0.02855 U	0.0285 U	0.0299 U	0.0302 U
BAP EQUIVALENT	NA	NA	NA	NA	NA	NA	32.2239	0.380819	0.9568	1.53278	0.381878	0.0258 U
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	18 J	0.127 J	0.5475 J	0.968 J	0.128 J	0.0403 U
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	22.9 J	0.30 J	0.80 J	1.3 J	0.30 J	0.0258 U
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	17.4 J	0.335 J	0.477 J	0.619 J	0.329 J	0.0358 U
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	14.2 J	0.238 J	0.4885 J	0.739 J	0.246 J	0.0784 U
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	7.9 J	0.0413 U	0.080825 J	0.141 J	0.0432 U	0.0437 U
CHRYSENE	NA	NA	NA	NA	NA	NA	24.9 J	0.228 J	0.899 J	1.57 J	0.217 J	0.0347 U
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	4.42 J	0.0635 U	0.06335 UJ	0.0632 UJ	0.0664 U	0.0672 U
FLUORANTHENE	NA	NA	NA	NA	NA	NA	12.2 J	0.0572 U	0.05705 U	0.0569 U	0.0598 U	0.0605 U
FLUORENE	NA	NA	NA	NA	NA	NA	0.278 U	0.0275 U	0.02745 U	0.0274 U	0.0288 U	0.0291 U
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	12.6 J	0.0487 U	0.209675 J	0.395 J	0.0509 U	0.0515 U
NAPHTHALENE	NA	NA	NA	NA	NA	NA	0.343 U	0.0339 U	0.0338 U	0.0337 U	0.0354 U	0.0358 U
PHENANTHRENE	NA	NA	NA	NA	NA	NA	8.46 J	0.0244 U	0.1496 J	0.287 J	0.0255 U	0.0258 U
PYRENE	NA	NA	NA	NA	NA	NA	27.6 J	0.197 J	1.1435 J	2.09 J	0.186 J	0.0448 U
INORGANICS (MG/KG)												
ANTIMONY	0.278 J	NA	0.28 U	NA	NA	NA	0.27 U	NA	NA	NA	NA	NA
ARSENIC	1.41	NA	1.52	NA	NA	NA	0.977	NA	NA	NA	NA	NA
COPPER	2.82	NA	3.09	NA	NA	NA	1.83	NA	NA	NA	NA	NA
LEAD	259	NA	94.1	NA	NA	NA	11.7	NA	NA	NA	NA	NA
LEAD-CALC	NA	15.7	40.1	15.9	13.1	19.3	17.6	12.9	12.9	NA	14.6	12.1
TIN	2.75 U	NA	2.8 U	NA	NA	NA	2.7 U	NA	NA	NA	NA	NA
ZINC	4.01	NA	4.52	NA	NA	NA	3.03	NA	NA	NA	NA	NA
SPLP INORGANICS (UG/L)												
ALUMINUM	NA	NA	NA	NA	NA	NA	6980 J	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	1.25 U	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	1.38 J	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	157 J	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	0.25 U	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	0.25 U	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	9110	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	17.1	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	1.25 U	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	1.7 J	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	2600	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	14.7 J	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	1040 J	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	30.7 J	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	0.08 U	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	1.53 J	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	363 J	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	0.75 U	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	0.25 U	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	10200 J	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	0.75 U	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	6.65	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	21.5 J	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)												
LEAD	368.3	12	54.67	12.33	7.33	18.33	15.33	7	7	NA	10 U	5.67
MISCELLANEOUS PARAMETERS (MEQ/100)												
CATION EXCHANGE CAPACITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)												
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)												
PH	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	SR-SB-J3		SR-SB-J4		SR-SB-J5		SR-SB-J6		SR-SB-J7		SR-SB-K5	
SAMPLE ID	SR-SS-J3-01	SR-SS-J3-02	SR-SS-J4-01	SR-SS-J4-02	SR-SS-J5-01	SR-SS-J5-02	SR-SS-J6-01	SR-SS-J6-02	SR-SS-J7-01	SR-SS-J7-02	SR-SS-K5-01	SR-SS-K5-02
SAMPLE DATE	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0.5	0	0.5	0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH	0.5	2	0.5	2	0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)												
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INORGANICS (MG/KG)												
ANTIMONY	NA	NA	NA	NA	NA	NA	0.271 U	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	1.55	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	2.73	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	104	NA	NA	NA	NA	NA
LEAD-CALC	13.1	14.6	25.2	14	14.4	13.1	76.3	12.1	15.2	14.6	61.5	14
TIN	NA	NA	NA	NA	NA	NA	2.71 U	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	3.84	NA	NA	NA	NA	NA
SPLP INORGANICS (UG/L)												
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)												
LEAD	7.33	10 U	28.67	9	9.67	7.33	118.3	5.67	11	10 U	92.33	9
MISCELLANEOUS PARAMETERS (MEQ/100)												
CATION EXCHANGE CAPACITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)												
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)												
PH	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	SR-SB-L1		SR-SB-L2		SR-SB-L5		SR-SB-N1		SR-SS-L3	
SAMPLE ID	SR-SS-L1-01	SR-SS-L1-02	SR-SS-L2-01	SR-SS-L2-02	SR-SS-L5-01	SR-SS-L5-02	SR-SS-N1-01	SR-SS-N1-02	SR-SS-L3-01	SR-SS-L3-02
SAMPLE DATE	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0.5	0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH	0.5	2	0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)										
1-METHYLNAPHTHALENE	0.107 U	0.106 U	0.105 U	0.104 U	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	0.0374 U	0.0372 U	0.0366 U	0.0365 U	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	0.0278 U	0.0276 U	0.0272 U	0.0271 U	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	0.0214 U	0.0212 U	0.0209 U	0.0209 U	NA	NA	NA	NA	NA	NA
ANTHRACENE	0.0289 U	0.0287 U	0.0283 U	0.0282 U	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	0.923878	0.0244 U	0.972634	0.024 U	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.487	0.0382 U	0.517	0.0376 U	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	0.787	0.0244 U	0.834	0.024 UJ	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.517	0.034 U	0.515	0.0334 UJ	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	0.41	0.0744 U	0.465	0.073 UJ	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	0.111 J	0.0414 U	0.079 J	0.0407 UJ	NA	NA	NA	NA	NA	NA
CHRYSENE	0.858	0.0329 U	0.834	0.0323 U	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.0641 U	0.0637 U	0.0628 U	0.0626 UJ	NA	NA	NA	NA	NA	NA
FLUORANTHENE	0.124 J	0.0574 U	0.104 J	0.0563 U	NA	NA	NA	NA	NA	NA
FLUORENE	0.0278 U	0.0276 U	0.0272 U	0.0271 U	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.0492 U	0.0489 U	0.0482 U	0.048 UJ	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.0342 U	0.034 U	0.0335 U	0.0334 U	NA	NA	NA	NA	NA	NA
PHENANTHRENE	0.18 J	0.0244 U	0.142 J	0.024 U	NA	NA	NA	NA	NA	NA
PYRENE	0.797	0.0425 U	0.923	0.0417 U	NA	NA	NA	NA	NA	NA
INORGANICS (MG/KG)										
ANTIMONY	0.271 U	NA	NA	0.265 U	NA	NA	NA	NA	NA	NA
ARSENIC	0.963	NA	NA	0.704	NA	NA	NA	NA	NA	NA
COPPER	2.25	NA	NA	1.53	NA	NA	NA	NA	NA	NA
LEAD	2.77	NA	NA	3.04	NA	NA	NA	NA	NA	NA
LEAD-CALC	20.5	13.1	24.5	14.6	20.5	14.6	12.7	11.8	13.1	14.2
TIN	2.71 U	NA	NA	2.65 U	NA	NA	NA	NA	NA	NA
ZINC	2.8	NA	NA	2.26	NA	NA	NA	NA	NA	NA
SPLP INORGANICS (UG/L)										
ALUMINUM	NA	NA	NA	9780 J	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	1.25 U	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	1.55 J	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	188 J	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	0.25 U	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	0.25 U	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	1480	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	3.86	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	1.25 U	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	2.52	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	3660	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	1.53 J	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	662 J	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	42.7 J	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	0.08 U	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	2.07 J	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	287 J	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	0.75 U	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	0.25 U	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	1270 J	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	0.75 U	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	9	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	53.4 J	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)										
LEAD	20.33	7.33	27.33	10 U	20.33	10 U	6.67	5	7.33	9.33
MISCELLANEOUS PARAMETERS (MEQ/100)										
CATION EXCHANGE CAPACITY	NA	NA	NA	2.4 J	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)										
TOTAL ORGANIC CARBON	NA	NA	NA	3850	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)										
PH	NA	NA	NA	5.66	NA	NA	NA	NA	NA	NA

LOCATION		SR-SB-A0				SR-SB-A1		SR-SB-C1	
SAMPLE ID		SR-SS-A0-01	SR-SS-A0-01-AVG	SR-SS-A0-01-D	SR-SS-A0-02	SR-SS-A1-01	SR-SS-A1-02	SR-SS-C1-01	SR-SS-C1-02
SAMPLE DATE		20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
SAMPLE CODE		ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	Project	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	Action	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	Limit	0	0	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH		0.5	0.5	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)									
ACENAPHTHENE	2400 [1]	0.0281 U	0.02815 U	0.0282 U	0.0282 U	0.0275 U	0.0272 U	0.105 J	0.0274 U
ANTHRACENE	21000 [1]	0.0292 U	0.02925 U	0.0293 U	0.0293 U	0.0285 U	0.0283 U	0.0838 J	0.0285 U
BAP EQUIVALENT	0.1 [2]	**0.317**	**0.385**	**0.453**	0.0249 U	0.0243 U	0.0241 U	**2.0262**	**0.4391**
BENZO(A)ANTHRACENE	0.15 [3]	0.0755 J	0.11675 J	**0.158 J**	0.0391 U	0.0381 U	0.0377 U	**0.932**	**0.18 J**
BENZO(A)PYRENE	0.1 [2]	**0.241 J**	**0.3005 J**	**0.36**	0.0249 U	0.0243 U	0.0241 U	**1.35**	**0.325 J**
BENZO(B)FLUORANTHENE	0.15 [3]	**0.332 J**	**0.372 J**	**0.412**	0.0347 U	0.0338 U	0.0335 U	**1.34**	**0.376**
BENZO(G,H,I)PERYLENE	2500 [1]	0.209 J	0.225 J	0.241 J	0.0759 UJ	0.074 U	0.0733 U	0.95	0.255 J
BENZO(K)FLUORANTHENE	1.5 [3]	0.0422 U	0.04505 J	0.069 J	0.0423 U	0.0412 U	0.0409 U	0.531	0.05 J
CHRYSENE	15 [3]	0.112 J	0.18 J	0.248 J	0.0336 U	0.0328 U	0.0325 U	1.35	0.284 J
DIBENZO(A,H)ANTHRACENE	0.015 [3]	0.0649 U	0.065 U	0.0651 U	0.0651 UJ	0.0634 U	0.0629 U	**0.351**	0.0632 U
FLUORANTHENE	3200 [1]	0.0584 U	0.0701 J	0.111 J	0.0586 U	0.0571 U	0.0566 U	0.903	0.0791 J
INDENO(1,2,3-CD)PYRENE	0.15 [3]	0.0497 U	0.0498 U	0.0499 U	0.0499 UJ	0.0486 U	0.0482 U	**0.913**	**0.261 J**
PHENANTHRENE	2200 [1]	0.0249 U	0.040475 J	0.0685 J	0.0249 U	0.0243 U	0.0241 U	0.377	0.0575 J
PYRENE	2400 [1]	0.108 J	0.1845 J	0.261 J	0.0434 U	0.0423 U	0.0419 U	1.3	0.249 J
INORGANICS (MG/KG)									
ANTIMONY	27 [4]	0.266 UJ	0.268 UJ	0.27 U	NA	NA	0.261 UJ	NA	NA
ARSENIC	3.2 [5]	**5.91**	**6.2**	**6.49**	NA	NA	0.783	NA	NA
COPPER	150 [4]	2.81	2.82	2.83	NA	NA	1.92	NA	NA
LEAD	400 [4]	9.56	10.83	12.1	NA	NA	12.4	NA	NA
LEAD-CALC	400 [4]	15.2	15.2	NA	14.6	14.6	15	14.4	14.6
ZINC	26000 [4]	7.72	7.9 J	8.08 J	NA	NA	2.59	NA	NA
SPLP INORGANICS (UG/L)									
ALUMINUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	6 [6]	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	50 [6]	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	100 [7]	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NC	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	15 [6]	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NC	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NC	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	500 [7]	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)									
LEAD	200 [4]	11	11	NA	10 U	10 U	10.67	9.67	10 U
MISCELLANEOUS PARAMETERS (MEQ/100)									
CATION EXCHANGE CAPACITY	NC	4.22 J	3.66 J	3.1 J	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)									
TOTAL ORGANIC CARBON	NC	6180	6235	6290	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)									
PH	NC	5.94	5.645	5.35	NA	NA	NA	NA	NA

[1] - FDEP SCTL
[2] - SCTLs
[3] - USEPA Residential SSL
[4] - FDEP Residential SCTL
[5] - Background
[6] - FDEP MCL
[7] - FDEP Secondary Drinking Water Criteria

LOCATION		SR-SB-C2		SR-SB-C3		SR-SB-C5		SR-SB-D5		SR-SB-DS1
SAMPLE ID		SR-SS-C2-01	SR-SS-C2-02	SR-SS-C3-01	SR-SS-C3-02	SR-SS-C5-01	SR-SS-C5-02	SR-SS-D5-01	SR-SS-D5-02	SR-SB-DS1
SAMPLE DATE		20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100428
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	Project	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	Action	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	Limit	0	0.5	0	0.5	0	0.5	0	0.5	0
BOTTOM DEPTH		0.5	2	0.5	2	0.5	2	0.5	2	0.5
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)										
ACENAPHTHENE	2400 [1]	0.0273 U	0.0269 U	NA	NA	NA	NA	NA	NA	0.14 U
ANTHRACENE	21000 [1]	0.0283 U	0.0279 U	NA	NA	NA	NA	NA	NA	0.146 U
BAP EQUIVALENT	0.1 [2]	0.0241 U	0.0238 U	NA	NA	NA	NA	NA	NA	**3.6636**
BENZO(A)ANTHRACENE	0.15 [3]	0.0378 U	0.0372 U	NA	NA	NA	NA	NA	NA	**1.93**
BENZO(A)PYRENE	0.1 [2]	0.0241 U	0.0238 U	NA	NA	NA	NA	NA	NA	**2.88 J**
BENZO(B)FLUORANTHENE	0.15 [3]	0.0336 U	0.0331 U	NA	NA	NA	NA	NA	NA	**2.62 J**
BENZO(G,H,I)PERYLENE	2500 [1]	0.0735 U	0.0723 U	NA	NA	NA	NA	NA	NA	2.13 J
BENZO(K)FLUORANTHENE	1.5 [3]	0.0409 U	0.0403 U	NA	NA	NA	NA	NA	NA	0.574 J
CHRYSENE	15 [3]	0.0325 U	0.032 U	NA	NA	NA	NA	NA	NA	2.9
DIBENZO(A,H)ANTHRACENE	0.015 [3]	0.063 U	0.062 U	NA	NA	NA	NA	NA	NA	0.324 UJ
FLUORANTHENE	3200 [1]	0.0567 U	0.0558 U	NA	NA	NA	NA	NA	NA	1.02 J
INDENO(1,2,3-CD)PYRENE	0.15 [3]	0.0483 U	0.0475 U	NA	NA	NA	NA	NA	NA	**1.58 J**
PHENANTHRENE	2200 [1]	0.0241 U	0.0238 U	NA	NA	NA	NA	NA	NA	0.688 J
PYRENE	2400 [1]	0.042 U	0.0413 U	NA	NA	NA	NA	NA	NA	2.59
INORGANICS (MG/KG)										
ANTIMONY	27 [4]	0.265 UJ	NA	NA	NA	NA	NA	0.267 UJ	NA	0.265 U
ARSENIC	3.2 [5]	0.981	NA	NA	NA	NA	NA	0.998	NA	1.03
COPPER	150 [4]	2.35	NA	NA	NA	NA	NA	2.16	NA	1.89
LEAD	400 [4]	3.1	NA	NA	NA	NA	NA	51	NA	2.43
LEAD-CALC	400 [4]	12.1	12.9	12.1	13.3	10.6	48.6	32.8	11.4	NA
ZINC	26000 [4]	2.93	NA	NA	NA	NA	NA	2.66	NA	2.5 J
SPLP INORGANICS (UG/L)										
ALUMINUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	6 [6]	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	50 [6]	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	100 [7]	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	15 [6]	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	500 [7]	NA	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)										
LEAD	200 [4]	5.67	7	5.67	7.67	3	69.67	42	4.3	NA
MISCELLANEOUS PARAMETERS (MEQ/100)										
CATION EXCHANGE CAPACITY	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)										
TOTAL ORGANIC CARBON	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)										
PH	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA

[1] - FDEP SCTL
[2] - SCTLs
[3] - USEPA Residential SSL
[4] - FDEP Residential SCTL
[5] - Background
[6] - FDEP MCL
[7] - FDEP Secondary Drinking Water Criteria

LOCATION		SR-SB-DS2	SR-SB-E1		SR-SB-E2		SR-SB-E3		SR-SB-E4	
SAMPLE ID		SR-SB-DS2	SR-SS-E1-01	SR-SS-E1-02	SR-SS-E2-01	SR-SS-E2-02	SR-SS-E3-01	SR-SS-E3-02	SR-SS-E4-01	SR-SS-E4-02
SAMPLE DATE		20100428	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	Project	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	Action	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	Limit	0	0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH		0.5	0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)										
ACENAPHTHENE	2400 [1]	0.283 U	0.748 J	0.275 U	NA	NA	NA	NA	NA	NA
ANTHRACENE	21000 [1]	0.294 U	0.99 J	0.285 U	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	0.1 [2]	**24.612**	**19.653**	**7.1254**	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.15 [3]	**17.5**	**10.1**	**3.77**	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	0.1 [2]	**20.9 J**	**13.4**	**6**	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.15 [3]	**9.86 J**	**10.7**	**3.97**	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	2500 [1]	11 J	9.84	4.4	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	1.5 [3]	**2.39 J**	**4.05**	0.464 J	NA	NA	NA	NA	NA	NA
CHRYSENE	15 [3]	**27.5**	**15.3**	5.96	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015 [3]	0.652 UJ	**3.35 J**	0.633 U	NA	NA	NA	NA	NA	NA
FLUORANTHENE	3200 [1]	3.97	7.21	0.656	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15 [3]	**5.99 J**	**7.67**	0.486 U	NA	NA	NA	NA	NA	NA
PHENANTHRENE	2200 [1]	4.66	4.92	1.2 J	NA	NA	NA	NA	NA	NA
PYRENE	2400 [1]	23.9	17	5.49	NA	NA	NA	NA	NA	NA
INORGANICS (MG/KG)										
ANTIMONY	27 [4]	0.275 U	0.269 UJ	NA	NA	NA	NA	NA	0.277 UJ	NA
ARSENIC	3.2 [5]	0.749	2.21	NA	NA	NA	NA	NA	1.11	NA
COPPER	150 [4]	1.71	2.79	NA	NA	NA	NA	NA	2.34	NA
LEAD	400 [4]	3.32	34	NA	NA	NA	NA	NA	60.5	NA
LEAD-CALC	400 [4]	NA	28.5	14.6	14.6	14.6	15	13.3	82.8	27.5
ZINC	26000 [4]	2.34 J	5.85	NA	NA	NA	NA	NA	3.06	NA
SPLP INORGANICS (UG/L)										
ALUMINUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	6 [6]	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	50 [6]	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	100 [7]	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	15 [6]	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	500 [7]	NA	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)										
LEAD	200 [4]	NA	34.33	10 U	10 U	10 U	10.67	7.67	129.7	32.67
MISCELLANEOUS PARAMETERS (MEQ/100)										
CATION EXCHANGE CAPACITY	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)										
TOTAL ORGANIC CARBON	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)										
PH	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA

[1] - FDEP SCTL
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[5] - Background
[6] - FDEP MCL
[7] - FDEP Secondary Drinking Water Criteria

LOCATION		SR-SB-E5		SR-SB-E6		SR-SB-E7		SR-SB-F5		
SAMPLE ID		SR-SS-E5-01	SR-SS-E5-02	SR-SS-E6-01	SR-SS-E6-02	SR-SS-E7-01	SR-SS-E7-02	SR-SS-F5-01	SR-SS-F5-02	SR-SS-F5-02-AVG
SAMPLE DATE		20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	Project	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	Action	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	Limit	0	0.5	0	0.5	0	0.5	0	0.5	0.5
BOTTOM DEPTH		0.5	2	0.5	2	0.5	2	0.5	2	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)										
ACENAPHTHENE	2400 [1]	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	21000 [1]	NA	NA	NA	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	0.1 [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.15 [3]	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	0.1 [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.15 [3]	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	2500 [1]	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	1.5 [3]	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	15 [3]	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015 [3]	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	3200 [1]	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15 [3]	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	2200 [1]	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	2400 [1]	NA	NA	NA	NA	NA	NA	NA	NA	NA
INORGANICS (MG/KG)										
ANTIMONY	27 [4]	NA	NA	NA	NA	NA	0.283 UJ	0.398 J	0.279 UJ	0.279 UJ
ARSENIC	3.2 [5]	NA	NA	NA	NA	NA	2.44	2.3	1.49	1.49
COPPER	150 [4]	NA	NA	NA	NA	NA	3.77	3.55	3.04	3.04
LEAD	400 [4]	NA	NA	NA	NA	NA	37.9	**455**	73.3	73.3
LEAD-CALC	400 [4]	30.2	18.2	27.3	30.4	61.2	59.8	NA	86	86
ZINC	26000 [4]	NA	NA	NA	NA	NA	6.09	4.84	4.9	4.9
SPLP INORGANICS (UG/L)										
ALUMINUM	NC	NA	NA	NA	NA	NA	58.3 J	NA	87.8 J	355.9 J
ANTIMONY	6 [6]	NA	NA	NA	NA	NA	1.25 U	NA	1.66 J	4.235 J
ARSENIC	50 [6]	NA	NA	NA	NA	NA	0.75 UJ	NA	0.75 UJ	1.1525 J
BARIUM	NC	NA	NA	NA	NA	NA	49.2 J	NA	102 J	158 J
CALCIUM	NC	NA	NA	NA	NA	NA	523 J	NA	708 J	914 J
CHROMIUM	NC	NA	NA	NA	NA	NA	0.5 U	NA	0.5 U	0.5 U
COPPER	100 [7]	NA	NA	NA	NA	NA	1.25 U	NA	1.25 U	1.25 U
IRON	NC	NA	NA	NA	NA	NA	22.4 J	NA	17 J	16.2 J
LEAD	15 [6]	NA	NA	NA	NA	NA	7.3 J	NA	**66.4 J**	**1033.2 J**
MAGNESIUM	NC	NA	NA	NA	NA	NA	347 J	NA	250 U	250 U
MANGANESE	NC	NA	NA	NA	NA	NA	20.9 J	NA	40.1 J	65.15 J
NICKEL	NC	NA	NA	NA	NA	NA	0.75 U	NA	0.98 J	1.84 J
POTASSIUM	NC	NA	NA	NA	NA	NA	250 U	NA	250 U	250 U
SODIUM	NC	NA	NA	NA	NA	NA	10200 J	NA	10100 J	5409 J
VANADIUM	NC	NA	NA	NA	NA	NA	1.25 U	NA	1.25 U	1.25 U
ZINC	500 [7]	NA	NA	NA	NA	NA	18.3 J	NA	32.9 J	41.1 J
XRF INORGANICS (MG/KG)										
LEAD	200 [4]	37.33	16.33	32.33	37.67	91.67	89.33	**1164.7**	135.3	135.3
MISCELLANEOUS PARAMETERS (MEQ/100)										
CATION EXCHANGE CAPACITY	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)										
TOTAL ORGANIC CARBON	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)										
PH	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA

[1] - FDEP SCTL
[2] - SCTLs
[3] - USEPA Residential SSL
[4] - FDEP Residential SCTL
[5] - Background
[6] - FDEP MCL
[7] - FDEP Secondary Drinking Water Criteria

LOCATION				SR-SB-G1		SR-SB-G2		SR-SB-G2.5		SR-SB-G3	
SAMPLE ID			SR-SS-F5-02-D	SR-SS-G1-01	SR-SS-G1-02	SR-SS-G2-01	SR-SS-G2-02	SR-SS-G2.5-01	SR-SS-G2.5-02	SR-SS-G3-01	SR-SS-G3-02
SAMPLE DATE			20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
SAMPLE CODE			DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX			SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	Project		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	Action		SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	Limit		0.5	0	0.5	0	0.5	0.5	0.5	0	0.5
BOTTOM DEPTH			2	0.5	2	0.5	2	1	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)											
ACENAPHTHENE	2400	[1]	NA	0.277 U	0.137 U	0.0276 U	0.0275 U	0.0281 U	0.0275 U	NA	NA
ANTHRACENE	21000	[1]	NA	0.288 U	0.142 U	0.0286 U	0.0285 U	0.0292 U	0.0286 U	NA	NA
BAP EQUIVALENT	0.1	[2]	NA	**11.196**	**1.9745**	0.0244 U	0.0243 U	0.0248 U	0.0244 U	NA	NA
BENZO(A)ANTHRACENE	0.15	[3]	NA	**4.6**	**0.701 J**	0.0382 U	0.038 U	0.0389 U	0.0381 U	NA	NA
BENZO(A)PYRENE	0.1	[2]	NA	**6.87**	**1.56 J**	0.0244 U	0.0243 U	0.0248 U	0.0244 U	NA	NA
BENZO(B)FLUORANTHENE	0.15	[3]	NA	**5.64**	**1.72 J**	0.034 U	0.0338 U	0.0346 U	0.0339 U	NA	NA
BENZO(G,H,I)PERYLENE	2500	[1]	NA	4.88	1.21 J	0.0743 U	0.0739 U	0.0756 U	0.0741 U	NA	NA
BENZO(K)FLUORANTHENE	1.5	[3]	NA	**1.84 J**	0.205 U	0.0414 U	0.0412 U	0.0421 U	0.0413 U	NA	NA
CHRYSENE	15	[3]	NA	8.41	1.24 J	0.0329 U	0.0327 U	0.0335 U	0.0328 U	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015	[3]	NA	**2.86 J**	0.316 U	0.0637 U	0.0634 U	0.0648 U	0.0635 U	NA	NA
FLUORANTHENE	3200	[1]	NA	2.06 J	0.284 U	0.0573 U	0.057 U	0.0583 U	0.0572 U	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15	[3]	NA	**4.15**	0.242 U	0.0488 U	0.0486 U	0.0497 U	0.0487 U	NA	NA
PHENANTHRENE	2200	[1]	NA	1.69 J	0.121 U	0.0244 U	0.0243 U	0.0248 U	0.0244 U	NA	NA
PYRENE	2400	[1]	NA	8.48	1.1 J	0.0424 U	0.0422 U	0.0432 U	0.0423 U	NA	NA
INORGANICS (MG/KG)											
ANTIMONY	27	[4]	NA	0.264 UJ	0.259 UJ	NA	NA	NA	NA	0.273 UJ	NA
ARSENIC	3.2	[5]	NA	1.08	0.806	NA	NA	NA	NA	1.08	NA
COPPER	150	[4]	NA	1.83	1.6	NA	NA	NA	NA	2.68	NA
LEAD	400	[4]	NA	17.3	5.45	NA	NA	NA	NA	25.4	NA
LEAD-CALC	400	[4]	NA	18.2	13.3	12.9	14.6	15.6	14.6	20.3	13.6
ZINC	26000	[4]	NA	2.89	2.94	NA	NA	NA	NA	3.86	NA
SPLP INORGANICS (UG/L)											
ALUMINUM	NC		624 J	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	6	[6]	**6.81**	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	50	[6]	1.93 J	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC		214 J	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NC		1120 J	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC		0.5 U	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	100	[7]	1.25 U	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NC		15.4 J	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	15	[6]	**2000 J**	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC		250 U	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NC		90.2 J	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NC		2.7	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NC		250 U	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NC		718 J	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NC		1.25 U	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	500	[7]	49.3 J	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)											
LEAD	200	[4]	NA	16.33	7.67	7	10 U	11.67	10 U	20	8.33
MISCELLANEOUS PARAMETERS (MEQ/100)											
CATION EXCHANGE CAPACITY	NC		NA	NA	NA	3.28 J	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)											
TOTAL ORGANIC CARBON	NC		NA	NA	NA	6060	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)											
PH	NC		NA	NA	NA	5.44	NA	NA	NA	NA	NA

[1] - FDEP SCTL
[2] - SCTLs
[3] - USEPA Residential SSL
[4] - FDEP Residential SCTL
[5] - Background
[6] - FDEP MCL
[7] - FDEP Secondary Drinking Water Criteria

LOCATION		SR-SB-G4		SR-SB-G5		SR-SB-G6		SR-SB-G7	
SAMPLE ID		SR-SS-G4-01	SR-SS-G4-02	SR-SS-G5-01	SR-SS-G5-02	SR-SS-G6-01	SR-SS-G6-02	SR-SS-G7-01	SR-SS-G7-02
SAMPLE DATE		20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	Project	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	Action	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	Limit	0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH		0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)									
ACENAPHTHENE	2400 [1]	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	21000 [1]	NA	NA	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	0.1 [2]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.15 [3]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	0.1 [2]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.15 [3]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	2500 [1]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	1.5 [3]	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	15 [3]	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015 [3]	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	3200 [1]	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15 [3]	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	2200 [1]	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	2400 [1]	NA	NA	NA	NA	NA	NA	NA	NA
INORGANICS (MG/KG)									
ANTIMONY	27 [4]	0.272 UJ	0.262 U	NA	NA	0.278 J	NA	0.28 U	NA
ARSENIC	3.2 [5]	0.827	0.759	NA	NA	1.41	NA	1.52	NA
COPPER	150 [4]	2.29	2.1	NA	NA	2.82	NA	3.09	NA
LEAD	400 [4]	29	7.34	NA	NA	259	NA	94.1	NA
LEAD-CALC	400 [4]	18.4	11.8	14.6	12.9	NA	15.7	40.1	15.9
ZINC	26000 [4]	3.21	3.33	NA	NA	4.01	NA	4.52	NA
SPLP INORGANICS (UG/L)									
ALUMINUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	6 [6]	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	50 [6]	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	100 [7]	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NC	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	15 [6]	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NC	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NC	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	500 [7]	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)									
LEAD	200 [4]	16.67	5	10 U	7	**368.3**	12	54.67	12.33
MISCELLANEOUS PARAMETERS (MEQ/100)									
CATION EXCHANGE CAPACITY	NC	NA	7.86 J	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)									
TOTAL ORGANIC CARBON	NC	NA	2520	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)									
PH	NC	NA	4.93	NA	NA	NA	NA	NA	NA

[1] - FDEP SCTL
[2] - SCTLs
[3] - USEPA Residential SSL
[4] - FDEP Residential SCTL
[5] - Background
[6] - FDEP MCL
[7] - FDEP Secondary Drinking Water Criteria

LOCATION		SR-SB-H5		SR-SB-J1				SR-SB-J2	
SAMPLE ID		SR-SS-H5-01	SR-SS-H5-02	SR-SS-J1-01	SR-SS-J1-02	SR-SS-J1-02-AVG	SR-SS-J1-02-D	SR-SS-J2-01	SR-SS-J2-02
SAMPLE DATE		20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
SAMPLE CODE		NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	Project	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	Action	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	Limit	0	0.5	0	0.5	0.5	0.5	0	0.5
BOTTOM DEPTH		0.5	2	0.5	2	2	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)									
ACENAPHTHENE	2400 [1]	NA	NA	1.11 J	0.0275 U	0.02745 U	0.0274 U	0.0288 U	0.0291 U
ANTHRACENE	21000 [1]	NA	NA	1.64 J	0.0286 U	0.02855 U	0.0285 U	0.0299 U	0.0302 U
BAP EQUIVALENT	0.1 [2]	NA	NA	**32.224**	**0.3808**	**0.9568**	**1.5328**	**0.3819**	0.0258 U
BENZO(A)ANTHRACENE	0.15 [3]	NA	NA	**18 J**	0.127 J	**0.5475 J**	**0.968 J**	0.128 J	0.0403 U
BENZO(A)PYRENE	0.1 [2]	NA	NA	**22.9 J**	**0.3 J**	**0.8 J**	**1.3 J**	**0.3 J**	0.0258 U
BENZO(B)FLUORANTHENE	0.15 [3]	NA	NA	**17.4 J**	**0.335 J**	**0.477 J**	**0.619 J**	**0.329 J**	0.0358 U
BENZO(G,H,I)PERYLENE	2500 [1]	NA	NA	14.2 J	0.238 J	0.4885 J	0.739 J	0.246 J	0.0784 U
BENZO(K)FLUORANTHENE	1.5 [3]	NA	NA	**7.9 J**	0.0413 U	0.080825 J	0.141 J	0.0432 U	0.0437 U
CHRYSENE	15 [3]	NA	NA	**24.9 J**	0.228 J	0.899 J	1.57 J	0.217 J	0.0347 U
DIBENZO(A,H)ANTHRACENE	0.015 [3]	NA	NA	**4.42 J**	0.0635 U	0.06335 UJ	0.0632 UJ	0.0664 U	0.0672 U
FLUORANTHENE	3200 [1]	NA	NA	12.2 J	0.0572 U	0.05705 U	0.0569 U	0.0598 U	0.0605 U
INDENO(1,2,3-CD)PYRENE	0.15 [3]	NA	NA	**12.6 J**	0.0487 U	**0.2097 J**	**0.395 J**	0.0509 U	0.0515 U
PHENANTHRENE	2200 [1]	NA	NA	8.46 J	0.0244 U	0.1496 J	0.287 J	0.0255 U	0.0258 U
PYRENE	2400 [1]	NA	NA	27.6 J	0.197 J	1.1435 J	2.09 J	0.186 J	0.0448 U
INORGANICS (MG/KG)									
ANTIMONY	27 [4]	NA	NA	0.27 U	NA	NA	NA	NA	NA
ARSENIC	3.2 [5]	NA	NA	0.977	NA	NA	NA	NA	NA
COPPER	150 [4]	NA	NA	1.83	NA	NA	NA	NA	NA
LEAD	400 [4]	NA	NA	11.7	NA	NA	NA	NA	NA
LEAD-CALC	400 [4]	13.1	19.3	17.6	12.9	12.9	NA	14.6	12.1
ZINC	26000 [4]	NA	NA	3.03	NA	NA	NA	NA	NA
SPLP INORGANICS (UG/L)									
ALUMINUM	NC	NA	NA	6980 J	NA	NA	NA	NA	NA
ANTIMONY	6 [6]	NA	NA	1.25 U	NA	NA	NA	NA	NA
ARSENIC	50 [6]	NA	NA	1.38 J	NA	NA	NA	NA	NA
BARIUM	NC	NA	NA	157 J	NA	NA	NA	NA	NA
CALCIUM	NC	NA	NA	9110	NA	NA	NA	NA	NA
CHROMIUM	NC	NA	NA	17.1	NA	NA	NA	NA	NA
COPPER	100 [7]	NA	NA	1.7 J	NA	NA	NA	NA	NA
IRON	NC	NA	NA	2600	NA	NA	NA	NA	NA
LEAD	15 [6]	NA	NA	14.7 J	NA	NA	NA	NA	NA
MAGNESIUM	NC	NA	NA	1040 J	NA	NA	NA	NA	NA
MANGANESE	NC	NA	NA	30.7 J	NA	NA	NA	NA	NA
NICKEL	NC	NA	NA	1.53 J	NA	NA	NA	NA	NA
POTASSIUM	NC	NA	NA	363 J	NA	NA	NA	NA	NA
SODIUM	NC	NA	NA	10200 J	NA	NA	NA	NA	NA
VANADIUM	NC	NA	NA	6.65	NA	NA	NA	NA	NA
ZINC	500 [7]	NA	NA	21.5 J	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)									
LEAD	200 [4]	7.33	18.33	15.33	7	7	NA	10 U	5.67
MISCELLANEOUS PARAMETERS (MEQ/100)									
CATION EXCHANGE CAPACITY	NC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)									
TOTAL ORGANIC CARBON	NC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)									
PH	NC	NA	NA	NA	NA	NA	NA	NA	NA

[1] - FDEP SCTL
[2] - SCTLs
[3] - USEPA Residential SSL
[4] - FDEP Residential SCTL
[5] - Background
[6] - FDEP MCL
[7] - FDEP Secondary Drinking Water Criteria

LOCATION		SR-SB-J3		SR-SB-J4		SR-SB-J5		SR-SB-J6	
SAMPLE ID		SR-SS-J3-01	SR-SS-J3-02	SR-SS-J4-01	SR-SS-J4-02	SR-SS-J5-01	SR-SS-J5-02	SR-SS-J6-01	SR-SS-J6-02
SAMPLE DATE		20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	Project	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	Action	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	Limit	0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH		0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)									
ACENAPHTHENE	2400 [1]	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	21000 [1]	NA	NA	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	0.1 [2]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.15 [3]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	0.1 [2]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.15 [3]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	2500 [1]	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	1.5 [3]	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	15 [3]	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015 [3]	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	3200 [1]	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15 [3]	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	2200 [1]	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	2400 [1]	NA	NA	NA	NA	NA	NA	NA	NA
INORGANICS (MG/KG)									
ANTIMONY	27 [4]	NA	NA	NA	NA	NA	NA	0.271 U	NA
ARSENIC	3.2 [5]	NA	NA	NA	NA	NA	NA	1.55	NA
COPPER	150 [4]	NA	NA	NA	NA	NA	NA	2.73	NA
LEAD	400 [4]	NA	NA	NA	NA	NA	NA	104	NA
LEAD-CALC	400 [4]	13.1	14.6	25.2	14	14.4	13.1	76.3	12.1
ZINC	26000 [4]	NA	NA	NA	NA	NA	NA	3.84	NA
SPLP INORGANICS (UG/L)									
ALUMINUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	6 [6]	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	50 [6]	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	100 [7]	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NC	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	15 [6]	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NC	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NC	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	500 [7]	NA	NA	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)									
LEAD	200 [4]	7.33	10 U	28.67	9	9.67	7.33	118.3	5.67
MISCELLANEOUS PARAMETERS (MEQ/100)									
CATION EXCHANGE CAPACITY	NC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)									
TOTAL ORGANIC CARBON	NC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)									
PH	NC	NA	NA	NA	NA	NA	NA	NA	NA

[1] - FDEP SCTL
[2] - SCTLs
[3] - USEPA Residential SSL
[4] - FDEP Residential SCTL
[5] - Background
[6] - FDEP MCL
[7] - FDEP Secondary Drinking Water Criteria

LOCATION		SR-SB-J7		SR-SB-K5		SR-SB-L1		SR-SB-L2	
SAMPLE ID		SR-SS-J7-01	SR-SS-J7-02	SR-SS-K5-01	SR-SS-K5-02	SR-SS-L1-01	SR-SS-L1-02	SR-SS-L2-01	SR-SS-L2-02
SAMPLE DATE		20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	Project	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	Action	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	Limit	0	0.5	0	0.5	0	0.5	0	0.5
BOTTOM DEPTH		0.5	2	0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)									
ACENAPHTHENE	2400 [1]	NA	NA	NA	NA	0.0278 U	0.0276 U	0.0272 U	0.0271 U
ANTHRACENE	21000 [1]	NA	NA	NA	NA	0.0289 U	0.0287 U	0.0283 U	0.0282 U
BAP EQUIVALENT	0.1 [2]	NA	NA	NA	NA	**0.9239**	0.0244 U	**0.9726**	0.024 U
BENZO(A)ANTHRACENE	0.15 [3]	NA	NA	NA	NA	**0.487**	0.0382 U	**0.517**	0.0376 U
BENZO(A)PYRENE	0.1 [2]	NA	NA	NA	NA	**0.787**	0.0244 U	**0.834**	0.024 UJ
BENZO(B)FLUORANTHENE	0.15 [3]	NA	NA	NA	NA	**0.517**	0.034 U	**0.515**	0.0334 UJ
BENZO(G,H,I)PERYLENE	2500 [1]	NA	NA	NA	NA	0.41	0.0744 U	0.465	0.073 UJ
BENZO(K)FLUORANTHENE	1.5 [3]	NA	NA	NA	NA	0.111 J	0.0414 U	0.079 J	0.0407 UJ
CHRYSENE	15 [3]	NA	NA	NA	NA	0.858	0.0329 U	0.834	0.0323 U
DIBENZO(A,H)ANTHRACENE	0.015 [3]	NA	NA	NA	NA	0.0641 U	0.0637 U	0.0628 U	0.0626 UJ
FLUORANTHENE	3200 [1]	NA	NA	NA	NA	0.124 J	0.0574 U	0.104 J	0.0563 U
INDENO(1,2,3-CD)PYRENE	0.15 [3]	NA	NA	NA	NA	0.0492 U	0.0489 U	0.0482 U	0.048 UJ
PHENANTHRENE	2200 [1]	NA	NA	NA	NA	0.18 J	0.0244 U	0.142 J	0.024 U
PYRENE	2400 [1]	NA	NA	NA	NA	0.797	0.0425 U	0.923	0.0417 U
INORGANICS (MG/KG)									
ANTIMONY	27 [4]	NA	NA	NA	NA	0.271 U	NA	NA	0.265 U
ARSENIC	3.2 [5]	NA	NA	NA	NA	0.963	NA	NA	0.704
COPPER	150 [4]	NA	NA	NA	NA	2.25	NA	NA	1.53
LEAD	400 [4]	NA	NA	NA	NA	2.77	NA	NA	3.04
LEAD-CALC	400 [4]	15.2	14.6	61.5	14	20.5	13.1	24.5	14.6
ZINC	26000 [4]	NA	NA	NA	NA	2.8	NA	NA	2.26
SPLP INORGANICS (UG/L)									
ALUMINUM	NC	NA	NA	NA	NA	NA	NA	NA	9780 J
ANTIMONY	6 [6]	NA	NA	NA	NA	NA	NA	NA	1.25 U
ARSENIC	50 [6]	NA	NA	NA	NA	NA	NA	NA	1.55 J
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA	188 J
CALCIUM	NC	NA	NA	NA	NA	NA	NA	NA	1480
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA	3.86
COPPER	100 [7]	NA	NA	NA	NA	NA	NA	NA	2.52
IRON	NC	NA	NA	NA	NA	NA	NA	NA	3660
LEAD	15 [6]	NA	NA	NA	NA	NA	NA	NA	1.53 J
MAGNESIUM	NC	NA	NA	NA	NA	NA	NA	NA	662 J
MANGANESE	NC	NA	NA	NA	NA	NA	NA	NA	42.7 J
NICKEL	NC	NA	NA	NA	NA	NA	NA	NA	2.07 J
POTASSIUM	NC	NA	NA	NA	NA	NA	NA	NA	287 J
SODIUM	NC	NA	NA	NA	NA	NA	NA	NA	1270 J
VANADIUM	NC	NA	NA	NA	NA	NA	NA	NA	9
ZINC	500 [7]	NA	NA	NA	NA	NA	NA	NA	53.4 J
XRF INORGANICS (MG/KG)									
LEAD	200 [4]	11	10 U	92.33	9	20.33	7.33	27.33	10 U
MISCELLANEOUS PARAMETERS (MEQ/100)									
CATION EXCHANGE CAPACITY	NC	NA	NA	NA	NA	NA	NA	NA	2.4 J
MISCELLANEOUS PARAMETERS (MG/KG)									
TOTAL ORGANIC CARBON	NC	NA	NA	NA	NA	NA	NA	NA	3850
MISCELLANEOUS PARAMETERS (S.U.)									
PH	NC	NA	NA	NA	NA	NA	NA	NA	5.66

[1] - FDEP SCTL
[2] - SCTLs
[3] - USEPA Residential SSL
[4] - FDEP Residential SCTL
[5] - Background
[6] - FDEP MCL
[7] - FDEP Secondary Drinking Water Criteria

LOCATION			SR-SB-L5		SR-SB-N1		SR-SS-L3	
SAMPLE ID			SR-SS-L5-01	SR-SS-L5-02	SR-SS-N1-01	SR-SS-N1-02	SR-SS-L3-01	SR-SS-L3-02
SAMPLE DATE			20100427	20100427	20100427	20100427	20100427	20100427
SAMPLE CODE			NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX			SO	SO	SO	SO	SO	SO
SAMPLE TYPE	Project		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	Action		SS	SS	SS	SS	SS	SS
TOP DEPTH	Limit		0	0.5	0	0.5	0	0.5
BOTTOM DEPTH			0.5	2	0.5	2	0.5	2
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)								
ACENAPHTHENE	2400	[1]	NA	NA	NA	NA	NA	NA
ANTHRACENE	21000	[1]	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT	0.1	[2]	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.15	[3]	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	0.1	[2]	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.15	[3]	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	2500	[1]	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	1.5	[3]	NA	NA	NA	NA	NA	NA
CHRYSENE	15	[3]	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.015	[3]	NA	NA	NA	NA	NA	NA
FLUORANTHENE	3200	[1]	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.15	[3]	NA	NA	NA	NA	NA	NA
PHENANTHRENE	2200	[1]	NA	NA	NA	NA	NA	NA
PYRENE	2400	[1]	NA	NA	NA	NA	NA	NA
INORGANICS (MG/KG)								
ANTIMONY	27	[4]	NA	NA	NA	NA	NA	NA
ARSENIC	3.2	[5]	NA	NA	NA	NA	NA	NA
COPPER	150	[4]	NA	NA	NA	NA	NA	NA
LEAD	400	[4]	NA	NA	NA	NA	NA	NA
LEAD-CALC	400	[4]	20.5	14.6	12.7	11.8	13.1	14.2
ZINC	26000	[4]	NA	NA	NA	NA	NA	NA
SPLP INORGANICS (UG/L)								
ALUMINUM	NC		NA	NA	NA	NA	NA	NA
ANTIMONY	6	[6]	NA	NA	NA	NA	NA	NA
ARSENIC	50	[6]	NA	NA	NA	NA	NA	NA
BARIUM	NC		NA	NA	NA	NA	NA	NA
CALCIUM	NC		NA	NA	NA	NA	NA	NA
CHROMIUM	NC		NA	NA	NA	NA	NA	NA
COPPER	100	[7]	NA	NA	NA	NA	NA	NA
IRON	NC		NA	NA	NA	NA	NA	NA
LEAD	15	[6]	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC		NA	NA	NA	NA	NA	NA
MANGANESE	NC		NA	NA	NA	NA	NA	NA
NICKEL	NC		NA	NA	NA	NA	NA	NA
POTASSIUM	NC		NA	NA	NA	NA	NA	NA
SODIUM	NC		NA	NA	NA	NA	NA	NA
VANADIUM	NC		NA	NA	NA	NA	NA	NA
ZINC	500	[7]	NA	NA	NA	NA	NA	NA
XRF INORGANICS (MG/KG)								
LEAD	200	[4]	20.33	10 U	6.67	5	7.33	9.33
MISCELLANEOUS PARAMETERS (MEQ/100)								
CATION EXCHANGE CAPACITY	NC		NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)								
TOTAL ORGANIC CARBON	NC		NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (S.U.)								
PH	NC		NA	NA	NA	NA	NA	NA

[1] - FDEP SCTL
[2] - SCTLs
[3] - USEPA Residential SSL
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[5] - Background
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APPENDIX D

DATA USABILITY ASSESSMENTS

TABLE 1
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD FORMER GUNNERY AREA SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
GA-SB-DS1	ANTIMONY	1.43	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SB-DS1	ARSENIC	1.34	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SB-DS1	LEAD	27.5	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SB-DS1	TIN	4.94	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SB-DS1	ZINC	1720	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-A0-01	ACENAPHTHENE	0.11	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A0-01	ANTHRACENE	0.276	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A0-01	NAPHTHALENE	0.0468	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A0-02	BENZO(A)ANTHRACENE	0.183	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A0-02	BENZO(A)PYRENE	0.345	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A0-02	BENZO(G,H,I)PERYLENE	0.285	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A0-02	BENZO(K)FLUORANTHENE	0.217	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A0-02	CHRYSENE	0.24	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A0-02	FLUORANTHENE	0.275	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A0-02	INDENO(1,2,3-CD)PYRENE	0.345	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A0-02	PHENANTHRENE	0.0764	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A0-02	PYRENE	0.324	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A1-01	2-METHYLNAPHTHALENE	0.915	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT

TABLE 1
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD FORMER GUNNERY AREA SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
GA-SS-A1-01	ANTIMONY	0.351	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A1-01	NAPHTHALENE	2.32	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A1-01	ZINC	4.78	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-A1-02	BENZO(A)ANTHRACENE	0.123	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A1-02	BENZO(A)PYRENE	0.263	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A1-02	BENZO(G,H,I)PERYLENE	0.256	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A1-02	BENZO(K)FLUORANTHENE	0.0994	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A1-02	CHRYSENE	0.157	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A1-02	FLUORANTHENE	0.175	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A1-02	INDENO(1,2,3-CD)PYRENE	0.316	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-A1-02	PYRENE	0.17	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C1-01	ACENAPHTHENE	0.993	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C1-01	ANTHRACENE	1.91	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C1-01	ANTIMONY	0.275	MG/KG	UJ	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-C1-01	ARSENIC	1.42	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C1-01	BENZO(A)PYRENE	28.3	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE

TABLE 1
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD FORMER GUNNERY AREA SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
GA-SS-C1-01	BENZO(B)FLUORANTHENE	38.5	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
GA-SS-C1-01	BENZO(G,H,I)PERYLENE	18.6	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
GA-SS-C1-01	BENZO(K)FLUORANTHENE	16.1	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
GA-SS-C1-01	COPPER	1.95	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C1-01	DIBENZO(A,H)ANTHRACENE	5.97	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
GA-SS-C1-01	INDENO(1,2,3-CD)PYRENE	19.5	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
GA-SS-C1-01	LEAD	101	MG/KG	J	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-C1-01	MAGNESIUM	726	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C1-01	NAPHTHALENE	0.66	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C1-01	NICKEL	1.37	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C1-01	POTASSIUM	1070	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C1-01	SODIUM	11000	UG/L	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-C1-01	ZINC	7.28	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-C1-01	ZINC	70.2	UG/L	J	E	LCS RECOVERY NONCOMPLIANCE
GA-SS-C1-02	1-METHYLNAPHTHALENE	1.47	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C1-02	2-METHYLNAPHTHALENE	2.01	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C1-02	BENZO(G,H,I)PERYLENE	141	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-C1-02	DIBENZO(A,H)ANTHRACENE	31.4	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE

TABLE 1
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD FORMER GUNNERY AREA SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
GA-SS-C1-02	INDENO(1,2,3-CD)PYRENE	154	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-C2-01	1-METHYLNAPHTHALENE	1.45	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C2-01	2-METHYLNAPHTHALENE	1.79	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C2-01	ANTIMONY	0.374	MG/KG	J	PD	MATRIX SPIKE RECOVERY NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C2-01	BENZO(G,H,I)PERYLENE	235	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-C2-01	DIBENZO(A,H)ANTHRACENE	47.1	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
GA-SS-C2-01	INDENO(1,2,3-CD)PYRENE	251	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-C2-01	LEAD	350	MG/KG	J	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-C2-01	ZINC	8	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-C2-02	ANTIMONY	0.274	MG/KG	UJ	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-C2-02	BENZO(A)ANTHRACENE	0.181	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C2-02	BENZO(A)PYRENE	0.338	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C2-02	BENZO(G,H,I)PERYLENE	0.32	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C2-02	BENZO(K)FLUORANTHENE	0.14	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C2-02	CATION EXCHANGE CAPACITY	3.06	MEQ/100	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-C2-02	CHRYSENE	0.236	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C2-02	FLUORANTHENE	0.275	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT

TABLE 1
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD FORMER GUNNERY AREA SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
GA-SS-C2-02	LEAD	16.3	MG/KG	J	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-C2-02	PHENANTHRENE	0.0568	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C2-02	PYRENE	0.225	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C2-02	ZINC	4.2	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-C2-02-D	BENZO(A)ANTHRACENE	0.233	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C2-02-D	BENZO(K)FLUORANTHENE	0.22	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C2-02-D	CATION EXCHANGE CAPACITY	3.28	MEQ/100	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-C2-02-D	CHRYSENE	0.325	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C2-02-D	FLUORANTHENE	0.335	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C2-02-D	PHENANTHRENE	0.0611	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C2-02-D	PYRENE	0.29	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C3-01	ANTIMONY	0.458	MG/KG	J	PD	MATRIX SPIKE RECOVERY NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-C3-01	LEAD	352	MG/KG	J	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-C3-01	ZINC	4.86	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-C5-02	ANTIMONY	0.263	MG/KG	UJ	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-C5-02	LEAD	44.1	MG/KG	J	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-C5-02	ZINC	3.04	MG/KG	J	C	CALIBRATION NONCOMPLIANCE

TABLE 1
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD FORMER GUNNERY AREA SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
GA-SS-D5-01	ANTIMONY	0.331	MG/KG	J	PD	MATRIX SPIKE RECOVERY NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-D5-01	LEAD	503	MG/KG	J	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-D5-01	ZINC	4.18	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-E1-01	ACENAPHTHENE	2.23	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-E1-01	ANTHRACENE	3.34	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-E1-01	BENZO(A)PYRENE	55.3	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
GA-SS-E1-01	BENZO(B)FLUORANTHENE	70.5	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
GA-SS-E1-01	BENZO(G,H,I)PERYLENE	44.1	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
GA-SS-E1-01	BENZO(K)FLUORANTHENE	33.5	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
GA-SS-E1-01	DIBENZO(A,H)ANTHRACENE	10.5	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
GA-SS-E1-01	FLUORENE	0.663	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-E1-01	INDENO(1,2,3-CD)PYRENE	42.4	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
GA-SS-E1-01	NAPHTHALENE	1.04	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-E1-02	BENZO(A)ANTHRACENE	0.298	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-E1-02	BENZO(K)FLUORANTHENE	0.212	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-E1-02	PHENANTHRENE	0.0977	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT

TABLE 1
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD FORMER GUNNERY AREA SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
GA-SS-E2-01	ANTIMONY	0.265	MG/KG	UJ	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-E2-01	BENZO(B)FLUORANTHENE	0.577	MG/KG	J	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-E2-01	CHROMIUM	0.98	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-E2-01	FLUORANTHENE	0.0594	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-E2-01	LEAD	133	MG/KG	J	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-E2-01	MAGNESIUM	657	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-E2-01	NICKEL	0.8	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-E2-01	POTASSIUM	694	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-E2-01	PYRENE	0.0581	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-E2-01	SODIUM	1530	UG/L	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-E2-01	VANADIUM	2.12	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-E2-01	ZINC	3.7	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-E2-01	ZINC	72.1	UG/L	J	E	LCS RECOVERY NONCOMPLIANCE
GA-SS-E4-01	ANTIMONY	1.2	MG/KG	J	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-E4-01	LEAD	669	MG/KG	J	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-E4-01	ZINC	5.39	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-E6-01	ANTIMONY	1.34	MG/KG	J	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-E6-01	LEAD	465	MG/KG	J	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE

TABLE 1
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD FORMER GUNNERY AREA SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
GA-SS-E6-01	ZINC	3.33	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-G1-01	1-METHYLNAPHTHALENE	1.66	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-G1-01	2-METHYLNAPHTHALENE	2.28	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-G1-01	BENZO(G,H,I)PERYLENE	172	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-G1-01	DIBENZO(A,H)ANTHRACENE	33.3	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
GA-SS-G1-01	INDENO(1,2,3-CD)PYRENE	202	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-G1-02	BENZO(A)ANTHRACENE	0.172	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-G1-02	BENZO(K)FLUORANTHENE	0.168	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-G1-02	CHRYSENE	0.219	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-G1-02	FLUORANTHENE	0.261	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-G1-02	PYRENE	0.257	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-G2-02	ALUMINUM	48.4	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-G2-02	ANTIMONY	0.267	MG/KG	UJ	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-G2-02	CALCIUM	597	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-G2-02	CATION EXCHANGE CAPACITY	3.75	MEQ/100	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-G2-02	LEAD	4.22	MG/KG	J	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-G2-02	LEAD	0.72	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT

TABLE 1
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD FORMER GUNNERY AREA SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
GA-SS-G2-02	SODIUM	699	UG/L	J	PC	CALIBRATION NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-G2-02	ZINC	3.46	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-G2-02	ZINC	17.7	UG/L	J	E	LCS RECOVERY NONCOMPLIANCE
GA-SS-G2.5-02	ANTIMONY	0.262	MG/KG	UJ	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-G2.5-02	CATION EXCHANGE CAPACITY	2.99	MEQ/100	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-G2.5-02	LEAD	4.7	MG/KG	J	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-G2.5-02	ZINC	3.19	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-G5-01	ANTIMONY	0.434	MG/KG	J	PD	MATRIX SPIKE RECOVERY NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-G5-01	LEAD	156	MG/KG	J	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
GA-SS-G5-01	ZINC	3.06	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-G7-01	ZINC	3.93	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-J1-01	1-METHYLNAPHTHALENE	1.31	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J1-01	2-METHYLNAPHTHALENE	1.95	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J1-01	BENZO(G,H,I)PERYLENE	168	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-J1-01	DIBENZO(A,H)ANTHRACENE	29.6	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
GA-SS-J1-01	INDENO(1,2,3-CD)PYRENE	180	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-J1-02	ACENAPHTHENE	0.247	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J1-02	BENZO(A)PYRENE	7.09	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE

TABLE 1
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD FORMER GUNNERY AREA SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
GA-SS-J1-02	BENZO(B)FLUORANTHENE	9.42	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
GA-SS-J1-02	BENZO(G,H,I)PERYLENE	4.29	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
GA-SS-J1-02	BENZO(K)FLUORANTHENE	4.68	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
GA-SS-J1-02	CATION EXCHANGE CAPACITY	2.13	MEQ/100	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-J1-02	DIBENZO(A,H)ANTHRACENE	1.93	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
GA-SS-J1-02	FLUORENE	0.377	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J1-02	INDENO(1,2,3-CD)PYRENE	5.03	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
GA-SS-J2-01	BENZO(A)ANTHRACENE	0.105	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J2-01	BENZO(K)FLUORANTHENE	0.064	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J2-01	CHRYSENE	0.108	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J2-01	FLUORANTHENE	0.155	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J2-01	PYRENE	0.132	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J2-01	ZINC	3.62	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-J5-02	ZINC	2.59	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-J6-01	ANTIMONY	1.45	UG/L	J	PG	FIELD DUPLICATE PRECISION NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J6-01	ARSENIC	0.75	UG/L	UJ	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE

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SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
GA-SS-J6-01	CADMIUM	0.42	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J6-01	CALCIUM	854	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J6-01	COPPER	1.5	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J6-01	IRON	7.5	UG/L	UJ	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
GA-SS-J6-01	LEAD	1300	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-J6-01	MANGANESE	24.2	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
GA-SS-J6-01	NICKEL	0.81	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J6-01	POTASSIUM	609	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J6-01	SODIUM	1080	UG/L	J	PC	CALIBRATION NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J6-01	ZINC	3.14	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-J6-01	ZINC	54.7	UG/L	J	E	LCS RECOVERY NONCOMPLIANCE
GA-SS-J6-01-D	ANTIMONY	2.12	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-J6-01-D	ANTIMONY	93.9	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
GA-SS-J6-01-D	ARSENIC	4.2	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-J6-01-D	ARSENIC	18.7	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
GA-SS-J6-01-D	CALCIUM	812	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J6-01-D	CHROMIUM	1.1	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J6-01-D	COPPER	1.41	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT

TABLE 1
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD FORMER GUNNERY AREA SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
GA-SS-J6-01-D	IRON	865	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
GA-SS-J6-01-D	LEAD	1150	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-J6-01-D	MAGNESIUM	267	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J6-01-D	MANGANESE	37.4	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
GA-SS-J6-01-D	NICKEL	0.87	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J6-01-D	POTASSIUM	470	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J6-01-D	SODIUM	1110	UG/L	J	PC	CALIBRATION NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J6-01-D	VANADIUM	2.27	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-J6-01-D	ZINC	4.21	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-J6-01-D	ZINC	60.1	UG/L	J	E	LCS RECOVERY NONCOMPLIANCE
GA-SS-J7-01	ARSENIC	3.13	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-J7-01	LEAD	23.1	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-J7-01	ZINC	5.81	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-L1-01	2-METHYLNAPHTHALENE	1.17	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-L1-01	ANTIMONY	0.503	MG/KG	J	PC	CALIBRATION NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-L1-01	ARSENIC	1.86	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-L1-01	BENZO(G,H,I)PERYLENE	101	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-L1-01	FLUORENE	3.44	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-L1-01	INDENO(1,2,3-CD)PYRENE	115	MG/KG	J	C	CALIBRATION NONCOMPLIANCE

TABLE 1
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD FORMER GUNNERY AREA SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
GA-SS-L1-01	LEAD	235	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-L1-01	ZINC	9.89	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-L1-02	ANTHRACENE	0.186	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-L2-01	ANTHRACENE	0.308	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-L2-01	DIBENZO(A,H)ANTHRACENE	1.66	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-L2-01	PHENANTHRENE	1.53	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-L2-02	ARSENIC	0.83	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-L2-02	LEAD	4.27	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-L2-02	PHENANTHRENE	0.199	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-L2-02	ZINC	4.12	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
GA-SS-N1-01	1-METHYLNAPHTHALENE	0.527	MG/KG	UJ	R	SURROGATE RECOVERY NONCOMPLIANCE
GA-SS-N1-01	2-METHYLNAPHTHALENE	0.185	MG/KG	UJ	R	SURROGATE RECOVERY NONCOMPLIANCE
GA-SS-N1-01	ACENAPHTHENE	0.137	MG/KG	UJ	R	SURROGATE RECOVERY NONCOMPLIANCE
GA-SS-N1-01	ACENAPHTHYLENE	0.105	MG/KG	UJ	R	SURROGATE RECOVERY NONCOMPLIANCE
GA-SS-N1-01	ANTHRACENE	0.142	MG/KG	UJ	R	SURROGATE RECOVERY NONCOMPLIANCE
GA-SS-N1-01	BENZO(A)ANTHRACENE	1.49	MG/KG	J	PR	SURROGATE RECOVERY NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-N1-01	BENZO(A)PYRENE	2.16	MG/KG	J	NR	INTERNAL STANDARD AND SURROGATE NONCOMPLIANCE
GA-SS-N1-01	BENZO(B)FLUORANTHENE	3.15	MG/KG	J	NR	INTERNAL STANDARD AND SURROGATE NONCOMPLIANCE

TABLE 1
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD FORMER GUNNERY AREA SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
GA-SS-N1-01	BENZO(G,H,I)PERYLENE	1.76	MG/KG	J	NR	INTERNAL STANDARD AND SURROGATE NONCOMPLIANCE
GA-SS-N1-01	BENZO(K)FLUORANTHENE	1.14	MG/KG	J	NPR	INTERNAL STANDARD AND SURROGATE NONCOMPLIANCE, UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-N1-01	CHRYSENE	1.95	MG/KG	J	R	SURROGATE RECOVERY NONCOMPLIANCE
GA-SS-N1-01	DIBENZO(A,H)ANTHRACENE	0.316	MG/KG	UJ	NR	INTERNAL STANDARD AND SURROGATE NONCOMPLIANCE
GA-SS-N1-01	FLUORANTHENE	2.75	MG/KG	J	R	SURROGATE RECOVERY NONCOMPLIANCE
GA-SS-N1-01	FLUORENE	0.137	MG/KG	UJ	R	SURROGATE RECOVERY NONCOMPLIANCE
GA-SS-N1-01	INDENO(1,2,3-CD)PYRENE	1.92	MG/KG	J	NR	INTERNAL STANDARD AND SURROGATE NONCOMPLIANCE
GA-SS-N1-01	NAPHTHALENE	0.169	MG/KG	UJ	R	SURROGATE RECOVERY NONCOMPLIANCE
GA-SS-N1-01	PHENANTHRENE	0.621	MG/KG	J	PR	SURROGATE RECOVERY NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-N1-01	PYRENE	2.53	MG/KG	J	R	SURROGATE RECOVERY NONCOMPLIANCE
GA-SS-N1-02	BENZO(A)ANTHRACENE	0.109	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-N1-02	BENZO(K)FLUORANTHENE	0.0861	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-N1-02	CHRYSENE	0.142	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-N1-02	FLUORANTHENE	0.16	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
GA-SS-N1-02	PYRENE	0.159	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT

TABLE 2
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD SKEET RANGE SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
SR-SB-DS1	BENZO(A)PYRENE	2.88	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SB-DS1	BENZO(B)FLUORANTHENE	2.62	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SB-DS1	BENZO(G,H,I)PERYLENE	2.13	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SB-DS1	BENZO(K)FLUORANTHENE	0.574	MG/KG	J	NP	INTERNAL STANDARD NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SB-DS1	DIBENZO(A,H)ANTHRACENE	0.324	MG/KG	UJ	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SB-DS1	FLUORANTHENE	1.02	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SB-DS1	INDENO(1,2,3-CD)PYRENE	1.58	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SB-DS1	PHENANTHRENE	0.688	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SB-DS1	ZINC	2.5	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
SR-SB-DS2	BENZO(A)PYRENE	20.9	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SB-DS2	BENZO(B)FLUORANTHENE	9.86	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SB-DS2	BENZO(G,H,I)PERYLENE	11	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SB-DS2	BENZO(K)FLUORANTHENE	2.39	MG/KG	J	NP	INTERNAL STANDARD NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SB-DS2	DIBENZO(A,H)ANTHRACENE	0.652	MG/KG	UJ	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SB-DS2	INDENO(1,2,3-CD)PYRENE	5.99	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SB-DS2	ZINC	2.34	MG/KG	J	C	CALIBRATION NONCOMPLIANCE

TABLE 2
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD SKEET RANGE SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
SR-SS-A0-01	ANTIMONY	0.266	MG/KG	UJ	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
SR-SS-A0-01	BENZO(A)ANTHRACENE	0.0755	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-A0-01	BENZO(A)PYRENE	0.241	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-A0-01	BENZO(B)FLUORANTHENE	0.332	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-A0-01	BENZO(G,H,I)PERYLENE	0.209	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-A0-01	CATION EXCHANGE CAPACITY	4.22	MEQ/100	J	C	CALIBRATION NONCOMPLIANCE
SR-SS-A0-01	CHRYSENE	0.112	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-A0-01	PYRENE	0.108	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-A0-01-D	BENZO(A)ANTHRACENE	0.158	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-A0-01-D	BENZO(G,H,I)PERYLENE	0.241	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-A0-01-D	BENZO(K)FLUORANTHENE	0.069	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-A0-01-D	CATION EXCHANGE CAPACITY	3.1	MEQ/100	J	C	CALIBRATION NONCOMPLIANCE
SR-SS-A0-01-D	CHRYSENE	0.248	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-A0-01-D	FLUORANTHENE	0.111	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-A0-01-D	PHENANTHRENE	0.0685	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-A0-01-D	PYRENE	0.261	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT

TABLE 2
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD SKEET RANGE SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
SR-SS-A0-01-D	ZINC	8.08	MG/KG	J	C	CALIBRATION NONCOMPLIANCE
SR-SS-A0-02	BENZO(G,H,I)PERYLENE	0.0759	MG/KG	UJ	C	CALIBRATION NONCOMPLIANCE
SR-SS-A0-02	DIBENZO(A,H)ANTHRACENE	0.0651	MG/KG	UJ	C	CALIBRATION NONCOMPLIANCE
SR-SS-A0-02	INDENO(1,2,3-CD)PYRENE	0.0499	MG/KG	UJ	C	CALIBRATION NONCOMPLIANCE
SR-SS-A1-02	ANTIMONY	0.261	MG/KG	UJ	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
SR-SS-C1-01	ACENAPHTHENE	0.105	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-C1-01	ANTHRACENE	0.0838	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-C1-02	BENZO(A)ANTHRACENE	0.18	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-C1-02	BENZO(A)PYRENE	0.325	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-C1-02	BENZO(G,H,I)PERYLENE	0.255	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-C1-02	BENZO(K)FLUORANTHENE	0.05	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-C1-02	CHRYSENE	0.284	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-C1-02	FLUORANTHENE	0.0791	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-C1-02	INDENO(1,2,3-CD)PYRENE	0.261	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-C1-02	PHENANTHRENE	0.0575	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-C1-02	PYRENE	0.249	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-C2-01	ANTIMONY	0.265	MG/KG	UJ	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
SR-SS-D5-01	ANTIMONY	0.267	MG/KG	UJ	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE

TABLE 2
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD SKEET RANGE SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
SR-SS-E1-01	ACENAPHTHENE	0.748	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-E1-01	ANTHRACENE	0.99	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-E1-01	ANTIMONY	0.269	MG/KG	UJ	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
SR-SS-E1-01	DIBENZO(A,H)ANTHRACENE	3.35	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-E1-02	BENZO(K)FLUORANTHENE	0.464	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-E1-02	PHENANTHRENE	1.2	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-E4-01	ANTIMONY	0.277	MG/KG	UJ	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
SR-SS-E7-02	ALUMINUM	58.3	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-E7-02	ANTIMONY	0.283	MG/KG	UJ	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
SR-SS-E7-02	ARSENIC	0.75	UG/L	UJ	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-E7-02	BARIUM	49.2	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-E7-02	CALCIUM	523	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-E7-02	IRON	22.4	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-E7-02	LEAD	7.3	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-E7-02	MAGNESIUM	347	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-E7-02	MANGANESE	20.9	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE

TABLE 2
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD SKEET RANGE SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
SR-SS-E7-02	SODIUM	10200	UG/L	J	CG	CALIBRATION AND FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-E7-02	ZINC	18.3	UG/L	J	E	LCS RECOVERY NONCOMPLIANCE
SR-SS-F5-01	ANTIMONY	0.398	MG/KG	J	PD	MATRIX SPIKE RECOVERY NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-F5-02	ALUMINUM	87.8	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-F5-02	ANTIMONY	0.279	MG/KG	UJ	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
SR-SS-F5-02	ANTIMONY	1.66	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-F5-02	ARSENIC	0.75	UG/L	UJ	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-F5-02	BARIUM	102	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-F5-02	CALCIUM	708	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-F5-02	IRON	17	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-F5-02	LEAD	66.4	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-F5-02	MANGANESE	40.1	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-F5-02	NICKEL	0.98	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-F5-02	SODIUM	10100	UG/L	J	CG	CALIBRATION AND FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-F5-02	ZINC	32.9	UG/L	J	E	LCS RECOVERY NONCOMPLIANCE
SR-SS-F5-02-D	ALUMINUM	624	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE

TABLE 2
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD SKEET RANGE SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
SR-SS-F5-02-D	ARSENIC	1.93	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-F5-02-D	BARIUM	214	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-F5-02-D	CALCIUM	1120	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-F5-02-D	IRON	15.4	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-F5-02-D	LEAD	2000	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-F5-02-D	MANGANESE	90.2	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-F5-02-D	SODIUM	718	UG/L	J	PCDG	MATRIX SPIKE RECOVERY, FIELD DUPLICATE PRECISION, CALIBRATION NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-F5-02-D	ZINC	49.3	UG/L	J	DE	MATRIX SPIKE AND LCS RECOVERY NONCOMPLIANCE
SR-SS-G1-01	ANTIMONY	0.264	MG/KG	UJ	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
SR-SS-G1-01	BENZO(K)FLUORANTHENE	1.84	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-G1-01	DIBENZO(A,H)ANTHRACENE	2.86	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-G1-01	FLUORANTHENE	2.06	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-G1-01	PHENANTHRENE	1.69	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-G1-02	ANTIMONY	0.259	MG/KG	UJ	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
SR-SS-G1-02	BENZO(A)ANTHRACENE	0.701	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT

TABLE 2
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD SKEET RANGE SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
SR-SS-G1-02	BENZO(A)PYRENE	1.56	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-G1-02	BENZO(B)FLUORANTHENE	1.72	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-G1-02	BENZO(G,H,I)PERYLENE	1.21	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-G1-02	CHRYSENE	1.24	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-G1-02	PYRENE	1.1	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-G2-01	CATION EXCHANGE CAPACITY	3.28	MEQ/100	J	C	CALIBRATION NONCOMPLIANCE
SR-SS-G3-01	ANTIMONY	0.273	MG/KG	UJ	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
SR-SS-G4-01	ANTIMONY	0.272	MG/KG	UJ	D	MATRIX SPIKE RECOVERY NONCOMPLIANCE
SR-SS-G4-02	CATION EXCHANGE CAPACITY	7.86	MEQ/100	J	C	CALIBRATION NONCOMPLIANCE
SR-SS-G6-01	ANTIMONY	0.278	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J1-01	ACENAPHTHENE	1.11	MG/KG	J	PR	SURROGATE RECOVERY NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J1-01	ALUMINUM	6980	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-J1-01	ANTHRACENE	1.64	MG/KG	J	PR	SURROGATE RECOVERY NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J1-01	ARSENIC	1.38	UG/L	J	PG	FIELD DUPLICATE PRECISION NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT

TABLE 2
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD SKEET RANGE SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
SR-SS-J1-01	BARIUM	157	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-J1-01	BENZO(A)ANTHRACENE	18	MG/KG	J	R	SURROGATE RECOVERY NONCOMPLIANCE
SR-SS-J1-01	BENZO(A)PYRENE	22.9	MG/KG	J	R	SURROGATE RECOVERY NONCOMPLIANCE
SR-SS-J1-01	BENZO(B)FLUORANTHENE	17.4	MG/KG	J	R	SURROGATE RECOVERY NONCOMPLIANCE
SR-SS-J1-01	BENZO(G,H,I)PERYLENE	14.2	MG/KG	J	R	SURROGATE RECOVERY NONCOMPLIANCE
SR-SS-J1-01	BENZO(K)FLUORANTHENE	7.9	MG/KG	J	R	SURROGATE RECOVERY NONCOMPLIANCE
SR-SS-J1-01	CHRYSENE	24.9	MG/KG	J	R	SURROGATE RECOVERY NONCOMPLIANCE
SR-SS-J1-01	COPPER	1.7	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J1-01	DIBENZO(A,H)ANTHRACENE	4.42	MG/KG	J	R	SURROGATE RECOVERY NONCOMPLIANCE
SR-SS-J1-01	FLUORANTHENE	12.2	MG/KG	J	R	SURROGATE RECOVERY NONCOMPLIANCE
SR-SS-J1-01	INDENO(1,2,3-CD)PYRENE	12.6	MG/KG	J	R	SURROGATE RECOVERY NONCOMPLIANCE
SR-SS-J1-01	LEAD	14.7	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-J1-01	MAGNESIUM	1040	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J1-01	MANGANESE	30.7	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-J1-01	NICKEL	1.53	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J1-01	PHENANTHRENE	8.46	MG/KG	J	R	SURROGATE RECOVERY NONCOMPLIANCE

TABLE 2
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD SKEET RANGE SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
SR-SS-J1-01	POTASSIUM	363	UG/L	J	PD	MATRIX SPIKE RECOVERY NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J1-01	PYRENE	27.6	MG/KG	J	R	SURROGATE RECOVERY NONCOMPLIANCE
SR-SS-J1-01	SODIUM	10200	UG/L	J	CDG	CALIBRATION NONCOMPLIANCE, MATRIX SPIKE RECOVERY, AND FIELD DUPLICATE PRECISION
SR-SS-J1-01	ZINC	21.5	UG/L	J	DE	MATRIX SPIKE AND LCS RECOVERY NONCOMPLIANCE
SR-SS-J1-02	BENZO(A)ANTHRACENE	0.127	MG/KG	J	GP	FIELD DUPLICATE PRECISION NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J1-02	BENZO(A)PYRENE	0.3	MG/KG	J	GP	FIELD DUPLICATE PRECISION NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J1-02	BENZO(B)FLUORANTHENE	0.335	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J1-02	BENZO(G,H,I)PERYLENE	0.238	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J1-02	CHRYSENE	0.228	MG/KG	J	GP	FIELD DUPLICATE PRECISION NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J1-02	PYRENE	0.197	MG/KG	J	GP	FIELD DUPLICATE PRECISION NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J1-02-D	BENZO(A)ANTHRACENE	0.968	MG/KG	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-J1-02-D	BENZO(A)PYRENE	1.3	MG/KG	J	GN	FIELD DUPLICATE PRECISION AND INTERNAL STANDARD NONCOMPLIANCE

TABLE 2
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD SKEET RANGE SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
SR-SS-J1-02-D	BENZO(B)FLUORANTHENE	0.619	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SS-J1-02-D	BENZO(G,H,I)PERYLENE	0.739	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SS-J1-02-D	BENZO(K)FLUORANTHENE	0.141	MG/KG	J	NP	INTERNAL STANDARD NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J1-02-D	CHRYSENE	1.57	MG/KG	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-J1-02-D	DIBENZO(A,H)ANTHRACENE	0.0632	MG/KG	UJ	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SS-J1-02-D	INDENO(1,2,3-CD)PYRENE	0.395	MG/KG	J	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SS-J1-02-D	PHENANTHRENE	0.287	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J1-02-D	PYRENE	2.09	MG/KG	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-J2-01	BENZO(A)ANTHRACENE	0.128	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J2-01	BENZO(A)PYRENE	0.3	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J2-01	BENZO(B)FLUORANTHENE	0.329	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J2-01	BENZO(G,H,I)PERYLENE	0.246	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J2-01	CHRYSENE	0.217	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-J2-01	PYRENE	0.186	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-L1-01	BENZO(K)FLUORANTHENE	0.111	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT

TABLE 2
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD SKEET RANGE SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
SR-SS-L1-01	FLUORANTHENE	0.124	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-L1-01	PHENANTHRENE	0.18	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-L2-01	BENZO(K)FLUORANTHENE	0.079	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-L2-01	FLUORANTHENE	0.104	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-L2-01	PHENANTHRENE	0.142	MG/KG	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-L2-02	ALUMINUM	9780	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-L2-02	ARSENIC	1.55	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-L2-02	BARIUM	188	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-L2-02	BENZO(A)PYRENE	0.024	MG/KG	UJ	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SS-L2-02	BENZO(B)FLUORANTHENE	0.0334	MG/KG	UJ	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SS-L2-02	BENZO(G,H,I)PERYLENE	0.073	MG/KG	UJ	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SS-L2-02	BENZO(K)FLUORANTHENE	0.0407	MG/KG	UJ	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SS-L2-02	CATION EXCHANGE CAPACITY	2.4	MEQ/100	J	C	CALIBRATION NONCOMPLIANCE
SR-SS-L2-02	DIBENZO(A,H)ANTHRACENE	0.0626	MG/KG	UJ	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SS-L2-02	INDENO(1,2,3-CD)PYRENE	0.048	MG/KG	UJ	N	INTERNAL STANDARD NONCOMPLIANCE
SR-SS-L2-02	LEAD	1.53	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE

TABLE 2
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD SKEET RANGE SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
SR-SS-L2-02	MAGNESIUM	662	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-L2-02	MANGANESE	42.7	UG/L	J	G	FIELD DUPLICATE PRECISION NONCOMPLIANCE
SR-SS-L2-02	NICKEL	2.07	UG/L	J	P	UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-L2-02	POTASSIUM	287	UG/L	J	PD	MATRIX SPIKE RECOVERY NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
SR-SS-L2-02	SODIUM	1270	UG/L	J	CDG	CALIBRATION NONCOMPLIANCE, MATRIX SPIKE RECOVERY, AND FIELD DUPLICATE PRECISION
SR-SS-L2-02	ZINC	53.4	UG/L	J	DE	MATRIX SPIKE AND LCS RECOVERY NONCOMPLIANCE
WHF-RB-01	1-METHYLNAPHTHALENE	0.0421	UG/L	J	HP	HOLD TIME NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
WHF-RB-01	2-METHYLNAPHTHALENE	0.0659	UG/L	J	HP	HOLD TIME NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
WHF-RB-01	ACENAPHTHENE	0.149	UG/L	J	H	HOLD TIME NONCOMPLIANCE
WHF-RB-01	ACENAPHTHYLENE	0.02	UG/L	UJ	H	HOLD TIME NONCOMPLIANCE
WHF-RB-01	ANTHRACENE	0.117	UG/L	J	H	HOLD TIME NONCOMPLIANCE
WHF-RB-01	BENZO(A)ANTHRACENE	0.414	UG/L	J	CEH	CALIBRATION, LCS RECOVERY, AND HOLD TIME NONCOMPLIANCE
WHF-RB-01	BENZO(A)PYRENE	0.389	UG/L	J	H	HOLD TIME NONCOMPLIANCE
WHF-RB-01	BENZO(B)FLUORANTHENE	0.469	UG/L	J	H	HOLD TIME NONCOMPLIANCE
WHF-RB-01	BENZO(G,H,I)PERYLENE	0.215	UG/L	J	EH	LCS RECOVERY AND HOLD TIME NONCOMPLIANCE
WHF-RB-01	BENZO(K)FLUORANTHENE	0.223	UG/L	J	H	HOLD TIME NONCOMPLIANCE

TABLE 2
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD SKEET RANGE SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
WHF-RB-01	CHRYSENE	0.5	UG/L	J	CEH	CALIBRATION, LCS RECOVERY, AND HOLD TIME NONCOMPLIANCE
WHF-RB-01	DIBENZO(A,H)ANTHRACENE	0.0929	UG/L	J	EHP	LCS RECOVERY AND HOLD TIME NONCOMPLIANCE, UNCERTAINTY NEAR THE DETECTION LIMIT
WHF-RB-01	FLUORANTHENE	0.805	UG/L	J	EH	LCS RECOVERY AND HOLD TIME NONCOMPLIANCE
WHF-RB-01	FLUORENE	0.0674	UG/L	J	EHP	LCS RECOVERY AND HOLD TIME NONCOMPLIANCE, UNCERTAINTY NEAR THE DETECTION LIMIT
WHF-RB-01	INDENO(1,2,3-CD)PYRENE	0.282	UG/L	J	H	HOLD TIME NONCOMPLIANCE
WHF-RB-01	NAPHTHALENE	0.268	UG/L	J	H	HOLD TIME NONCOMPLIANCE
WHF-RB-01	PHENANTHRENE	0.519	UG/L	J	H	HOLD TIME NONCOMPLIANCE
WHF-RB-01	PYRENE	0.727	UG/L	J	H	HOLD TIME NONCOMPLIANCE
WHF-RB-02	1-METHYLNAPHTHALENE	0.0558	UG/L	J	HP	HOLD TIME NONCOMPLIANCE AND UNCERTAINTY NEAR THE DETECTION LIMIT
WHF-RB-02	2-METHYLNAPHTHALENE	0.13	UG/L	J	H	HOLD TIME NONCOMPLIANCE
WHF-RB-02	ACENAPHTHENE	0.02	UG/L	UJ	H	HOLD TIME NONCOMPLIANCE
WHF-RB-02	ACENAPHTHYLENE	0.02	UG/L	UJ	H	HOLD TIME NONCOMPLIANCE
WHF-RB-02	ANTHRACENE	0.02	UG/L	UJ	H	HOLD TIME NONCOMPLIANCE
WHF-RB-02	BENZO(A)ANTHRACENE	0.02	UG/L	UJ	CH	CALIBRATION AND HOLD TIME NONCOMPLIANCE
WHF-RB-02	BENZO(A)PYRENE	0.02	UG/L	UJ	H	HOLD TIME NONCOMPLIANCE
WHF-RB-02	BENZO(B)FLUORANTHENE	0.02	UG/L	UJ	H	HOLD TIME NONCOMPLIANCE
WHF-RB-02	BENZO(G,H,I)PERYLENE	0.02	UG/L	UJ	H	HOLD TIME NONCOMPLIANCE
WHF-RB-02	BENZO(K)FLUORANTHENE	0.02	UG/L	UJ	H	HOLD TIME NONCOMPLIANCE
WHF-RB-02	CHRYSENE	0.02	UG/L	UJ	CH	CALIBRATION AND HOLD TIME NONCOMPLIANCE
WHF-RB-02	DIBENZO(A,H)ANTHRACENE	0.02	UG/L	UJ	H	HOLD TIME NONCOMPLIANCE

TABLE 2
QUALIFIED DATA
NAVAL AIR STATION WHITING FIELD SKEET RANGE SITE INVESTIGATION
MILTON, FLORIDA

SAMPLE NUMBER	PARAMETER	SAMPLE RESULT	UNIT	VALIDATION QUALIFIER	QUALIFICATION CODE	REASON FOR QUALIFICATION
WHF-RB-02	FLUORANTHENE	0.02	UG/L	UJ	H	HOLD TIME NONCOMPLIANCE
WHF-RB-02	FLUORENE	0.02	UG/L	UJ	H	HOLD TIME NONCOMPLIANCE
WHF-RB-02	INDENO(1,2,3-CD)PYRENE	0.02	UG/L	UJ	H	HOLD TIME NONCOMPLIANCE
WHF-RB-02	NAPHTHALENE	0.02	UG/L	UJ	H	HOLD TIME NONCOMPLIANCE
WHF-RB-02	PHENANTHRENE	0.02	UG/L	UJ	H	HOLD TIME NONCOMPLIANCE
WHF-RB-02	PYRENE	0.02	UG/L	UJ	H	HOLD TIME NONCOMPLIANCE

APPENDIX E

XRF/FBL CORRELATION STATISTICAL EVALUATIONS

Correlation Analysis

Correlations between XRF and Fixed Based Laboratory (FBL) lead concentrations were computed for two military ranges/sites at NAS Whiting Field. The correlation, r, always falls between -1 and 1. Correlation values near 0 indicate a very weak linear relationship. The strength of the linear relationship increases as the correlation moves away from 0 toward either -1 or 1. Correlation values close to -1 and 1 indicate that the points lie close to a straight line. The extreme values -1 and 1 occur only in the case of a perfect linear relationship. The coefficient of determination, R^2, is the correlation squared and can be thought of as the amount of variation about the regression line that can be explained by the XRF concentrations. R^2 values between 0 and 0.30 are considered weak, 0.30 to 0.7 are considered moderate, and greater than about 0.80 are considered to indicate a very strong relationship between the two measurement methods. The maximum possible value is 100 percent. The correlation analyses were conducted to determine if XRF techniques can be used to delineate contamination at the sites. As stated in the Sampling and Analysis Plan (SAP), an acceptable correlation between the XRF and FBL will be between 0.65 and 1. Note that the correlation analyses establishes a relationship for the observed concentration ranges. The relationship should not be extrapolated to concentrations outside the observed concentrations.

Figure 1 presents the scatterplot of the XRF and FBL lead concentrations for the Former Gunnery Range. The concentrations of lead at Rifle Range 1 were all less than 13001 mg/kg. The correlation between the XRF and FBL concentrations is 0.96 and the corresponding R^2 value is 0.91. The correlation indicates a strong linear relationship. The correlation between the XRF and FBL is acceptable as outlined by the SAP. Table 1 presents the samples that were used in the correlation analysis. FBL concentrations can be predicted from XRF concentrations ranging from non-detect to 1020mg/kg using the following equation.

$$FBL = -41.3 + 1.2*XRF$$

Table 1 Sampling Location Former Gunnery Range
GA-SS-C2-02
GA-SS-G2.5-02
GA-SS-G2-02
GA-SS-L2-02
GA-SS-J7-01
GA-SB-DS1
GA-SS-J5-02
GA-SS-G7-01
GA-SS-J2-01
GA-SS-C1-01
GA-SS-A1-01
GA-SS-L1-01
GA-SS-C5-02
GA-SS-G5-01
GA-SS-C2-01
GA-SS-E2-01
GA-SS-E6-01
GA-SS-D5-01
GA-SS-C3-01
GA-SS-E4-01
GA-SS-J6-01

Figure 2 presents the scatterplot of the XRF and FBL lead concentrations for NASWF Skeet Range. The majority of the concentrations were less than 200 mg/kg. The correlation between the XRF and FBL concentrations is 0.96 while the R^2 value is 0.93 indicating a strong trend between the XRF and FBL data. However, there were two samples that had concentrations greater than 368 mg/kg. These concentrations do not follow the same general linear trend as the rest of the samples. The correlation between the XRF and FBL concentrations without these two concentrations (i.e., potential outliers) is 0.81 and the corresponding R^2 value is 0.66. The correlation indicates a strong linear relationship. The correlation between the XRF and FBL is acceptable as outlined by the SAP. FBL concentrations can be predicted from XRF concentrations ranging from non-detect to 136 mg/kg using the following equation.

$$FBL = 8.9 + 0.57*XRF$$

Table 2 presents the samples that were used in the correlation analysis.

Table 2 Sampling Location NASWF Skeet Range
SR-SB-A0
SR-SB-A1
SR-SB-C2
SR-SB-D5
SR-SB-E1
SR-SB-E4
SR-SB-E7
SR-SB-F5
SR-SB-F5
SR-SB-G1
SR-SB-G1
SR-SB-G3
SR-SB-G4
SR-SB-G4
SR-SB-G6
SR-SB-G7
SR-SB-J1
SR-SB-J6
SR-SB-L1
SR-SB-L2

FIGURE 1
FORMER GUNNERY RANGE CORRELATION ANALYSIS
NAS WHITING FIELD

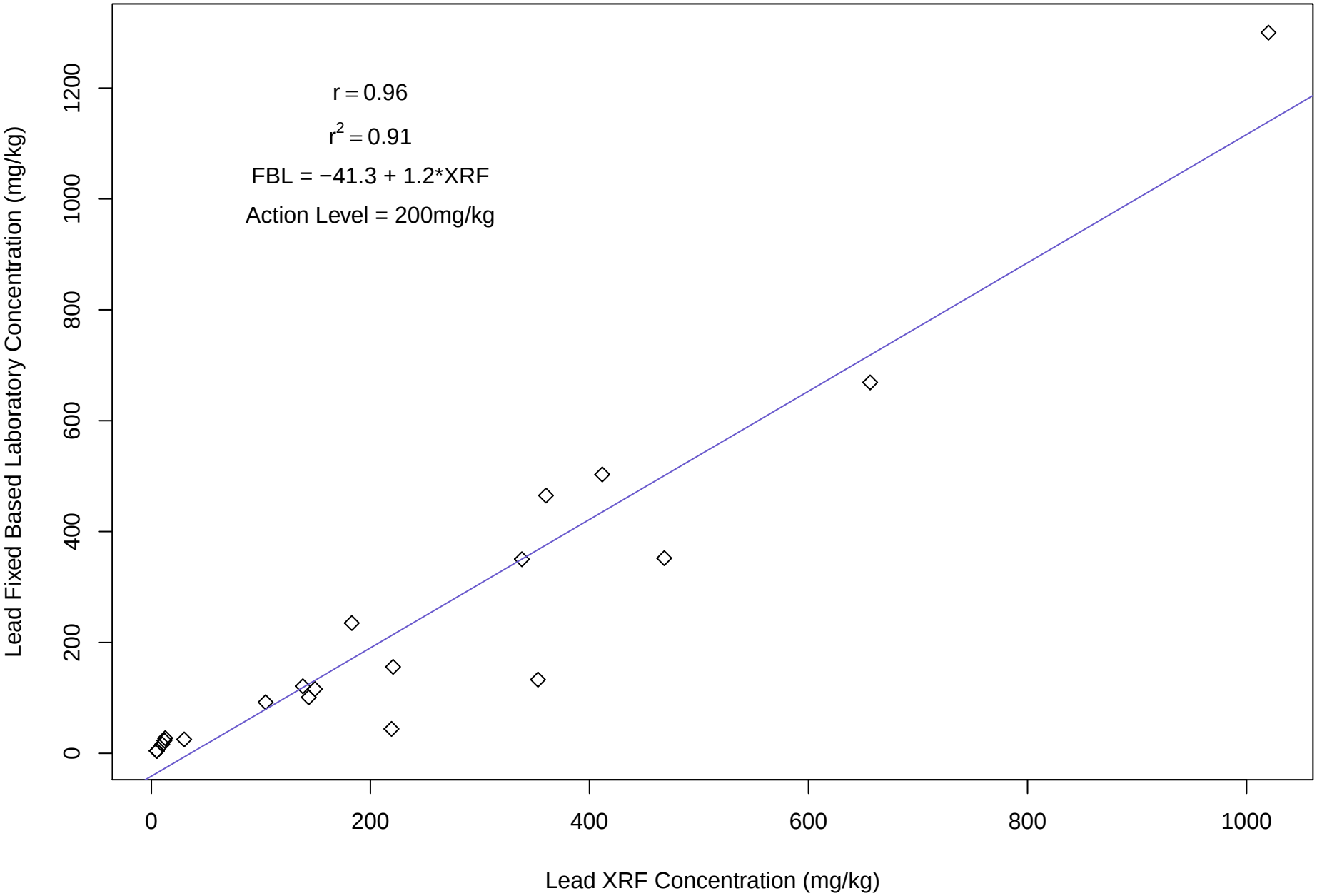
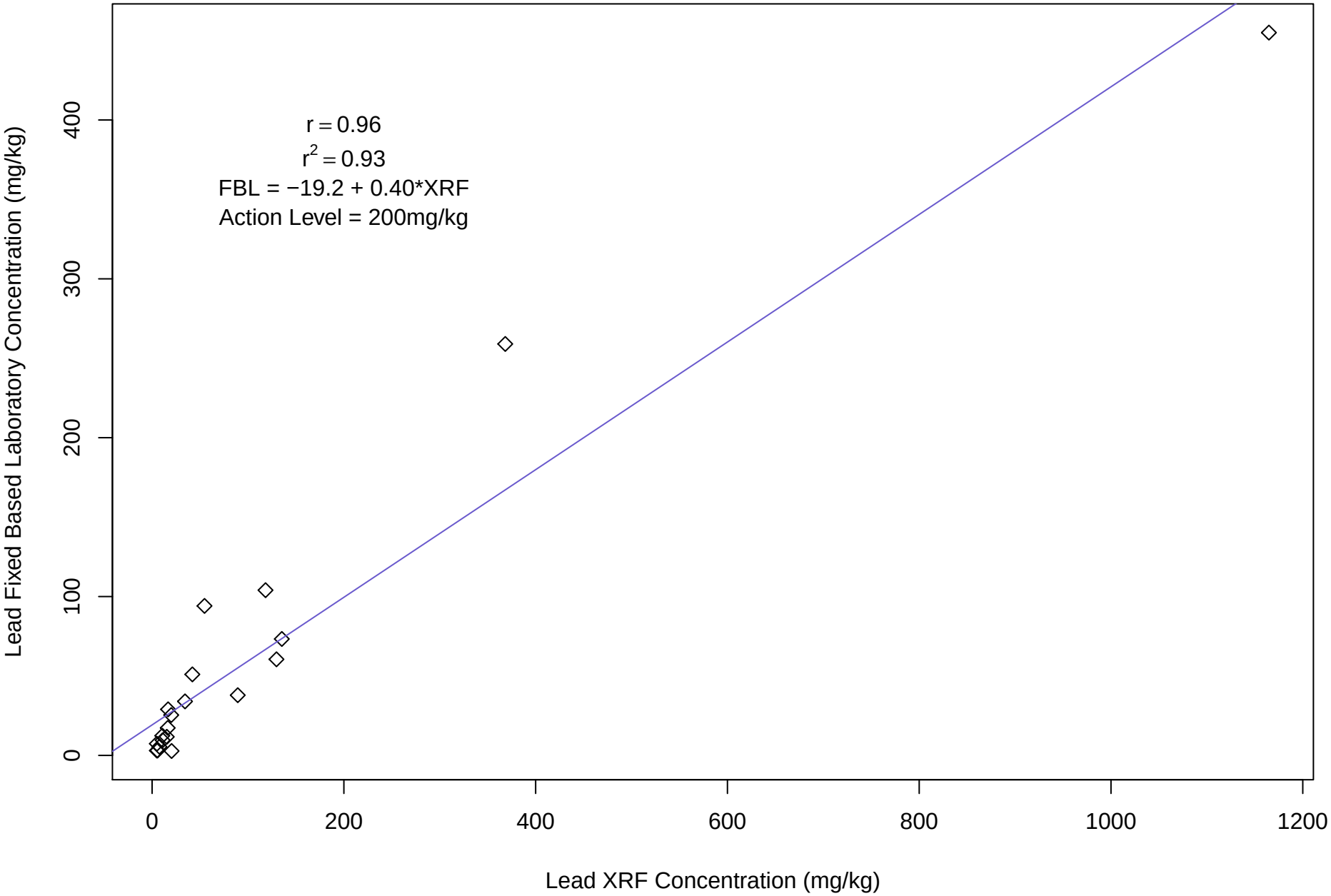


FIGURE 2
NASWF SKEET RANGE CORRELATION ANALYSIS
NAS WHITING FIELD



APPENDIX F

RESPONSE TO COMMENTS

RESPONSE TO FDEP COMMENTS
ON DRAFT FINAL SITE INSPECTION REPORT FOR
MUNITIONS RESPONSE PROGRAM SMALL ARMS RANGES
FORMER GUNNERY AREA & SKEET RANGE

NAS WHITING FIELD

FDEP Comments issued December 28, 2010, from Mr. John Winters, FDEP, to Mr. Tread Kissam, RPM NAVFAC SE.

General Comments: FDEP concurs with the recommendation to conduct an RI at both the Gunnery Area and the Skeet Range (Sections 4.9 and 5.9 of the Draft Final SI). However, The FDEP does not concur entirely with the conclusions regarding the results of the lead sampling and analysis conducted during the SI (Sections 4.8 and 5.8 of the Draft Final SI). Specifically, FDEP states that the lead sample exceedances are not randomly distributed at either site and future lead sampling should involve the use of exposure units.

Response: *The text regarding the lead sampling conclusions for each site (first paragraph of Sections 4.8 and 5.8) has been updated in the Final SI to reflect the general comments made by the FDEP and now read as follows:*

Section 4.8
"Seventy-five soil samples were collected from 38 locations at depths of 0- to 6- and 6- to 24-inches bgs at the Former Gunnery Area. All samples underwent field XRF analysis for lead and 21 of the samples were subsequently shipped to the FBL for select metals analyses. Nine of the 75 soil samples analyzed in the field with XRF at the Former Gunnery Area had average lead concentrations exceeding the field PAL of 200 mg/kg with detected concentrations ranging between 5.67 and 1,020 mg/kg. Four of the samples sent to the FBL had lead concentrations greater than the FBL PAL of 400 mg/kg."

Section 5.8
"Seventy-six soil samples were collected from 38 locations at depths of 0- to 6- and 6- to 24-inches bgs at the Skeet Range. All samples underwent field XRF analysis for lead and 22 of the samples were subsequently shipped to the FBL for select metals analyses. Two of the 76 soil samples analyzed in the field with XRF at the Skeet Range had average lead concentrations exceeding the field PAL of 200 mg/kg. One of the 22 samples shipped to the FBL had lead concentrations greater than the PAL of 400 mg/kg."