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Base Realignment and Closure
Program Management Office West
1455 Frazee Road, Suite 900
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FINAL
REMOVAL ACTION COMPLETION REPORT
October 31, 2007

PCB HOT SPOT SOIL EXCAVATION SITE
PARCELS E AND E-2, HUNTERS POINT SHIPYARD
SAN FRANCISCO, CALIFORNIA

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CONTRACT NO. N68711-98-D-5713
CTO NO. 0084

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PARCELS E AND E-2, HUNTERS POINT SHIPYARD
SAN FRANCISCO, CALIFORNIA

DCN: ECSD-5713-0084-0002

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EXECUTIVE SUMMARY

This Removal Action Completion Report describes the implementation of a time-critical removal action undertaken at the Polychlorinated Biphenyl Hot Spot Soil Excavation Site, located primarily in Parcel E-2, with a portion of the excavation in Parcel E, at Hunters Point Shipyard, San Francisco, California. The Department of the Navy, Naval Facilities Engineering Command, Southwest, and the Radiological Affairs Support Office directed the time-critical removal action.

Hunters Point Shipyard is located on a long promontory in the southeastern part of San Francisco that extends into San Francisco Bay. At the start of World War II in 1939, the Department of the Navy took possession of the property and operated it as a shipbuilding, repair, and maintenance facility until 1974, when the shipyard was deactivated. From 1976 to 1986, the Department of the Navy leased the property to Triple A Machine Shop, Inc, a private ship repair company. When Triple A Machine Shop, Inc. ceased operations the Department of the Navy resumed occupancy through 1989. Because previous shipyard operations left hazardous materials on site, Hunters Point Shipyard was placed on the National Priorities List in 1989 as a Superfund site.

Based on results gathered during the sediment and soil data gaps investigation (Tetra Tech EM, Inc., 2005), the Department of the Navy determined that the site contained polychlorinated biphenyl and petroleum hydrocarbon contamination that required a response action. The site had also been identified as being radiologically-impacted within *The Final Historical Radiological Assessment, Volume II* (Naval Sea Systems Command, 2004). The Final Historical Radiological Assessment listed cesium-137, radium-226, and strontium-90 as radionuclides of concern for this site.

The time-critical removal action was conducted in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act and the National Oil and Hazardous Substances Pollution Contingency Plan. The time-critical removal action was conducted pursuant to the *Final Action Memorandum for Polychlorinated Biphenyl Hot Spot Area at Parcels E and E-2* (Department of the Navy, 2005) and the *Final Basewide Radiological Removal Action, Action Memorandum - Revision 2006* (Tetra Tech EC Inc., 2006a). A Project Work Plan was prepared and issued to outline the approach to conducting field work associated with this removal action (Tetra Tech EC, Inc., 2005a).

Consistent with the National Oil and Hazardous Substances Pollution Contingency Plan requirements in Title 40 Code of Federal Regulations, Part 300.415(b)(2), and the Project Work Plan, the Removal Action Objectives for the time-critical removal action were:

- To limit human and ecological (terrestrial and aquatic) receptor exposure to polychlorinated biphenyl contamination that posed a potential risk by breaking the potential pathway from contaminants in the soil to the receptor
- To excavate soils containing polychlorinated biphenyl concentrations greater than 1 milligram per kilogram, total petroleum hydrocarbon concentrations greater than 3,500 milligrams per kilogram, or radioactive contaminants above the Radiological Remedial Objectives within the proposed lateral excavation boundary to a depth of 3 feet below ground surface, as stated in the *Final Action Memorandum, Time-Critical Removal Action for the Polychlorinated Biphenyl Hotspot Area at Parcels E and E-2* (Department of the Navy, 2005) and in the *Final Basewide Radiological Removal Action, Action Memorandum - Revision 2006* (Tetra Tech EC Inc., 2006a)
- To remove free-phase total petroleum hydrocarbon to the extent practicable
- To continue downward excavation within the proposed lateral excavation boundary to an estimated maximum depth of 10 feet below ground surface, if post-excavation samples indicate polychlorinated biphenyl concentrations greater than 100 milligrams per kilogram, total petroleum hydrocarbon concentrations greater than 3,500 milligrams per kilogram, visual petroleum hydrocarbon contamination was found, or radiological screening identified an area with radioactive materials above the Radiological Remedial Objectives
- To continue lateral excavation of perimeter sidewalls if post-excavation samples indicate polychlorinated biphenyl concentrations greater than 1 milligrams per kilogram, total petroleum hydrocarbon concentrations greater than 3,500 milligrams per kilogram, visual petroleum hydrocarbon contamination was found, or radiological screening identified an area with radioactive materials above the Radiological Remedial Objectives

In addition, to meet the Removal Action Objectives above, the excavation was to be extended deeper if historical data from previous borings indicated that polychlorinated biphenyl concentrations or total petroleum hydrocarbon concentrations were above the cleanup goal and/or sandblast grit was present at depth. Sandblast grit was a concern since it may have been used in decontamination of ships from OPERATION CROSSROADS or other atomic weapons tests.

The major field activities associated with the time-critical removal action included clearing of vegetation, in situ radiological surveys, pre-excavation soil characterization sampling, removal of existing site utilities and structures, excavation of soil, debris, drums, and containers with unknown chemical contents, ex situ radiological screening, segregation of contaminated soil and debris, stockpiling of excavated soil and debris, post-excavation confirmation sampling, backfill placement and compaction with import materials, site restoration, waste classification, storage, and disposal.

During the execution of this removal action, approximately 44,500 cubic yards of material was excavated from the 3.4-acre excavation area. A 50-foot by 50-foot grid system was established over the excavation area to track the required radiological surface surveying within the excavation boundary, control and record excavation progress, and assist in the collection of post-excavation samples. The excavation approach at Polychlorinated Biphenyl Hot Spot Soil Excavation Site required the excavation to be completed in 12-inch lifts with radiological survey and removal of encountered radioactive materials for each lift, until the excavation reached the final depth. Each grid was numbered to track the excavation depth and associated sampling.

Excavation progressed in 12-inch lifts until completed. Excavation continued in grids beyond 3 feet below ground surface where historical data showed polychlorinated biphenyl concentrations greater than 100 milligrams per kilogram or total petroleum hydrocarbon contamination greater than 3,500 milligrams per kilogram. Post-excavation samples were collected from each grid excavation bottom and perimeter sidewall. Excavation continued in grids where laboratory analysis showed contaminant exceedances. In grids where petroleum staining or free-phase product were found, the excavation was extended until visually clean soil was reached. Once all visual contamination or free-phase product had been removed, and the grid appeared "clean" post-excavation confirmation samples were collected to determine if further excavation was required.

During the excavation activities, oil-stained soil and free-phase product were observed along the western and southwestern sidewall of the excavation boundary. To further evaluate the horizontal and vertical extent of subterranean contamination near the Parcel E2/F boundary, exploratory potholing was conducted at pre-selected locations. Eight potholes were dug during low tide and visually inspected. A minimum of one sediment sample was collected from the bottom of each pothole and analyzed for polychlorinated biphenyls and total petroleum hydrocarbons using field-screening test kits. The test kits provided a quick assessment of the presence of gross contamination (above action levels) in each pothole. Oily soils and/or a sheen of petroleum product were encountered in two potholes, and oily soils with free-phase product were encountered in two other potholes along the shoreline. In some cases, free-phase product was encountered at depths as shallow as 3 feet below ground surface.

During the course of the excavation activities within the excavation boundary, large deposits of metal and drums were encountered at various locations and depths. Drums were in various conditions upon discovery, ranging from crushed and deteriorated to rusted but structurally sound and holding contents. Substances contained in unearthed drums ranged from petroleum products (oil, diesel, grease, and waste oils) to insulating foam. Some unearthed drums contained contents that could not readily be identified. A total of 110 drums with content were recovered from the excavation. The drums were removed from the excavation and placed in a staging area, where the drum contents were properly characterized for both chemical and radiological

constituents and packaged for off-site disposal. Because of the decaying physical conditions of the drums, over-pack drums were used for safe handling of the drum and drum contents.

Additionally, a total of 537 small containers and laboratory bottles were found within the excavation. Laboratory containers were inventoried, radiologically screened and analyzed, and placed in lab packs for safe handling and disposal.

Once post-excavation sampling was completed, a layer of geotextile material was placed on the bottom of the excavation and the excavation was then backfilled. A layer of eight-ounce geotextile material was placed over the entire bottom and sidewalls of the excavation to serve as a demarcation of the final excavation boundary. Following placement of the geotextile material the excavation was backfilled with clean import fill material. A total volume of approximately 53,400 cubic yards uncompacted was used to backfill the excavation. Approximately 35,100 cubic yards of fill was imported from sampled and approved off-site sources. The remaining soils, approximately 18,300 cubic yards, came from the Bay Area Rapid Transit soil stockpiles located on site. Backfill material was placed in the excavation and compacted by wheel or track rolling to a firm, unyielding condition. No compaction testing was required due the site being slated for open space. The final 6 inches of backfill was graded to match its surrounding elevation for appropriate drainage and eventual site restoration.

Upon completion of backfilling and final grading of all disturbed areas the site was revegetated. Revegetation was performed with the purpose of preventing long-term surface erosion and preventing increased sedimentation to the San Francisco Bay following disturbance.

Approximately 65,200 tons of polychlorinated biphenyl-contaminated soil and debris requiring off-site transportation and disposal were generated during the removal action at Polychlorinated Biphenyl Hot Spot Soil Excavation Site. Additionally, 129 over-pack drums, 21 lab-pack drums, 91 drums of spent carbon, 12,400 gallons of wastewater, 25 compressed inert gas cylinders, and 550 cubic yards of metal debris were generated from the removal activities.

Low-level radioactive waste generated from the site included 533 cubic yards of soil and firebrick, 78 cubic yards of metal debris, 40 devices and/or button sources, and 19 pieces of debris. Two low-level mixed waste drums were also generated.

The Removal Action Objectives pertaining to chemical cleanup goals, as developed in the Final Action Memorandum for Polychlorinated Biphenyl Hot Spot Area at Parcels E and E-2 (Department of the Navy, 2005), were achieved on the bottom for 78 out of 83 grids, leaving five grids with residual bottom contamination. The excavated grids boundary included a total of 48 sampled perimeter sidewalls. Due to field conditions and time-critical removal action budgetary constraints, over-excavation, and thereby expansion of the excavation boundary, was restricted. Consequently, the Removal Action Objectives could only be achieved for a total of seven grids

containing perimeter sidewall. The highest concentrations of polychlorinated biphenyls left behind were located in the western sidewall along the shoreline, where one sample exhibited polychlorinated biphenyls in the range of 12,000 milligrams per kilogram and another exhibited total petroleum hydrocarbons at 34,120 milligrams per kilogram.

The Removal Action Objectives for radiological materials, based on the *Final Basewide Radiological Removal Action, Action Memorandum - Revision 2006* (Tetra Tech EC, Inc, 2006a) were achieved for all grids excavated. Radiological survey sample results showed no radiological constituent above the Radiological Remedial Objectives on the bottom or sidewalls at the limit of the actual excavation; however, radioactive materials may still be present beyond the boundaries of this excavation.

Based on the remaining, unexcavated, polychlorinated biphenyl and total petroleum hydrocarbon contamination in soil, it is recommended that a follow-on removal action or remedial action is conducted to address the contamination not removed under this time-critical removal action, to include the contaminated areas along the shoreline where exploratory potholing was conducted.

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ABBREVIATIONS AND ACRONYMS

β	beta
AM	Action Memorandum
ARAR	applicable or relevant and appropriate requirement
BA	Biological Assessment
BART	Bay Area Rapid Transit
Bay	San Francisco Bay
bgs	below ground surface
BMP	best management practice
BRAC	Base Realignment and Closure
C&T	Curtis and Tompkins, Ltd.
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CM	Construction Manager
cm	centimeter
COC	chemical of concern
^{60}Co	cobalt-60
^{137}Cs	cesium-137
CSO	Caretaker Site Office
CTO	Contract Task Order
cy	cubic yard
DCGL	derived concentration guideline level
DGPS	Differential Global Positioning System
DoD	Department of Defense
DON	Department of the Navy
DPH	Department of Public Health
DQA	Data Quality Assessment
DQO	Data Quality Objective
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
EMI	electromagnetic instrumentation
EPA	U.S. Environmental Protection Agency
EPP	Environmental Protection Plan

ABBREVIATIONS AND ACRONYMS
(Continued)

ESA	Endangered Species Act
EZ	exclusion zone
FCR	field change request
FS	feasibility study
ft	feet
GPS	global positioning system
HazCat	Hazardous Categorization
HPS	Hunters Point Shipyard
HRA	Historical Radiological Assessment
ICP	inductively coupled plasma
IQR	interquartile ranges
IR	Installation Restoration
IT	International Technology Corporation
ITSI	Innovative Technical Solutions, Inc.
LLMW	low-level mixed waste
LLRW	low-level radioactive waste
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
MDA	minimum detectable activity
MIBK	methyl isobutyl keton
mg/kg	milligrams per kilogram
MPPEH	material potentially presenting an explosive hazard
MS/MSD	matrix spike and matrix spike duplicates
msl	mean sea level
mV	millivolts
NaI	sodium iodide
NAVFAC SW	Naval Facilities Engineering Command, Southwest
NAVSEA	Naval Sea Systems Command
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPDES	National Pollutant Discharge Elimination System
NRC	Nuclear Regulatory Commission
NWT	New World Technologies, Inc.
PAH	polynuclear aromatic hydrocarbon

ABBREVIATIONS AND ACRONYMS
(Continued)

PCB	polychlorinated biphenyl
PCB Hot Spot	PCB Hot Spot Soil Excavation Site
pCi/g	picocurie per gram
%R	percent recovery
PjM	Project Manager
PM_{10}	particulate matter
PPE	personal protective equipment
ppm	parts per million
PQCM	Project Quality Control Manager
PVC	polyvinyl chloride
QA	quality assurance
QC	quality control
^{226}Ra	radium-226
RAB	Restoration Advisory Board
RAO	Removal Action Objective
RASO	Radiological Affairs Support Office
RCRA	Resource Conservation and Recovery Act
RCT	Radiological Control Technician
RI	Remedial Investigation
ROC	radionuclide of concern
ROICC	Resident Officer in Charge of Construction
RPD	relative percent difference
RPM	Remedial Project Manager
RRO	Radiological Remedial Objective
RSO	Radiation Safety Officer
RTS	Robotics Total Station
SAP	Sampling and Analysis Plan
SARA	Superfund Amendments and Reauthorization Act
SDGI	Standard Data Gaps Investigation
SFRA	San Francisco Redevelopment Agency
SOP	Standard Operating Procedure
^{90}Sr	strontium-90

ABBREVIATIONS AND ACRONYMS
(Continued)

STLC	Soluble Threshold Limit Concentration
SVOC	semivolatile organic compound
SWDIV	Southwest Division Naval Facilities Engineering Command
SWPPP	Stormwater Pollution Prevention Plan
TCLP	Toxicity Characteristic Leaching Procedure
TCP	Traffic Control Plan
TCRA	time-critical removal action
TDEM	time domain electromagnetic
TPH	total petroleum hydrocarbons
Triple A	Triple A Machine Shop, Inc.
TSCA	Toxic Substances Control Act
TtEC	Tetra Tech EC, Inc.
TtEMI	Tetra Tech EM, Inc.
TtFW	Tetra Tech FW, Inc.
UXO	unexploded ordnance
VOC	volatile organic compound
WMP	Waste Management Plan
WRS	Wilcoxon Rank Sum

1.0 INTRODUCTION

This Removal Action Completion Report describes the implementation of a time-critical removal action (TCRA) undertaken at the Polychlorinated Biphenyl (PCB) Hot Spot Soil Excavation Site (PCB Hot Spot), located primarily in Parcel E-2, with a portion of the excavation in Parcel E, at Hunters Point Shipyard (HPS), San Francisco, California (Figure 1-1). The Department of the Navy (DON), Naval Facilities Engineering Command, Southwest (NAVFAC SW), including the Radiological Affairs Support Office (RASO), directed the TCRA. The TCRA was performed under Contract No. N68711-93-D5713 and Contract Task Order (CTO) No. 0084.

This Removal Action Completion Report describes the scope of the TCRA for PCB Hot Spot, and the specific activities involved in the implementation of the scope and efforts to meet the Removal Action Objectives (RAOs) of the TCRA. The scope of the TCRA consisted of three elements, including Work Plan development, TCRA implementation, and post-construction activities, all of which were conducted to complete the removal of impacted soils and debris at this site. The Project Work Plan for the PCB Hot Spot Soil Excavation Site, hereinafter referred to as the Work Plan (Tetra Tech EC, Inc. [TtEC], 2005a), included a review of background information, such as that documented in the Parcels E and E-2 Standard Data Gaps Investigation Summary Report (SDGI) (TtEMI, 2005). Following approval of the Work Plan, TtEC initiated implementation of the TCRA in accordance with the approach and procedures described in the Work Plan as well as applicable design criteria, RAOs, and regulatory requirements.

The TCRA was conducted in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The DON submitted all necessary notifications prior to mobilization. Because the TCRA was performed in accordance with Section 121(e) of the CERCLA, local permits were not required. However, the substantive requirements were met.

Based on results gathered during the sediment and soil data gaps investigation (Tetra Tech EM, Inc. [TtEMI], 2005), the DON determined that the site contained PCB and petroleum hydrocarbon contamination at concentrations requiring a response action. The site had also been identified as being radiologically-impacted within *The Final Historical Radiological Assessment, Volume II* (HRA), Naval Sea Systems Command (NAVSEA, 2004), as part of the larger IR-02 and IR-01/21 sites, which may have been used for disposal of radioactive materials.

The TCRA was conducted pursuant to the *Final Action Memorandum* (AM), *Time-Critical Removal Action for the PCB Hot Spot Area at Parcels E and E-2* (referred to hereinafter as the Final AM for PCB Hot Spot) (DON, 2005) and the *Final Basewide Radiological Removal*

Action, Action Memorandum - Revision 2006 (referred to hereinafter as the Final Basewide AM) (TtEC, 2006a).

The DON initiated the TCRA to remove soils with PCB concentrations greater than 1 milligram per kilogram (mg/kg) in the upper 3 feet (ft) or greater than 100 mg/kg at depths below 3 ft below ground surface (bgs). Also, soil with total petroleum hydrocarbons (TPH) greater than 3,500 mg/kg, or radioactive contaminants above the Radiological Remedial Objectives (RROs) for in PCB Hot Spot would also be removed. The HRA (NAVSEA, 2004) listed cesium-137 (^{137}Cs), radium-226 (^{226}Ra) and strontium-90 (^{90}Sr) as radionuclides of concern (ROCs) for this site. The RRO in soil was 0.13 picocurie per gram (pCi/g) for ^{137}Cs, 1 pCi/g above background, not to exceed 2 pCi/g total, for ^{226}Ra, and 42.3 pCi/g for ^{90}Sr (DON, 2001a). The RRO for ^{137}Cs in soil was later modified to 0.113 pCi/g to correspond to the lower criteria as presented in the revised Final Basewide AM (TtEC, 2006a). Radioactive materials encountered during the TCRA that were above the RROs were removed for disposal as low-level radioactive or mixed waste. Radiological surveying and characterization sampling was conducted in accordance with the *Base-wide Radiological Work Plan* (Base-wide Plan) (Tetra Tech FW, Inc. [TtFW], 2005a) following guidance from the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) NUREG-1575 (Department of Defense [DoD] et al., 2000). For further details on the chemical cleanup goals and RROs, see Tables 1-1 and 1-2.

The TCRA was implemented to limit the human and ecological receptor exposure and to eliminate the potential threat posed by future migration and/or off-site release of these contaminants. Such a release could occur as a result of erosion, weathering, seismic events, or biological activity. The major field activities associated with the TCRA included clearing of vegetation, in situ radiological surveys, pre-excavation soil characterization sampling, removal of existing site utilities and structures, excavation of soil, debris, drums, and containers with unknown chemical contents, ex situ radiological screening, segregation of contaminated soil and debris, stockpiling of excavated soil and debris, post-excavation confirmation sampling, backfill placement and compaction with import materials, site restoration, waste classification, storage, and disposal.

1.1 OBJECTIVES OF THE TCRA

Consistent with the NCP requirements in Title 40 Code of Federal Regulations (CFR), Part 300.415(b)(2), the RAOs for the TCRA were:

- To limit human and ecological (terrestrial and aquatic) receptor exposure to PCB contamination that posed a potential risk by breaking the potential pathway from contaminants in the soil to the receptor
- To excavate soils containing PCB concentrations greater than 1 mg/kg, TPH concentrations greater than 3,500 mg/kg, or radioactive contaminants above the RRO within the proposed lateral excavation boundary to a depth of 3 ft bgs, as stated in the

Final AM for PCB Hot Spot (DON, 2005) and in the Final Basewide AM (TtEC, 2006a)

- To remove free-phase TPH to the extent practicable
- To continue downward excavation within the proposed lateral excavation boundary to an estimated maximum depth of 10 ft bgs, if post-excavation samples indicate PCB concentrations greater than 100 mg/kg, TPH concentrations greater than 3,500 mg/kg, visual petroleum hydrocarbon contamination was found or radiological screening identified an area with radioactive materials above the RRO
- To continue lateral excavation of perimeter sidewalls if post-excavation samples indicate PCB concentrations greater than 1 mg/kg, TPH greater than 3,500 mg/kg, visual petroleum hydrocarbon contamination was found or radiological screening identified an area with radioactive materials above the RRO

In addition, to meet the Removal Action Objectives above, the excavation was to be extended deeper if historical data from previous borings indicated that PCB concentrations or TPH concentrations were above the cleanup goal and/or sandblast grit was present at depth.

1.2 REPORT ORGANIZATION

This Removal Action Completion Report has been structured to provide details on the major aspects of the TCRA at the PCB Hot Spot. It is organized as follows:

- The introductory Section 1.0 presents the objectives of the TCRA, and discusses the report organization as well as project schedule
- Section 2.0 presents the site description and background, the physical characteristics, previous investigations, the nature and extent of contamination, and a summary of the Action Memoranda driving this TCRA
- Section 3.0 presents pre-construction site activities
- Section 4.0 discusses field activities, including the excavation, radiological findings and chemical, radiological sampling results, and an evaluation of subterranean extent of contamination outside the excavation near the Parcel E-2/F boundary
- Section 5.0 covers backfill placement, compaction and grading, topographic survey, demobilization, completion inspections, the photographic log, and field changes to the Work Plan, PCB Hot Spot Soil Excavation Site (TtEC, 2005a)
- Section 6.0 lists waste characterization data, as well as disposal and/or recycling of wastes generated during the excavation activities
- Section 7.0 includes radiological data and results
- Section 8.0 discusses the effectiveness of the removal action
- Section 9.0 assesses data quality assurance and quality control
- Section 10.0 presents community relations activities conducted during the project.

- Section 11.0 presents the report conclusions
- Section 12.0 presents a list of references
- Appendix A presents the weather data collected during the project
- Appendix B presents the pre-final and final inspection checklists
- Appendix C presents the well/piezometer destruction forms
- Appendix D presents the results of the chemical and radiological post-excavation sampling results
- Appendix E presents the backfill material review and acceptance documentation and data
- Appendix F presents the results of the waste data and waste manifests
- Appendix G presents the gamma scan data from the bottom limit of the excavation upon completion
- Appendix H presents the survey reports from the project
- Appendix I presents pertinent photos of the project
- Appendix J presents the completed field change requests for the project
- Appendix K presents community relations documents for the project
- Appendix L presents the validated laboratory data packages for the project
- Appendix M presents off-site laboratory post-excavation radiological sample reports

1.3 PROJECT SCHEDULE

The project schedule, as modified due to field conditions, is included as Figure 1-2. The original project duration was extended for several reasons including significant weather delays, the necessity to excavate beyond the originally planned excavation boundary, and finding unanticipated bottles and drums within the excavation that contained unidentified substances.

2.0 SITE BACKGROUND AND HISTORY

The section presents the facility description and background, the physical characteristics of the site, a summary of previous investigations conducted at the site, the nature and extent of contamination, and a summary of the Action Memoranda.

2.1 FACILITY DESCRIPTION AND BACKGROUND

Hunters Point Shipyard is located in the City and County of San Francisco, California, on a long promontory in the southeastern part of San Francisco that extends east into San Francisco Bay (Bay) (Figure 1-1). HPS encompasses 848 acres, including 416 acres on land. The land portion of HPS was purchased by the DON in 1939 and leased to Bethlehem Steel Corporation. At the start of World War II in 1941, the DON took possession of the property and operated it as a shipbuilding, repair, and maintenance facility until 1974. The DON deactivated HPS in 1974. From 1976 to 1986, the DON leased HPS to Triple A Machine Shop, Inc. (Triple A), a private ship repair company. In 1986, Triple A ceased operations at HPS and the DON resumed occupancy through 1989.

Previous shipyard operations left hazardous materials on site; therefore, HPS was placed on the National Priorities List in 1989 as a Superfund site pursuant to CERCLA, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986. HPS then came under the administrative jurisdiction of the Treasure Island Naval Station in April 1990.

In 1991, HPS was placed on the Navy's Base Realignment and Closure list and its mission as a Navy shipyard ended in April 1994. Closure activities at HPS involve environmental remediation activities designed to make the property available for non-DoD use. On March 31, 1994, control of HPS was transferred from the Treasure Island Naval Station to the Naval Facilities Engineering Command, Western Division (now Engineering Field Activity West) in San Bruno, California. In October 1999, NAVFAC SW assumed management of HPS.

The shipyard was initially divided into six parcels, Parcels A through F. In November 2004, Parcel A was transferred to the City and County of San Francisco. In 2004, the DON subdivided Parcel E, creating Parcel E-2 in order to move the Industrial Landfill forward under the CERCLA process (Figure 1-1). Parcel E-2, 47 acres in size, encompasses former portions of Parcel E, including IR-01/21, the Panhandle Area of PCB Hot Spot, parts of IR-02 Northwest, and the area east of IR-01/21 that does not have an Installation Restoration (IR) site designation. Parcel E, a majority of which is unpaved and formerly used for industrial support, occupies 138 acres along the upland shoreline in the southwestern portion of HPS.

The activities governed by this TCRA dealt specifically with PCB Hot Spot, located primarily within Parcel E-2, with a small section in Parcel E, as shown in Figure 2-1. The DON created this land area by filling in the Bay margin, largely with soils derived from serpentinite bedrock quarried from the Hunters Point peninsula. After the area was filled, the area to the north of PCB Hot Spot was used as an industrial waste landfill. The suspected source of PCBs was the historic disposal of waste oils that contained PCBs at the site.

Radioactive contamination was introduced to the site through the inadvertent disposition of radioluminescent devices containing ^{226}Ra and ^{90}Sr with other shipyard fill material. This was a common practice throughout the military and private industry from the 1940s to the 1960s. There was also a potential for radionuclides ^{137}Cs and ^{90}Sr to be encountered in contaminated sandblast grit, as well as other media. Sandblast grit was used to decontaminate ships that were involved in atomic weapons testing. Sandblast grit may have been disposed of at the PCB Hot Spot area (NAVSEA, 2004).

2.1.1 Topography/Structures

The topography of PCB Hot Spot is relatively bare and flat, with surface elevations of generally less than 10 ft above mean sea level (msl). The shoreline area generally consists of riprap containing rock, concrete, and other debris, with relatively sharp slopes to the Bay as well as mudflats and sandy beaches.

Along the western portion of PCB Hot Spot, a shallow, 800-foot-long sheet pile barrier was constructed between the landfill area and the shoreline of the Bay in 1997. The barrier was constructed to intercept an identified contaminated groundwater plume originating from the landfill and flowing in the direction of the Bay. The main chemical of concern within the plume was PCBs, though volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and petroleum hydrocarbons were also present. To prevent buildup of groundwater behind the wall, a groundwater extraction system was installed between December 1997 and May 1998. This system was decommissioned and removed on April 15, 2005, in preparation for the PCB Hot Spot fieldwork. The sheet pile barrier remains in place unaltered after the execution of the removal action.

2.1.2 Future Land Use

The planned future use identified in the San Francisco Redevelopment Agency (SFRA) Reuse Plan (SFRA, 1997) is as "open space" area.

2.2 PHYSICAL CHARACTERISTICS

This section presents the physical characteristics of the site which include the geology, hydrogeology, surface hydrology, and climatic conditions.

2.2.1 Geology

The geologic units within the project area, from the surface downward, consist of artificial fill, undifferentiated upper sand deposits, Bay Mud deposits, undifferentiated sedimentary deposits, and Franciscan Formation. The artificial fill ranges in thickness from approximately 3 to 22 ft and consists of predominantly dark grayish-brown to light olive-brown silty sand with gravel. Landfill debris is found within the artificial fill. The undifferentiated upper sand deposits consist of yellowish-brown sand with clay and are approximately 4-ft-thick. The Bay Mud deposits consist of predominantly dark gray to dark greenish-gray fat clay, with varying proportions of sand and/or silt (5 to 15 percent) and trace amounts of shell fragments. This stratigraphic unit ranges in thickness from approximately 1 to 41 ft and in elevation from -5 to 6 ft above msl and appears to increase from the southeast toward the northwest. The bedrock surface, which dips from the northeast to the southwest toward the Bay, is estimated to exist at depths ranging from approximately 200 to greater than 250 ft below msl.

2.2.2 Hydrogeology

Hydrogeologic units within the project area consist of the A-aquifer, Bay Mud aquitard, B-aquifer, and the bedrock water-bearing zone. The A-aquifer consists of artificial fill and undifferentiated upper sand deposits. Based on groundwater data, the saturated thickness of the A-aquifer ranges from 0 to 15 ft. The Bay Mud aquitard appears to be laterally continuous beneath the site. The B-aquifer consists of undifferentiated sedimentary deposits. Based on groundwater data, the estimated saturated thickness of the B-aquifer is approximately 247 ft. Because bedrock was not encountered during drilling near the PCB Hot Spot, the composition of the bedrock water-bearing zone is unknown. However, this hydrogeologic unit is estimated to occur at depths ranging from approximately 200 to greater than 250 ft below msl.

The groundwater elevations in the A-aquifer have been found to range from approximately 8 to 11 ft bgs during the wet (December to April) and dry seasons (August to November), respectively. The A-aquifer is under unconfined conditions. The groundwater elevation in a single monitoring well installed in the B-aquifer near the PCB Hot Spot has ranged from approximately 8 to 9 ft bgs. The results of the 1992 and 1996 tidal influence studies indicate that the groundwater elevations in the A-aquifer within approximately 300 ft of the shoreline are influenced by the tidal fluctuations of the Bay.

Groundwater in the A-aquifer flows predominantly to the southwest, toward the Bay, with hydraulic gradients ranging from 0.001 to 0.04 during the wet and dry seasons, and from 0.003 to 0.04 during the transition period (May).

2.2.3 Surface Hydrology

Stormwater is conveyed from the PCB Hot Spot site by surface sheet-flow draining from the east to the southwest. No existing stormwater drainage system or drainage control features were located at the site.

2.2.4 Climactic Conditions

The project required maintenance of a weather station on HPS in order to track weather data during the removal activities. Measurements were taken every half hour of temperature, wind speed, wind direction, and rainfall. The pertinent weather data collected is included in Appendix A.

Rainfall affected the excavation work in a number of ways. During the excavation of PCB Hot Spot more than 18 inches of rain fell at HPS. Stormwater from the rainfall was captured in the excavation and combined with groundwater to slow excavation activities. The water had to be pumped out of the excavation and treated prior to discharge to the sanitary sewer. Waters discharged to the sewer system were all less than the Final Basewide AM values for ^{226}Ra, ^{137}Cs, and ^{90}Sr for liquid. Additionally, the water in the excavation affected backfill procedures of the excavation.

The rainfall also affected the effectiveness of radiological equipment and vehicle mobility on the site, and during wet conditions radiological screening was halted. In addition, due to HPS's location in the Bay Area, wind speeds could be very high and variable throughout the day. Wind speed and direction affected dust controls and prompted additional health and safety measures.

2.3 PREVIOUS INVESTIGATIONS

From March 2002 to February 2003, the DON, Base Realignment and Closure (BRAC) Program Management Office West conducted a data gaps investigation at Parcels E and E-2 at HPS. The results of the data gaps investigation were presented in the Parcels E and E-2 Standard Data Gaps Investigation Data Summary Report, March 24, 2005. Under the SDGI, chemical data were collected from the Parcels E and E-2 shoreline and onshore areas, except in the vicinity of the industrial landfill, to assess potential contaminant source areas. The Navy will present the data analysis and evaluation of the SDGI results in the draft revised remedial investigation (RI) report for Parcel E and in the draft RI and feasibility study (FS) report for Parcel E-2 upon completion of the reports. The post-excavation sampling data from areas included in the PCB Hot Spot TCRA described in this report will be included and considered in the FS for Parcel E and the RI/FS for E-2.

Previous radiological investigations have identified radioactive materials in Parcels E and E-2. Results from site investigations as well as the operational history of Parcel E are contained within the Final Historical Radiological Assessment, Volume II (NAVSEA, 2004).

2.4 NATURE AND EXTENT OF CONTAMINATION

From September 2002 to February 2003, the SDGI (TtEMI, 2005) was conducted in support of a revised RI and FS for Parcel E (TtEMI, Levine-Fricke-Recon, and Uribe & Associates, 1997). During these investigations, borings drilled within or near the PCB Hot Spot were analyzed for PCBs. A total of 223 samples were collected and analyzed for PCBs at various depths from the 111 borings. Of the 223 samples, 114 had PCB concentrations greater than 1 mg/kg. PCB concentrations were determined by addition of all known aroclor data ranging from 1016 to 1260 for each sampling location; however, the predominant PCB compound present was Aroclor 1260. In addition to this PCB data, and for the purpose of determining the excavation footprint possibly requiring excavation at depths greater than 3 ft bgs, selected historical data for the following parameters were also considered during the planning phase for the excavation work (TtEC, 2005a):

- Total TPH (the sum of available analytical data for gasoline range, diesel range, and motor oil range petroleum hydrocarbons)
- Copper, lead, mercury, and zinc when concentrations exceeded 10,000 mg/kg (as an indicator of possible sandblast grit locations)
- Sandblast grit locations noted in historical data boring logs (R&M Environmental and Infrastructure Engineering, Inc., 2003)

The HRA (NAVSEA, 2004) identified radioactive materials in Parcels E and E-2. Examples of radioactive materials possibly present within the project area included radioluminescent devices such as gauges and dials that contain paint mixed with ^{226}Ra and ship's deck markers containing ^{226}Ra or ^{90}Sr that were disposed of in the project area by the DON. Another isotope that had been identified is ^{137}Cs, which may have been introduced to the site during disposal of sandblast grit from the decontamination of ships that participated in atomic weapons testing.

The radionuclides of concern (ROCs) for PCB Hot Spot were ^{137}Cs, ^{226}Ra, and ^{90}Sr. Table 1-2 lists the ROCs as well as the principle types of radiation (alpha, beta, and gamma), and associated half-lives were also identified for measurement purposes.

2.5 ACTION MEMORANDA

The TCRA at PCB Hot Spot was conducted pursuant to the Final AM for PCB Hot Spot at Parcels E and E-2 (DON, 2005) and the Final Basewide AM (TtEC, 2006a) which documented, for the Administrative Record, the DON's decision to undertake the TCRA at the site due to PCBs, TPH, and possible radioactive contamination in soils and debris. The AMs present the regulatory framework under which the TCRA was performed and identified chemical cleanup goals, RROs, and specific remedial activities for the TCRA. The RROs were modified during the execution of the TCRA to correspond with the lower release criteria as presented in the revised Final Basewide AM (TtEC, 2006a).

3.0 PRE-CONSTRUCTION ACTIVITIES

This section presents the pre-construction activities that were conducted at PCB Hot Spot. Pre-construction activities included environmental resources surveying, pre-mobilization conference, field mobilization, initial radiological surface screening, site support area preparation, utility survey, decommissioning of groundwater treatment system, well destruction, environmental protection measures, stormwater and erosion control, fugitive dust control, and pre-excavation sampling.

3.1 ENVIRONMENTAL RESOURCES SURVEYING

In 2004, preliminary investigations were performed within Parcel E to determine the presence of habitat for plant and wildlife species protected under the Migratory Bird Treaty Act, California Fish and Game Code, and state and federal Endangered Species Acts (ESAs). At that time, Parcel E had not been further divided into Parcels E and E-2. Findings of these preliminary investigations are presented in the *Final Biological Assessment* (BA) (TtFW, 2004). The BA was conducted to address ecological risks associated with three concurrent TCRAs executed within the boundaries of Parcel E and E-2, including PCB Hot Spot.

The BA identified eight ESA federally protected species, including four fish, three avian species, and one mammalian species as having the potential to be found in the vicinity of the TCRA project areas (Table 3-1). Although the preliminary investigations determined that the three removal actions were not likely to affect the eight ESA protected species, potential habitat, albeit marginal to submarginal, existed within the vicinity of the project area and project activities were not deemed to have a critical impact on habitat for the protected species. Therefore, in the unlikely scenario that any of the eight ESA species were detected during project implementation, the BA stated that a biological monitor will be on site during intrusive site activities, mobilization, and demobilization.

In accordance with the BA (TtFW, 2004) and the Project Work Plan (TtEC, 2005a), prior to mobilization, a qualified Wildlife Biologist performed an environmental resources survey in March 2005. The survey identified no special-status species residing within the limits of work. As a precautionary measure, a Wildlife Biologist remained on site during intrusive activities. During the course of the fieldwork, there were no sightings or biological issues preventing continued excavation activities.

3.2 PRE-MOBILIZATION CONFERENCE

Prior to mobilization, a Kick-off Meeting was held on March 23, 2005, for three TCRA sites that were to be executed concurrently in Parcels E and E-2 at HPS, namely PCB Hot Spot, IR-02 Northwest and Central, and Metal Debris Reef/Metal Slag Areas. The attendees included DON

and TtEC personnel, as well as pertinent subcontractors and their project managers. During the Kick-off Meeting, site-specific activities and tasks required for the TCRAs were reviewed. Validation of pre-construction mobilization requirements was also done prior to initiation of the TCRA fieldwork. The meeting agenda is included in Appendix B.

Prior to this meeting, and in accordance with TtEC policies, TtEC held an internal operational readiness review on April 5, 2005, with all pertinent TtEC employees and subcontractor representatives. This meeting included a review of health and safety, project, and waste-management procedures for the project activities. Additional follow-up meetings were conducted during the project as necessary, specifically after periods of inactivity in the field, or when new procedures were developed.

Prior to commencement of mobilization activities, base entry badges for employees were obtained by delivering a list of field personnel to the SFRA. To obtain required vehicle decals, a list of personally owned vehicles, along with the required insurance and registration documentation, was provided to the HPS Police Department.

3.3 INITIAL RADIOLOGICAL SURFACE SCREENING

Prior to mobilization of heavy equipment, an initial radiological surface survey of an area extending beyond the excavation area, including all laydown areas, was completed. The purpose of the radiological surface survey was to identify surface and near-surface (less than 30 centimeters [cm], 12 inches bgs) radioactive materials for removal prior to excavation activities to prevent the spread of contamination by the project equipment.

The preliminary radiological surface survey consisted of a high-density gamma scan performed over a 50-foot by 50-foot grid system with the use of sodium iodine (NaI) detectors and supported by global positioning system (GPS) equipment, as presented in Figure 3-1. The high-density survey process resulted in a 100 percent scan survey. Once suspected radioactive material was confirmed, GPS/grid coordinates were recorded and the location marked or flagged. Radiological support personnel then removed the radioactive material, including soils from within 1 foot in all directions of the material from the marked location, using a small backhoe fitted with a smooth blade bucket and/or hand-digging tools. This method was followed until all radiological materials identified during the initial radiological surface survey were removed. During the surface survey, 14 distinct areas were identified to contain radiological material. The areas were investigated and soil removed; however, no point sources were found. For additional information regarding the removal of identified radiological materials and a summary of radiological findings see Section 4.0.

3.4 SITE SUPPORT AREA PREPARATION

Prior to the mobilization of equipment and materials to PCB Hot Spot, project support areas were established to provide for the temporary storage of tools, equipment, and materials. A small mobile office trailer was mobilized and placed southeast of the stockpile area. Support areas were also established in a fenced-in area east of the site and southwest of the Parcel E-2 Triangle area to provide employee vehicle parking and employee break areas. The support area had to be relocated to a location opposite 6th Avenue in early 2006 to allow for another Navy contractor to utilize the space for soil treatment activities.

3.5 MOBILIZATION

Mobilization activities included site preparation, movement of equipment and materials to the site, and orientation and training of field personnel. Throughout the months leading up to field mobilization, representatives from the Resident Officer in Charge of Construction (ROICC), the RASO, the Caretaker Site Office (CSO) and the DON Remedial Project Manager (RPM) were notified regarding the planned schedule and commencement of ground-breaking excavation activities.

Upon receipt of the appropriate records and authorizations, field personnel, temporary facilities, and required construction materials were mobilized. The temporary facilities included restrooms, security fencing, runoff controls, and two secure Connex storage boxes for short- and long-term storage of materials. Construction materials mobilized to the site allowed for the building of the equipment decontamination pad, soil dewatering pad, large debris holding pad, radiological soil and debris conveyor screening system area, and waste stockpile area.

Prior to mobilizing heavy equipment to the area, the entire surface within the work area (including excavation and laydown areas) was screened for gamma-emitting radioactive sources as described in Section 3.3. To facilitate this, vegetation at PCB Hot Spot was cleared before screening started. The vegetation was managed as part of an ongoing study of vegetation at HPS and eventually cleared to be free of radiological constituents (TtEC, 2005b).

Once the surface of the area was cleared of radiological materials, equipment mobilization was initiated and the entire construction area of PCB Hot Spot was enclosed with temporary 6-foot security fencing. A lined dewatering pad, conveyor system pad, large debris holding pad, low-level radioactive waste (LLRW) and low-level mixed waste (LLMW) holding pad and stockpile pad were constructed using a double-liner design. For information on site layout see Figure 3-1. The first layer of the liner was placed directly on the ground surface. A 6-inch layer of Bay Area Rapid Transit (BART) soil was then placed over the first layer of 20-mil liner. A second layer of 20-mil liner was placed over the BART soil layer. A final top 6-inch layer of BART soil was then placed on top of the second liner. As a result, any activities performed on the pad areas occurred on the top soil layer, not directly on the liner, thus protecting the liner from puncture.

Prior to constructing the pads, the area was cleared of rocks, debris, and other items in order to prevent puncture of the liner material. The dewatering pad was constructed with sufficient slope such that all runoff was conveyed to a sump. The water collected in the sump was pumped into a holding tank. The pad areas were bermed with sandbags and hay bales.

A decontamination pad was constructed adjacent to the exit of the site using a design similar to that of the pads described above, with the exception of the use of rock and gravel as construction material instead of BART soil. This allowed for decontamination water to filter through to the collection sump. The decontamination pad was bermed with sandbags, and collected runoff was pumped from the sump into a large holding container for sampling, characterization, and disposal (Section 6.4).

Stormwater controls addressing appropriate best management practices (BMPs) were installed around the pads and were implemented in accordance with the Stormwater Pollution Prevention Plan (SWPPP) in the Work Plan (TtEC, 2005a).

3.6 UTILITY SURVEY

A utility survey, using industry-standard geophysical electromagnetic instrumentation (EMI) was performed by NORCAL Geophysical Consultants, Inc. following a review of existing as-built drawings of the area surrounding PCB Hot Spot, the sheet pile barrier, and the existing groundwater extraction system. The utility survey was conducted from May 9 through May 11, 2006, over the known or suspect areas where subsurface utilities might exist. The results of the geophysical survey were compared to the available as-built drawings to determine the utilities present. Identified underground features within the vicinity of the proposed excavation area were marked using appropriately colored paints, stakes, and flags.

The location of several known utilities and structures associated with an existing groundwater extraction system, including groundwater extraction piping, underground electrical ducts, overhead electrical lines, and the above-ground elements of the groundwater system itself were confirmed during the survey within PCB Hot Spot. In addition, the location of the sheet pile barrier constructed to intercept groundwater for treatment was marked along the western side of PCB Hot Spot within the excavation area.

Following geophysical surveying of the project area, the identified underground utilities and above ground structures located in the project vicinity were removed. The sheet pile wall was not removed. Existing utilities and structures requiring removal included buried groundwater extraction system piping, a series of extraction wells, groundwater monitoring wells, overhead utility poles and lines, and the above-ground groundwater extraction system itself.

3.6.1 Decommissioning of Groundwater Treatment System

In preparation for field work, the existing groundwater treatment system located within PCB Hot Spot was decommissioned and removed on April 15, 2005.

To remove the groundwater treatment system, utility survey results and engineering drawings were reviewed. Once all system utilities and structures were identified a decommissioning plan was developed for the system and implemented. Utilities and structures requiring removal included underground extraction piping, underground electrical ducts, extraction wells, several utility poles, a treated water discharge line, and the above-ground treatment system itself. Underground extraction piping, electrical ducts, and the treated water discharge line were removed at depths down to approximately 3 ft bgs using backhoe type equipment. Treatment system utilities located at depths greater than 3 ft bgs were left in place to be uncovered and removed during the actual excavation of PCB Hot Spot contaminated soils.

Upon removal of the treatment system the concrete pad foundation that the system rested on was also demolished. The resulting debris and removed equipment were placed on a lined stockpile area for eventual off-site disposal. Overhead utility poles were also removed. Radiological controls outlined in the approved Work Plan for PCB Hot Spot were followed during removal of the groundwater treatment system and Radiological Control Technicians (RCT) were present during all removal activities.

3.6.2 Well Destruction

At the start of the project, there were a total of 33 groundwater extraction wells, groundwater monitoring wells, and piezometers located within the boundary of PCB Hot Spot. A complete list of wells and piezometers destroyed during the removal action is presented in Table 3-2 and Well Completion Reports are presented in Appendix C. Existing wells could not be preserved due to the overall vertical extent of the excavation. The wells were destroyed during four different efforts throughout the course of the field project. The destruction of the wells and piezometers was completed in a manner consistent with the specifications outlined by the California Department of Water Resources (DWR, 1991) and the Work Plan (TtFW, 2005a). A total of three wells could not be completely over-drilled due to debris obstruction or proximity to sheet-pile wall. These boreholes were backfilled with cement or a cement/bentonite mixture.

Groundwater extraction wells requiring removal were destroyed following the procedures outlined in the Work Plan. The procedures were developed to satisfy the substantive requirements for well destruction of the California DWR (DWR, 1991). Waste materials resulting from groundwater well and piezometer destruction, such as soil cuttings, were placed on a lined stockpile area and handled as potentially hazardous waste pending further characterization (See Section 6.0).

3.7 ENVIRONMENTAL PROTECTION MEASURES

An Environmental Protection Plan (EPP) was developed and implemented during project activities (Section 8.0 of the Work Plan) (TtEC, 2005a). The EPP outlined the environmental compliance procedures and regulatory, procedural, and training requirements required for conducting the TCRA field activities. Applicable or relevant and appropriate requirements (ARARs) pertaining to hazardous waste management, air emissions, stormwater, fugitive dust, floodplains and wetlands, and endangered species were also identified in the EPP along with required control measures.

3.7.1 Stormwater and Erosion Control

An SWPPP addressing appropriate BMPs for controlling stormwater was prepared for PCB Hot Spot and was developed in accordance with State Water Resources Control Board requirements (see the Work Plan). Because the field activities were regulated under CERCLA, a general National Pollutant Discharge Elimination System (NPDES) stormwater construction permit was not required, although the substantive requirements of the NPDES permit were met.

Prior to beginning excavation at PCB Hot Spot, a sandbag berm and silt fencing was installed along the entire perimeter to prevent impacts from stormwater. Additionally, all pads were constructed applying BMPs (including hay bales and sandbags) around the exterior edge to limit stormwater from running off the pad without being collected.

3.8 PRE-EXCAVATION SAMPLING

In order to further refine the initial footprint of the excavation, characterization sampling for PCB and TPH was conducted. The investigation included soil sampling at pre-selected locations using a 25-foot by 25-foot grid over the proposed excavation footprint. Sampling points along the perimeter of PCB Hot Spot were located on the nodes of the 25-foot by 25-foot grid and samples were collected from two depths: zero to 6 inches and at 30 to 36 inches bgs.

A total of 149 locations were sampled, resulting in the collection of 298 samples. The soil was screened for ROCs and analyzed for PCBs and TPH using field-test kits. Out of the 298 samples tested with field-test kits, 10 percent (30 samples) were sent to a laboratory in accordance with the Work Plan for comparison purposes. The PCB test kits were qualitative and results were reported as less than 1 mg/kg or greater than 1 mg/kg in the field. TPH kits are quantitative and actual concentrations were reported. Comparison of the PCB test kits and the off-site laboratory results indicated that 30 percent of the samples were not in agreement. Comparison of TPH test kits and the off-site laboratory results indicated that 85 percent of the sample results were greater than 25 percent relative difference (RPD).

Based on the initial sampling results, sample locations were placed in stepped-out or stepped-in grid nodes to further refine the limits of the excavation area. This sampling process continued until a proposed revised excavation boundary was delineated or field conditions prevented sampling. The revised boundary was used as the basis for the initial excavation but was modified later based on post-excavation sampling results (Section 4.1.8).

Some pre-excavation sampling locations had to be modified from those originally proposed to account for existing site conditions. Along the western boundary, pre-excavation sampling could only be conducted where practicable due to the presence of the shoreline protection riprap wall. In addition, sampling locations in the northern portion of the site could not be sampled due to the presence of riprap, intertidal wetlands (water interfered with field–test kit analyses), and the engineered cap of the Parcel E Industrial Landfill of IR-01/21.

The sampling was conducted in accordance with the procedures detailed in the Sampling and Analysis Plan (SAP) in the Work Plan (TtEC, 2005a).

In addition, samples were analyzed for ROCs by on-site gamma spectroscopy to evaluate the activity of ^{137}Cs and ^{226}Ra. Ten percent of the samples were sent to an off-site laboratory for ^{90}Sr analysis, which could not be performed on site. Additionally, 10 percent of the samples were randomly selected to be sent to an off-site radiological laboratory for gamma spectroscopy analysis for comparison purposes (see Section 9.0 of this report).

4.0 FIELD EXCAVATION ACTIVITIES

This section provides a detailed summary of the activities performed during the excavation, removal, and screening of soils and debris from PCB Hot Spot.

4.1 EXCAVATION OF CONTAMINATED SOIL

The purpose of the excavation at PCB Hot Spot was to satisfy the RAOs as defined in the Final AM for PCB Hot Spot and the Final Basewide AM. The RAOs required excavation of soils with contaminant concentrations above the chemical cleanup goals (Table 1-1) and/or above the RROs (Table 1-2) within the proposed lateral excavation boundary to a minimum depth of 3 ft bgs. Further, the RAOs required that excavation be continued deeper within the proposed lateral excavation boundary to an estimated maximum depth of 10 ft bgs should contaminants still be present. If visible petroleum hydrocarbon-contaminated soil was observed or post-excavation samples indicated contaminant concentrations above the chemical cleanup goal or RROs, then the area would be over-excavated as much as technically practicable and safe for the workers and the environment. In addition, all free-phase TPH was to be removed to the extent practicable.

The original excavation boundary in the Work Plan included an area of approximately 4.1 acres in size. Based on actual field conditions and accessibility, the final excavation covered an area of 3.4 acres. A 50-ft by 50-ft grid system was established across the excavation area. The grid system was surveyed and marked in the field and was used to track the required radiological surface surveying, control and record excavation progress, and assist in the collection of post-excavation samples.

The approved excavation approach required excavation to be completed in 12-inch lifts. The excavation protocol consisted of conducting radiological surface surveys of each 12-inch lift and removing the identified radioactive materials prior to excavation of each lift until the excavation reached the final depth. Each grid was numbered to track the excavation depth and associated sampling. A total of 86 grids were fully or partially excavated. The partially excavated grids were comprised of sloped sidewalls only.

Following an initial radiological surface survey of the excavation area and removal of identified radioactive source materials, excavators were used to remove the upper 12 inches of soil of the excavation area. Following removal of the upper 12 inches of soil, the exposed surface was again radiologically surveyed and radiological material removed. This procedure was completed until the RAOs were achieved, or the limit of the safe and/or practicable excavation boundary was reached. The excavation sidewalls were sloped with a ratio of 1.5 horizontal to 1 vertical (1.5H:1V). Excavation continued in grids to depths greater than 3 ft bgs in 12-inch lifts where historical data showed PCB concentrations greater than 100 mg/kg or TPH contamination greater

than 3,500 mg/kg. In addition, post-excavation samples were collected from each grid bottom and excavation sidewalls. The excavation was continued laterally and vertically where laboratory analysis showed PCB and/or TPH concentrations above the cleanup goals or radiological materials above the RROs. The excavation was also continued in grids where free-phase total petroleum hydrocarbons were encountered. Once all visual contamination or free product was removed and the grid appeared "clean," chemical and radiological post-excavation samples were collected for confirmation.

Radiological surface scans of the sidewall were performed prior to excavation of a subsequent 12 inches. This process was repeated until visible contamination or radiological materials were removed from the sidewall. Once suspected contamination was removed, chemical and radiological post-excavation samples were collected at random locations along the excavation sidewall. The off-site laboratory analytical results from post-excavation sidewall samples were used to determine if additional over-excavation of the sidewall was required. In certain areas of the excavation, sidewall over-excavation could not be completed due to existing site features. Sidewall over-excavation could not be completed in grids along the northern portion of the excavation boundary due to the adjacent landfill or western portion due to the shoreline protection features. The western portion of the excavation was adjacent to a riprap wall separating the excavation from the Bay. Over-excavation, and breeching of the wall, would have subjected the site to flooding during high tide events. Removal of the rip rap wall could have exposed the Bay to potentially contaminated stormwater from the excavation. In addition, over-excavation of the sidewalls in grids adjacent to the Parcel E-2 Landfill could not be executed due to the risk of puncturing the landfill liner.

Groundwater was encountered in several areas of the excavation at an approximate depth of 5 to 8 ft bgs. In association with standing groundwater, free-phase product in the form of both globules and sheens was observed in several locations. Free-phase product was specifically encountered along the western and southwestern boundary, along the Parcel E-2 Landfill, and in the grids where the majority of the drums with content were found (see Section 4.1.2). Free-phase product was collected using absorbent booms and pads. The presence of free-phase product contributed to the need for the excavation to exceed the estimated maximum depth of 10 ft bgs. In order to support additional excavation beyond 10 ft bgs and address free-phase product within elevations beneath the water groundwater table, the excavation protocol was adjusted by implementing the collection and treatment of groundwater (see FCR-PCBHS-041 in Appendix J). If the bottom or sidewalls of the excavation continued to exhibit visual staining, the condition was documented. If absorbent booms and/or pads were not sufficient, free-phase product was skimmed or pumped from the groundwater surface until visible free-phase product was removed. Groundwater pumped from the excavation was treated through carbon filter vessels and stored in Baker tanks prior to disposal. Excavation continued to depths greater than 10 ft bgs where free-phase product was observed until conditions were no longer safe or practical

to continue. The final excavation depth for each grid is presented in Figure 4-1. The excavation extended beyond 20 ft bgs in some areas.

During the winter months of late 2005 and early 2006 water accumulated in the excavation due to local groundwater influx and precipitation. During the winter of 2005/2006, record precipitation amounts were recorded at HPS which further inundated the excavation with water (for further information, see Appendix A). An extraction and treatment system was mobilized and operated by another Navy contractor to remove the accumulated water from the excavation. Over the course of the project, approximately 3.7 million gallons of water were removed, treated, and discharged to the San Francisco city sanitary sewer under a discharge permit (see FCR-PCBHS-050 in Appendix J).

During excavation activities, large-size debris was encountered and segregated from the soil. The debris was hand-screened separately for radioactivity to preclude release of radioactive materials that may have been affixed to the surface areas of the debris and to determine proper disposal. Typical debris encountered included small pieces of asphalt, large pieces of concrete, wood, lumber, metal objects, rubber tires, scrap drums, and other waste materials. In addition, a series of buried concrete columns were unearthed in August 2005. The round concrete columns, similar to large fence posts, were found near surface and ran south from the landfill through PCB Hot Spot. The concrete columns were removed using large excavation equipment and hauled to a designated concrete-debris holding area.

Unsaturated soil removed from the excavation was placed in trucks and transported to the conveyor system featuring an array of beta/gamma radiation detectors for secondary radiological screening (see section 4.1.1). The purpose of the detector-equipped conveyor system was to identify radioactively contaminated materials that may not have been detected during the excavation surface surveys.

Saturated soils were placed into trucks and transported to a dewatering pad for dewatering. Once placed on the dewatering pad, saturated soils were allowed to dry prior to processing through the conveyor system. Soils saturated with free-phase product were inappropriate for conveyor processing and were manually surveyed for radiological materials (see FCR-PCBHS-024 in Appendix J). These soils were spread to a thickness no greater than six inches and manually surveyed and sampled for radiological materials. Following surveying and sample analysis, saturated soils deemed clear of radiological materials were stockpiled with other conveyor-processed waste soils.

In areas where excavation progressed to depths greater than three ft bgs, soils consisting of a high percentage of clay were frequently encountered. Due to the physical properties of the clayey soils, these materials were also inappropriate for processing though the secondary screening as they clogged the conveyor system preventing proper operation. As a result, the same secondary-

screening approach as for saturated soils was adopted for high clay-content soils (see FCR-PCBHS-048 in Appendix J). High clay-content soils were placed in 14-cubic-yard (cy) piles and spread to a thickness of no more than six inches. The clay soils were then manually scan surveyed using a Ludlum Model 2350-1 data logger equipped with a Ludlum Model 44-10 2-inch by 2-inch NaI scintillation detector (or equivalent). Two samples were collected from each 14-cy pile for gamma spectroscopy analysis. As excavation at PCB Hot Spot progressed a special pad area was constructed for radiological screening of high clay-content soils (see FCR-PCBHS-065 in Appendix J). Following scan surveying and sample analysis, high clay-content soils deemed clear of radiological materials were stockpiled with other conveyor-processed waste soils.

In addition to the excavation of impacted soils at PCB Hot Spot, an estimated 95 cy of soil from the adjacent and concurrent removal action at IR-02 Northwest and Central was excavated based on historical data indicating the presence of PCB concentrations above 100 parts per million (ppm) at two locations. The soil was excavated and radiologically screened. The excavated soil was transported to the PCB Hot Spot conveyor area, where it was processed (see FCR-PCBHS-030 in Appendix J).

Following radiological screening, non-impacted soil, as supported by radiological analysis and survey results, was placed in a large soil stockpile containment area. Soil stockpiles were approximately 3,000 cy in size for waste characterization profiling and off-site transport and disposal.

4.1.1 Secondary Screening Conveyor System

A conveyor belt system was mobilized and used for secondary radiological screening of excavated soils as described in the Work Plan. The soil conveyor system featured a grated grizzly feeder designed to separate small debris material from the soil. Segregated debris was accumulated at the adjacent lined debris pad and manually radiologically screened. The soil passing through the grizzly was fed onto the conveyor belt equipped with an array of gamma/beta detectors as described below.

The conveyor system featured a Ludlum Model 4612 12-channel single channel analyzer controlled by a laptop computer, which used the Ludlum Model 4612, Version 1.3.3 software for analysis. The instrument was equipped with six Ludlum Model 44-10 and six Ludlum Model 44-40 detectors. The Model 44-10 detectors were positioned less than 8 inches in height above the surface of the conveyor belt, while the Model 44-40 detectors were positioned less than 6 inches in height above the surface of the conveyor belt. The detectors were positioned across the conveyor belt to ensure complete beta/gamma radiation screening of conveyor-processed materials. Radiation detection instrumentation was programmed with individual alarm trip points for each detector of 3 standard deviations (3 sigma) above the average background level, which

allowed the conveyor system to be immediately shut down should an alarm set-point value be exceeded. The depth of the soil under the detectors on the conveyor belt was approximately 2 to 4 inches. The conveyor system was set up to move the soil under the detector array at a rate of 1 foot per second. When the conveyor system was stopped due to the tripping of an alarm point, impacted soils were removed from the conveyor into an approved container. Any soil removed from the conveyor system due to an alarm trip was surveyed to identify any radioactive material or discrete point sources. When radioactive material was found, it was handled as radioactive waste. Soil removed from the conveyor due to the tripping of a preset alarm was sampled and placed into an appropriate container for subsequent characterization and disposal. In addition, three (3) ft of soil/debris from either side of where the radioactive material was located on the conveyor belt was also removed. If no radioactive materials were identified, 6 feet of soil were removed.

Five hundred thirty-three cubic yards (cy) of soil, firebrick, and debris from the excavation and the conveyor belt were placed in roll-off bins and disposed of as LLRW. Further, a total of 59 discrete gamma-emitting devices (point sources in the form of devices or debris) were removed during soil screening. These point sources will also be disposed of by a DON contractor using the Army LLRW program. For further details on waste materials, see Section 6.0.

4.1.2 Buried Drums, Bottles, Jars, and Containers with Unknown Content

During the course of the excavation activities, large deposits of metal and drums were encountered at various locations within the site. Drums were in various conditions upon discovery, ranging from crushed and deteriorated to rusted but structurally sound and holding contents. Substances contained in unearthed drums ranged from petroleum products (gas, oil, diesel, asphalt, and grease) to green insulating foam. Some unearthed drums contained contents that could not readily be identified. Drums containing unidentifiable substances were field tested using Hazardous Categorization (HazCat) analysis test kits. HazCat analysis involves a series of rapid, qualitative and physical tests to determine potential hazards, handling precautions, storage criteria, and disposal classification of the materials in question. A few of the drums were found to be chemically reactive or hazardous. To protect personnel and the environment from potentially hazardous materials, excavation in areas suspected to contain large deposits of metal or drums was suspended. Prior to further excavation in these areas a written procedure for handling buried drums, jars, and containers with unknown content was developed (see FCR-PCBHS-035 in Appendix J) outlining the requirements for safe excavation, removal, handling, and sampling of any such unearthed items. To increase readiness to handle buried deposits of drums, a geophysical survey of the site was completed to identify buried metal materials and provide for an informed excavation strategy. See Section 6.0 for a detailed account of drums, bottles, jars, etc. that were removed during excavation and Section 4.1.3 for a description of the geophysical survey performed.

A total of 110 drums with contents were recovered from the excavation. The drums were generally recovered in the central area of the excavation, as shown in Figure 4-2. The majority of the drums contained grease, oil, soil, asphalt, and tar substances discovered in varying degrees of decay. The drums were removed from the excavation and placed in a lined staging area. The drum contents were then properly characterized and packaged for off site disposal. Because of the physical conditions of some of the drums, over-pack drums were required for safe handling.

The first 30 over-pack drums were sampled for chemical constituents in order to support further waste characterization and classification prior to disposal. However, due to the similarity in analytical results of the first 30 drums, the remaining over-pack drums underwent on-site HazCat analysis. All drums were sampled for radioactivity. Further discussion of these results is provided in Section 6.2. A drum and over-pack inventory is presented in Appendix F.

Additionally, a total of 537 small containers and laboratory bottles were found within PCB Hot Spot. The laboratory waste bottles were recovered from a four-grid area within the central part of the site (Figure 4-2). All laboratory containers were examined, inventoried, sampled, and characterized using field HazCat analysis test kits. The inventory process included assigning the container a specific identification number to the bottle. The container size, contents (color, liquid or solid), and any other distinguishing features were also listed in the inventory. The bottle inventory is provided in Appendix F. The containers were surveyed and cleared for radioactivity prior to leaving the PCB Hot Spot exclusion zone.

4.1.3 Geophysical Survey and Intrusive Investigation

Upon the encounter of drums with unknown content, excavation activities were halted to allow for new procedures to be developed regarding recovery and handling of the waste.

In an effort to improve production and to be able to prepare an excavation strategy that would identify areas suspected of containing drums prior to them being exposed during field excavation activities, a geophysical survey of the site was performed. The objective was to identify possible burial pits with large concentrations of metal most likely to contain drums. From August 12 to August 17, 2005, an Electromagnetic Induction geophysical survey of PCB Hotspot was conducted.

For the geophysical survey, a Geonics EM61-MK2 Time Domain Electromagnetic (TDEM) metal detector that detects both ferrous and non-ferrous metals was used to collect the geophysical data, and data acquisition was supported by the *Allegro* CX field data logger. The EM61 uses a powerful transmitter coil to generate a pulsed, primary magnetic field in the earth, which induces eddy currents in nearby metallic objects. The decay of the eddy current produces a secondary magnetic field measured by a receiver coil. By taking the measurement at a relatively long time after the start of the eddy current decay, the current induced in the ground will have

fully dissipated leaving only the current in the metal still producing a secondary field. The measurements of the eddy currents are responses expressed in millivolts (mV) that are recorded and displayed by the data logger.

To perform the geophysical survey, a manufactured frame of polyvinyl chloride (PVC) pipe was attached to two search coils and a Differential Global Positioning System (DGPS) antenna or a Robotics Total Station (RTS) prism was mounted to the PVC frame. On uneven terrain, a harness was attached and the unit was carried by one person, and followed by another who carried the *Allegro* data logger and EM61 backpack. On more navigable landscape with fewer obstructions, the PVC frame was mounted on a cart propelled by one person carrying the data logger and EM61 backpack.

A complete survey was performed of PCB Hot Spot and geophysical and location data were collected by transporting the equipment along established transects spaced approximately 3–5 ft apart. Collected data was post processed and analyzed with a methodology designed to meet the specific objectives of the survey. The results from the TDEM geophysical survey are presented in color-coded intensity maps as seen in Figures 4-3 through 4-6.

The analysis of the processed geophysical data was designed to provide a general predictor for encountering large metal drums at shallow and relatively deeper subsurface zones within each established 50-foot x 50-foot grid. The data was analyzed using three different methods that included the identification of anomalous regions and discrete anomalies that potentially could be metallic objects at various depths underground, identifying all metal at all depths within the sensitivity range of the instrumentation, and identifying anomalies with specific signal-intensity responses most similar to the responses a 55-gallon drum would exhibit at various depths underground.

Following the post-processing and interpretation of the collected data an intrusive investigation was performed at several locations thought to contain drum-equivalent metal masses. Small excavations at the identified locations were dug to verify the existence of drum-equivalent metal deposits and validate the geophysical data.

The intrusive investigation included excavations at five separate locations within the excavation area. The geophysical survey results were successfully verified when metal objects were recovered at the locations predicted. The presence of metal deposits at the excavation sites validated the survey results; however, exact vertical and lateral single drum-equivalent locations could not be exclusively verified every time due to the significant presence of other metal wastes and debris buried in the excavation. The results from the geophysical survey and investigation provided information that helped improve excavation production.

4.1.4 Exploratory Potholing to Evaluate Contamination near the Parcel E-2/F Boundary

During the excavation activities within the excavation boundary, heavily oil-stained soil and free-phase product were observed along the western and southwestern sidewalls of the excavation. In order to evaluate the horizontal and vertical extent of subterranean PCB and TPH contamination outside the southwestern excavation boundary, a series of potholes were excavated at pre-selected locations near the Parcel E-2/F boundary. The potholing approach is outlined in FCR-PCBHS-040 in Appendix J. The final locations of the potholes are shown in Figure 4-7.

The potholes were dug to a maximum depth of 10 ft bgs using an excavator. A total of eight potholes were dug during low tide and visually inspected. A minimum of one sediment sample was also collected from the bottom of each pothole. The samples were analyzed for PCBs and TPH using field-screening test kits to provide a quick assessment of the presence of gross contamination (above action levels) in each pothole. Prior to beginning excavation activities, a radiological surface survey was conducted. In addition, the soil was also sampled for radiological material before the exhumed soil from each particular pothole was placed back in the hole. The test kit results and detailed observations as the potholes were excavated are presented in Table 4-1.

Oily soils and/or a sheen of petroleum product were encountered in two potholes (grids 139 and 154) and oily soils and free-phase product in an additional two holes (grids 147 and 149). The visual contamination was particularly heavy in the most southern potholes. In some cases, free-phase product was encountered at depths as shallow as at 3 ft bgs. Grey fat Bay clay was generally encountered at shallower depths in the northern potholes, which may have influenced the lack of contamination in that particular area.

4.1.5 Material Potentially Presenting an Explosive Hazard

During intrusive work activities, an Unexploded Ordnance (UXO) technician was on site in case a suspect item thought to be Material Potentially Presenting an Explosive Hazard (MPPEH) was encountered. All work executed by the UXO technician was performed in accordance with the Op-5, Volume 1 (NAVSEA, 2005).

Personnel assigned to work at PCB Hot Spot, including subcontractor personnel, were required to attend a training session on the identification of possible UXO items and the procedures to follow once a suspect item was identified. In addition, prior to the start of work activities each day, a daily UXO safety briefing was given at PCB Hot Spot in addition to the normal safety briefing. The procedures for when suspect MPPEH was discovered were as follows: Construction Manager (CM) and UXO Technician were immediately notified, work in the area ceased, a 100-ft exclusion zone (EZ) was established, and all personnel were removed from the area until the item in question was cleared by the UXO Technician.

MPPEH was defined as any component of ordnance or explosive munitions that may have come into contact with energetic material (i.e., high explosives or propellant) and could have energetic residue remaining. Examples of MPPEH scrap encountered during the project included expended cartridge casings of various calibers, empty practice projectiles, and practice bombs. In total, there were 47 items encountered at PCB Hot Spot as presented in Table 4-2. The items totaled approximately 300 pounds. During the course of the project, MPPEH items identified by the UXO technicians were labeled with a numerical identification number, photographed, and placed into a labeled, 55-gallon drum for temporary storage on HPS. The items encountered were labeled and stored using two categories: 1) 3X (possibly contains an explosive hazard) and 2) 5X (contains no hazards). The information was then entered into the Acquisition and Accountability Log for tracking. The Acquisition and Accountability Log is maintained in the project files. At the end of each work day, each drum was sealed. The drums used for storage of the collected MPPEH were located at Building 704. Building 704 is an area specifically identified for hazardous material storage and is located in a secluded area adjacent to Parcel E (see Figure 2-1).

Upon completion of all work activities by TtEC in Parcels E and E-2, items encountered will be re-inspected by two competent UXO technicians for possible explosive hazards. The items certified as being safe will be demilitarized (crushed, burnt, cut, etc.). The remaining items of unknown condition will be treated to neutralize the possible explosive hazard and then also demilitarized using the same methods. Upon demilitarization, all items will then be certified as safe to ship and turned over for scrap. Materials were also radiologically screened by an RCT under direct supervision of the UXO technician.

4.1.6 Fugitive Dust Control

Aggressive dust-control measures were used during field activities. Continuous air monitoring was also performed during intrusive excavation activities. Additionally, the wind speed was constantly monitored and if the wind exceeded 25 miles per hour (Appendix A), then excavation and soil handling were discontinued. Dust-control measures included dust suppression, covering of stockpiles with 10-mil liner, and ceasing activities when wind speeds were high. Dust suppression included using a water truck or water tank equipped with a hose to mist the soil and debris during excavation, segregation, and screening activities.

Air monitoring during excavation, segregation, and screening activities included monitoring for total suspended solids, particulate matter, PCBs, asbestos, and ROCs. Field operations were conducted to ensure that the derived airborne concentrations in Table 4-3 were not exceeded. The air-monitoring data was combined with the weather data collected to ensure the safety of the site workers and the public in the area surrounding HPS. A report detailing air-monitoring results is included in Appendix A.

4.1.7 Chemical Post-Excavation Sampling and Analysis

Post-excavation samples were collected once contaminated soils had been removed based on field observations, historical data, and post-excavation analytical data. Post-excavation samples were collected from random locations within each grid of the 50-foot by 50-foot grid system established over the excavation area. In addition, post-excavation samples were collected at random depths along the perimeter sidewall of the excavation every 50 ft. The purpose of post-excavation sampling was to evaluate if cleanup goals had been achieved or if further excavation was required. PCB and TPH results from post-excavation sampling at PCB Hot Spot are presented in Figures 4-8 (bottom results) and 4-9 (perimeter sidewall results). The complete set of post-excavation chemical sampling results and the radiological post-excavation data set is listed in Appendix D.

One discrete bottom post-excavation soil sample was collected at a randomly located point within each 50-foot by 50-foot grid cell. A PCB and TPH field-test kit or off-site laboratory analysis was conducted on the discrete sample and the resulting data was used as a screening tool to indicate the need for further excavation of areas still above cleanup goals. If PCB and TPH field-test kit analysis was used and the field screening indicated cleanup goals had been achieved, a post-excavation soil sample was collected from the same grid for confirmation and sent off site for PCB and TPH laboratory analysis (Figures 4-8 and 4-9). In addition, for grids excavated to a depth of 7.5 ft bgs or less, a boring sample was collected at approximately 8 ft bgs to evaluate vertical extent of contamination that could be present at depth and determine if further over excavation was necessary (Figure 4-8).

During the progression of excavation activities, pre-screening using field-test kits was phased out because the majority of the soil samples had high moisture content and therefore invalidated the analytical results. Because only off-site chemical laboratory results were used as the final indicator that the area was below cleanup goals, post-excavation samples analyzed by the field-test kits for PCBs or TPH were not sent off site for confirmation or correlation comparisons. The field screening data was solely used to determine the extent of the over excavation that may be required.

Post-excavation sampling was also conducted along the perimeter sidewall of the excavation. One post-excavation sample was collected from the perimeter sidewall every 50 linear ft in areas where the perimeter sidewall extended to 3 ft bgs. This sample was collected at a random location within the 50-ft perimeter sidewall interval. An additional sample was collected within each 50-foot interval where the perimeter sidewall extended below 3 ft bgs. This sample was collected at the location below 3 ft bgs most likely to exhibit contamination based on field observations, historical data, or available analytical data generated earlier during the TCRA. PCB and TPH field-test kit and/or off-site laboratory analysis was conducted on the perimeter sidewall samples and the resulting data was used as a screening tool in the same manner as for

the bottom samples. If PCB and TPH field-test kit screening initially indicated that cleanup goals had been achieved, additional post-excavation sidewall samples were collected and these samples were sent off site for PCB and TPH laboratory analysis. In addition to the PCB and TPH analyses, post-excavation sidewall samples were also analyzed for pesticides, Title 22 metals, and, if TPH was confirmed, polynuclear aromatic hydrocarbons (PAHs). The data from these additional analyses will be considered during the Parcels E and E-2 Feasibility Study.

An addendum to the SAP (TtEC, 2005a) was prepared to include additional analysis to post-excavation bottom samples collected from grids 88 and 89 (see Figure 4-2). The addendum to the SAP addressed additional analyses required at these grids as a result of the uncovering of drums and bottles with unknown content during excavation activities. The U.S. Environmental Protection Agency (EPA) expressed a concern about potential leakage from the drums, and therefore requested additional sampling. The additional sample analyses from these two grids included VOC, SVOC, and pesticide analyses. The data from these additional analyses are presented in Appendix D and will be considered during the Parcels E and E-2 Feasibility.

In an effort to minimize the time that an excavated grid remained open, an alternative field approach for the collection of discrete chemical sidewall or bottom post-excavation samples was implemented at PCB Hot Spot starting in April 2005 (see FCR-PCBHS-055 in Appendix J). The ultimate objective for this revised approach was to allow for immediate backfill placement. Chemical post-excavation samples were collected by potholing using mechanical means to the depth at which visible contamination was no longer present; historical data indicated the area was below clean-up goals; or to the maximum safe depth to which the excavation could be extended. Once the pothole was excavated to the pre-determined depth, one discrete post-excavation sample was collected and sent off site for PCB and TPH analysis. If the pothole results were below cleanup goals, the grid was opened up and the contaminated soil excavated. If visual evidence of further oil stains was present, the grid was over-excavated until no staining was visible and then re-sampled.

4.1.8 Radiological Surveys and Post-Excavation Sampling Approach

The radiological RAO of the excavation was twofold: 1) to identify and remove discrete radioactive materials (point sources), and 2) to identify and remove sources of radioactivity that cannot be readily identified as point sources. Once the excavation had been completed and the sources of radioactivity were removed, the objectives shifted to fully characterize the bottom of the excavation for the administrative record.

Excavation was executed in one-foot lifts. Each lift was surveyed in situ with a high density gamma scan prior to excavation to identify and allow removal of any radioactive materials that may have been present, except in cases where the lift was below the groundwater level and consequently contained standing water. Following the identification and removal of any

radioactive materials in situ, the soils were removed from the excavation and screened through the conveyor system. Materials that tripped a preset conveyor alarm were removed into roll-off containers, as identified in Section 5.0 of the Work Plan. In addition, three (3) ft of soil/debris from either side of where the radioactive material was located on the conveyor belt was also removed. If no radioactive materials were identified, 6 ft of soil was removed. A large masslin swipe of the area where the suspect soil had been removed was obtained and evaluated in accordance with the HPS Standard Operating Procedure HPO-Tt-006 (TtFW, 2005b). After having passed through the second screening, materials were sampled twice per approximate 100-cy piles (roughly equivalent of to a 50-foot by 50-foot by one-foot volume of excavated material).

High-density gamma scans were performed over the excavated bottom and perimeter sidewalls using a towed array mechanism, supplemented by handheld detectors. Each grid cell was scanned using a Ludlum Model 4612 instrument that features a single channel analyzer assembly equipped with a programmable computer that streamlines all operation parameters. Four arrays of three Ludlum Model 44-10 scintillation detectors spaced 12 inches apart are connected to the Ludlum 4612. The Ludlum 4612 was connected to a GPS receiver which was used to correlate logged data points to specific coordinates. This instrument array was positioned behind the back of a tow vehicle so as to "follow behind" the path of the vehicle. Survey lanes are approximately 1 meter wide.

Supplemental gamma scans were also performed using Ludlum Model 44-10 2 inch × 2 inch Sodium-Iodide (NaI) scintillation detectors coupled to Ludlum Model 2350-1 data loggers. The gamma scans were performed in accordance with the HPS SOP HPO-Tt-006 (TtFW, 2005b). The scan surveys were performed at a rate of approximately 0.08 meters per second with the detector held approximately 10 cm (4 inches) from the surface. Investigation levels for gamma radiation surveys were background plus 3 standard deviations above the mean. The background reference area was established in a non-impacted area of Parcel E.

The instrumentation for the radiological surveys and onsite laboratory instruments are detailed in Tables 4-4 and 4-5. The data was reviewed by the TtEC Radiation Safety Officer (RSO) to determine if any trends were identified, or if an investigation level was exceeded to determine what supplemental surveys were necessary. Final scan data from grids that were not submerged underwater are presented in Appendix G.

Any soil that was found containing radioactive material during field activities was immediately segregated for disposal as LLRW through the Army's LLRW Program.

4.1.9 Radiological Post-Excavation Survey Results

The excavation area was divided into 50-foot by 50-foot grids established along the bottom. Upon completion of excavation of each grid, it was scanned with a high-density gamma scan as described in Section 4.1.8. One random discrete sample was collected from a location inside each grid, and one was randomly collected per 50-foot length of sidewall (see Figures 4-10 and 4-11). The purpose of these post-excavations soil samples was to identify if any contamination exceeded the RROs.

In a couple of instances, over-excavation was necessary due to contamination above the RRO in a random grid sample, sidewall sample, or systematic sample. When this was necessary, the area was over-excavated in one-foot step-outs, and then post-excavation sampling was performed to determine the extent of contamination.

The excavation boundary was also divided into eleven 2,000-square meter cells. Sixteen systematic samples were collected from inside each cell with one exception. In the case of Survey Unit 7, only 15 samples were collected due to one of the samples being located under a decontamination pad and therefore inaccessible. Further, a 100 percent high-density gamma scan was performed at the vertical excavation limit to further identify if any additional discrete gamma-emitting sources were present. These scans were completed in areas that were not fully saturated with water.

The maximum activity from any post-excavation sample was 1.459 pCi/g of ^{226}Ra. Individual gamma spectroscopy reports for post-excavation samples are presented in Appendix D. As indicated in Table 4-6, no single survey unit average net concentration was greater than zero. Therefore, the increased dose above background assigned to the average member of the critical group (i.e., general public) was administratively offset to 0.00 millirems/year above background.

No samples collected from random, systematic, or random-sidewall locations at the bottom of the PCB Hot Spot showed activity greater than the RROs. The sample data are presented in Appendix D.

5.0 BACKFILL, COMPACTION, AND GRADING

Once post-excavation sampling of PCB Hot Spot had been completed, a layer of geotextile material was placed within the excavation and backfilling was performed. A layer of 8-ounce geotextile material was placed over the entire bottom and sidewalls of the excavation. The purpose of the layer of geotextile was to serve as a demarcation of the final excavation boundary.

Following placement of the geotextile material the excavation was backfilled with clean import fill material. Prior to the placement of the import fill material it was sampled in accordance with the SAP in the Work Plan (TtEC, 2005a). Once the potential backfill source material was sampled, analytical results were reviewed as specified in the *Hunters Point Shipyard Project Backfill Review and Acceptance Procedure, Revision 1* (TtEC, 2006b). The backfill review and acceptance procedure included requirements and evaluation of chemical and radiological analyses results.

Over the course of the project, a total of twelve potential off-site import sources were sampled for the purpose of this removal action. The locations of the sources span from Santa Rosa in the north to Cupertino in the south. Six of the sources were deemed appropriate import sources from a chemical and radiological standpoint as well as the distance to transport the material to HPS. Based on previous sampling results, the on-site BART pile material had already been deemed suitable for use as backfill by the DON (International Technology Corporation [IT], 2002a; 2002b). The backfill soil sampling data for the backfill sources is presented in Appendix E.

A total volume of approximately 53,400 cy was used to backfill PCB Hot Spot. In addition to soils from the BART stockpile, material for backfilling of PCB Hot Spot was imported from the following six reviewed and approved sources:

1. Cow Palace Construction Site, South San Francisco, CA
2. DeSilva Gates Construction Site 1, Oakland, CA
3. Gellert, South San Francisco, CA
4. Golden Gate Park A, San Francisco, CA
5. Letterman, Presidio, San Francisco, CA
6. Pancake House Construction Site, Millbrae, CA

Approximately 2,300 cy were imported from Cow Palace, 15,200 cy from DeSilva Gates Construction Site 1 in Oakland, 1,100 cy from a mix of soil from Gellert/Golden Gate Park A/Letterman, and 16,500 cy from the Millbrae Pancake House construction site. The remaining soils, approximately 18,300 cy, came from the BART soil stockpiles.

In areas where the excavation extended below the groundwater table, virgin drain rock (¾-inch) was used as a base layer for backfill (see FCR-PCBHS-052 in Appendix J). As little drain rock as possible was placed on the bottom, typically 1 to 1 ½ ft, in order to create a foundation for the backfill. The demarcation geotextile material was placed on top of the rock and covered with backfill material.

Backfill material was placed in the excavation in 12-inch lifts. Where possible, the backfill material was compacted by wheel or track rolling to a firm, unyielding condition. No compaction testing was required since the site is slated for open space reuse. The final six inches of backfill was not compacted but was graded to match its surrounding elevation for appropriate drainage and eventual site restoration.

5.1 TOPOGRAPHIC SURVEY

Following backfill and final grading of PCB Hot Spot, a topographic survey was conducted to document existing surface features and conditions. The survey recorded the topographic conditions of the land area within the final PCB Hot Spot excavation boundary (an area approximately 3.4 acres in size) in sufficient detail to generate a topographic map with one-foot elevation contour intervals.

Prior to the removal action, an elevated gravel parking lot had been constructed just south of the Parcel E-2 Landfill. This parking lot was completely taken out during the excavation activities. Since there was no incitement to reinstall the parking lot, the previously raised areas and slopes were smoothed out to facilitate effective drainage of the area. See Figures 5-1 and 5-2, respectively, for pre-existing and post-excavation elevation contours of the excavation boundary.

The topographic survey included the establishment of transects spaced 25 to 50 ft apart, covering the entire PCB Hot Spot. Horizontal and vertical data were collected approximately every 10 ft and at major land breaks on these transects. The topographic survey was referenced to North American Datum 1927 (NAD 27), California State Plane Zone 0403, in U.S. survey ft. The vertical data was referenced to National Geodetic Vertical Datum of 1929 (NGVD 29). Topographic survey, layout, and related work were performed by a Professional Land Surveyor registered in the state of California.

5.2 DEMOBILIZATION

In October 2006, once backfill, compaction, and final grading of PCB Hot Spot and secondary screening of excavated soils through the conveyor system were complete, demobilization activities were initiated. Demobilization included the decontamination and free-release surveying of construction equipment and materials, cleaning of the PCB Hot Spot project site, performing final radiological surface surveying of disturbed areas, and issuing a completion inspection checklist (Appendix B). Demobilization activities also involved final collection and disposal of

decontamination water and preparing portions of the screening, staging, and stockpile pads of the site for reuse during a planned follow-on removal action effort.

Prior to removing equipment and materials from PCB Hot Spot, decontamination and radiological free-release surveying was completed. Before chemical decontamination of equipment, preliminary radiological surveys consisting of a 100 percent scan of accessible areas for alpha/beta contamination were conducted. If radioactive contamination above the established criteria, as defined in Table 1-2, was identified during the initial scans, the contamination was removed and chemical decontamination initiated. Chemical decontamination of heavy equipment and materials was completed at the site decontamination pad located near the main site entrance/exit. Heavy brushes were used to remove soil and dirt attached to the equipment surfaces. Special attention was paid to removal of soil and dirt on and within the bucket, the tracks/tires, and undercarriage of the equipment. If dry decontamination practices were not sufficient, the soil residue was removed using low-pressure washing with water. The decontamination water was collected, sampled, and properly disposed.

Following chemical decontamination, radiological free-release surveys consisting of surface scans and removable contamination swipe samples were performed by the radiological subcontractor prior to releasing any equipment to rental vendors. Hand tools used for radioactive material removal were surveyed for free-release. Radiological free-release surveys were documented by the radiological subcontractor and each piece of equipment received a unique survey number. All equipment used was eventually cleared of radioactive material and released back to the rental vendor.

The remaining decontamination water was periodically pumped from the sump within the decontamination pad into an on-site wastewater collection tank. The decontamination water and other wastewater collected in the wastewater collection tank was sampled for radioactive constituents prior to being hauled off site using a tanker truck for proper disposal (see Appendix F for Waste Data and Waste Manifests).

Demobilization at PCB Hot Spot also included site cleaning activities. Site cleaning consisted of repairing erosion or runoff-related damage; grading all areas used for construction, and removing all excess construction material, wood, debris, and other foreign material from the site. Repairs to erosion or runoff-related damage included replacing and reinforcing hay bale and sandbag berms surrounding the lined stockpile pad areas and site perimeter. In addition, site drainage features, including a drainage swale diverting runoff from the Parcel E-2 Landfill across PCB Hot Spot, were cleared of debris and improved where needed. Areas outside PCB Hot Spot that had been disturbed during the removal action, including equipment and debris-staging areas, were graded to remove rutting and provide proper drainage. Trash, wood, and debris were collected and segregated by type for proper off-site disposal.

Following the removal of all trash and debris, the ground surface within unexcavated areas at PCB Hot Spot, including padded laydown areas, was surveyed for gamma-emitting radionuclides. Radiological scan surveying was performed by walking the areas with Ludlum Model 2350-1s equipped with Ludlum Model 44-10, 2-inch by 2-inch NaI detectors. Data obtained from the pre-mobilization initial land surface scan survey were compared to the data collected during the demobilization scan survey to ensure that radioactive materials were not relocated or additional radioactive contamination had not been introduced to PCB Hot Spot.

Demobilization also included preparing the lined dewatering pad, conveyor pad, large debris pad, decontamination pad, and stockpile pad areas for planned reuse. The pad areas were covered with a layer of 20-mil PVC liner to eliminate potential erosion of the support structure. Prior to the covering the pad areas with PVC liner, materials were glued together at the seams to create a protective layer impenetrable to precipitation.

5.3 SITE RESTORATION

Upon completion of backfilling and final grading of all disturbed areas, PCB Hot Spot was revegetated using hydroseeding. Revegetation was performed with the purpose of preventing long-term surface erosion and preventing increased sedimentation to the Bay following disturbance. Hydroseeding of PCB Hot Spot occurred on October 20, 2006.

Hydroseeding was performed by applying a mixture of seed, organic material, fertilizer, binder, and straw over the surface of the site through a multi-step application process. First, a seed mixture, fertilizer, wood fiber material, and a binder component were applied to the disturbed areas of the site. Applying the mixture was accomplished by spreading the materials from a high-pressure sprayer mounted to a vehicle equipped with a material holding tank. Once the materials were loaded into the vehicle in the proper quantities the vehicle was driven over the site and an even coating of the mixture was sprayed over the site. Second, weed-free straw was spread over the site covering the first coating of hydroseed mixture. Straw was applied by towing a specialized machine in which bales of the straw were fed and sprayed at an even rate over the site. Finally, a second coating of the hydroseed mixture was sprayed over the layer of straw. Application of this final coating was accomplished by following the steps described for the first layer application.

The seed mix used for hydroseeding consisted of a mixture of native and sterile cereal grain seed types. Sterile seed was selected to more rapidly colonize the area and provide short-term soil stabilization with root growth. Native vegetation seed was selected to provide long-term soil stability. This seed mix design was successfully used for revegetation of the adjacent Parcel E-2 Landfill.

5.4 FIELD CHANGES

In order to provide for a safer conduct of the field work, improve production, and meet the unexpected changes in site conditions the field change request (FCR) process was used to address unforeseen circumstances during the field implementation of the TCRA. The FCR process is utilized when changes are requested by construction or other qualified personnel at the site. An FCR is used to document a change to the "as designed condition" and request or suggest a solution. The FCR process requires that any requested changes to project design specifications or plans be reviewed and approved by multiple TtEC technical specialists prior to implementation. During PCB Hot Spot, a total of 19 FCR documents were prepared. All FCRs relating to radiological materials were pre-approved by RASO before implemented. Two FCRs resulted in CTO modifications. Copies of the FCRs for PCB Hot Spot are provided in Appendix J.

5.5 COMPLETION INSPECTIONS

Completion inspections were performed as summarized in this section. Appendix B contains documentation from the completion inspections performed at PCB Hot Spot.

5.5.1 Pre-Final Inspection

A pre-final inspection was performed by the ROICC, CSO, and TtEC Project Manager (PjM) on November 15, 2006. The RPM, Project Quality Control Manager (PQCM), and Construction Superintendent were also present during the scheduled inspection. The pre-final inspection included a site visit at PCB Hot Spot at which time the work completed under the CTO was reviewed. At the pre-final inspection the ROICC developed a punch list of incomplete work items requiring completion under the project contract and provided the list to the PQCM. Punch list items identified by the ROICC included removal of a 6,500-gallon Baker tank utilized for holding wastewater from decontamination activities. Removal of the tank from PCB Hot Spot included coordination and scheduling pick up with the DON subcontractor responsible for disposing of waste and demobilizing the tank. Appendix B contains the pre-final inspection punch list documentation developed by the ROICC during the inspection.

5.5.2 Final Acceptance Inspection

The purpose of the final acceptance inspection was to verify that all specific items previously identified as incomplete or unacceptable during the pre-final inspection were completed and acceptable. The final acceptance inspection included verification by the PQCM that all punch list items identified during the pre-final acceptance inspection were completed as discussed. Punch list items from the pre-final inspection included disposal of the decontamination water and demobilization of the 6,500-gallon Baker tank. These punch list items were verified as complete

and acceptable by the PQCM on December 1, 2006. Appendix B contains final acceptance inspection documentation.

5.6 PHOTOGRAPHIC LOG

Photographs of the site were obtained during the implementation of the TCRA activities. Photographs were taken during each aspect of work in order to provide a detailed photographic history of the removal action. Electronic versions of the photographs sorted by date and accompanied by a Project Photographic Log providing the time, date, location, and a description of the activities shown in each photo were developed and kept in the PCB Hot Spot electronic project file. A selection of photographs from all phases of the TCRA is presented in Appendix I.

6.0 WASTE CHARACTERIZATION, DISPOSAL, AND RECYCLING

This section describes the disposal method for each waste stream generated during the removal action. The disposal of LLRW and LLMW were handled under the DON's LLRW Disposal Program.

There were several waste streams that resulted from the removal activities. These waste streams included PCB-contaminated soils and debris; drums; bottles; jars and small containers; decontamination wastewater; used personal protective equipment (PPE); and metal debris. A detailed summary of the waste quantities generated is presented in Table 6-1. Waste disposal of soil, debris, and wastewater from PCB Hot Spot was coordinated by TtEC but executed by another DON contractor in accordance with the *Final Transport and Disposal Plan* (TtEC, 2005c). Over-packs and lab-packs were handled and disposed of by TtEC.

Trucks hauling waste off site were inspected prior to loading. Additionally, all vendors were pre-qualified and the driver's license and medical card were checked to ensure they were current. A uniform hazardous waste or a non-hazardous waste manifest was filled out for each loaded truck and submitted to the DON for signature. Prior to shipment, original copies of the manifest were provided to the transporter for shipment. Copies of the waste profiles and waste manifests are included in Appendix F.

6.1 SOILS AND DEBRIS

Approximately 65,200 tons of PCB-contaminated soil and debris requiring off-site transportation and disposal were generated during the removal action at PCB Hot Spot. Stockpiled soil that did not contain radioactive material was sampled to characterize for proper disposal. The samples were sent to an off-site laboratory and analyzed for VOCs, SVOCs, including PAHs, pesticides, PCBs, TPH-purgeable, TPH-extractable, and Title 22 metals. No additional radiological analyses were necessary as this soil was evaluated for radiological contamination prior to being stockpiled. Approximately 2,200 cy of large debris, including concrete, small pieces of asphalt, wood, lumber, metal objects, rubber tires, drums, bottles, and other similar waste materials were recovered during the excavation activities. The materials that exceeded the criteria in Table 1-2 were handled as LLRW. Prior to stockpiling, the materials were hand scanned for radioactivity. The large debris was sampled to determine the PCB concentrations for proper disposal.

Five hundred thirty-three cubic yards of soil, firebrick, and materials were placed in roll-off bins as LLRW. Further, 40 discrete gamma-emitting devices (point sources) and 19 pieces of radioactively contaminated debris were removed during soil screening. These point sources were transferred to the Army contractor in compliance with the DON LLRW Disposal Program and properly stored in Building 406 pending isotopic identification and disposal.

The majority of the soils were determined non-Resource Conservation and Recovery Act (RCRA)-hazardous solid waste based on waste characterization sampling and were handled under profile number EC3820. The soil and debris were transported off site and disposed of at Chemical Waste Management, Inc., Kettleman Hills Facility located in Kettleman City, California. Two distinct stockpiles, approximately holding 3,000 cy each, were determined to be RCRA-hazardous soil upon sampling due to their lead content. As a result, the lead in soil stockpiles was stabilized using a soil amendment applied by the waste-hauling DON contractor on-site prior to disposal. By treating the soil with stabilizers, the soil could be classified and disposed of as non-RCRA hazardous solid waste.

Transportation of the waste off site began July 26, 2005, and was completed November 8, 2006. The soil and debris were transported using dump trucks. Each truck was covered prior to leaving HPS. A waste manifest was completed for each truck load transported off site and submitted to the DON for signature. Original copies of the manifests were provided to the transporters and the disposal facilities. Copies of the generator's waste profile and manifests are provided in Appendix F.

6.2 DRUMS, BOTTLES, JARS, AND CONTAINERS WITH UNKNOWN CONTENT

At PCB Hot Spot, 110 drums with content and 537 small containers and laboratory bottles were recovered from the excavation. The drums contained grease, oil, soil, asphalt, and tar substances and were discovered in varying degrees of decay. The small containers and bottles contained various laboratory chemicals ranging from strong acids and bases to solvents, alcohols, and inorganic salts. Because of the condition the recovered drums, contents from the drums were placed into over-pack drums for proper handling and disposal. The laboratory containers and bottles were segregated by waste type and capability, and placed in lab-pack drums. A total of 129 over-pack drums and 21 lab-packs were generated.

Drums, bottles, jars, and small containers unearthed during the excavation activities were first screened by field instruments for radioactivity and then sampled and analyzed for the presence of radioactive materials. Upon review of initial results showing gross alpha, beta, and/or gamma activity, additional analyses such as ^{90}Sr and gamma spectroscopy were requested for several drums. Results from these drum surveys indicated that two drums exceeded the RROs and had to be disposed of as LLMW (see Appendix F).

For waste characterization, the first 30 over-pack drums were sampled to support further waste characterization and classification of similar materials prior to disposal. The samples were sent to an off-site laboratory and analyzed for VOCs, SVOCs, including PAHs, pesticides, PCBs, TPH-purgeable, TPH-extractable, and Title 22 metals. Due to the similarity in analytical results of the first 30 drums, the remaining over-pack drums underwent on-site "HazCat" analysis or "waste compatibility screening". HazCat analysis is defined as a series of rapid, qualitative, and physical

tests to determine potential hazards, handling precautions, storage criteria, and disposal classification of the materials in question.

The over-pack drums consisted of non-hazardous, RCRA, and Toxic Substances Control Act (TSCA)/RCRA waste based on the combination of HazCat and radiological analyses. The drums were transported off site and disposed of at the Chemical Waste Management, Inc.'s Kettleman Hills Facility located in Kettleman City, California, for subsequent transfer and disposal by incineration at Onyx Environmental Services, Port Arthur Treatment Facility in Port Arthur, Texas.

In August 2005, one waste drum with content was encountered and inadvertently punctured by an excavator bucket during excavation activities. The heavy equipment spotter was standing in the vicinity of this drum, and it was therefore determined to sample the drum with focus on obtaining information to evaluate the content of the drum from a health and safety standpoint. The drum was sampled for the following: VOCs; pesticides; potassium; total phosphorous; PCBs; TPH-gasoline; and TPH-diesel.

The results showed that the drum contained the following: 1.8 percent diesel; 3.1 percent motor oils; 0.96 percent gasoline; 0.18 percent methyl isobutyl keton (MIBK) (a solvent); 0.86 percent PCB; and some other analytes typical in fuels. The drum also included 16 ppm heptachlor epoxide, 60 ppm dieldrin, and 49 ppm methoxychlor. The overall moisture content in the sample was 21 percent.

The drum was eventually over-packed to secure the remaining sludgy content and associated soils and disposed at Kettleman with the other over-packed drums for subsequent transfer and disposal by incineration.

Two over-pack drums were determined to be mixed waste based on HazCat and radiological analyses. Drum D84-043 consisted of a hardened foam-like material and exhibited elevated levels of cobalt-60 (^{60}Co) and ^{137}Cs.

Drum D84-095 consisted of red, hardened primer or plastic material that was molded in the shape of a fiber drum and had elevated levels of ^{226}Ra. The two impacted drums (D84-043 and D84-095) were transferred to the Army contractor in compliance with the DON LLRW Disposal Program and properly stored in Building 406.

The Over-pack Drum Log and Lab-pack Drum Log (Appendix F) contain all the relevant information of each over-pack and lab-pack drum, including drum number, accumulation start date, disposal date, storage location, contents, waste designation, sample information, disposal facility, profile number, proper shipping names, EPA/Department of Toxic Substances (DTSC) codes, label information, and manifest type and number. Profiles and manifests are provided in

Appendix F. Chemical analytical data from the drums that were analyzed off site are also included in Appendix F.

6.3 CARBON

A total of 91 drums of spent carbon were generated from the extraction and treatment system used to remove excess water from the excavation. Thirty-four drums were transported off site and disposed of at Altamont Landfill and Resource Recovery Facility located in Livermore, California, under waste profile numbers 55356200 and 55398601. Fifty-seven drums were transported off site and disposed of at the Chemical Waste Management, Inc., Kettleman Hills Facility located in Kettleman City, California, under waste profile numbers EH0141 and EH0142. Profile and manifest documentation are provided in Appendix F.

6.4 WASTEWATER STORAGE AND DISPOSAL

Wastewater generated from equipment decontamination activities was collected and stored in 6,500-gallon Baker tanks. A total of 12,444 gallons of decontamination wastewater was generated during the removal action. For waste characterization, one water sample per tank was collected and analyzed for VOCs, SVOCs, including PAHs, pesticides, PCBs, Title 22 metals, TPH-purgeable, and TPH-extractable. Radiological analysis using on-site gamma spectroscopy was also performed on the samples. None of the analyses indicated radioisotope activity greater than the water-release criteria stated in the revised Final Basewide AM (TtEC, 2006a) and in Table 1-2 of this report. Of the decontamination wastewater generated, 7,693 gallons were determined to be RCRA-hazardous liquid waste and 4,751 gallons were determined to be non-hazardous liquid waste.

In April 2006, 14 55-gallon drums (770 gallons) of decontamination water was transported off site and disposed of at the Chemical Waste Management, Inc., Kettleman Hills Facility located in Kettleman City, California. The waste was disposed of under waste profile EC7747 and was classified as non-TSCA, RCRA-hazardous liquid waste. The water was classified as RCRA hazardous due to elevated lead concentrations. In October 2006, an additional 6,923 gallons of wastewater was transported by a tanker and disposed of at the Kettleman Hills Facility under the same profile.

In November 2006, 4,751 gallons of non-hazardous wastewater was transported off site and disposed of at Altamont Landfill and Resource Recovery Facility located in Livermore, California. The wastewater was disposed under profile number 55398600. Profile and manifest documentation are provided in Appendix F.

6.5 USED PPE

The on-site activities were performed in modified Level D and Level B PPE. Used PPE was consolidated with other non-hazardous wastes in over-pack drums after radiological screening and transported off site and disposed of at the Chemical Waste Management, Inc., Kettleman Hills Facility located in Kettleman City, California, for subsequent transfer and disposal by incineration at Onyx Environmental Services, Port Arthur Treatment Facility in Port Arthur, Texas. Profile and manifest documentation are provided in Appendix F.

6.6 MISCELLANEOUS TRASH AND SOLID WASTE

Approximately 25 compressed gas cylinders were recovered during excavation activities. The cylinders were inspected and determined to be empty/inert and disposed of as trash.

6.7 METAL DEBRIS

Approximately 550 cy of metal debris was recovered from the excavation. The metal was potentially PCB-contaminated from the surrounding soil and therefore disposed of as debris.

78 cy of metal debris consisted of rusted metal scraps and wire not suitable for recycling was not able to fulfill the radiological survey requirements and was therefore treated as potentially radiologically-impacted waste to be handled under the DON LLRW Disposal Program.

7.0 RADIOLOGICAL DATA ASSESSMENT AND CONCLUSIONS

Before analysis of data can occur, it is necessary to perform a data-quality assessment (DQA) of the associated radiological data. The first step in this process is to review the original DQOs before moving on to the DQA phase, as planned in the SAP. This section will expand further the entire process that took place for PCB Hot Spot radiological data.

Upon completion of the radiological data assessment, it is appropriate to utilize the data in various statistical tests in order to test a null hypothesis. Once the statistical tests have been performed, it is then appropriate to assign a residual dose to the average member of the critical group (or member of the public) using the appropriate dose modeling code, in this case, Residual Radioactivity, to document the appropriate dose.

7.1 RADIOLOGICAL DATA QUALITY OBJECTIVES

DQOs are qualitative and quantitative statements developed to define the purpose of the data collection effort, clarify what the data should represent to satisfy this purpose, and specify the performance requirements for the quality of information to be obtained from the data. These outputs are used to develop a data collection design that meets all performance criteria and other design requirements and constraints. The EPA has developed a seven-step process to develop DQOs. During this process, it is important to note that the intent of the investigation is to define the extent of contamination or provide for a comprehensive risk assessment.

Multi-Agency Radiation Survey and Site Investigation Manual (DoD, 2000) recommends using the seven-step DQO process in the design of radiological surveys. This process tailors the survey to the particular conditions around each survey situation. This section summarizes DQO elements applicable to the surveys that were performed under this plan.

7.1.1 State the Problem

The DON had determined upon review of previous site history and investigations that the site contained PCB "hot spots", petroleum hydrocarbon contamination and radiological contaminants in soils and debris, thus requiring a TCRA.

7.1.2 Identify the Decision

Are radioactive materials identified during the initial radiological survey? Do the PCB field screening samples from the pre-excavation characterization soil sampling define clean grids (less than 1 mg/kg for PCBs)? Are radioactive materials identified during the radiological survey of each subsurface soil lift? Are the TPH, PCB, and ROC results for the grid post-excavation sampling below the chemical cleanup goals or RROs listed in Tables 1-1 and 1-2? Does the

radiological survey of the excavation indicate areas with greater than 3 sigma over background? Are radioactive materials detected during the ex-situ screening of the excavated material within soil to be excavated?

After excavation was complete, 1) post-excavation sampling was performed using a grid system, 2) soil was analyzed for chemicals, and 3) a radiological survey was performed. Excavated soils were passed through a conveyor system for ex-situ screening to identify radioactively contaminated materials that may not have been detected during the surface survey and to ensure that no beta-emitting sources were present.

7.1.3 Identify Inputs to the Decision

- Previous investigation PCB results and radiological results from the soil samples collected within the PCB Hot Spot boundaries
- Results from the initial radiological survey, pre-excavation soil samples, radiological survey of each 12-inch cut of soil
- Post-excavation sampling and the post-excavation radiological survey,
- Ex-situ screening of excavated material

7.1.4 Define Study Boundaries

For a land area, the study boundaries were the physical boundaries of PCB Hot Spot. For remedial action support surveys, the study boundary was the extent of the remedial action work area and associated support areas. Section 3.8 discussed the details of performing the pre-excavation radiological survey.

Figure A.3-2 of the SAP illustrates the PCB Hot Spot excavation boundaries and the proposed pre-characterization sampling locations (TtEC, 2005a). Figure 2-1 of this completion report shows the final excavation boundary. The Work Plan discussed the details of performing the radiological survey of each 12-inch soil cut.

Post-excavation samples for PCB, TPH, pesticides, Title 22 metals, PAH (if TPH was confirmed) and ROCs were collected from a random location in each 50-foot by 50-foot grid within the bottom of the excavation and the sidewall slopes. The bottom and/or sidewall were further excavated if evidence of concentrations greater than 3,500 mg/kg of TPH were present.

The complete excavation footprint was radiologically surveyed as described in Section 3.3.

7.1.5 Develop a Decision Rule

The decision rule was, "If the survey results demonstrate compliance with the release criteria, then document the results in the project completion report. If the survey results do not

demonstrate compliance with the release criteria, then additional assessment and/or remediation are necessary."

The following were the decision rules used to evaluate the work that was performed:

1. If radioactive materials were identified during the field survey, the sources were removed. If radioactive materials were not identified, then pre-excavation characterization sampling commenced.
2. If the PCB field-test kit results define a clean grid, then 1) step-in sampling was conducted if known contamination (determined from prior investigations or results from this investigation) is greater than 12.5 ft away, or 2) the bounds of the excavation were established halfway into the clean grid adjacent to the next grid, which has known contamination. If the results did not define a clean grid, then step-out samples were collected. Step-out samples would be collected until a clean 25-foot by 25-foot grid is found to be below cleanup goals.
3. If radioactive materials were identified during the survey of each 12-inch lift, the sources were removed. If radioactive materials were not identified, then excavation of the surveyed lift commenced.
4. If 1) the TPH, PCB or ROC results for the grid post-excavation soil samples are above the cleanup goals or RROs listed in Table 1-1 and/or Table 1-2, 2) the soil exposed in a grid has concentrations of TPH greater than 3,500 mg/kg and/or 3) radiological surveys in the grid detect areas with radiation greater than 3 sigma over background, then the grid was excavated in one-foot increments as described in the Work Plan and resampled. This process continued until the results were below the cleanup goals and/or RROs or until the maximum limits of the excavation were reached. If none of these conditions were encountered, then no further action was required and the excavation was backfilled.
5. If radioactive material was detected during ex-situ screening of excavated soil, it was handled as specified in the Work Plan and the material from that grid was placed into an appropriate waste container for disposal. If no radioactive material was detected during secondary screening, the soil was stockpiled for subsequent characterization and disposal. If radiological contamination was confirmed, the material was packaged and sent off site as LLRW.

7.1.6 Set Limits on Decision Errors

The pre-excavation characterization sampling plan was designed to generate sufficient data to better define the lateral extent of the area of PCB soils that exceed the cleanup criterion of 1 mg/kg.

The initial and subsequent radiological surveys were performed in accordance with the Work Plan and survey protocols were carefully followed to limit errors.

To limit decision errors, analytical method requirements and project-specific DQOs were established. Published analytical method and laboratory-specific performance requirements were the primary determiners of DQOs for precision and accuracy.

Third-party data validation was performed on all samples, except for waste characterization samples, on-site laboratory data, and PCB field-screening data samples. Sampling and analysis protocols were carefully followed to limit errors.

For radiological surveys, there are two types of decision errors that can be made. The first type of decision error, called a Type I error, occurs when the null hypothesis is rejected when it is actually true. A Type I error is sometimes called a "false positive." The probability of a Type I error is usually denoted by α. The Type I error rate is often referred to as the significance level or size of the test.

The second type of decision error, called a Type II error, occurs when the null hypothesis is not rejected when it is actually false. A Type II error is sometimes called a "false negative." The probability of a Type II error is usually denoted by beta (β). The *power* of a statistical test is defined as the probability of rejecting the null hypothesis when it is false. It is numerically equal to $1-\beta$, where β is the Type II error rate.

This survey was designed to limit Type I and Type II errors to 5 percent. It is important to minimize the chances of concluding that a survey unit meets the release limits (reject the null hypothesis) when it actually exceeds the limits (Type I Error), and concluding that a survey unit exceeds the release limit (accept the null hypothesis) when it actually meets the limit (Type II Error).

7.1.7 Optimize Data Collection

The details of the initial radiological survey were discussed in Section 3.0 of the Work Plan. PCB characterization samples were collected at zero to 6 and 30 to 36 inches bgs using a grid system (25-foot by 25-foot) to further characterize the extent of PCB contamination. The soil from each sample was field surveyed for radiological contamination using an alpha/beta scintillation detector. Soil samples from each sample was collected and screened for PCBs using the field immunoassay screening method, EPA Method 4020. In addition, soil that exceeded greater than 3 sigma above the mean background was treated as a potentially radiological waste and was analyzed by the on-site laboratory for confirmation.

The details of the radiological survey of each 12-inch lift were discussed in Section 4.0. One random post-excavation soil sample was collected on a 50-foot by 50-foot grid system along the bottom and sidewall slope of the excavation. Systematic post-excavation soil/sediment samples were also collected after establishing a grid consisting of 2,000-square-meter cells over the PCB hot spot area. Sixteen systematically located samples were collected from each grid cell

(Figure 7-1). Random post-excavation soil samples were analyzed for PCBs, TPH, pesticides, Title 22 metals, PAH if TPH is confirmed, and ROCs. Systematic post-excavation soil samples were also analyzed for ROCs.

The entire exposed soil area was gamma scanned to assess potential radiological contamination. Two composite samples per 50-foot by 50-foot lift were collected from the conveyor system.

7.2 RADIOLOGICAL DATA QUALITY ASSESSMENT

7.2.1 Field Data Assessment

The first level check for validating data integrity during collection and reporting was verification of numerical work. After collection of survey data each day, the results were reviewed by the RCT to verify their completeness. The purpose of the first level check was to ascertain that the data presented were free of numerical or transcription errors and that established procedures and methodology had been properly followed.

The TtEC RSO reviewed the data to determine that data met the appropriate criteria. The RSO also reviewed field logbooks, sample identifications, chains of custody and similar documentation. No further action was required because all data was considered acceptable.

7.2.2 On-site Laboratory Data Assessment

Laboratory data was assessed to determine whether the objectives of the survey process are being met. The assessment process consists of four data phases: verification, validation, evaluation, and quality assessment. The assessment of HPS laboratory data ensures the objective of the survey is met.

The laboratory sample data were tabulated and submitted in a format that was acceptable to the DON and regulatory agencies. The TtEC RSO reviewed the data from the contractor on-site laboratory to determine that data met the SAP criteria. No further action was required because all data were acceptable.

7.2.2.1 Data Verification

Data verification ensured that the requirements are implemented as prescribed. Data verification activities included inspections of the laboratory, documented quality control (QC) checks performed on laboratory equipment in accordance with the appropriate SOP, technical reviews of data, and audits as appropriate.

7.2.2.2 Data Validation

As stated in the SAP, there were no standards for data validation of radiological analyses. Therefore, guidance documents and modified functional guidelines are used in validation of radiological data. Data not meeting method and/or SAP specifications were flagged as estimated or rejected.

7.2.2.3 Data Evaluation

On-site laboratory data are evaluated prior to submittal to the RASO. The evaluation of data was based on method requirements and results of QC checks, the level of contamination of method blanks and method spikes (as appropriate), and the overall indication of interference due to contamination. The data qualifiers, if used, were listed at the bottom of the data report. If the data was determined to be acceptable for use, no qualifiers appear.

7.2.2.4 Data Quality Assessment

DQA is a scientific and statistical evaluation that indicates if the data were of the right type, quality, and quantity to support their intended use. DQA provided the assessment needed to decide if the planning objectives were met. All data presented as a matter of function in this report were subject to the DQA process, and the data is determined suitable for use.

7.3 CONCLUSIONS

The intent of this report is not to achieve unrestricted release for PCB Hot Spot. However, the DON has chosen to model the dose to the average member of the critical group (i.e., average member of the public) for information purposes.

All survey units showed residual activity less than the isotopic activities for each RRO, and no further dose modeling was therefore determined to be reasonable and/or prudent.

8.0 EFFECTIVENESS OF THE REMOVAL ACTION

The primary RAO of PCB Hot Spot was to limit human and ecological (terrestrial and aquatic) receptor exposure to PCB that poses a potential risk by breaking the potential pathway from contaminants in the soil to the receptor. The complete list of RAOs for PCB Hot Spot is presented in Section 1.1 of this report. The RAOs were planned to be achieved by excavation and removal of soils containing PCB and TPH concentrations greater than the chemical cleanup goals, or radioactive contaminants above the RRO within the proposed lateral excavation boundary to a depth of 3 ft bgs (DON, 2005). In addition, the excavation should continue to an estimated maximum depth of 10 ft bgs if post-excavation samples, visible contamination or radiological screening identified residual contamination above chemical cleanup goals or RROs. The originally estimated volume of soil to be removed was 25,000 cy.

The effectiveness of the TCRA was established by evaluating the post-excavation samples collected from each 50-foot by 50-foot grid against the cleanup goals and the RROs. A total number of 83 grids were fully or partially excavated. The chemical cleanup goals were achieved for the bottom of 78 of the 83 total grids. A total number of 48 perimeter sidewalls were also created and sampled. Out of the 48 perimeter sidewalls, seven grids total showed post-excavation results below the cleanup goals upon completion of the excavation. Further lateral expansion was restricted due to field conditions and TCRA budgetary constraints. The highest residual concentrations of PCBs were located on a western sidewall, where one sample exhibited PCBs in the range of 12,000 mg/kg and TPH at 34,120 mg/kg.

The RROs were achieved for all the grids, leaving no known residual radiological contamination behind.

The basic reasons for discontinuing excavation activities and consequently leaving residual chemical contamination behind in the area were as follows:

- Avoidance of compromising existing shoreline protection. Soil was removed up to the shoreline protection along the full length of the western side of the excavation in order to preserve sidewalls and avoid the risk of collapse. If a sidewall were to cave in, Bay water would flow into the excavation and/or potentially contaminated water, captured in the excavation, would flow into the Bay.
- Proximity to the Parcel E-2 Landfill (north and northeast of the excavation) and the avoidance of the possibility to encounter, and therefore compromise, the Parcel E-2 Landfill engineered cap.
- Unsafe conditions to continue the vertical excavation deeper based on field conditions and practicability.

- Location of screening pads and other support areas (southern and eastern part of the excavation): In January 2006, there was a need to construct a reinforced foundation for large Baker tanks and other equipment in order to support the water pumping activities. The pad had to be strategically located close to the excavation and was therefore constructed south of the excavation boundary. Repetitive needs to continue stepping out and expanding the excavation boundary eventually resulted in the pad and support equipment obstructing further over-excavation of the area. Also, in the eastern part of the excavation, the screening and stockpile pad prevented further excavation step-outs.
- Project funding constraints limiting continued excavation upon completion of the originally delineated proposed excavation boundary (southern and southwestern parts of the excavation boundary).

The justification for discontinuing excavation activities during this TCRA was that a follow-on removal action would be initiated by the DON to address residual contamination and free-phase product on the shoreline and along the southwestern boundary. The location of the grids with residual chemical contaminants above the cleanup goals after the completion of PCB Hot Spot are listed in Table 8-1 and depicted on Figures 8-1 and 8-2.

In summary, 44,500 cy of PCB, TPH, and radiologically contaminated soil, including 2,200 cy of large debris, were removed from PCB Hot Spot. While much of the PCB and TPH were removed, high concentrations of both PCB and TPH still remain along the perimeter boundary of the excavation, together with free-phase product along the western boundary and in the intertidal zone near the Parcel E-2/F boundary. Based on sampling results, no radioactive contamination remained at the limit of the excavation boundary.

The RROs of the TCRA were achieved for all areas that were excavated.

9.0 QUALITY CONTROL AND QUALITY ASSURANCE

All confirmation soil samples were analyzed by Curtis and Tompkins, Ltd. (C&T) for chemical analysis. In addition to chemical analysis, confirmation soil samples were also analyzed for radiological isotopes by New World Technologies, Inc. (NWT), an on-site laboratory. Fifty-one of those confirmation samples analyzed by NWT were sent for QA purposes to an off-site laboratory (Eberline Services). Both offsite laboratories, C&T and Eberline, are state of California-certified and Navy-evaluated laboratories. Subsequently, a third-party validation company (Laboratory Data Consultants, Inc.) performed data validation on the C&T and Eberline analyses. The validation was conducted in accordance with *Environmental Work Instruction (EWI) #1, 3EN2.1, Chemical Data Validation* (SWDIV, 2001); the Contract Laboratory Program *National Functional Guidelines For Organic Data Review, EPA 54D/R-99/008* (EPA, 1999); the Contract Laboratory Program *National Functional Guidelines for Inorganic Data Review, EPA 54D/R-04/004* (EPA, 2004); the *Quality Systems Manual for Environmental Laboratories* (DoD, 2005); and the criteria specified in the *Final Sampling and Analysis Plan for PCB Hot Spot Soil Excavation Site* (SAP) (TtEC, 2005a). Twenty percent of the samples were validated in accordance with an EPA Level IV-equivalent protocol. The remainder of the samples was validated with an EPA Level III-equivalent protocol.

The chain-of-custody records and data validation reports (which include laboratory analytical results) are included in Appendix L. The analytical results from the chemical post-excavation confirmation sampling activities are presented in Appendix D.

The following sections describe the fulfillment of the field QC sampling objectives and analytical quality control objectives for this project. Tables 9-1 through 9-5 summarize the samples and the associated analytical quality control objective for each method that were qualified by the validator as a result of the QC criteria outside of control limits.

9.1 FIELD QUALITY CONTROL SAMPLING OBJECTIVES

Field QC sampling objectives were met per the SAP in the Work Plan including the collection of 32 field duplicates and 30 matrix spike and matrix spike duplicates (MS/MSDs). The results of the field QC sampling are described in the following sections.

9.1.1 Field Duplicates

Field duplicates consist of two samples (an original and a duplicate) of the same matrix collected at the same time and location, to the extent possible, using the same sampling technique. The purpose of the field duplicate is to evaluate the precision of the overall sample collection and analysis process through the calculation of the RPD for duplicate pairs. Field duplicates were collected at a frequency of 1 per every 10 samples and were analyzed for the same parameters as

the original sample. The RPD QC limit was established at 25 percent, and field duplicate pairs not meeting this criterion can be attributed to various project-specific factors including non-homogenous matrix, high percent sample moisture, and sample analysis dilutions. Data are not independently qualified based on field duplicate's RPD values; therefore, no results were qualified as a result of field duplicate RPDs outside of QC limits.

9.1.2 Matrix Spike and Matrix Spike Duplicate

MS/MSD samples are prepared for chemical analysis by spiking the sample with a known amount of a target analyte. Once the spike is added to the MS/MSD sample, the sample is carried through the complete sample preparation process along with the other samples in the batch. The percent recoveries (%R) for the MS/MSD samples are compared against each other and against the known amount of the spike to measure the accuracy of the analytical method. RPD values from the MS/MSD samples are calculated to evaluate the analytical precision of the method. One MS/MSD sample was collected for every 20 samples. The %R and RPDs were within the specified QC limits described in the SAP in the Work Plan (TtEC, 2005a), except for those listed in Tables 9-1, 9-2, 9-4, and 9-5. These samples were flagged "J/UJ" (estimated value) for the associated analyses.

For radiological analyses, a laboratory duplicate is prepared instead of an MS/MSD. The duplicate error ratio was within QC limits except for lead-214 in sample 84NPCBG125PE-001. This sample was flagged "J/UJ" for lead-214. Moreover, the result for lead-214 for sample 84NPCBG125PE-001 is considered estimated since the QC limits for this analyte were exceeded for the duplicate error ratio.

9.2 ANALYTICAL DATA QUALITY OBJECTIVES

The following sections describe the fulfillment of the analytical data quality objectives in terms of precision, accuracy, representativeness, completeness, and comparability parameters, as described in the *Final Sampling and Analysis Plan for PCB Hot Spot Soil Excavation Site* (TtEC, 2005a).

9.2.1 Precision and Accuracy

In accordance with the analytical methods, the *Quality Systems Manual for Environmental Laboratories* (DoD, 2005), and the SAP in the Work Plan specifications, the following parameters were assessed by the third-party validation company as applicable to chemical and radiological analyses:

- Technical holding times
- Instrument performance checks
- Initial and continuing calibration verifications

- Method blanks
- Surrogate %R
- Laboratory control samples
- Minimum detectable activity
- Internal standards
- Inductively coupled plasma (ICP) Serial Dilution
- Target compound identification
- Compound quantitation
- System performance

9.2.1.1 Technical Holding Times

Sample results not meeting the holding time requirements were flagged "J/UJ" as listed in Tables 9-3 through 9-5.

9.2.1.2 Instrument Performance Checks

Instrument performance checks were completed, and all QC requirements were met.

9.2.1.3 Initial and Continuing Calibration Verifications

Initial and continuing calibrations were performed. Percent relative standard deviations of initial calibration and percent differences of continuing calibration did not meet the QC requirement for all samples as illustrated in Tables 9-2 through 9-4. Associated samples were flagged "J/UJ" for affected compounds.

9.2.1.4 Method Blanks

Sample concentrations were compared to concentrations detected in the method blanks. For sample concentrations either not detected or less than 5 times blank contaminant concentrations, associated results were flagged "U" (not detected). For sample concentrations detected but greater than 5 times blank contaminant concentrations, sample results were not affected. Tables 9-1, 9-3, and 9-5 list the affected samples.

9.2.1.5 Surrogate Percent Recovery

Surrogate recovery applies to organic analyses. All surrogate percent recoveries were within QC limits, except for the samples listed in Tables 9-1 and 9-2. These samples were flagged "J" for all detected compounds for associated analyses.

9.2.1.6 Laboratory Control Samples

All laboratory control samples were within QC limits except for those listed in Table 9-1. Associated sample results were flagged "J/UJ".

9.2.1.7 Minimum Detectable Activity

Minimum detectable activities met required detection limits for all radiological analyses.

9.2.1.8 Internal Standards

All internal standard areas and retention times were within QC limits except for samples listed in Table 9-3. Associated sample results were flagged "J/UJ".

9.2.1.9 ICP Serial Dilution

ICP serial dilutions (applicable to metals analysis only) were within QC limits except for the samples listed in Table 9-5. Associated samples and analytes were flagged "J".

9.2.1.10 Target Compound Identification

All target analytes were correctly identified.

9.2.1.11 Compound Quantitation

The data validator evaluated compound quantitation during Level IV reviews, and all sample result verifications were acceptable.

9.2.1.12 System Performance

System performance met all QC requirements. No discrepancies were reported.

9.2.2 Representativeness

Representative data were obtained through selection of sampling locations and analytical parameters to meet the data quality objectives of this project. Proper collection and handling of samples, and the use of established field and laboratory procedures as described in the *Final Sampling and Analysis Plan for PCB Hot Spot Soil Excavation Site* (TtEC, 2005a) were followed.

9.2.3 Completeness

The percent completeness is defined as the percentage of measurements judged to be valid. The completeness goal is to generate a sufficient amount of valid data to meet project objectives. Completeness is calculated and reported for each method, matrix, and analyte combination. The

number of valid results divided by the number of possible individual analyte results, expressed as a percentage, determines the completeness of the data set. For completeness requirements, valid results are all results not qualified with an "R" flag for rejected. The requirement for completeness is 90 percent for soil samples. The percent completeness for soil is 100 percent for this project.

9.2.4 Comparability

Comparability is a qualitative parameter expressing the confidence with which one data set can be compared with another. Sample data should be comparable with other measurements for similar samples and sample conditions. The objective for the QA/QC program is to produce data with the greatest possible degree of comparability. The number of matrices sampled and the range of field conditions encountered are considered in determining comparability. Comparability is achieved by using standard methods for sampling and analysis, reporting data in standard units, normalizing results to standard conditions, and using standard and comprehensive reporting formats.

9.3 OVERALL ASSESSMENT OF DATA

Overall, the post-excavation confirmation soil sample data is valid and usable and has been qualified for analytical parameters that did not meet criteria as described in Section 9.2.

9.4 COMPARISON OF ONSITE AND OFFSITE RADIOLOGICAL DATA

This evaluation focused on both the effectiveness and the quality of the radiological sample analysis. For purposes of this evaluation effectiveness is defined as the adequacy of the sample analysis method to detect ROCs at levels equal to or less than the applicable derived concentration guideline level (DCGL), while quality is defined as a high degree of correlation between samples analyzed both on site and off site.

9.4.1 Effectiveness of Radiological Sampling

A summary of the final sampling results from the excavation limits are listed in Appendix G, which also lists the uncertainty and minimum detectable activity (MDA) for each sample by radioisotope. The ROCs for these analyses were ^{137}Cs and ^{226}Ra. It can be readily seen that in all cases MDAs were below the DCGL for the ROC. MDAs for the on-site lab showed a strong trending value and the MDA for a particular ROC on any given sample was generally consistent across all samples.

9.4.2 Quality of Radiological Sampling

The requirements in the Work Plan SAP (TtEC, 2005a) specified that 10 percent of all radiological samples would be sent off site for analysis and compared to on-site results. In

achieving this goal, a comprehensive evaluation of the quality of all post-excavation radiological samples was performed. In comparing samples where both on-site and off-site analyses were performed it was concluded that the results correlated in all cases. The on-site and off-site QA comparisons are listed in Tables 9-6 through 9-8. Individual off-site laboratory sample reports are presented in Appendix M.

9.4.3 Overall Assessment of Radiological Sampling Data

Analysis of the radiological sampling data has shown that the sample analysis had good quality and effectiveness. It is therefore concluded that the combination of on-site and off-site sampling clearly demonstrates that no residual radioactive contaminants above DCGLs were present at the sampled locations.

10.0 COMMUNITY RELATIONS ACTIVITY

Several community relations activities were conducted to inform the public of the PCB Hot Spot TCRA activities and to encourage involvement in the review of relevant documents and discussions regarding the TCRA.

10.1 PUBLIC INFORMATION

The remediation process was conducted in accordance with the Final Community Involvement Plan (Innovative Technical Solutions, Inc. [ITSI] and Tetra Tech, Inc., 2004) prepared for HPS to facilitate public involvement in the decision-making process. The Work Plan (TtEC, 2005a), this Removal Action Completion Report, and other documentation associated with remediation activities at HPS is contained in the Administrative Record for the site. The Administrative Record Index is maintained by NAVFAC SW and is available to the public at the NAVFAC SW offices at 1220 Pacific Highway, San Diego, California.

The DON, as lead agency with state agency concurrence, has overall responsibility for public participation activities. As such, this document, the Final Work Plan for the PCB Hot Spot TCRA (TtEC, 2005a) and the Final Basewide AM (TtEC, 2006), and other information concerning the PCB Hot Spot is available to the public at the Information Repositories. There are two public information repositories where the public can review any of the documents associated with the Administrative Record. The repositories are:

San Francisco Main Library
100 Larkin Street
Government Information Center, 5th Floor
San Francisco, CA 94102
(415) 557-4500

Anna E. Waden Library
5075 Third Street
San Francisco, CA 94124
(415) 715-4100

10.2 PUBLIC PARTICIPATION

To encourage local participation in the hazardous waste cleanup program at HPS, the DON established a Restoration Advisory Board (RAB). This board is a citizen-based committee representing local community interests. RAB meeting agendas, minutes, and presentation materials are included in the Administrative Record for public review.

The RAB held meetings during the investigation and preparation of the Draft AM for PCB Hot Spot (DON, 2005). A separate public meeting was held on January 25, 2005 when the DON discussed and solicited comments on the Draft AM for PCB Hot Spot (DON, 2005). All meetings were advertised locally in an effort to encourage public attendance and participation. In addition, the DON prepared a master mailing list of the local community members, and

whenever significant cleanup activities or decisions were planned, the community members were notified by mail for information purposes and involvement.

The original version of the Final Basewide AM (DON, 2001a) was issued to the RAB for review. A public notice was posted in the local newspaper, inviting public comments. The purpose of the public notice was to invite the interested community members to review the subject Final Basewide AM (DON, 2001a) and provide their comments or questions. During 2006, the Final Basewide AM was revised as more stringent and additional release criteria were established (TtEC, 2006a). Copies of the revised document were placed for review in the HPS Information Repositories. The most notable change in the revised Final Basewide AM was that the ^{137}Cs DCGL was revised downward approximately 13 percent, in keeping with the EPA preliminary remediation goal for this radioisotope. Once the revised Final Basewide AM was published, the more restrictive release criteria for ^{137}Cs was implemented for the remaining work performed under the TCRA.

To keep the public informed of ongoing activities at HPS, a fact sheet was prepared (Appendix K). The fact sheet detailed the initiation of the TCRA at PCB Hot Spot, as well other activities in Parcels E and E-2. The fact sheet was mailed to 2,631 local community members on the HPS mailing list on June 15, 2005. The fact sheet is included in Appendix K.

11.0 RECOMMENDATIONS

The RAOs pertaining to chemical cleanup goals, as developed in the Final AM for PCB Hot Spot (DON, 2005), were achieved for 78 out of 83 bottom grids total, leaving five grids with residual bottom contamination. The total number of 48 perimeter sidewalls were also created and sampled. Out of the 48 perimeter sidewalls, only seven grids total showed post-excavation results below the cleanup goals upon completion of the excavation, leaving 41 contaminated grid sidewalls. Further over-excavation and thereby lateral expansion of the excavation boundary was restricted due to field conditions and TCRA budgetary constrains. The highest residual contaminant concentrations were located in a western sidewall (along the shoreline near the Parcel E-2/F boundary), where one sampling location exhibited PCBs in the range of 12,000 mg/kg and TPH at 34,120 mg/kg and a second showed PCBs at 1,500 mg/kg and TPH at 33,550 mg/kg.

The RAOs for radiological materials, which were based on the Final Basewide AM (TtEC, 2006a), were achieved for all grids excavated, leaving no known residual radiological constituent above the RRO on the bottom or sidewalls at the limit of the actual excavation. However, radioactive materials may be present beyond the boundaries of the excavation, including on the sidewalls and bottom of the excavation. These areas are yet to be characterized.

Based on the remaining unexcavated PCB and TPH contamination in soil and the high concentrations of residual contaminants and free-phase product in the area where the exploratory potholing was conducted near the Parcel E-2/F boundary, it is recommended that a follow-on removal action or remedial action is conducted to address the contamination not removed under this TCRA. Additional radioactive materials may also be found during future excavations, and will consequently need to be addressed during any work that extends beyond the limit of the final excavation boundary.

12.0 REFERENCES

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TABLES

TABLE 1-1

CHEMICAL CLEANUP GOALS

Contaminant	Soil Cleanup Goal (Open Space)
PCBs	1 mg/kg (soil to 3 feet bgs) 100 mg/kg (soil greater than 3 feet bgs)
TPH (including gasoline through motor oil range)	3,500 mg/kg (open space)

Abbreviations and Acronyms:

bgs – below ground surface
mg/kg – milligrams per kilogram
PCB - polychlorinated biphenyls
TPH - total petroleum hydrocarbons

Source:

(DON, 2005)

TABLE 1-2

RADIOLOGICAL REMEDIAL OBJECTIVES AND RELEASE CRITERIA

Radionuclide	Half-life	Radiations	Surfaces		Soil[a] (pCi/g)		Liquid[f] (pCi/L)
			Equipment, Waste (dpm/100 cm^2)[b]	Residual Dose (mrem/yr)[c]	Outdoor Worker (pCi/g)[d]	Residual Dose (mrem/yr)[c]	
Cesium-137	30 years	Beta/gamma (β-,γ)	5,000	1.72	0.113	0.2142	119
Radium-226	1,600 years	Alpha (α)/gamma (γ)	100	0.612	1.0[e]	6.342	5[g]
Strontium-90	28.6 years	Beta (β-)	1,000	0.685	10.8	0.1931	8

Notes:

[a] EPA PRGs for two future-use scenarios.
[b] These limits are based on AEC *Regulatory Guide 1.86* (1974). Limits for removable surface activity are 20 percent of these values.
[c] The resulting dose is based on modeling using RESRAD-Build Version 3.3 or RESRAD Version 6.3, with radon pathways turned off.
[d] The on-site and off-site laboratory will ensure that the MDA meets the listed release criteria by increasing sample size or counting time as necessary. The MDA is defined as the lowest net response level, in counts, that can be seen with a fixed level of certainty, customarily 95 percent. The MDA is calculated per sample by considering background counts, amount of sample used, and counting time.
[e] Limit is 1 pCi/g above background, per agreement with EPA.
[f] Release criteria for liquids have been derived from *Radionuclides Notice of Data Availability Technical Document*, (EPA, 2000) by comparing the limits from two criteria and using the most conservative limit.
[g] Limit is for total radium concentration.

Abbreviations and Acronyms:

AEC – Atomic Energy Commission
cm^2 – square centimeters
dpm – disintegrations per minute
EPA – U.S. Environmental Protection Agency
MDA – minimum detectable activity
mrem/yr – millirem per year
pCi/g – picocurie per gram
pCi/L – picocurie per liter
PRG – preliminary remediation goal
RESRAD – Residual Radioactivity (model)
Types of radiation: α - alpha, β - beta, γ - gamma

TABLE 3-1

THREATENED, SPECIAL STATUS, AND ENDANGERED SPECIES AT OR NEAR HUNTERS POINT SHIPYARD

Common Name	Scientific Name	Status	Potential Habitat
Fish Species			
Central Valley Spring Run Chinook Salmon	(*Oncorhynchus tshawytscha*)	Endangered	P
Sacramento River Winter Run Chinook Salmon	(*Oncorhynchus tshawytscha*)	Threatened	P
Central California Coast Steelhead	(*Oncorhynchus mykiss*)	Threatened	ESU
Central California Valley Steelhead	(*Oncorhynchus mykiss*)	Threatened	P
Avian Species			
California Clapper Rail	(*Rallus longirostris obsoletus*)	Endangered	P
California Least Tern	(*Sterna antillarum browni*)	Endangered	P
California Brown Pelican	(*Pelecanus occidentalis californicus*)	Endangered	P
Mammalian Species			
Salt-March Harvest Mouse	(*Reithrodontomys ravivetris*)	Endangered	P

Abbreviations and Acronyms:

ESU – evolutionary significant unit. Identified in the Federal Register within Parcels E and E-2 project areas.
P – present, general, potential, marginal or submarginal habitat may be present within Parcels E and E-2 project areas.

TABLE 3-2

WELLS/PIEZOMETERS DESTROYED

Date	Location	TCRA Site	Depth of boring (feet)	Notes
6/24/2005	IR01MW43A	PCB HS	32	
	IR01MW44A	PCB HS	23	
	IR01MWI-3	PCB HS	22	
9/15/2005	PZ-107F	PCB HS	15	
	PZ-107E	PCB HS	10	
	PZ-100E	PCB HS	10	
	PZ-93D	PCB HS	10	
	PZ-100B	PCB HS	10	
	PZ-114D	PCB HS	10	
	PZ-121E	PCB HS	10	
9/16/2005	PZ-121B	PCB HS	10	
	PZ-107D	PCB HS	10	
	PZ-107C	PCB HS	10	
	PZ-121C	PCB HS	10	
	PZ-131D	PCB HS	15	
	PZ-131E	PCB HS	20	
	EW-134	PCB HS	5	
	PZ-150A	PCB HS	15	
	PZ-150B	PCB HS	15	
	MW-60-4	PCB HS	10	
	PZ-138A	PCB HS	15	
	PZ-138B	PCB HS	3	*Pulled out at 3 feet - unable to overdrill due to proximity to sheetpile wall. Backfilled with cement/bentonite mix.*
	PZ-121F	PCB HS	15	
10/27/2005	MW-60-2	PCB HS	27	
	IR01MW47B	PCB HS	30	
	PZ-150C	PCB HS	20	
	PZ-159A	PCB HS	17	
12/6/2006	MW-60-3	PCB HS	13	
	PZ-121A	PCB HS	13	
	PZ-138D	PCB HS	20	
	PZ-138C	PCB HS	7	*Overdrilled to 7 feet, unable to advance due to debris. Backfilled with cement/bentonite mix.*
	PZ-144C	PCB HS	3	*Unable to overdrill - excavated to 3 feet and backfilled with cement.*
3/14/2006	PZ-131-A	PCB HS	19	

Abbreviations and Acronyms:

PCB HS - PCB Hot Spot Soil Excavation Site
TCRA - time-critical removal action

TABLE 4-1

POTHOLES NEAR PARCEL E-2/F BOUNDARY - TEST KIT RESULTS AND OBSERVATIONS

Sample ID	Grid #	Sample depth (ft)	PCB (mg/kg)	TPH (mg/kg)	Observations
Sample 1246	139	0 - 0.5	>1	1,700	Lt brown poorly graded sand w/ roots, slight metal debris w/ fire bricks
Sample 1247	139	7.6	>1	1,000	Black/Dk grey fine sand; possible staining; sheen and metal debris present
Sample 1248	139	9.5	<1	250	Grey fat bay clay
Sample 1244	147	0 - 0.5	>1	2,000	Brown poorly graded beach sand w/ organic roots; no staining; fire brick present
Sample 1245	147	5.2	>1	800	Black poorly graded sand; staining present; sea level reached; sheen present; free product encountered
Sample 1238	149	0 - 0.5	<1	200	Brown poorly graded beach sand; no staining; fire brick present
Sample 1239	149	2.0 - 2.7	<1	500	Reddish brown poorly graded sand; sea level reached; color possibly from iron deposits from metal debris
Sample 1241	149	3.4 - 4.5	<1	70	Black sand; heavy petroleum odor w/ heavy sheen; wood debris and fire brick present; free product encountered
Sample 1242	150	0 - 0.5	>1	1,250	Brown poorly graded beach sand w/ organic material (roots, plants); no staining. Tidal impact - abandon potholing
Sample 1235	152	0 - 0.5	>1	180	Brown poorly graded beach sand; no staining
Sample 1237	152	6.0 - 6.5	<100	30	Grey fat bay clay
Sample 1233	153	0 - 0.5	>1	1,500	Brown organic soil, poorly graded; no staining noticed
Sample 1234	153	8 - 8.2	<100	25	Grey fat bay clay
Sample 1231	154	0 - 0.5	<1	350	Black/Dk grey poorly graded sand, staining present
Sample 1232	154	2.0 - 2.5	<1	30	Grey fat bay clay
Sample 1228	158	0 - 0.5	>1	110	Brown poorly graded sand w/ gravel and many shells; no sheen or staining noticed
Sample 1229	158	3.5 - 4.0	<100	35	Grey fat bay clay

Abbreviations and Acronyms:

ft - feet
mg/kg - milligrams per kilogram
PCB - polychlorinated biphenyl
TPH - total petroleum hydrocarbons

TABLE 4-2

UXO LOG

Line Number	Date Found	UXO ID Number	Item Description	UXO Category *
1	09/29/05	UXO-0161	0.30-30 bullet	5X
2	10/07/05	UXO-0184	5 in protective cap	5X
3	11/19/05	UXO-0281	20 mm casing	3X
4	11/30/05	UXO-0282	40 mm casing	3X
5	11/30/05	UXO-0283	5 in protective cap	5X
6	11/30/05	UXO-0284	40 mm casing	3X
7	11/30/05	UXO-0285	5 in casing	5X
8	12/01/05	UXO-0286	5 in casing	5X
9	12/01/05	UXO-0287	5 in casing	3X
10	12/02/05	UXO-0288	8 in casing	3X
11	12/02/05	UXO-0289	5 in casing	5X
12	12/05/05	UXO-0290	5 in casing	3X
13	12/05/05	UXO-0291	40 mm casing	5X
14	12/06/05	UXO-0292	40 mm casing	3X
15	12/06/05	UXO-0293	40 mm casing	3X
16	12/06/05	UXO-0294	3 in casing	5X
17	12/06/05	UXO-0295	5 in casing	5X
18	12/06/05	UXO-0296	5 in projectile	5X
19	12/07/05	UXO-0297	5 in casing	5X
20	12/07/05	UXO-0298	5 in casing	5X
21	12/08/05	UXO-0299	3 in casing	3X
22	12/08/05	UXO-0300	40 mm casing	3X
23	12/08/05	UXO-0301	40 mm casing	5X
24	12/21/05	UXO-0308	5 in casing	5X
25	12/21/05	UXO-0313	40 mm casing	3X
26	03/21/06	UXO-0364	0.30 cal casing	5X
27	03/21/06	UXO-0365	5 in casing	5X
28	03/22/06	UXO-0367	5 in casing	5X
29	05/04/06	UXO-0482	40 mm casing	3X
30	05/05/06	UXO-0489	40 mm casing	5X
31	05/17/06	UXO-0542	3 in casing	5X
32	05/18/06	UXO-0548	0.30 cal casing	5X
33	05/22/06	UXO-0557	40 mm casing	5X
34	05/22/06	UXO-0564	0.50 cal casing	5X
35	05/23/06	UXO-0569	40 mm casing	5X
36	05/31/06	UXO-0609	40 mm casing	5X
37	06/01/06	UXO-0612	40 mm casing	5X
38	06/09/06	UXO-0624	40 mm casing	3X
39	06/12/06	UXO-0626	3 lb practice Bomb	5X
40	06/16/06	UXO-0636	20 mm casing	5X
41	07/24/06	UXO-0735	5 in casing	5X

TABLE 4-2

UXO LOG

Line Number	Date Found	UXO ID Number	Item Description	UXO Category *
42	08/29/06	UXO-0927	30 mm casing	5X
43	09/05/06	UXO-0978	20 mm casing	5X
44	09/06/06	UXO-0984	5 in protective cap	5X
45	09/12/06	UXO-1021	40 mm casing	5X
46	09/15/06	UXO-1036	0.50 cal casing	3X
47	09/25/06	UXO-1097	shotgun shell	3X

Notes:

* MPPEH identified during activities were segregated using two categories:

1) 3X (possibly contains an explosive hazard)
2) 5X (contains no hazards)

Abbreviations and Acronyms:

cal - caliber
ID - identification
in - inch
lb - pound
mm - millimeter
MPPEH - Material Potentially Presenting an Explosive Hazard
UXO - unexploded ordnance

TABLE 4-3

DERIVED AIRBORNE CONCENTRATION

Radionuclide	Worker	
	DAC (µCi/mL)	10% DAC (µCi/mL)
Radium-226	3.0E-10	3.0E-11
Strontium-90	8.0E-9	8.0E-10
Cesium-137	6.0E-8	6.0E-9

Abbreviations and Acronyms:

The above guideline values were determined using the NRC's 10 CFR, Part 20, Appendix B.

µCi/mL – microcurie per milliliter (concentration)
CFR – Code of Federal Regulations
DAC – derived air concentration
NRC – Nuclear Regulatory Commission

TABLE 4-4

INSTRUMENTATION FOR RADIOLOGICAL SURVEYS

Measurement/ Technique	Type of Instrumentation		Typical Background	Typical Efficiency (%)	Detection Sensitivity
	Detector	Meter			
Surface alpha/beta scans	Large-area gas proportional 43-68 (126 cm^2)	Data logger, 2350-1, 2360	150-250 cpm β 0-2 cpm α	~6 β total Efficiency ~6 α total efficiency	~ 900 dpm/100 cm^2 β ~ 100 dpm/100 cm^2 α
Direct measurement static alpha/beta	Scintillation, Ludlum Model 43-89 (100 cm^2)		100-200 cpm β 0-2 cpm α		
Stationary conveyor / surface scans	NaI scintillation Ludlum Model 44-10	Ludlum Model 4612	100 to 12,000 cpm; varies with calibration γ	N/A	~1,000 cpm γ
	Geiger-Mueller Ludlum Model 44-40		40 – 50 cpm β	~22.3 β efficiency	500 cpm β
Surface gamma scans	NaI 2-inch x 2-inch scintillation Ludlum Model 44-10	Data logger 2350-1, 4612	100 to 12,000 cpm; varies with calibration γ	N/A	150-1500 cpm γ
Direct measurement static gamma					
Surface beta/gamma scans	Geiger-Mueller 44-9	Ratemeter 3	50 to 100 cpm β γ	~ 10 β γ total efficiency	~1,000 dpm per probe area β γ
Direct measurement beta/gamma					
Exposure rates	MicroR Meter with integral 1-inch x 1-inch NaI Scintillation	Ratemeter 19	7-8 μR/hr	N/A	2 μR/hr

Abbreviations and Acronyms:

α – alpha
β – beta
γ – gamma
μR/hr – microroentgens per hour
cm^2 – square centimeters
cpm – counts per minute
dpm – disintegrations per minute
N/A – not applicable
NaI – sodium iodide

TABLE 4-5

ON-SITE LABORATORY INSTRUMENTATION

Laboratory Instruments				
Measurement/ Technique	**Type of Instrumentation***	**Typical Background**	**Typical Efficiency (%)**	**Detection Sensitivity**
Gamma spectroscopy	EG&G Ortec Beryllium Window	N/A	N/A	0.05 pCi/g (for ^{137}Cs)
Gross alpha and beta/gamma on swipes	Protean IPC9025 low-background gas-flow proportional counter	1-5 cpm β 0-0.5 cpm α	~62 β ~27 α	4-10 dpm/100 cm^2 β 2-5 dpm/100 cm^2 α

Abbreviations and Acronyms:

* or equivalent

Types of radiation: α - alpha, γ - gamma, β - beta

cm^2 – square centimeters

cpm – counts per minute

^{137}Cs– cesium-137

dpm – disintegrations per minute

N/A – not applicable

pCi/g – picocuries per gram

TABLE 4-6

SURVEY UNIT AVERAGE NET CONCENTRATION

Survey Unit	Residual Activity (pCi/g)		Area (m^2)	Percent of Area	Weighted Sum (pCi/g)	
	^{137}Cs	^{226}Ra			^{137}Cs	^{226}Ra
1	-0.0120	0.636	1745	11.78%	-0.0014	0.075
2	-0.0090	0.723	1745	11.78%	-0.0011	0.085
3	-0.0090	0.448	1745	11.78%	-0.0011	0.053
4	0.0020	0.510	1338	9.03%	0.0002	0.046
5	-0.0030	0.584	1158	7.81%	-0.0002	0.046
6	-0.0160	0.650	1776	11.98%	-0.0019	0.078
7	-0.0050	-0.022	1854	12.51%	-0.0006	-0.003
8	-0.0180	0.027	1118	7.54%	-0.0014	0.002
9	-0.0220	0.335	531	3.58%	-0.0008	0.012
10	0.0180	0.589	1318	8.89%	0.0016	0.052
11	-0.0190	-0.312	491	3.31%	-0.0006	-0.010
Survey Unit Average Activity	-0.008	0.379	Weighted Sum Activity		-0.007	0.436
Reference Area Average Activity	0.024	0.883	Survey Unit Net Activity		-0.031	-0.447

Abbreviations and Acronyms:

^{137}Cs - cesium-137

^{226}Ra - radium-226

m^2 - square meters

TABLE 6-1

SUMMARY OF WASTE MATERIALS FROM PCB HOT SPOT SOIL EXCAVATION SITE

Material	Quantity
Total Contaminated Soil and Debris	65,200 tons
Excavated Large Debris	2,200 cy [2]
Over-pack Drums	129 drums
Lab-pack Drums	21 drums
LLMW	2 drums
LLRW	533 cy
LLRW – Radiological Point Sources	40 devices 19 debris
Spent Carbon [1]	91 55-gallon drums
Wastewater/decontamination water	12,444 gallons
Compressed Gas Cylinders	25 cylinders
Metal Debris	472 cy [2]
Metal Debris handled as LLRW	78 cy

Abbreviations and Acronyms:

cy – cubic yard
LLMW – low-level mixed waste
LLRW – low-level radiological waste
[1] Generated by surface and groundwater treatment system operated by another Navy contractor
[2] Estimated values

TABLE 8-1

RESIDUAL CONTAMINATION AT PCB HOT SPOT

Location:	Depth (feet)	Total TPH mg/kg EPA 8015B	Total PCBs mg/kg EPA 8082	Easting	Northing
Grid 109 Sidewall	2.5	12,200	640	1457822.110	450580.4600
Grid 109 Sidewall	6.5	25,080	42.0	1457830.782	450574.7660
Grid 110 Sidewall	1.8	2,950	450	1457818.740	450616.2155
Grid 110 Sidewall	6	33,550	400	1457821.659	450638.1200
Grid 111 Sidewall	2.8	1,260	120	1457830.870	450517.0000
Grid 111 Sidewall	6	20,271	750	1457830.870	450517.0000
Grid 117 Sidewall	2	33,037	10.0	1458066.023	450279.9611
Grid 123 Sidewall	2	14,337	4.0	1458022.971	450254.5349
Grid 127-1 Sidewall	0	195	2.5	1457846.370	450418.2421
Grid 129 Sidewall	8	26,520	0.33	1457876.936	450326.0866
Grid 131 Sidewall	3	350	4.7	1457942.297	450258.6441
Grid 131 Sidewall	7	5,853	10.0	1457942.297	450258.6441
Grid 132 Bottom	6	14,008	1.1	1457992.163	450253.6113
Grid 132 Sidewall	1	354	1.1	1457981.134	450227.1540
Grid 132 Sidewall	3	4,010	2.14	1457981.134	450227.1540
Grid 138 Sidewall	2	1,060	6.3	1457930.059	450262.0943
Grid 139 Sidewall	2	590	5.6	1457897.285	450280.4146
Grid 153 Sidewall	7	18,102	8.0	1457847.622	450405.1884
Grid 153 Sidewall	1.5	227	3.9	1457847.622	450405.1884
Grid 156 Sidewall	2.5	1,170	52.0	1457839.891	450467.8204
Grid 156 Sidewall	7	12,001	4.6	1457839.891	450467.8204
Grid 159 Bottom	7	2,601	950	1457844.508	450544.0182
Grid 159 Sidewall	0	6,001	120	1457823.302	450566.4240
Grid 159 Sidewall	6	34,120	12000	1457823.302	450566.4240
Grid 165 Bottom	6	13,149	19	1457805.214	450726.0590
Grid 165 Sidewall	5	22,080	99	1457803.832	450715.0323
Grid 165 Sidewall	0	1,010	48	1457803.832	450715.0323
Grid 167 Sidewall	2.9	930	1.29	1457735.067	450784.5462
Grid 169 Sidewall	3	941	1.9	1457696.889	450816.8327
Grid 170 Sidewall	0	920	4.1	1457658.140	450848.4321
Grid 171 Sidewall	3	870	4.4	1457620.544	450881.3942
Grid 171 Sidewall	4.3	4,050	380	1457620.544	450881.3942
Grid 172 Sidewall	3.6	4,380	5.6	1457587.299	450913.8744
Grid 174 Sidewall	0	1,560	1.05	1457649.597	450940.9241
Grid 177 Bottom	10.5	4,200	16.8	1457628.761	450966.5734
Grid 37 Sidewall	1.1	3,600	0.17	1458013.224	450734.2798
Grid 37 Sidewall	4.6	3,900	200	1458029.970	450727.8300
Grid 54 Sidewall	3	740	11.0	1458068.202	450621.3340
Grid 55 Sidewall	2.8	1,550	11.0	1458056.750	450644.2714
Grid 56 Sidewall	1.3	410	11.0	1458034.094	450688.8439
Grid 57-1 Sidewall	8	16,844	ND	10ft W & 7 ft E of SW corner of Grid 57-1	

TABLE 8-1

RESIDUAL CONTAMINATION AT PCB HOT SPOT

Location:	Depth (feet)	Total TPH mg/kg EPA 8015B	Total PCBs mg/kg EPA 8082	Easting	Northing
Grid 58 Sidewall	2.1	8,300	29.0	1457967.421	450754.3336
Grid 58 Sidewall	6	21,502	0.56	1457967.421	450754.3336
Grid 58-1 Sidewall	2.2	3,300	1.62	1457987.850	450777.1100
Grid 59 Sidewall	0.5	1,090	6.15	1457867.652	450751.4680
Grid 59-1 Sidewall	0	870	4.9	1457834.510	450774.6310
Grid 60 Sidewall	2.8	1,210	26.0	1457917.625	450749.8260
Grid 60 Sidewall	4.6	17,001	12.0	1457917.625	450749.8260
Grid 64 Sidewall	2.9	262	1.8	1458081.156	450600.6326
Grid 65 Sidewall	3	620	1.8	1458107.273	450557.9959
Grid 66 Sidewall	2	840	2.5	1458132.215	450514.6610
Grid 71 Sidewall	3	1,741	2.31	1458151.937	450402.7830
Grid 81 Sidewall	1	660	2.9	1457808.153	450786.1040
Grid 81 Sidewall	0	610	5.3	1457795.437	450769.1385
Grid 83 Sidewall	3	1,180	3.3	1457741.391	450822.8338
Grid 83 Sidewall	8	5,349	9.9	1457741.391	450822.8338
Grid 84 Bottom	10.5	4,411	6.9	1457705.841	450842.4192
Grid 84 Sidewall	2.8	440	6.5	1457706.734	450858.8737
Grid 84 Sidewall	5.6	7,913	14.9	1457706.734	450858.8737
Grid 85 Sidewall	3	1,700	94.0	1457677.442	450899.3948
Grid 86 Sidewall	1	1,050	59.0	1457677.442	450899.3948
Grid 86 Sidewall	7	13,931	1500	1457813.066	450665.8925

Notes:

Bottom Grid

E – east

EPA – U.S. Environmental Protection Agency

ft – feet

mg/kg – milligrams per kilogram

PCB – polychlorinated biphenyl

SW – southwest

TPH – total petroleum hydrocarbon

W – west

TABLE 9-1

SUMMARY TABLE OF VALIDATION FINDINGS FOR SAMPLES ANALYZED FOR TPH

Sample Number	Method Blank[a]	Surrogate[b]	LCS[c]	MS/MSD[d]
84-444	X			
84-445	X			
84-473		X		X
84-553		X		
84-558		X		
84-564	X			
84-565		X		
84-568	X			
84-569		X		
84-570		X		
84-582	X			X
84-583	X			
84-584	X			
84-585	X			
84-586	X			
84-587	X	X		
84-605		X		
84-609		X		
84-610		X		
84-611				X
84-612		X		
84-613		X		
84-615		X		
84-623				X
84-626		X		
84-629		X		
84-671	X			
84-672	X			
84-673	X			
84-674	X			
84-957		X		
84-959		X		
84-1013		X		X
84-1015		X		
84-1016	X			
84-1110		X		
84-1111				X
84-1107	X			X
84-1187	X			
84-1190	X			
84-1203	X			

TABLE 9-1

SUMMARY TABLE OF VALIDATION FINDINGS FOR SAMPLES ANALYZED FOR TPH

Sample Number	Method Blank[a]	Surrogate[b]	LCS[c]	MS/MSD[d]
84-1204	X			
84-1205	X			
84-1207	X			
84-1219	X			
84-1224	X			
84-1225	X			
84-1227	X			
84-1250		X		
84-1254				X
84-1266		X		
84-1267				X
84-1271	X			
84-1272	X			
84-1273	X			
84-1277	X			
84-1278	X			
84-1279	X			
84-1282		X		
84-1305	X			
84-1310	X			
84-1312		X		
84-1313	X			
84-1314	X			
84-1319		X		
84-1321		X		
84-1326		X		
84-1334		X		
84-1339		X		
84-1341		X		
84-1345	X			
84-1346	X	X		
84-1347	X			
84-1348	X	X		
84-1349	X			
84-1350	X			
84-1351	X			
84-1352	X			
84-1353	X			
84-1354	X			
84-1356	X			
84-1357	X			

TABLE 9-1

SUMMARY TABLE OF VALIDATION FINDINGS FOR SAMPLES ANALYZED FOR TPH

Sample Number	Method Blank[a]	Surrogate[b]	LCS[c]	MS/MSD[d]
84-1358	X			
84-1359	X			
84-1360	X			
84-1369	X			
84-1370	X			
84-1371	X			
84-1372	X			
84-1373	X			
84-1374	X			
84-1375	X			
84-1376	X			
84-1377	X			
84-1384		X		
84-1386	X			
84-1387	X			
84-1390	X			
84-1391	X			
84-1392	X			
84-1393	X			
84-1414		X		
84-1450	X			
84-1451	X			
84-1452	X			
84-1453	X			
84-1454	X			
84-1456	X			
84-1464	X			
84-1466	X			
84-1470		X		

Notes:

[a] Sample concentrations either not detected or less than 5 times blank contaminant concentrations were flagged "U".

[b] Samples with surrogate percent recoveries outside of QC limits were flagged "J".

[c] Laboratory control samples outside of QC limits were flagged "J/UJ".

[d] %R and RPDs outside of the QC limits were flagged "J/UJ".

Abbreviations and Acronyms:

MS - matrix spike
MSD - matrix spike duplicate
%D - percent differences
RSD - relative standard deviations

TABLE 9-2

SUMMARY TABLE OF VALIDATION FINDINGS FOR SAMPLES ANALYZED FOR PCBs

Sample Number	Continuing Calibration[a]	Surrogate[b]	MS/MSD[c]
84-444	X		
84-445	X		
84-568		X	
84-620		X	
84-622		X	
84-958	X		
84-960	X		
84-1017		X	
84-1252	X		
84-1254	X		
84-1255	X		
84-1272			X
84-1273	X		
84-1274	X		
84-1275	X		
84-1276	X		
84-1277	X		
84-1278	X		
84-1279	X		
84-1280	X		
84-1281	X		
84-1282	X		
84-1303	X		
84-1311	X		
84-1312	X		
84-1313	X		
84-1314	X		
84-1317	X		
84-1358			X
84-1360	X		
84-1368	X		
84-1369	X		
84-1370	X		
84-1371	X		
84-1372	X		
84-1373	X		
84-1374	X		
84-1375	X		
84-1376	X		
84-1377	X		
84-1386	X		
84-1388	X		
84-1390	X		
84-1391	X		

TABLE 9-2

SUMMARY TABLE OF VALIDATION FINDINGS FOR SAMPLES ANALYZED FOR PCBs

Notes:

[a] %D of continuing calibration did not meet the QC requirement for all samples. Therefore, checked samples were flagged "J/UJ".

[b] Samples with surrogate percent recoveries outside of QC limits were flagged "J".

[c] %R and RPDs outside of the QC limits were flagged "J/UJ".

Abbreviations and Acronyms:

MS - matrix spike

MSD - matrix spike duplicate

%D - percent differences

RSD - relative standard deviations

TABLE 9-3

SUMMARY TABLE OF VALIDATION FINDINGS FOR SAMPLES ANALYZED FOR PAHs

Sample Number	Holding Time[a]	Continuing Calibration[b]	Method Blank[c]	Internal Standard[d]
84-568		X		
84-582		X		
84-583		X		
84-584		X		
84-585		X		
84-586		X		
84-587		X		
84-605		X		
84-606		X		
84-608		X		
84-610		X		
84-611		X		
84-613	X			X
84-615	X			X
84-620	X			X
84-621	X			X
84-623	X			
84-625	X			
84-630	X	X		
84-631	X	X		
84-940		X		
84-1108		X		
84-1256		X		
84-1258		X		
84-1259		X	X	X
84-1339				X
84-1361				X
84-1362				X
84-1363				X
84-1364				X
84-1369				X
84-1370				X
84-1372				X
84-1374				X
84-1382				X
84-1386				X
84-1387				X
84-1388				X
84-1389				X
84-1459				X
84-1461				X

TABLE 9-3

SUMMARY TABLE OF VALIDATION FINDINGS FOR SAMPLES ANALYZED FOR PAHs

Sample Number	Holding Time[a]	Continuing Calibration[b]	Method Blank[c]	Internal Standard[d]
84-1462				X
84-1463				X
84-1464				X
84-1465				X
84-1468				X

Notes:

[a] Sample results not meeting the holding time requirements were flagged "J/UJ".

[b] %D of continuing calibration did not meet the QC requirement for all samples. Therefore, checked samples were flagged "J/UJ".

[c] Sample concentrations either not detected or less than 5 times blank contaminant concentrations were flagged "U".

[d] Samples with internal standard areas and retention times outside of the QC limits were flagged "J/UJ".

Abbreviations and Acronyms:

%D - percent differences
RSD - relative standard deviations

TABLE 9-4

SUMMARY TABLE OF VALIDATION FINDINGS FOR SAMPLES ANALYZED FOR PESTICIDES

Sample Number	Holding Time[a]	Initial Calibration[b]	Continuing Calibration[c]	MS/MSD[d]
84-568		X	X	X
84-582			X	
84-583			X	
84-584			X	
84-585			X	
84-586			X	
84-587			X	
84-605			X	
84-606			X	
84-608			X	
84-609			X	
84-610			X	
84-611			X	
84-613	X		X	
84-615	X		X	
84-620	X		X	
84-621	X		X	
84-623	X		X	
84-625	X		X	
84-630	X		X	
84-631	X		X	
84-671			X	
84-940		X	X	
84-958			X	
84-960			X	
84-1013			X	
84-1015			X	
84-1016			X	
84-1017			X	
84-1108			X	
84-1256			X	
84-1258			X	
84-1259			X	
84-1306			X	
84-1307			X	
84-1310			X	
84-1311			X	
84-1312			X	
84-1313			X	
84-1314			X	
84-1316			X	
84-1318			X	
84-1319			X	

TABLE 9-4

SUMMARY TABLE OF VALIDATION FINDINGS FOR SAMPLES ANALYZED FOR PESTICIDES

Sample Number	Holding Time[a]	Initial Calibration[b]	Continuing Calibration[c]	MS/MSD[d]
84-1321			X	
84-1322			X	
84-1323			X	
84-1324			X	
84-1326			X	
84-1327			X	
84-1328			X	
84-1329			X	
84-1330			X	
84-1331			X	
84-1332			X	
84-1334			X	
84-1338			X	
84-1339			X	
84-1340			X	
84-1341			X	
84-1361			X	
84-1362			X	
84-1363			X	
84-1364			X	
84-1365			X	
84-1366			X	
84-1367			X	
84-1368			X	
84-1369			X	
84-1370			X	
84-1371			X	
84-1372			X	
84-1373			X	
84-1374			X	
84-1375			X	
84-1382			X	
84-1383			X	
84-1384			X	
84-1385			X	
84-1386			X	
84-1387			X	
84-1388			X	
84-1389			X	
84-1406			X	
84-1407			X	
84-1408			X	
84-1409			X	

TABLE 9-4

SUMMARY TABLE OF VALIDATION FINDINGS FOR SAMPLES ANALYZED FOR PESTICIDES

Sample Number	Holding Time[a]	Initial Calibration[b]	Continuing Calibration[c]	MS/MSD[d]
84-1410			X	
84-1411			X	
84-1412			X	
84-1413			X	
84-1414		X	X	
84-1415		X	X	
84-1416		X	X	
84-1417		X	X	
84-1452			X	
84-1453			X	
84-1454			X	
84-1455			X	
84-1456			X	
84-1457			X	
84-1458			X	
84-1459			X	
84-1460			X	
84-1461			X	
84-1462			X	
84-1463			X	
84-1464			X	
84-1465			X	
84-1466			X	
84-1467			X	
84-1468			X	
84-1471			X	
84-1472			X	

Notes:

[a] Sample results not meeting the holding time requirements were flagged "J/UJ".

[b] RSDs of initial calibration did not meet the QC requirement for all samples. Therefore, checked samples were flagged "J/UJ'

[c] %D of continuing calibration did not meet the QC requirement for all samples. Therefore, checked samples were flagged "J/U

[d] %R and RPDs outside of the QC limits were flagged "J/UJ".

Abbreviations and Acronyms:

MS - matrix spike
MSD - matrix spike duplicate
%D - percent differences
RSD - relative standard deviations

TABLE 9-5

SUMMARY TABLE OF VALIDATION FINDINGS FOR SAMPLES ANALYZED FOR METALS

Sample Number	Holding Time[a]	Method Blank[b]	ICP Serial Dilution[c]	MS/MSD[d]
84-568		X		X
84-583		X		
84-584		X		
84-605	X	X		
84-606	X	X		
84-608	X	X		
84-609	X			
84-610	X			
84-611		X		X
84-613		X		X
84-615		X		X
84-620				X
84-621				X
84-623				X
84-625		X		X
84-630				X
84-631				X
84-671		X		X
84-940				X
84-1013		X		
84-1108				X
84-1256	X	X	X	X
84-1257				
84-1258	X	X	X	X
84-1259	X	X	X	X
84-1306			X	X
84-1307		X	X	X
84-1310		X		
84-1311		X		
84-1312		X		
84-1314		X		
84-1316			X	X
84-1318			X	X
84-1319			X	X
84-1324		X	X	X
84-1326		X	X	X
84-1327		X	X	X
84-1328		X	X	X
84-1329		X	X	X
84-1331		X		
84-1334		X		

TABLE 9-5

SUMMARY TABLE OF VALIDATION FINDINGS FOR SAMPLES ANALYZED FOR METALS

Sample Number	Holding Time[a]	Method Blank[b]	ICP Serial Dilution[c]	MS/MSD[d]
84-1338			X	X
84-1339			X	X
84-1340			X	X
84-1341			X	X
84-1361				X
84-1362		X		X
84-1363				X
84-1364				X
84-1365		X		X
84-1366				X
84-1367		X		X
84-1368		X		X
84-1369		X		X
84-1370		X		X
84-1371		X		X
84-1372		X		X
84-1373		X		X
84-1374		X		X
84-1375		X		X
84-1382		X		X
84-1383				X
84-1384		X		X
84-1385		X		X
84-1386		X	X	X
84-1387			X	X
84-1388		X	X	X
84-1389		X	X	X
84-1406		X		X
84-1407		X		X
84-1408		X		X
84-1409		X		X
84-1410		X		X
84-1411		X		X
84-1412		X		X
84-1413		X		X
84-1414				X
84-1415				X
84-1416				X
84-1417		X		X
84-1452		X		
84-1453		X		

TABLE 9-5

SUMMARY TABLE OF VALIDATION FINDINGS FOR SAMPLES ANALYZED FOR METALS

Sample Number	Holding Time[a]	Method Blank[b]	ICP Serial Dilution[c]	MS/MSD[d]
84-1454		X		
84-1455		X		
84-1456		X		
84-1460		X		
84-1462		X		
84-1466		X		

Notes:

[a] Sample results not meeting the holding time requirements were flagged "J/UJ".

[b] Sample concentrations either not detected or less than 5 times blank contaminant concentrations were flagged "

[a] Samples with ICP serial dilutions outside of the QC limits were flagged "J".

[d] %R and RPDs outside of the QC limits were flagged "J/UJ".

Abbreviations and Acronyms:

MS - matrix spike

MSD - matrix spike duplicate

TABLE 9-6

QA ANALYSIS COMPARISON – RANDOM BOTTOM GRID SAMPLES

Sample ID	Location	On-site Laboratory						Off-site Laboratory (QA)						
		^{137}Cs			^{226}Ra			Count Time	^{137}Cs			^{226}Ra		
		Activity	MDA	3σ Error	Activity	MDA	3σ Error	(min)	Activity	MDA	2σ Error	Activity	MDA	2σ Error
84-N-PCB-G57-1-PE-001	Grid 57-1	0.015	0.045	0.072	-1.236	0.804	-38.508	203	U	0.046	N/A	0.100	0.077	0.074
84-N-PCB-G77-PE-001	Grid 77	-0.006	0.039	-0.061	0.221	0.772	1.323	234	U	0.071	N/A	0.233	0.120	0.120
84-N-PCB-G79-PE-001	Grid 79	-0.010	0.048	-0.110	-0.883	1.060	-7.246	236	U	0.051	N/A	0.263	0.091	0.100
84-N-PCB-G85-PE-001	Grid 85	0.083	0.059	0.128	0.904	0.965	1.747	183	U	0.300	N/A	U	1.160	N/A
84-N-PCB-G88-PE-002	Grid 88	-0.054	0.041	-2.418	0.205	0.759	1.330	183	U	0.067	N/A	U	1.260	N/A
84-N-PCB-G91-PE-001	Grid 91	-0.051	0.050	-0.212	0.716	0.871	1.567	203	U	0.072	N/A	U	0.965	N/A
84-N-PCB-G95-PE-001	Grid 95	0.013	0.032	0.045	0.607	0.790	1.448	185	U	0.059	N/A	U	0.869	N/A
84-N-PCB-G102-PE-001	Grid 102	-0.049	0.045	-0.572	0.943	0.691	1.308	185	U	0.051	N/A	U	0.725	N/A
84-N-PCB-G105-PE-001	Grid 105	-0.022	0.039	-0.162	0.825	0.672	1.240	216	U	0.076	N/A	0.212	0.142	0.140
84-N-PCB-G125-PE-001	Grid 125	-0.052	0.047	-0.520	0.898	0.789	1.459	866	U	0.021	N/A	0.272	0.046	0.059
84-N-PCB-G127-PE-002	Grid 127	-0.019	0.030	-0.100	0.532	0.584	1.056	247	U	0.062	N/A	0.183	0.125	0.110
84-N-PCB-G129-PE-002	Grid 129	0.010	0.041	0.062	-0.234	0.743	-1.936	203	U	0.054	N/A	U	1.260	N/A
84-N-PCB-G131-PE-001	Grid 131	0.005	0.065	0.139	1.071	1.020	2.212	183	U	0.083	N/A	U	1.070	N/A
84-N-PCB-G167-PE-001	Grid 167	-0.064	0.053	-0.310	0.281	0.917	1.592	183	U	0.048	N/A	U	0.828	N/A
84-N-PCB-G169-PE-002	Grid 169	0.032	0.051	0.100	0.392	0.973	1.725	181	U	0.076	N/A	U	0.885	N/A
84-N-PCB-G172-PE-002	Grid 172	0.075	0.042	0.087	0.660	0.955	1.731	181	U	0.070	N/A	U	0.779	N/A

Notes:

^{137}Cs – cesium-137

^{226}Ra – radium-226

MDA – minimum detectable activity

N/A – 2 sigma error not reported since the activity was less than MDA

pCi/g – picocurie per gram

U – activity not reported since it was less than MDA

TABLE 9-7

QA ANALYSIS COMPARISON – RANDOM SIDEWALL GRID SAMPLES

Sample ID	Location	On-site Laboratory						Off-site Laboratory (QA)						
		^{137}Cs			^{226}Ra			Count Time	^{137}Cs			^{226}Ra		
		Activity	MDA	3σ Error	Activity	MDA	3σ Error	(min)	Activity	MDA	2σ Error	Activity	MDA	2σ Error
84-N-PCB-G58-1-SW-PE-001	Grid 58-1	0.000	0.044	0.043	-0.089	0.852	-1.039	219	U	0.031	N/A	0.117	0.052	0.051
84-N-PCB-G64-SW-PE-001	Grid 64	0.006	0.034	0.056	-1.186	0.855	-6.648	228	U	0.044	N/A	0.176	0.078	0.080
84-N-PCB-G71A-SW-PE-002	Grid 71	0.019	0.023	0.048	0.331	0.751	1.308	866	U	0.021	N/A	0.280	0.045	0.081
84-N-PCB-G81A-SW-PE-001	Grid 81	-0.014	0.047	-0.119	0.266	0.960	1.665	**252**	U	0.043	N/A	0.126	0.076	0.069
84-N-PCB-G86-SW-PE-001	Grid 86	-0.055	0.050	-0.561	0.986	0.906	1.656	204	U	0.061	N/A	0.233	0.099	0.098
84-N-PCB-G109-SW-PE-002	Grid 109	-0.004	0.040	184.330	-0.173	0.980	-2.017	924	U	0.013	N/A	0.321	0.024	0.055
84-N-PCB-G111-SW-PE-001	Grid 111	-0.044	0.037	-17.697	0.373	0.870	1.537	1010	U	0.011	N/A	0.152	0.021	0.036
84-N-PCB-G128-SW-PE-002	Grid 128	-0.044	0.039	-0.616	0.805	0.669	1.231	183	U	0.055	N/A	U	0.817	N/A
84-N-PCB-G172-SW-PE-001	Grid 172	-0.088	0.063	-1.884	0.033	0.761	1.311	220	U	0.133	N/A	U	1.520	N/A

Notes:

^{137}Cs – cesium-137

^{226}Ra – radium-226

MDA – minimum detectable activity

min – minutes

N/A – 2 sigma error not reported since the activity was less than MDA

pCi/g – picocurie per gram

U – activity not reported since it was less than MDA

TABLE 9-8

QA ANALYSIS COMPARISON – SYSTEMATIC GRID SAMPLES

Sample ID	On-site Laboratory						Off-site Laboratory (QA)						
	^{137}Cs			^{226}Ra			Count Time	^{137}Cs			^{226}Ra		
	Activity	MDA	3σ Error	Activity	MDA	3σ Error	(min)	Activity	MDA	2σ Error	Activity	MDA	2σ Error
84-N-PCB-SU01-A0-PE-002	-0.015	0.044	-0.077	-0.133	0.936	-1.941	246	U	0.044	N/A	U	1.080	N/A
84-N-PCB-SU01-C0-PE-001	-0.047	0.045	-1.620	0.809	0.754	1.371	224	U	0.063	N/A	U	1.220	N/A
84-N-PCB-SU01-D2-PE-001	-0.004	0.058	-0.112	0.620	0.895	1.599	804	U	0.027	N/A	U	0.321	N/A
84-N-PCB-SU01-DE-PE-001 (E0)	-0.084	0.065	-0.583	0.609	0.966	1.692	187	U	0.073	N/A	U	0.842	N/A
84-N-PCB-SU02-B1-PE-001	-0.018	0.036	-0.086	0.359	0.779	1.376	708	U	0.020	N/A	0.276	0.047	0.065
84-N-PCB-SU03-C1-PE-001	-0.044	0.053	-0.162	0.324	0.994	1.727	770	U	0.023	N/A	0.147	0.046	0.049
84-N-PCB-SU03-D1-PE-001	-0.041	0.048	-0.144	0.504	1.040	1.852	635	U	0.021	N/A	0.236	0.049	0.065
84-N-PCB-SU04-B0-PE-002	0.029	0.039	0.064	0.882	..842	1.554	838	U	0.024	N/A	0.280	0.053	0.065
84-N-PCB-SU04-B2-PE-001	-0.014	0.035	-0.078	0.466	0.728	1.312	768	U	0.030	N/A	0.181	0.051	0.089
84-N-PCB-SU05-A2-PE-001	0.000	0.035	-0.049	0.401	0.712	1.255	708	U	0.029	N/A	0.247	0.051	0.090
84-N-PCB-SU05-7-PE-001 (A7)	0.001	0.047	0.068	0.237	0.881	1.518	213	U	0.067	N/A	0.228	0.118	0.120
84-N-PCB-SU05-BD-PE-001 (B0)	0.007	0.047	0.072	0.676	0.966	1.715	232	U	0.026	N/A	0.133	0.054	0.065
84-N-PCB-SU06-B3-PE-001	-0.047	0.033	-0.648	0.955	0.651	1.169	263	U	0.039	N/A	0.226	0.062	0.067
84-N-PCB-SU07-A1-PE-002	-0.001	0.055	-0.936	-0.099	0.976	-1.939	232	U	0.054	N/A	0.184	0.087	0.084
84-N-PCB-SU08-A2-PE-001	0.005	0.025	0.045	0.194	0.815	1.328	926	U	0.012	N/A	0.145	0.025	0.046
84-N-PCB-SU08-C2-PE-001	-0.016	0.040	-0.101	0.483	0.787	1.391	263	U	0.048	N/A	0.173	0.043	0.051
84-N-PCB-SU08-C3-PE-001	0.026	0.042	0.070	0.451	0.882	1.529	263	U	0.024	N/A	0.266	0.045	0.061
84-N-PCB-SU09-A0-PE-001	-0.034	0.062	-0.220	0.943	0.781	1.434	224	U	0.051	N/A	U	1.300	N/A
84-N-PCB-SU09-E2-PE-001	-0.036	0.043	-0.511	-0.552	0.888	-4.769	253	U	0.023	N/A	0.257	0.041	0.056
84-N-PCB-SU10-B0-PE-001	-0.027	0.044	-0.155	0.803	0.744	1.358	182	U	0.082	N/A	U	0.892	N/A
84-N-PCB-SU10-F1-PE-001	0.079	0.059	0.127	-0.329	1.020	-3.546	181	U	0.083	N/A	U	1.510	N/A
84-N-PCB-SU10-G0-PE-001	0.021	0.061	0.113	0.456	1.010	1.767	224	U	0.053	N/A	U	0.635	N/A
84-N-PCB-SU11-H1-PE-001	-0.002	0.034	-0.059	-1.023	0.819	-6.813	211	U	0.025	N/A	0.114	0.053	0.061

Notes:

^{137}Cs – cesium-137

^{226}Ra – radium-226

MDA – minimum detectable activity

min – minutes

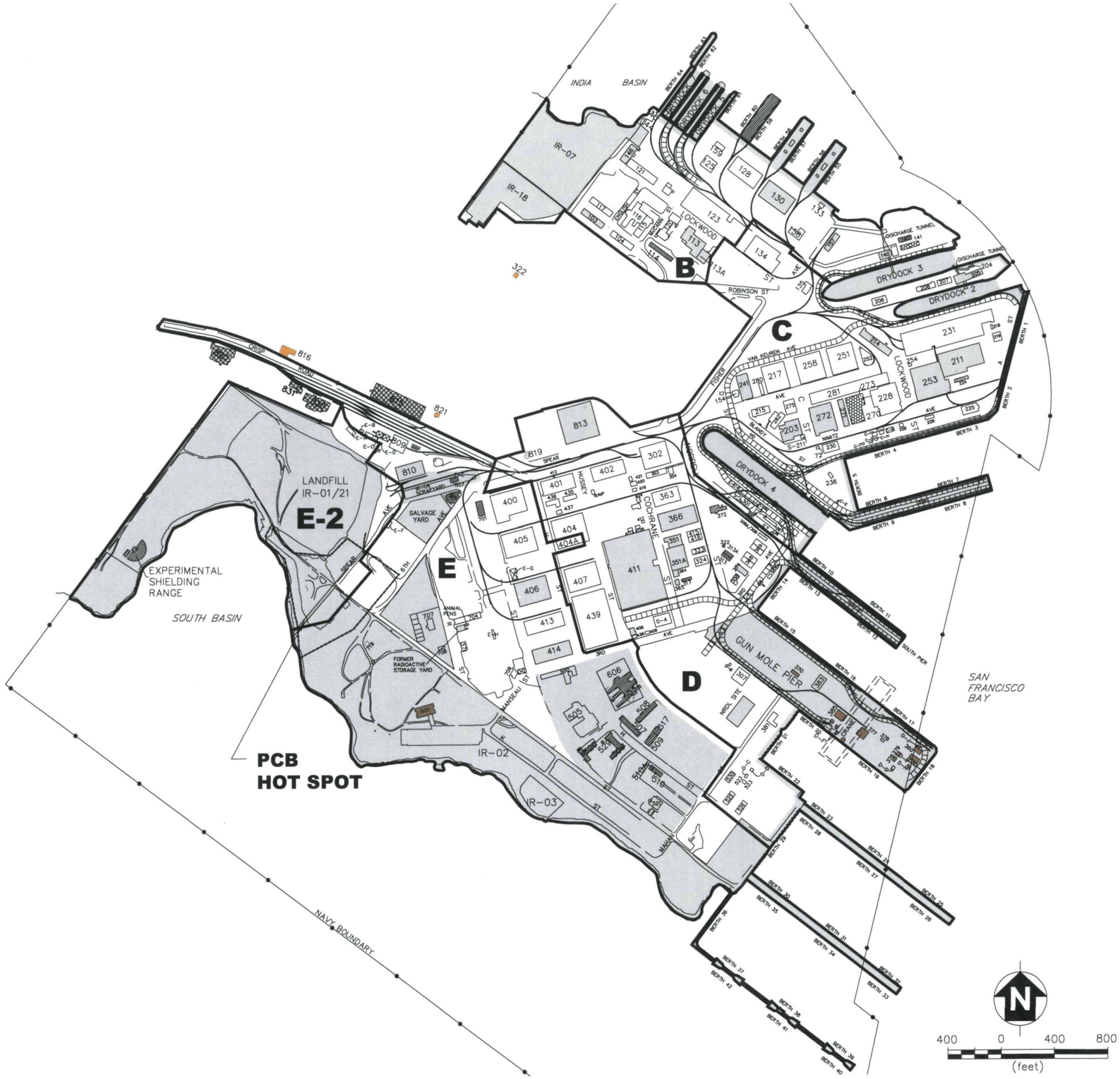
N/A – 2 sigma error not reported since the activity was less than MDA

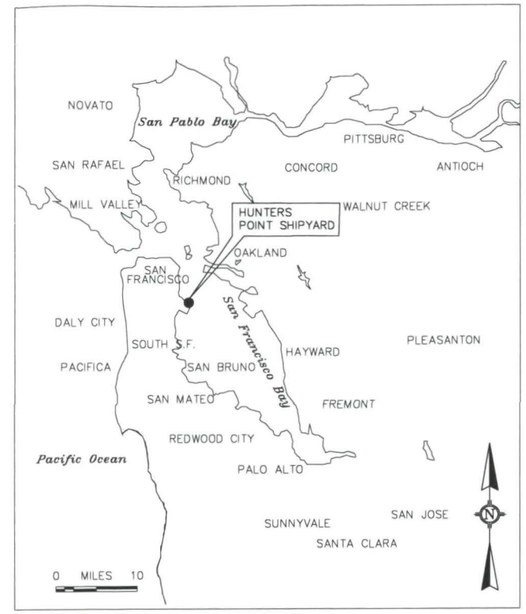
U – activity not reported since it was less than MDA

FIGURES

DRAWN BY: KLD	CHECKED BY: LB	DCN: ECSD-5713-0084-0002	DRAWING NO: 008400211.DWG
DATE: 10/07	REV:	APPROVED BY: UTM	CTO: 0084

I:\1990-RAC\CTO-0084\DWG\0084002\0084002\0084002l1.DWG
PLOT/UPDATE: MAY 16 2005 17:13:58





KEY MAP

- NAVY PROPERTY BOUNDARY (OFFSHORE)
- 6-FOOT TEMPORARY FENCE
- ACTUAL PCB HOT SPOT EXCAVATION BOUNDARY
- PARCEL BOUNDARY
- IMPACTED BUILDINGS OR SITES
- DEMOLISHED IMPACTED BUILDINGS/STRUCTURES
- DEMOLISHED BUILDINGS/STRUCTURES
- IMPACTED SITES THAT HAVE OBTAINED REGULATORY RELEASE
- IMPACTED FUDS SITES
- NON-IMPACTED BUILDINGS WITHIN AN IMPACTED SITE, RADIOLOGICAL PRECAUTIONS MAY BE REQUIRED

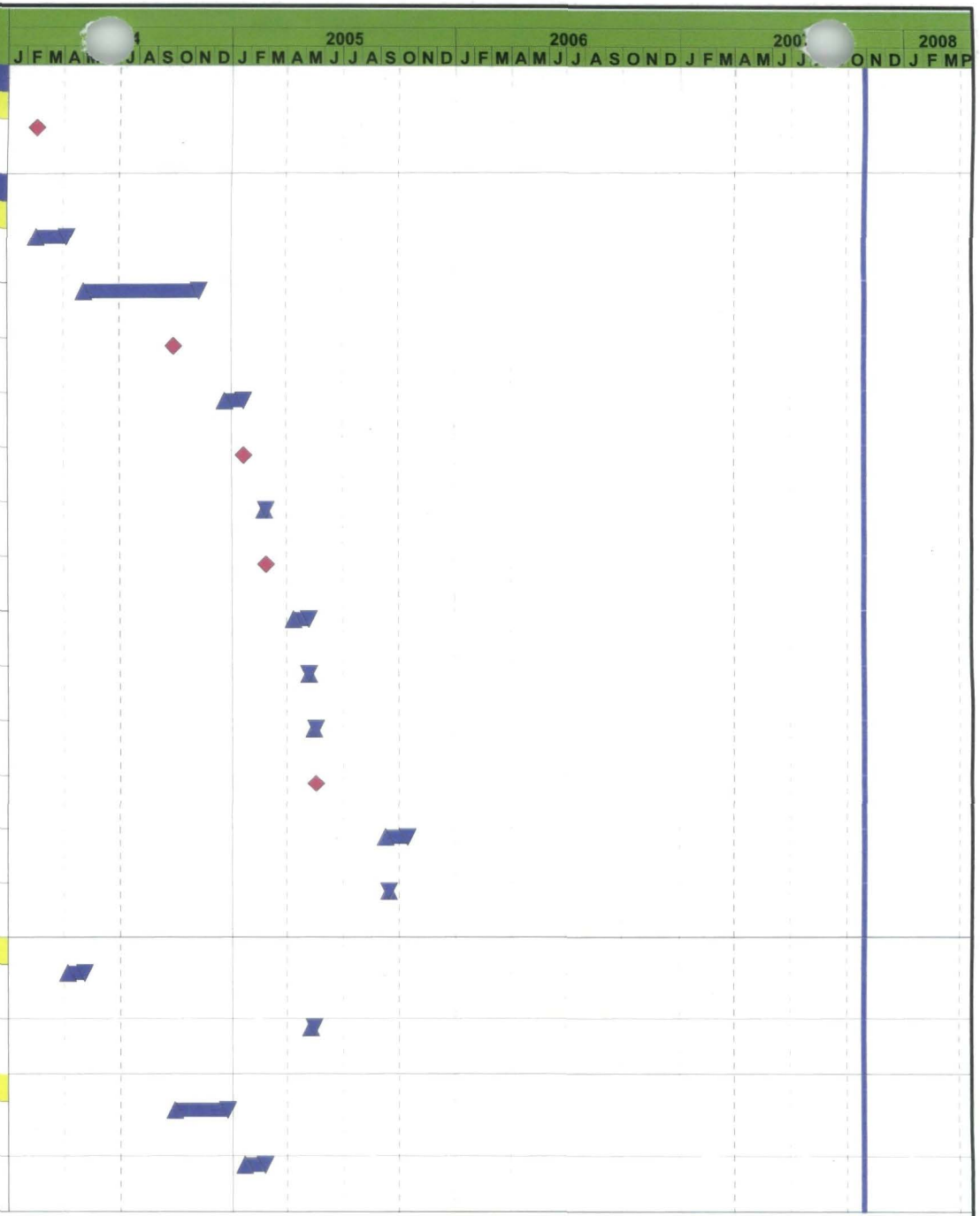
NOTE
IMPACTED SITES ARE SITES THAT HAVE KNOWN RADIOLOGICAL CONTAMINATION OR WHERE SITE HISTORY INDICATES THAT RADIOLOGICAL CONTAMINATION MAY BE PRESENT.

FIGURE 1-1
HUNTERS POINT SHIPYARD AND PCB HOT SPOT
SOIL EXCAVATION SITE-LOCATION MAP

HUNTERS POINT SHIPYARD-SAN FRANCISCO, CA

TETRA TECH EC, INC.

Activity Description	Rem Dur	Early Start	Early Finish
PMO/Pre-Award Activities			
Tetra Tech EC			
CTO Award	0	16FEB04A	
Pre-Construction Submittals			
Tetra Tech EC			
Internal Pre-Draft WP to RASO	0	16FEB04A	06APR04A
Prepare Draft Work Plan	0	06MAY04A	10NOV04A
Submit Draft RTCs & Draft Work Plan to RASO	0		28SEP04A
Prepare Internal Draft WP, Rev 1, for RASO	0	22DEC04A	19JAN05A
Submit Internal Draft WP, Rev 1, to RASO	0		19JAN05A
Prepare Draft Work Plan for Agencies	0	24FEB05A	25FEB05A
Submit Draft Work Plan to Agencies	0		25FEB05A
RTCs of Draft Work Plan	0*	12APR05A	05MAY05A
Prep/Submit Draft Final Work Plan	0	06MAY05A	06MAY05A
Prepare Draft-Final Work Plan	0	16MAY05A	18MAY05A
Submit Draft-Final Work Plan	0		18MAY05A
Bldg 115 Prep Addnm to WP/SAP & BHASP	0*	08SEP05A	14OCT05A
Bldg 115 Kickoff Meeting	0	14SEP05A	14SEP05A
NAVFAC Southwest Division			
Pre-Draft WP Review	0	07APR04A	05MAY04A
Government Review Draft Final Work Plan	0	09MAY05A	13MAY05A
Government & Regulators			
RASO Review RTCs and Draft Work Plan	0	29SEP04A	22DEC04A
RASO Review of Internal Draft WP, Rev 1	0	20JAN05A	23FEB05A



Start Date	01OCT98
Finish Date	08JAN08
Data Date	29OCT07
Run Date	26OCT07 13:01

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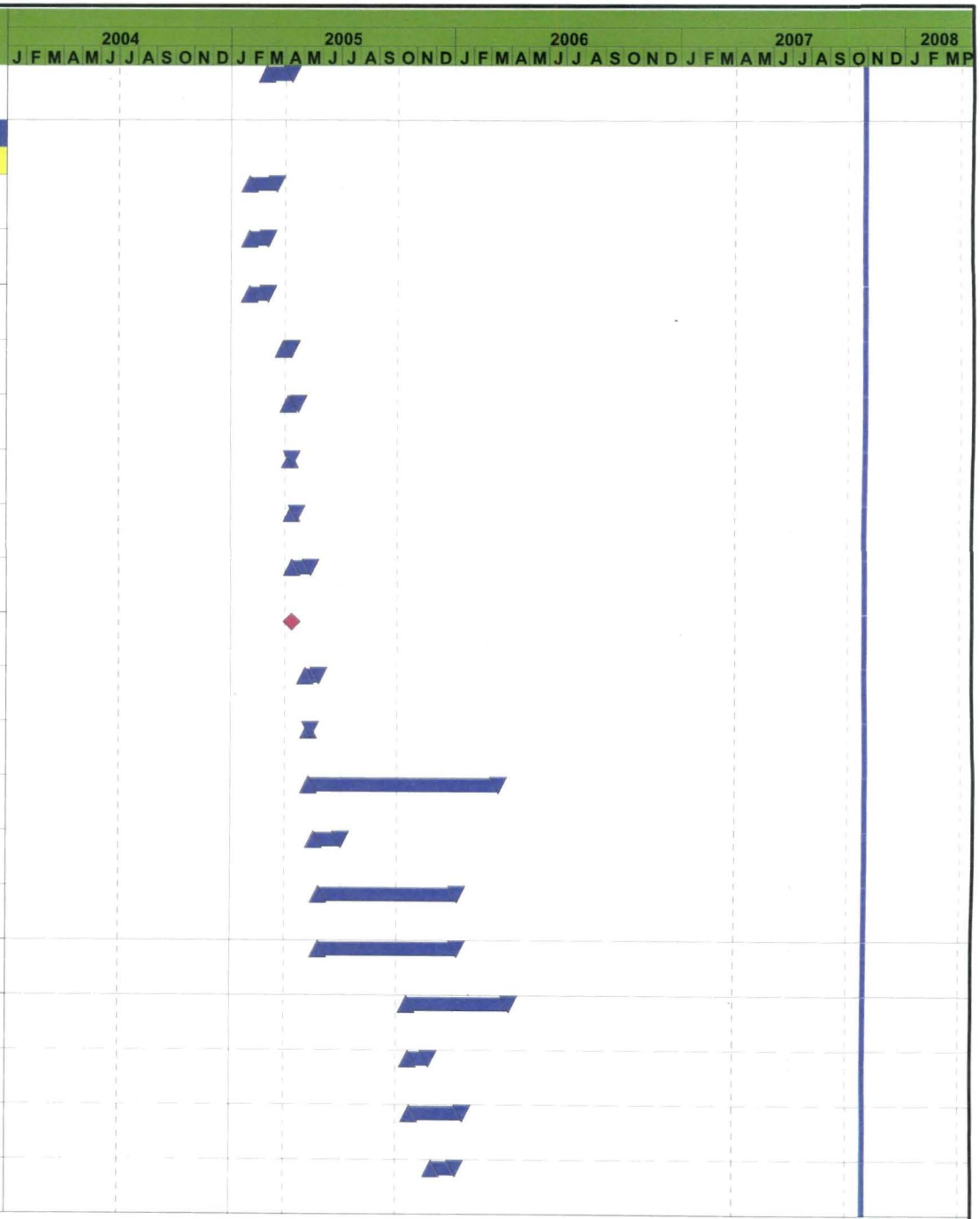
Figure 1-2

Project Schedule
CTO 84 TCRA & Rad Screening
PCB Hot Spot Soil Excavation Site - Parcel E &E-2
Hunters Point Shipyard

Early Bar
Progress Bar
Critical Activity

Activity Description	Rem Dur	Early Start	Early Finish
Agency Review of Draft Work Plan	0*	28FEB05A	11APR05A
Construction			
Tetra Tech EC			
Topographic Survey	0	31JAN05A	17MAR05A
Biological Survey	0	01FEB05A	02MAR05A
Clear & Grub	0	01FEB05A	02MAR05A
Security Fence Installation	0	28MAR05A	12APR05A
Radiological Surface Survey	0	06APR05A	22APR05A
Acquire Supplies & Material for Excavation	0	08APR05A	12APR05A
Mobilization	0	11APR05A	18APR05A
Stockpile Liner/Pad Construction	0*	11APR05A	11MAY05A
Construction Mobilization	0	11APR05A	
Setup and Test Conveyor	0	05MAY05A	24MAY05A
Initial Geophysical Survey	0	09MAY05A	11MAY05A
Destroy Groundwater Monitoring Wells	0	10MAY05A	14MAR06A
Subsurface Characterization (Hand Auger)	0*	17MAY05A	30JUN05A
Excavate Soil (Phase 1)	0	26MAY05A	05JAN06A
Screen and Stockpile Soil (Phase 1)	0	26MAY05A	05JAN06A
Hazcat & Disposal (Phase 1)	0*	17OCT05A	31MAR06A
Bldg 115 Sampling and Survey	0	19OCT05A	21NOV05A
Bldg 115 Waste Characterization & Consolidation	0	24OCT05A	17JAN06A
E'vation Verification Smpling/Results (Phase 1)	0	28NOV05A	05JAN06A



Start Date	01OCT98
Finish Date	08JAN08
Data Date	29OCT07
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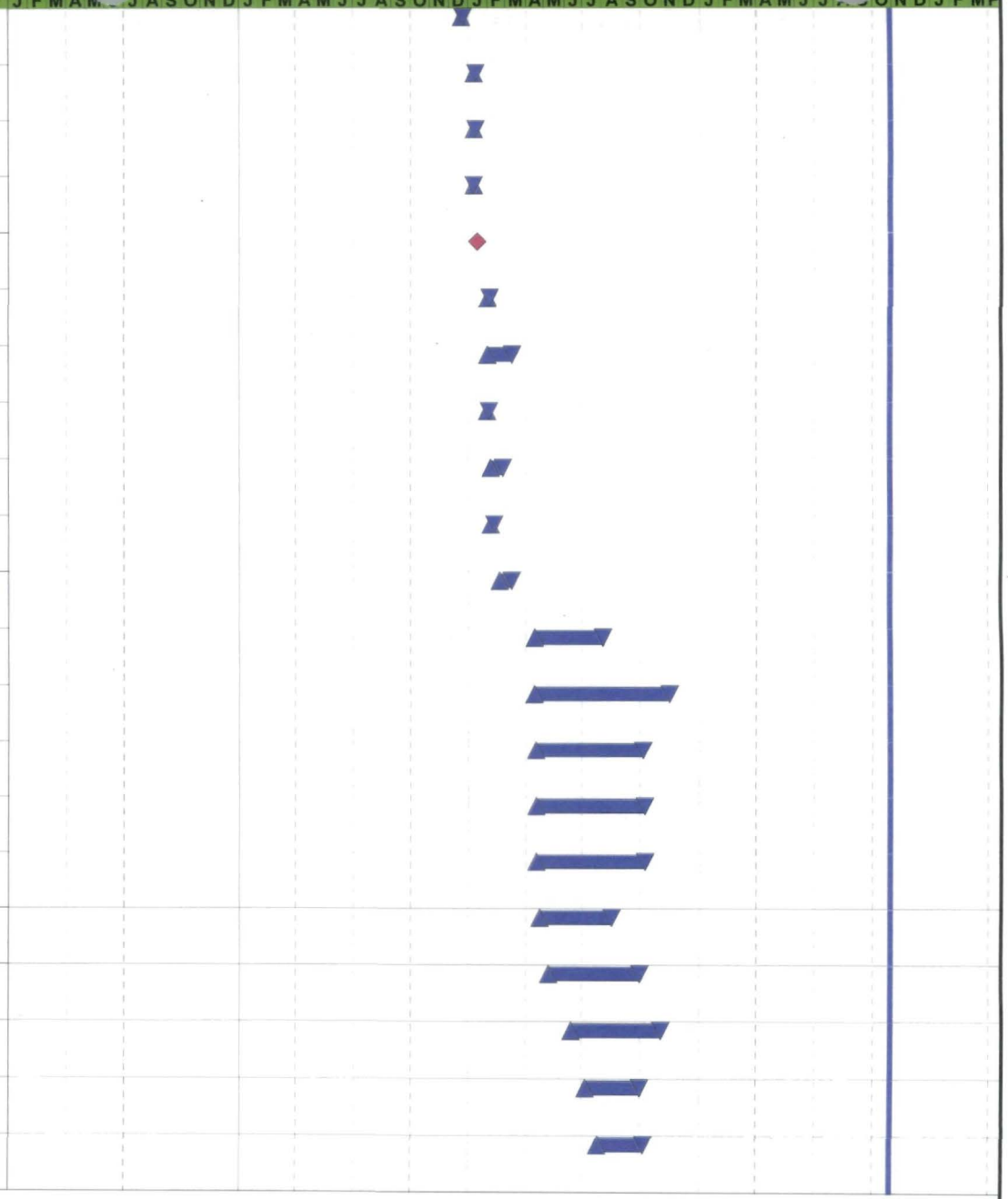
Figure 1-2

Project Schedule
CTO 84 TCRA & Rad Screening
PCB Hot Spot Soil Excavation Site - Parcel E &E-2
Hunters Point Shipyard

Early Bar
Progress Bar
Critical Activity

Activity Description	Rem Dur	Early Start	Early Finish
Partial Backfill Northern Grids	0	20DEC05A	23DEC05A
Pad for Water Treatment Tanks	0	09JAN06A	10JAN06A
Move Waste Accumulation Area to Bldg 704	0	09JAN06A	11JAN06A
Road Rehab	0	09JAN06A	09JAN06A
Interim Construction Demobilization	0		13JAN06A
Scan Concrete and Wood	0	30JAN06A	03FEB06A
Stockpile Disposal Support for TPA-CKY (Phase 1)	0	30JAN06A	10MAR06A
Bldg 115 Waste Disposal	0	30JAN06A	03FEB06A
Scan Metal Debris @ PCB Hot Spots	0	06FEB06A	24FEB06A
Build Seperate Metal Screening Pad	0	06FEB06A	09FEB06A
MCD Soil Setaside	0*	20FEB06A	10MAR06A
Excavate Soil (incl. over-excav Grid 57) (Ph 2)	0	17APR06A	02AUG06A
Hazcat & Disposal (Phase 2)	0	17APR06A	15NOV06A
Screen & Stockpile Soil (Phase 2)	0	18APR06A	04OCT06A
Scan Concrete and Wood (Phase 2)	0	18APR06A	06OCT06A
Scan Metal Debris @ PCB Hot Spots (Phase 2)	0	18APR06A	06OCT06A
Post Excavation Sampling & Results Eval (Ph 2)	0	24APR06A	16AUG06A
Backfill & Grading (Phase 2)	0	08MAY06A	29SEP06A
Stockpile Waste Disposal Support - TPA-CKY(Ph2)	0	13JUN06A	31OCT06A
Screening of High Clay Content Soils	0	05JUL06A	29SEP06A
Rescanning of Soil (12,700 cy)	0	24JUL06A	05OCT06A



Start Date 01OCT98
Finish Date 08JAN08
Data Date 29OCT07
Run Date 26OCT07 13:01

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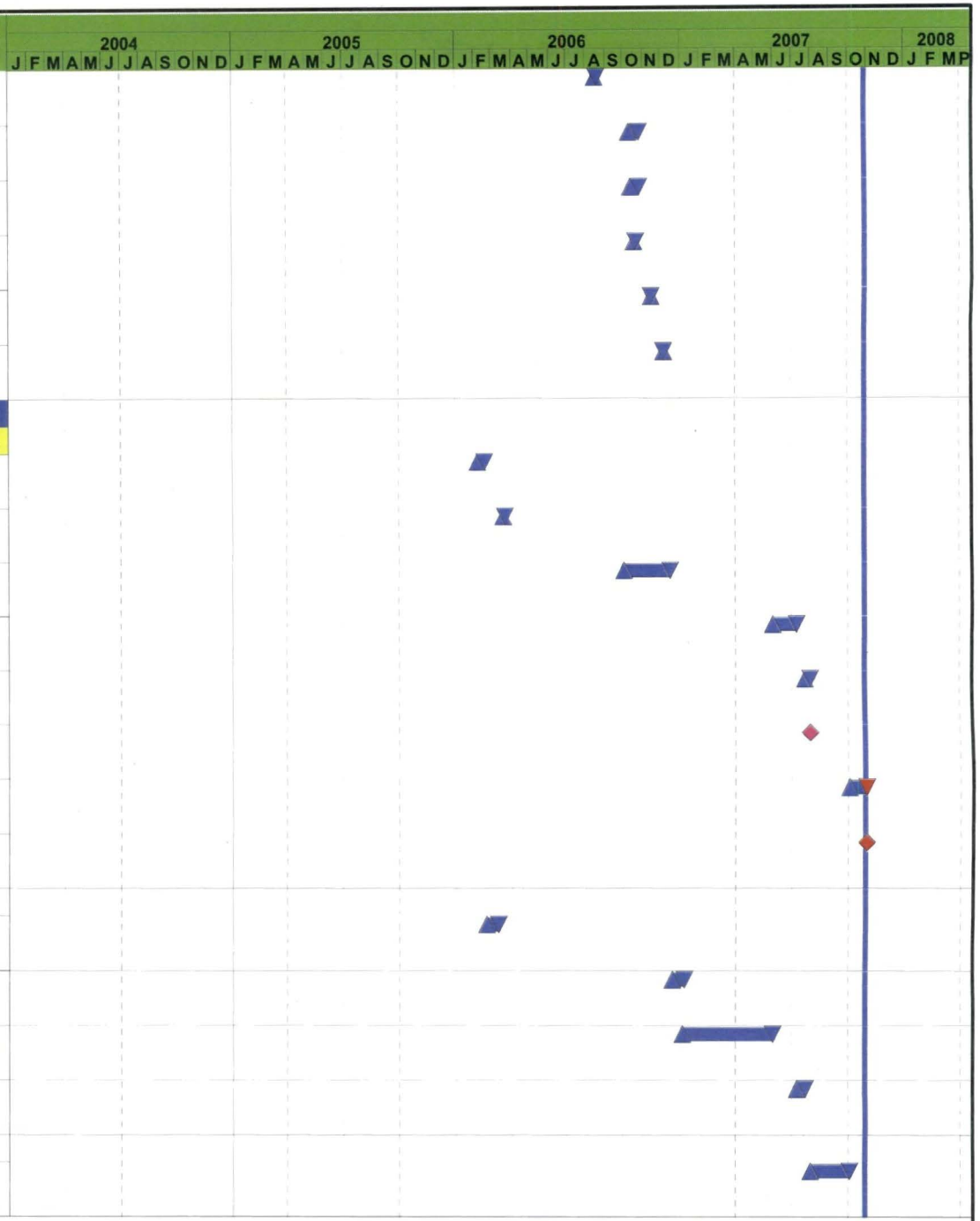
Figure 1-2

Project Schedule
CTO 84 TCRA & Rad Screening
PCB Hot Spot Soil Excavation Site - Parcel E &E-2
Hunters Point Shipyard

Early Bar
Progress Bar
Critical Activity

Activity Description	Rem Dur	Early Start	Early Finish
Partial Demobilization	0	17AUG06A	18AUG06A
Construction Site Demobilization	0	10OCT06A	27OCT06A
Relocate 5,600 cy Stockpile 17&18 to TPA-CKY Pad	0	13OCT06A	27OCT06A
Site Restoration (Hydroseeding)	0	19OCT06A	20OCT06A
Pre-Final Inspection	0	15NOV06A	15NOV06A
Final Inspection	0	05DEC06A	05DEC06A
Post Construction Submittals			
Tetra Tech EC			
Bldg 115 Prep Navy Draft Waste Consolidation FSR	0	06FEB06A	17FEB06A
Issue Final Bldg 115 Waste Consolidation FSR	0	20MAR06A	20MAR06A
Prep Pre-Draft Remedial Action Completion Report	0	02OCT06A	15DEC06A
Prepare RACR, Rev 1 and Submit to RASO	0	01JUN07A	09JUL07A
Incorporate RASO Comments on RACR, Rev 1	0	25JUL07A	30JUL07A
Submit Draft RACR to Agencies	0		31JUL07A
Prepare Final RACR	3*	04OCT07A	31OCT07
Submit Final RACR	0		31OCT07
Bldg 115 Navy Review Dft Waste Consolidation Ltr	0	20FEB06A	10MAR06A
Pre-Draft RACR Navy Review	0	18DEC06A	08JAN07A
Pre-Draft RACR RASO Review	0	05JAN07A	31MAY07A
Pre-Draft, Rev 1 RACR RASO Review	0	10JUL07A	24JUL07A
Agency Review of Draft RACR (35 calendar days)	0	31JUL07A	03OCT07A



Start Date	01OCT98
Finish Date	08JAN08
Data Date	29OCT07
Run Date	26OCT07 13:01

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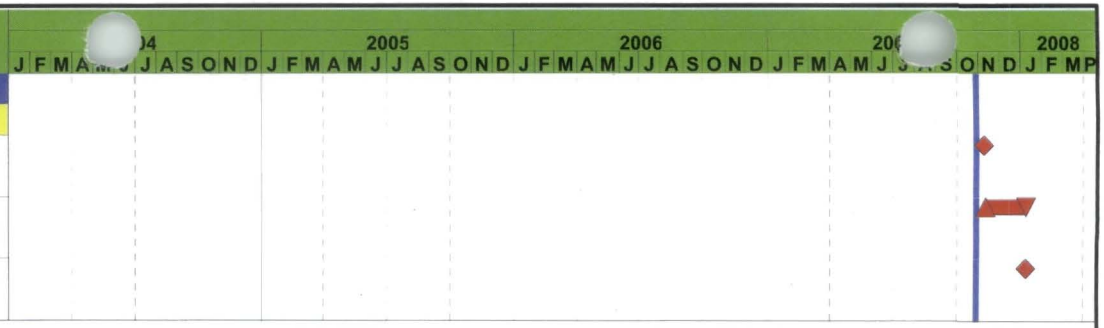
Figure 1-2

Project Schedule
CTO 84 TCRA & Rad Screening
PCB Hot Spot Soil Excavation Site - Parcel E &E-2
Hunters Point Shipyard

Early Bar
Progress Bar
Critical Activity

Activity Description	Rem Dur	Early Start	Early Finish
Job Closeout			
Tetra Tech EC			
Technical Completion	0		09NOV07*
Project Closeout	38	12NOV07	08JAN08
Project Completion	0		08JAN08



Legend:

BHASP = Building Specific Health & Safety Plan
CTO = Contract Task Order
Hazcat = Hazardous Categorization
MCD = Mechano Chemical Destruction
Ph = Phase
RACR = Remedial Action Completion Report
RASO = Radiological Affairs Support Office
RTC = Response to Comments
SAP = Sampling and Analysis Plan
WP = Work Plan

Start Date	01OCT98
Finish Date	08JAN08
Data Date	29OCT07
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Figure 1-2

Project Schedule
CTO 84 TCRA & Rad Screening
PCB Hot Spot Soil Excavation Site - Parcel E &E-2
Hunters Point Shipyard

Early Bar
Progress Bar
Critical Activity

LANDFILL
IR-01/21

E-2

SOUTH BASIN

E

SALVAGE YARD

IR-04 SCRAPYARD

FORMER RADIOACTIVE STORAGE YARD

ANIMAL PENS

IR-02

PCB HOT SPOT

LEGEND:

- NAVY PROPERTY BOUNDARY (OFFSHORE)
- ACTUAL PCB HOT SPOT EXCAVATION BOUNDARY
- PARCEL BOUNDARY
- APPROXIMATE LIMIT OF LANDFILL CAP[1]
- (AS-BUILT) EDGE OF CAP GEOMEMBRANE[2]
- HAZARDOUS MATERIAL STORAGE

[1] Tetra Tech EM, Inc (TtEMI). 2003. *Parcel E Nonstandard Data Gaps Investigation Lateral Extent Evaluation.* May 15

[2] TtEMI. 2002. *Field Sampling Plan/ Quality Assurance Project Plan (FSP/QAPP) For Parcel E Nonstandard Data Gaps Investigation (industrial Landfill And Wetlands Delineation)* January 8.

150 0 150 300
(feet)

FIGURE 2-1
PCB HOT SPOT FINAL EXCAVATION BOUNDARY

HUNTERS POINT SHIPYARD-SAN FRANCISCO, CA

TETRA TECH EC, INC.

DRAWN BY: KLD	CHECKED BY: LB	DRAWING NO: 0084000221.DWG	
DATE: 10/07	REV:	APPROVED BY: UTM	DCN: ECSD-5713-0084-0002 CTO: 0084

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LARGE DEBRIS SCREENING PAD

CONVEYOR SYSTEM

DEWATERING PAD

LLRW/LLMW STAGING AREA

24' GATE

STOCKPILE AREA

DECONTAMINATION PAD

24' GATE

WATER TREATMENT SYSTEM & ADDITIONAL DEBRIS SCREENING PAD

SAN FRANCISCO BAY

LEGEND

PCB HOT SPOT EXCAVATION BOUNDARY

6-FOOT TEMPORARY FENCE

N

50' 0 50' 100'

SCALE: 1" = 100'

FIGURE 3-1
SITE LAYOUT MAP

HUNTERS POINT SHIPYARD-SAN FRANCISCO, CA

TETRA TECH EC, INC.

DRAWN BY: KLD	DRAWING NO: 0084000231.DWG
DATE: 10/07	DCN: ECSD-5713-0084-0002
CHECKED BY: LB	CTO: 0084
REV:	APPROVED BY: UTM

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PLOT/UPDATE: MAY 16 2005 17:13:58

E-2

F

E

SHEET PILE WALL

LEGEND

- PARCEL BOUNDARY
- PCB HOT SPOT EXCAVATION BOUNDARY
- 0–3ft bgs
- 6ft bgs
- 7ft bgs
- 8ft bgs
- 9ft bgs
- 10ft bgs
- 11–15ft bgs
- 19–21ft bgs

ft bgs FEET BELOW GROUND SURFACE

NOTE:
THE 16–18 FT BGS INTERVAL IS OMITTED BECAUSE NO GRIDS WERE EXCAVATED TO THIS DEPTH.

N

50' 0 50' 100'

SCALE: 1" = 100'

FIGURE 4–1
MAXIMUM EXCAVATION DEPTH MAP

HUNTERS POINT SHIPYARD–SAN FRANCISCO, CA

TETRA TECH EC, INC.

DRAWN BY: KLD	CHECKED BY: LB	DCN: ECSD-5713-0084-0002	DRAWING NO: 00840O241.DWG
DATE: 10/07	REV:	CTO: 0084	APPROVED BY: UTM

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PLOT/UPDATE: MAY 16 2005 17:13:58

E-2

F

E

SHEET PILE WALL

LEGEND

- PARCEL BOUNDARY
- PCB HOT SPOT EXCAVATION BOUNDARY
- VARIOUS BOTTLES, JARS & CONTAINERS WITH LABORATORY WASTES WERE RECOVERED FROM THESE GRIDS(1)
- A TOTAL OF 110 DRUMS WITH CONTENT WERE REMOVED FROM THESE APPROXIMATE AREAS(2)
- BOTH BOTTLES AND DRUMS WERE FOUND IN THIS AREA

(1) ADDITIONAL BOTTLES WERE RECOVERED ON THE CONVEYOR SYSTEM USED FOR THE RADIOLOGICAL SCREENING PROCESS

(2) VARIOUS DEBRIS, INCLUDING TIRES, CONCRETE, METAL, WOOD AND MPPEH THAT WERE ENCOUNTERED DURING EXCAVATION ACTIVITIES WERE NOT INCLUDED IN THIS FIGURE

N

50' 0 50' 100'

SCALE: 1" = 100'

FIGURE 4-2
LOCATION OF ENCOUNTERED BOTTLES AND DRUMS

HUNTERS POINT SHIPYARD–SAN FRANCISCO, CA

TETRA TECH EC, INC.

DRAWN BY: KLD	CHECKED BY: LB	APPROVED BY: UTM	DCN: ECSD-5713-0084-0002	DRAWING NO: 084000242.DWG
DATE: 10/07	REV:		CTO: 0084	

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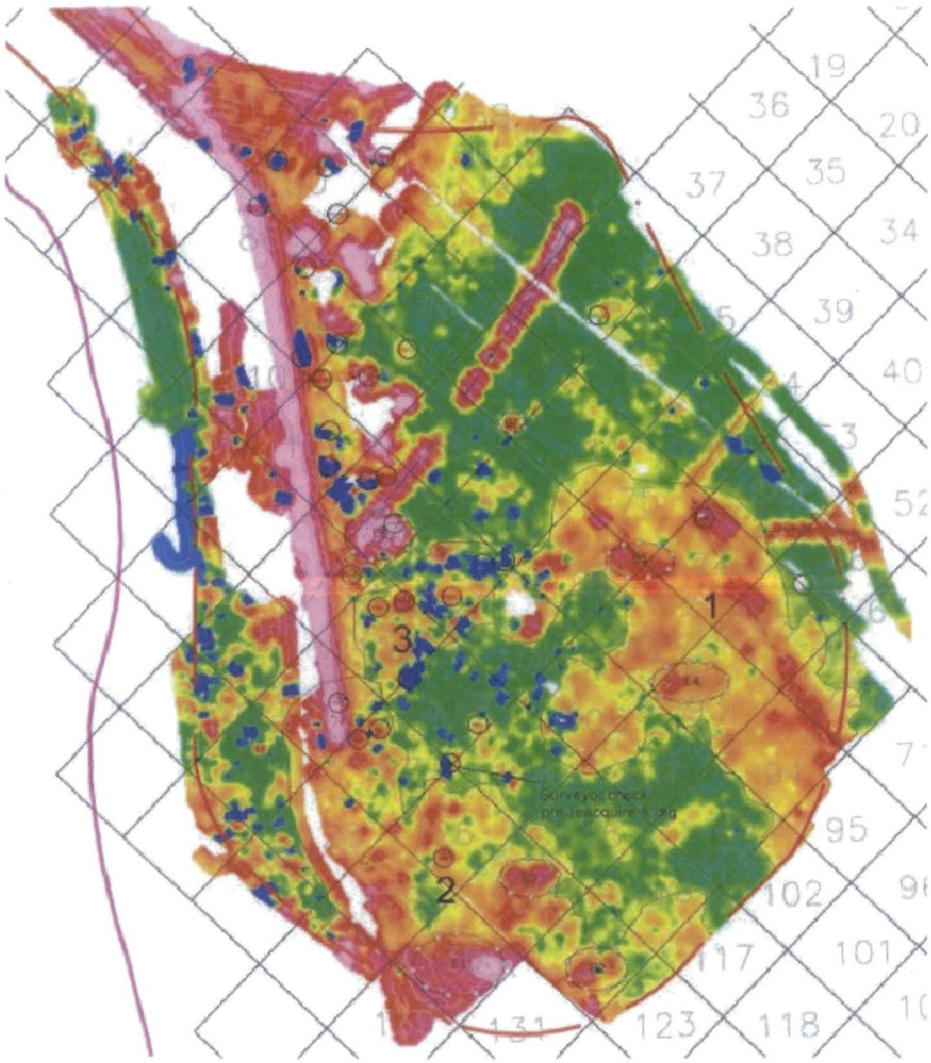

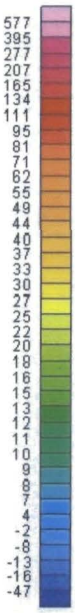

EM61 (Top Coil-Bottom Coil) differential

THE COLOR-CODED INTENSITY MAP INDICATES METAL RESPONSE IN mV.

LEGEND

○ RESPONSE POTENTIALLY INDICATING PRESENCE OF METAL OR DRUM

mV MILLIVOLT

FIGURE 4-3
GEOPHYSICAL MAP 1 – ANOMALIES & ANOMALOUS REGIONS OF METAL BURIED RELATIVELY DEEP

HUNTERS POINT SHIPYARD–SAN FRANCISCO, CA

TETRA TECH EC, INC.

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DATE: 10/07 | REV: | CTO: 0084

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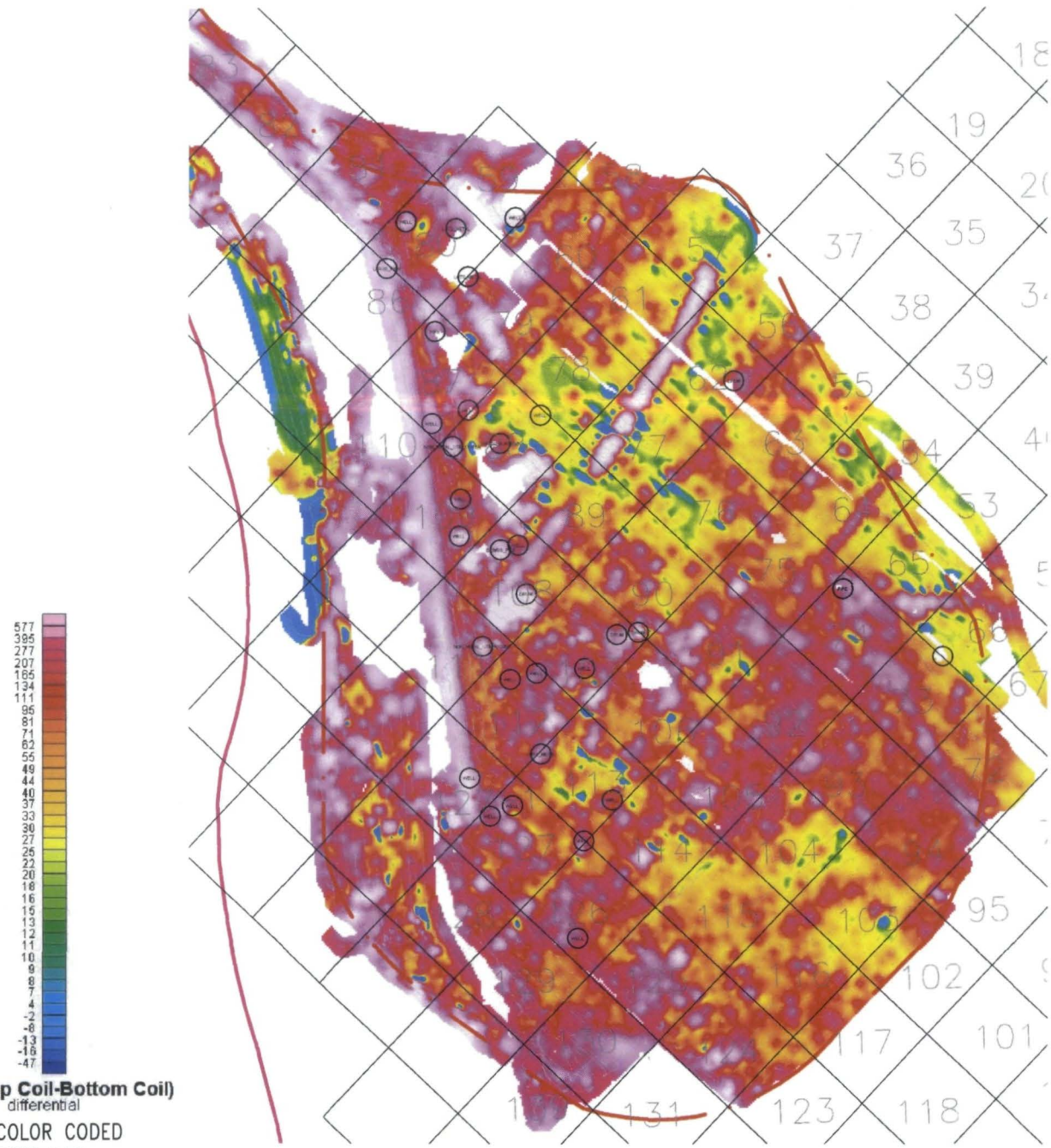

EM61 (Top Coil-Bottom Coil)
differential

THE COLOR CODED INTENSITY MAP INDICATES METAL RESPONSE IN mV.

LEGEND

○ RESPONSE POTENTIALLY INDICATING PRESENCE OF METAL OR DRUM

mV MILLIVOLT

FIGURE 4-4

GEOPHYSICAL MAP 2 – ALL METAL WITHIN THE DETECTION SENSITIVITY OF THE EM61 MK2

HUNTERS POINT SHIPYARD–SAN FRANCISCO, CA

TETRA TECH EC, INC.

DRAWN BY: KLD | CHECKED BY: LB | APPROVED BY: UTM | DCN: ECSD-5713-0084-0002 | DRAWING: 0084000244.DWG

DATE: 10/07 | REV: | CTO: 0084

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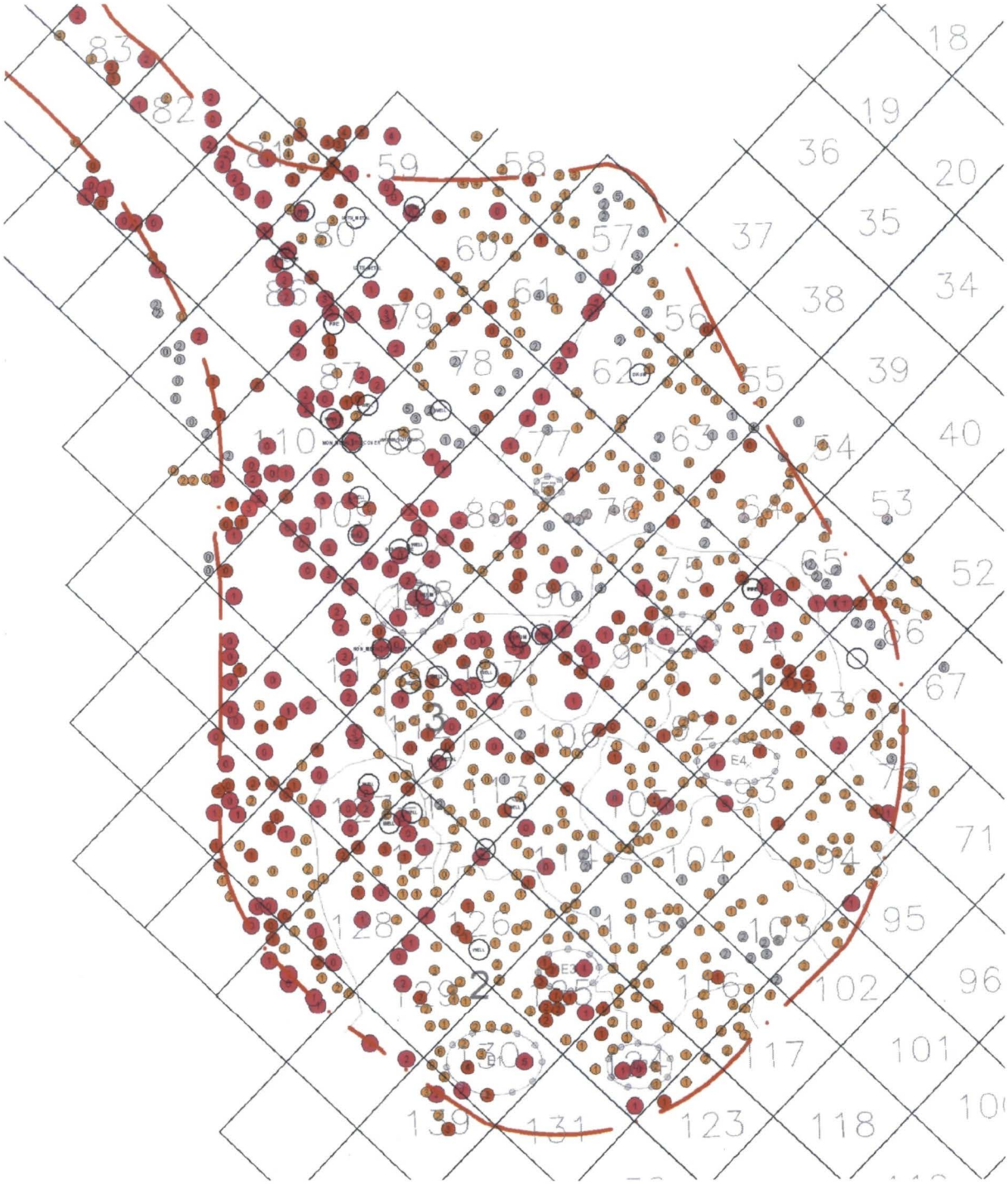

LEGEND

- ESTIMATED DEPTH OF ANOMALY
- RESPONSE POTENTIALLY INDICATING PRESENCE OF METAL OR DRUM

FIGURE 4-5
GEOPHYSICAL MAP 3 – SPECIFIC ANOMALIES WITH A 55-GALLON DRUM EQUIVALENT GEOPHYSICAL RESPONSE

HUNTERS POINT SHIPYARD–SAN FRANCISCO, CA

TETRA TECH EC, INC.

DRAWN BY: KLD	CHECKED BY: LB	APPROVED BY: UTM	DCN: ECSD-5713-0084-0002	DRAWING
DATE: 10/07	REV:		CTO: 0084	0084000245.DWG

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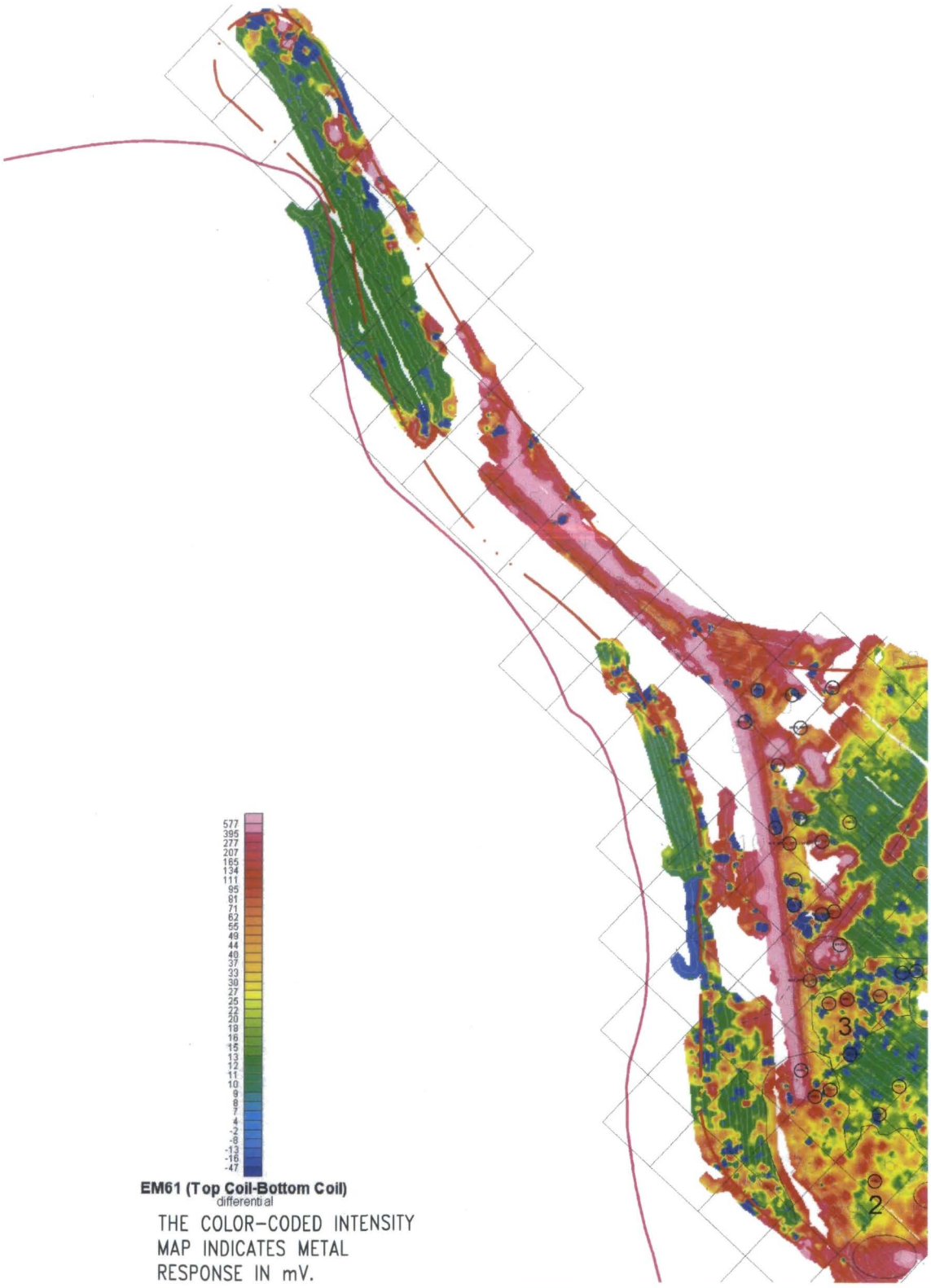

THE COLOR-CODED INTENSITY MAP INDICATES METAL RESPONSE IN mV.

LEGEND

○ RESPONSE POTENTIALLY INDICATING PRESENCE OF METAL OR DRUM

mV MILLIVOLT

FIGURE 4-6
GEOPHYSICAL MAP 4 – ANOMALIES & ANOMALOUS REGIONS OF METAL BURIED RELATIVELY DEEP

HUNTERS POINT SHIPYARD–SAN FRANCISCO, CA

TETRA TECH EC, INC.

DRAWN BY: KLD	CHECKED BY: LB	APPROVED BY: UTM	DCN: ECSD-5713-0084-0002	DRAWING #: 0084000246.DWG
DATE: 10/07	REV:		CTO: 0084	

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E-2

F

SHEET PILE WALL

E

LEGEND

- PCB HOT SPOT EXCAVATION BOUNDARY
- PARCEL BOUNDARY
- ⊗ LOCATION OF POTHOLE FOR EVALUATION OF EXTENT OF PCB & TPH CONTAMINATION
- PRE-EXCAVATION CONTOURS

N

50' 0 50' 100'

SCALE: 1" = 100'

FIGURE 4-7
POTHOLE LOCATIONS NEAR PARCEL E-2/F BOUNDARY

HUNTERS POINT SHIPYARD-SAN FRANCISCO, CA

TETRA TECH EC, INC.

DRAWN BY: KLD	CHECKED BY: LB	APPROVED BY: UTM	DRAWING NO: 0084000247.DWG
DATE: 10/07	REV:		DCN: ECSD-5713-0084-0002 CTO: 0084

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(415) 536-2000

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REV:

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DATE: 10/07

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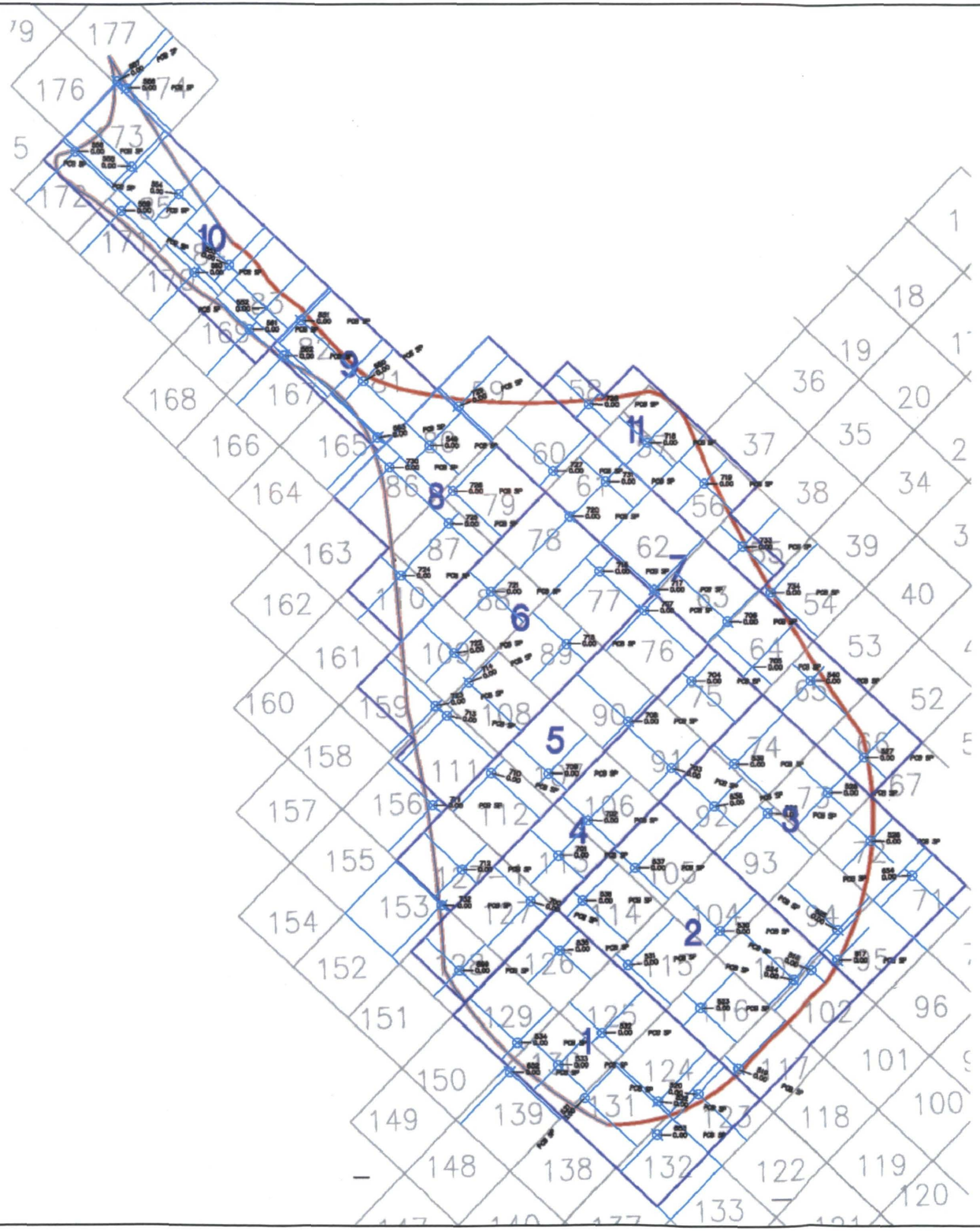

LEGEND

- PCB HOT SPOT EXCAVATION BOUNDARY
- RADIOLOGICAL SYSTEMATIC SURVEY UNIT
- RADIOLOGICAL POST EXCAVATION RANDOM GRID SAMPLE LOCATION

N

50' 0 50' 100'

SCALE: NOT TO SCALE

FIGURE 4-10
RADIOLOGICAL POST-EXCAVATION RANDOM BOTTOM GRID SAMPLES

HUNTERS POINT SHIPYARD-SAN FRANCISCO, CA

TETRA TECH EC, INC.

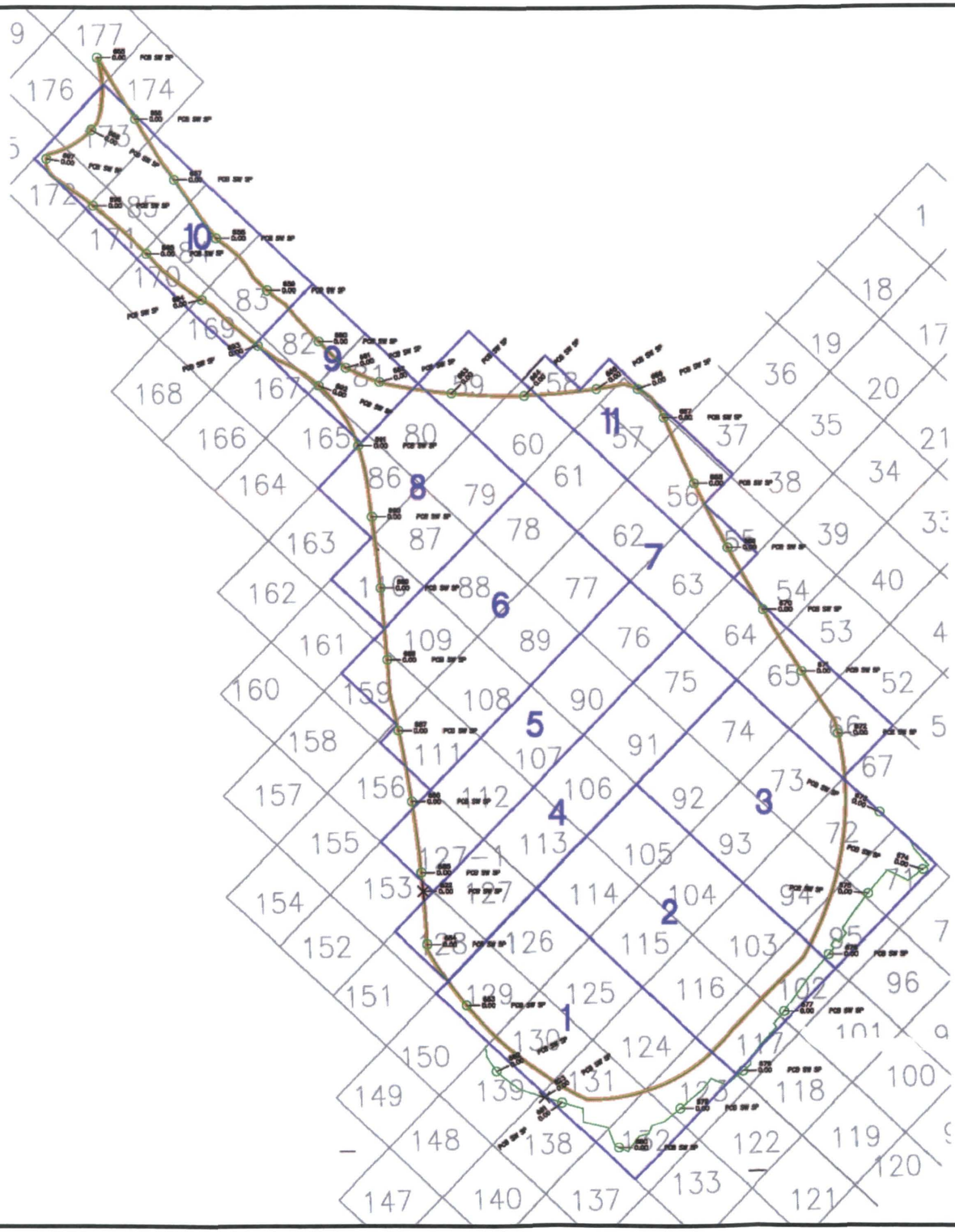

FIGURE 4-11
RADIOLOGICAL POST-EXCAVATION RANDOM SIDEWALL GRID SAMPLES

HUNTERS POINT SHIPYARD-SAN FRANCISCO, CA

TETRA TECH EC, INC.

DRAWING NO: 00840002411.DWG
DCN: ECSD-5713-0084-0002
CTO: 0084
APPROVED BY: UTM
CHECKED BY: LB
DRAWN BY: AAS
DATE: 10/07

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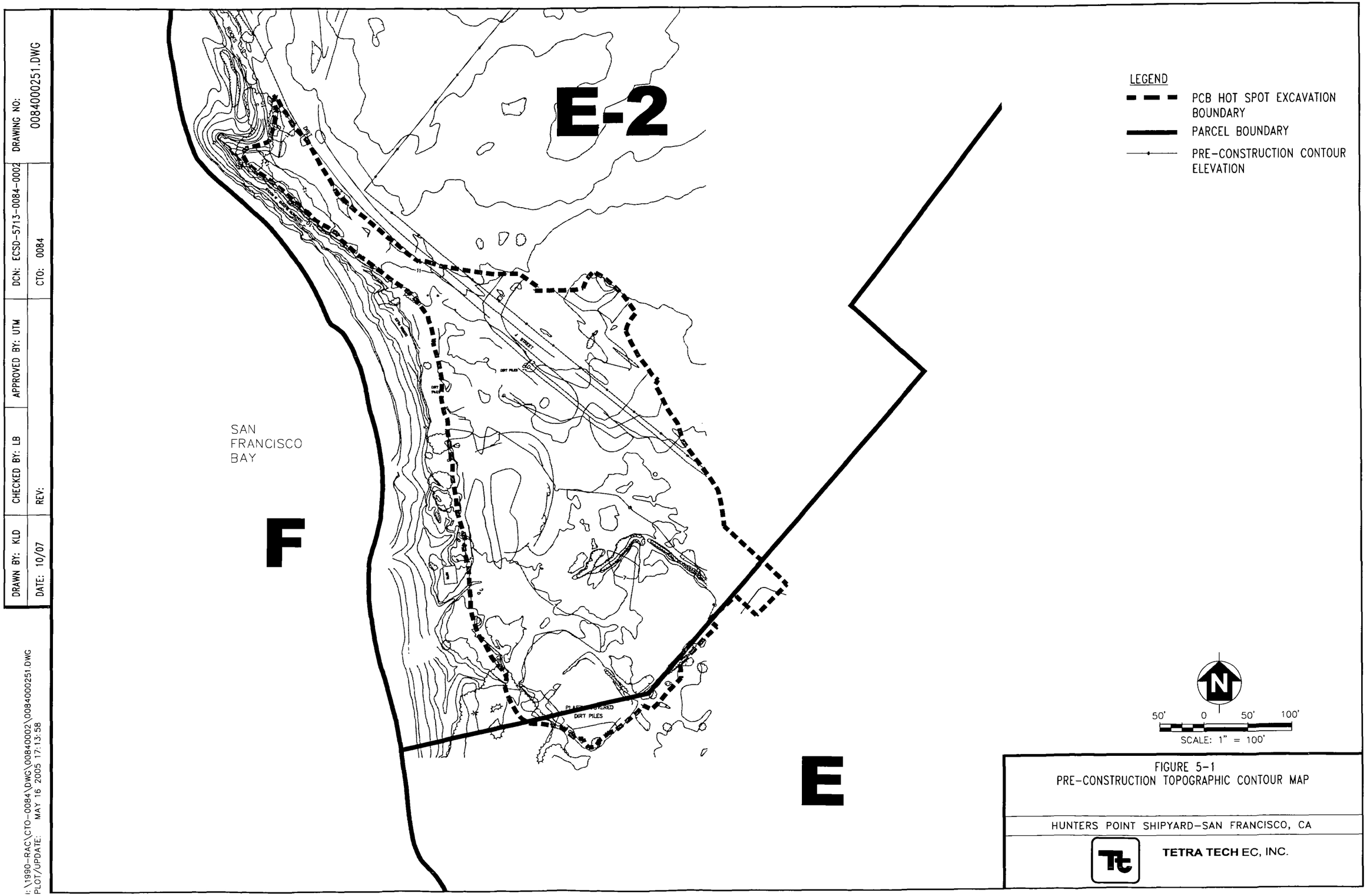

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DATE: 10/07 | REV:

DCN: ECSD-5713-0084-0002 | DRAWING NO: 0084000251.DWG
CTO: 0084

APPROVED BY: UTM

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FIGURE 5-1
PRE-CONSTRUCTION TOPOGRAPHIC CONTOUR MAP

HUNTERS POINT SHIPYARD-SAN FRANCISCO, CA

TETRA TECH EC, INC.

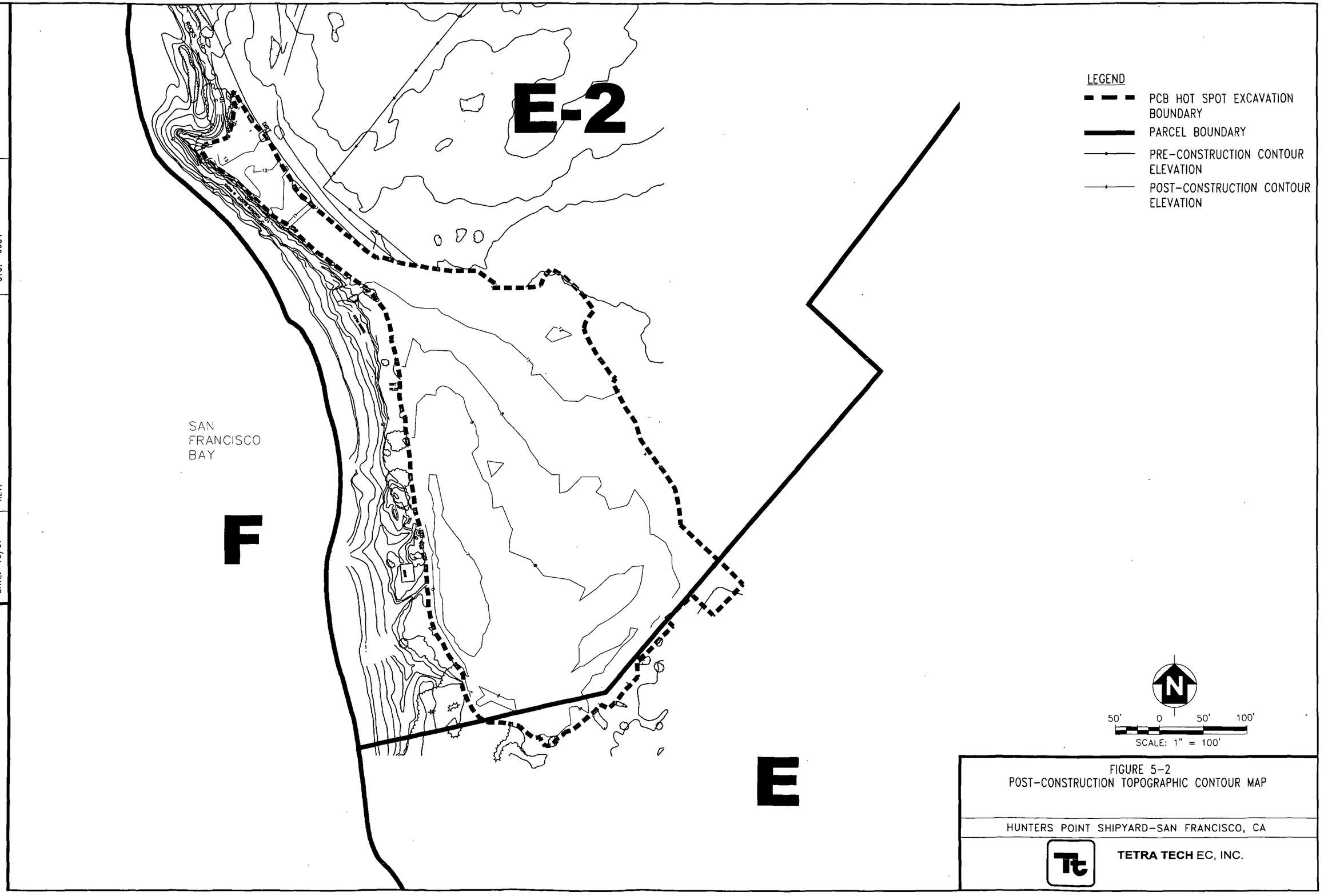

FIGURE 5-2
POST-CONSTRUCTION TOPOGRAPHIC CONTOUR MAP

HUNTERS POINT SHIPYARD-SAN FRANCISCO, CA

TETRA TECH EC, INC.

DRAWN BY: KLD	CHECKED BY: LB
DATE: 10/07	REV:
	APPROVED BY: UTM
CTO: 0084	DCN: ECSD-5713-0084-0002
	DRAWING NO: 0084000252.DWG

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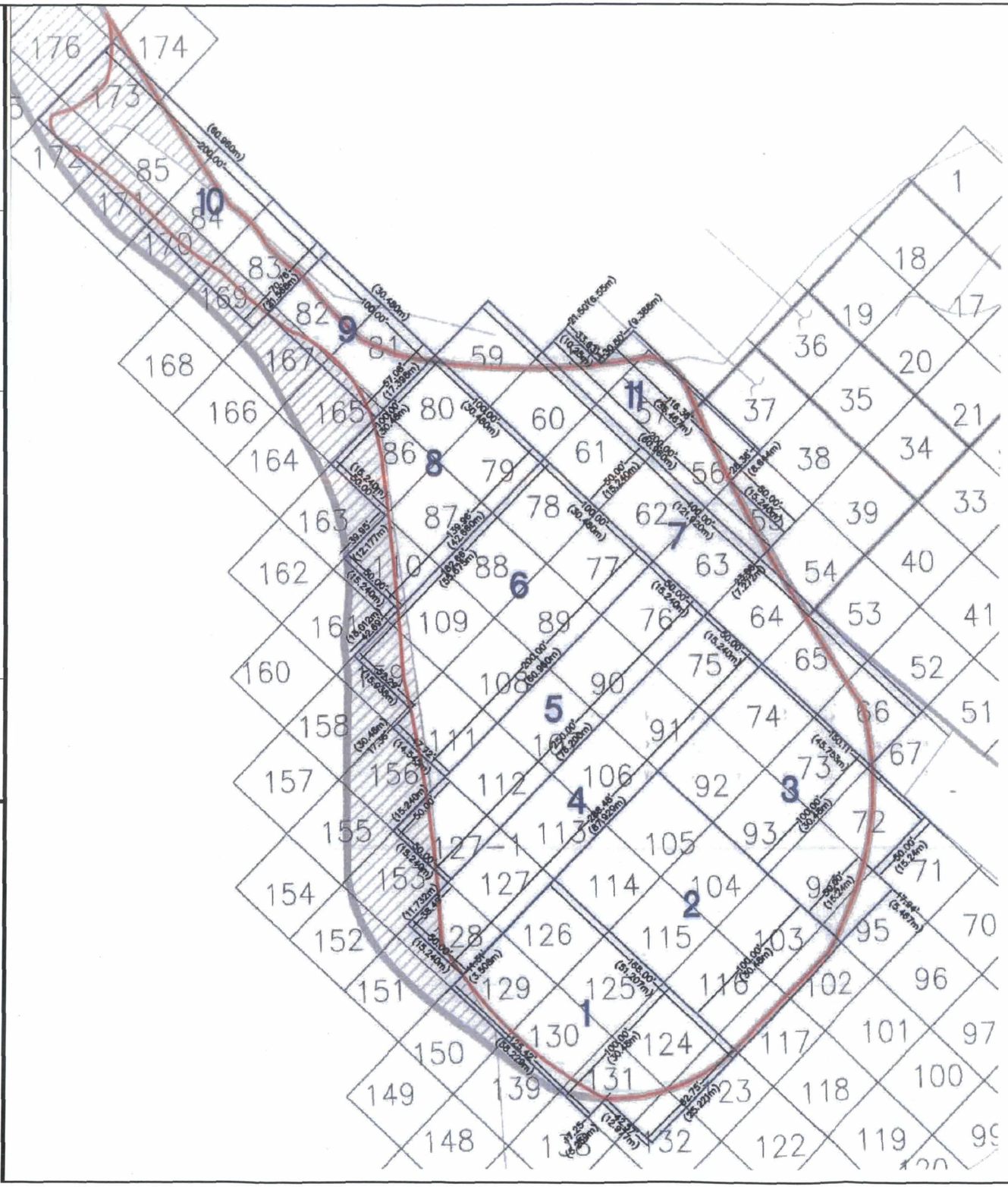

FIGURE 7-1
RADIOLOGICAL SYSTEMATIC SURVEY UNITS

HUNTERS POINT SHIPYARD-SAN FRANCISCO, CA

TETRA TECH EC, INC.

DRAWN BY: KLD	CHECKED BY: LB
DATE: 10/07	REV:

DRAWING NO: 0084000271.DWG
DCN: ECSD-5713-0084-0002
CTO: 0084
APPROVED BY: UTM

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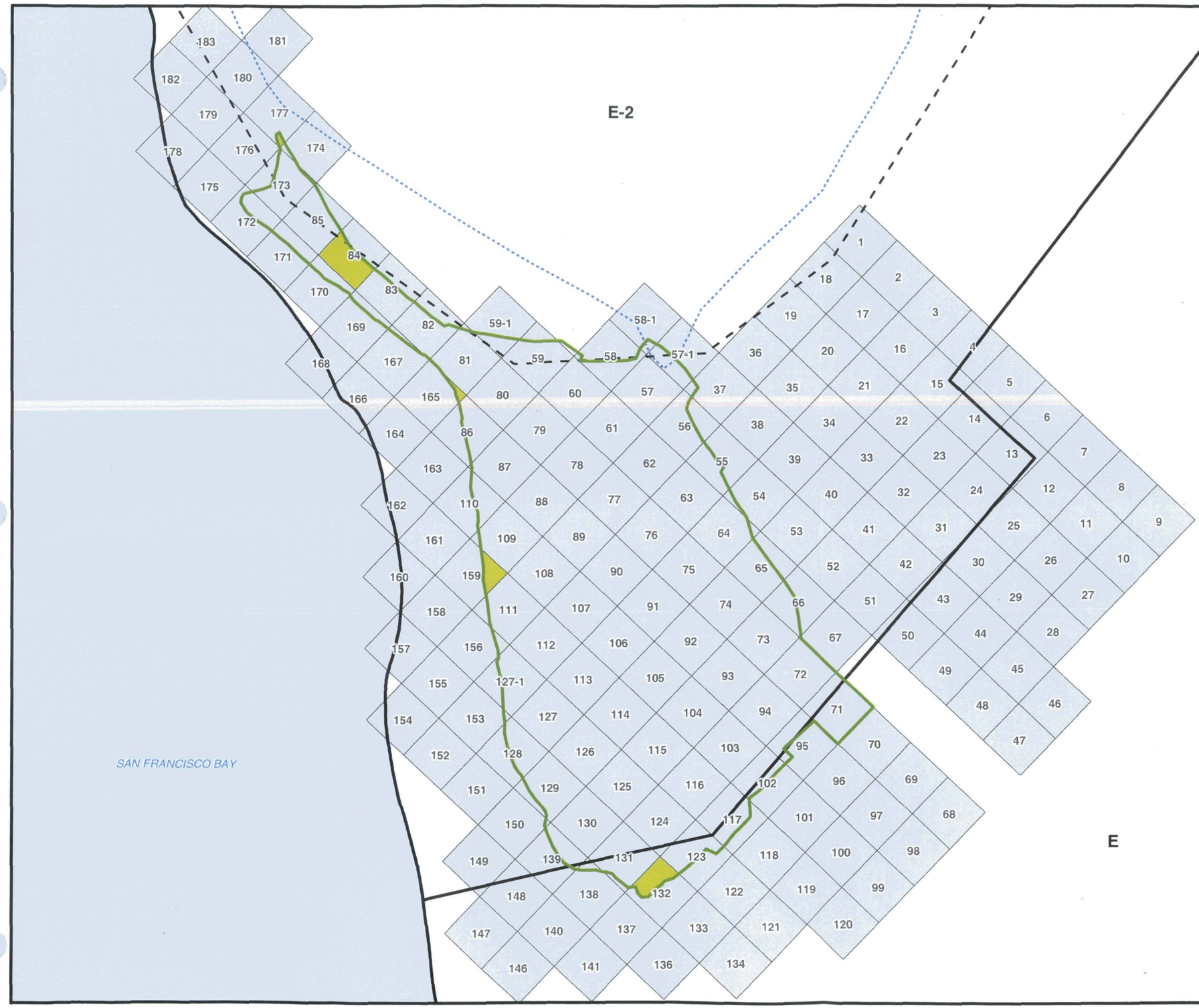


LEGEND

- GRID BOTTOMS EXCEEDING PCB AND/OR TPH CLEANUP GOALS
- FINAL PCB HOT SPOT EXCAVATION BOUNDARY
- APPROXIMATE LIMIT OF LANDFILL CAP[1]
- (AS BUILT) EDGE OF CAP GEOMEMBRANE[2]
- PARCEL BOUNDARY
- WATER

NOTES:

PCB - POLYCHLORINATED BIPHENYL

TPH - TOTAL PETROLEUM HYDROCARBONS

[1] TTEMI INC. 2003. PARCEL E NONSTANDARD DATA GAPS INVESTIGATION LATERAL EXTENT EVALUATION. MAY 15.

[2] TTEMI INC. 2002. FIELD SAMPLING PLAN/QUALITY ASSURANCE PROJECT PLAN (FSP/QAPP) FOR PARCEL E NONSTANDARD DATA GAPS INVESTIGATION (INDUSTRIAL LANDFILL AND WETLANDS DELINEATION). JANUARY 8. DELINEATION BASED ON AS-BUILT DRAWINGS.

50 0 50 100 Feet

Scale: 1" = 100'

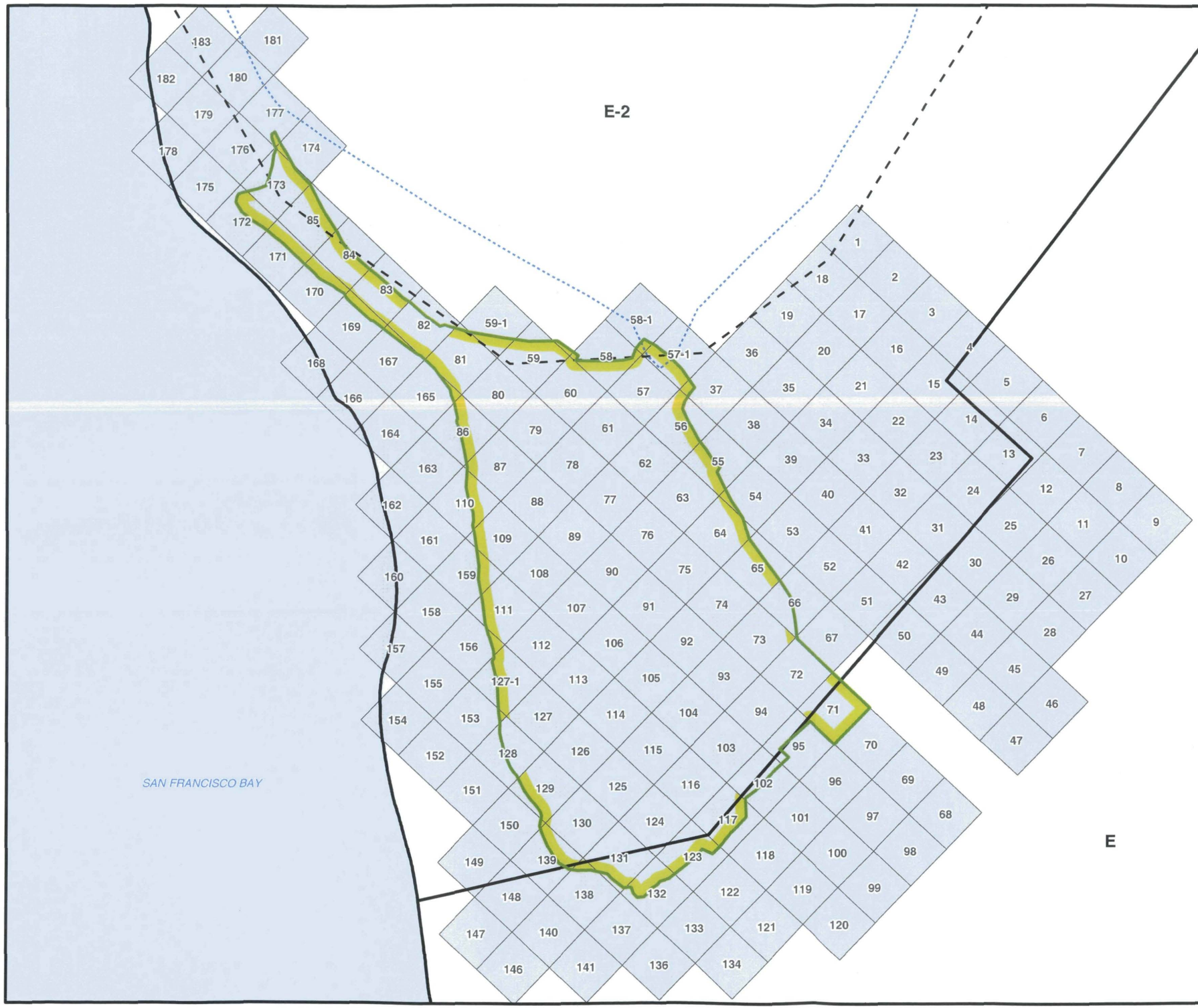
N

FIGURE 8-1
PCB HOT SPOT EXCAVATION SITE,
RESIDUAL CONTAMINATION,
BOTTOM OF EXCAVATION

HUNTERS POINT SHIPYARD
SAN FRANCISCO, CALIFORNIA

REVISION: 0
AUTHOR: GFG
DCN: ECSD-5713-0084-0002
FILE NUMBER: 080007A2090.mxd

TETRA TECH EC, INC.



LEGEND

- PERIMETER SIDEWALLS EXCEEDING PCB AND/OR TPH CLEANUP GOALS
- FINAL PCB HOT SPOT EXCAVATION BOUNDARY
- APPROXIMATE LIMIT OF LANDFILL CAP[1]
- (AS BUILT) EDGE OF CAP GEOMEMBRANE[2]
- PARCEL BOUNDARY
- WATER

NOTES:

PCB - POLYCHLORINATED BIPHENYL

TPH - TOTAL PETROLEUM HYDROCARBONS

[1] TTEMI INC. 2003. PARCEL E NONSTANDARD DATA GAPS INVESTIGATION LATERAL EXTENT EVALUATION. MAY 15.

[2] TTEMI INC. 2002. FIELD SAMPLING PLAN/QUALITY ASSURANCE PROJECT PLAN (FSP/QAPP) FOR PARCEL E NONSTANDARD DATA GAPS INVESTIGATION (INDUSTRIAL LANDFILL AND WETLANDS DELINEATION). JANUARY 8. DELINEATION BASED ON AS-BUILT DRAWINGS.

50 0 50 100 Feet

Scale: 1" = 100'

N

FIGURE 8-2
PCB HOT SPOT EXCAVATION SITE,
RESIDUAL CONTAMINATION,
EXCAVATION PERIMETER SIDEWALLS

HUNTERS POINT SHIPYARD
SAN FRANCISCO, CALIFORNIA

REVISION: 0
AUTHOR: GFG
DCN: ECSD-5713-0084-0002
FILE NUMBER: 080007A2091.mxd

TETRA TECH EC, INC.

APPENDIX A

WEATHER DATA AND AIR MONITORING REPORT

APPENDIX A

TABLE A-1

GENERAL WEATHER DATA

Date	Minimum Temperature (°F)	Maximum Temperature (°F)	Average Temperature (°F)	Minimum Wind Speed (mph)	Maximum Wind Speed (mph)	Average Wind Speed (mph)	Total Rain Fall (inches)
6/22/2005	58	69	63	2.7	7.2	5.8	0
6/23/2005	57	67	61	0.4	7.2	3.8	0
6/24/2005	58	71	63	0.9	6.3	3.5	0
6/25/2005	58	68	61	0.9	6.7	3.6	0
6/26/2005	57	68	61	1.8	7.2	4.1	0
6/27/2005	57	66	60	2.7	5.8	4.4	0
6/28/2005	56	68	61	2.2	6.3	3.8	0
6/29/2005	55	74	63	0	8.5	4.2	0
6/30/2005	55	69	60	2.2	7.6	4.3	0
7/1/2005	56	69	60	0.9	7.6	4.1	0
7/2/2005	56	70	61	0	7.2	3.8	0
7/3/2005	56	65	59	0	8.9	4.3	0
7/4/2005	56	69	61	0	7.6	3.6	0
7/5/2005	55	62	57	1.3	8.9	5.1	0
7/6/2005	55	68	60	0	9.4	4.7	0
7/7/2005	55	66	59	0.9	9.4	4.9	0
7/8/2005	55	69	60	2.7	8.9	5.2	0
7/9/2005	59	67	62	1.3	8.9	4.9	0
7/10/2005	59	73	63	2.2	7.2	4.3	0
7/11/2005	58	74	65	0.4	6.7	3.7	0
7/12/2005	57	76	65	0	7.2	3.2	0
7/13/2005	56	70	62	2.7	7.2	4.2	0
7/14/2005	56	74	63	0.9	7.2	3.7	0
7/15/2005	54	74	61	0.9	6.7	4.0	0
7/16/2005	55	72	62	0.4	7.6	4.0	0
7/17/2005	57	72	63	2.2	6.7	4.2	0
7/18/2005	57	68	62	0.4	8.5	4.2	0
7/19/2005	59	71	63	1.8	8.5	4.0	0
7/20/2005	58	70	62	0.4	6.7	3.5	0
7/21/2005	58	71	63	0.9	7.2	4.0	0
7/22/2005	60	73	65	0.9	6.7	3.5	0
7/23/2005	58	92	70	0	5.8	2.1	0
7/24/2005	59	71	64	1.8	7.6	4.4	0
7/25/2005	55	69	60	2.2	6.7	4.5	0
7/26/2005	54	70	60	0.4	6.7	3.8	0
7/27/2005	55	71	60	1.8	7.6	3.5	0
7/28/2005	56	68	60	1.3	7.6	3.8	0
7/29/2005	56	67	61	1.3	6.7	3.8	0
7/30/2005	57	71	62	0.9	6.3	3.5	0
7/31/2005	56	72	62	0.4	5.8	3.5	0
8/1/2005	55	73	61	0.9	7.2	3.7	0
8/2/2005	54	68	59	1.3	6.7	3.8	0
8/3/2005	56	71	62	0	6.3	3.3	0
8/4/2005	56	71	62	0	6.7	3.1	0
8/5/2005	54	73	61	0.4	7.6	3.4	0
8/6/2005	55	70	61	1.3	6.7	3.7	0
8/7/2005	55	67	60	1.8	7.6	4.1	0
8/8/2005	55	66	58	1.3	7.2	4.1	0

APPENDIX A

TABLE A-1

GENERAL WEATHER DATA

Date	Minimum Temperature (°F)	Maximum Temperature (°F)	Average Temperature (°F)	Minimum Wind Speed (mph)	Maximum Wind Speed (mph)	Average Wind Speed (mph)	Total Rain Fall (inches)
8/9/2005	55	71	60	1.3	6.7	3.5	0
8/10/2005	55	70	60	0.4	6.7	3.3	0
8/11/2005	55	73	62	0	6.7	3.8	0
8/12/2005	56	72	62	0.4	9.4	4.0	0
8/13/2005	56	64	59	1.3	7.6	4.0	0
8/14/2005	55	68	60	0.9	7.2	4.4	0
8/15/2005	56	69	61	2.2	5.8	4.1	0
8/16/2005	55	71	61	0.4	8	4.0	0
8/17/2005	55	66	59	1.8	7.6	4.1	0
8/18/2005	56	65	59	0	6.3	3.4	0
8/19/2005	56	66	59	0.4	6.7	3.5	0
8/20/2005	55	64	58	0.9	6.7	3.4	0
8/21/2005	55	65	58	1.8	7.2	4.3	0
8/22/2005	54	68	59	0	7.2	3.6	0
8/23/2005	53	70	59	0	8	3.5	0.01
8/24/2005	55	70	61	0	5.4	2.7	0
8/25/2005	57	74	62	0	5.8	2.7	0
8/26/2005	54	73	60	1.3	7.6	3.8	0
8/27/2005	54	77	62	0.4	6.7	3.6	0
8/28/2005	53	74	60	1.3	6.3	4.0	0
8/29/2005	56	67	59	0.9	6.3	3.6	0
9/1/2005	56	70	61	0	16	7.9	0
9/2/2005	56	65	59	5	16	9.2	0
9/3/2005	55	66	58	1	16	8.9	0
9/4/2005	57	68	60	0	16	8.0	0
9/5/2005	56	77	63	0	15	6.6	0
9/6/2005*	55	64	59	0	17	6.9	0
9/12/2005	54	65	58	4	14	9.2	0
9/13/2005	54	64	57	3	13	7.6	0
9/14/2005	55	64	57	4	13	7.9	0
9/15/2005	54	65	57	3	13	7.3	0
9/16/2005	55	72	60	4	18	9.5	0
9/17/2005	55	65	58	5	16	10.5	0
9/18/2005	53	73	59	0	16	5.3	0
9/19/2005	52	88	64	0	11	4.5	0.01
9/20/2005	55	65	59	2	12	7.5	0
9/21/2005	55	77	61	0	13	5.8	0
9/22/2005	53	70	58	1	12	6.8	0
9/23/2005	55	64	58	0	22	10.2	0
9/24/2005	52	75	61	0	13	4.4	0
9/25/2005	52	83	63	0	13	4.2	0
9/26/2005	58	70	63	1	14	6.4	0
9/27/2005	56	75	62	1	15	6.4	0
9/28/2005	55	86	64	0	16	5.2	0
9/29/2005	57	89	67	0	14	4.8	0
9/30/2005	58	88	66	0	17	5.6	0
10/1/2005	57	70	62	1	14	8.5	0
10/2/2005	55	71	61	1	18	9.3	0

APPENDIX A

TABLE A-1

GENERAL WEATHER DATA

Date	Minimum Temperature (°F)	Maximum Temperature (°F)	Average Temperature (°F)	Minimum Wind Speed (mph)	Maximum Wind Speed (mph)	Average Wind Speed (mph)	Total Rain Fall (inches)
10/3/2005	54	73	60	3	18	9.8	0
10/4/2005	52	76	60	1	13	5.9	0
10/5/2005	53	89	64	0	12	4.1	0
10/6/2005	55	80	62	0	15	5.7	0
10/7/2005	54	66	58	0	21	9.1	0.01
10/8/2005	54	73	59	5	22	12.6	0
10/9/2005	51	75	60	0	14	5.2	0
10/10/2005	52	88	63	0	13	4.3	0
10/11/2005	54	69	57	1	13	6.4	0
10/12/2005	52	74	59	0	12	4.3	0
10/13/2005	53	93	65	0	10	2.9	0.01
10/14/2005	52	67	60	0	16	6.0	0
10/15/2005	54	73	60	1	13	6.8	0.03
10/16/2005	52	91	65	0	9	2.9	0
10/17/2005	55	94	68	0	7	2.5	0
10/18/2005	58	68	62	0	12	4.9	0
10/19/2005	57	74	63	0	11	5.8	0
10/20/2005	54	72	59	0	13	5.0	0
10/21/2005	52	71	57	0	14	5.0	0
10/22/2005	51	68	56	0	13	6.0	0.01
10/23/2005	55	73	59	0	13	5.6	0
10/24/2005	54	65	56	1	12	6.4	0
10/25/2005	54	73	59	0	9	4.9	0
10/26/2005	54	61	58	2	9	6.1	0.08
10/27/2005	54	70	59	0	9	3.7	0
10/28/2005	58	69	61	1	8	5.3	0.05
10/29/2005	54	70	60	0	9	4.9	0.04
10/30/2005	50	80	59	0	10	3.4	0
10/31/2005	51	83	61	0	7	2.5	0
11/1/2005	52	70	59	0	11	3.8	0
11/2/2005	53	62	57	1	16	8.2	0
11/3/2005	49	65	57	0	11	5.2	0.01
11/4/2005	54	70	60	0	10	5.8	0.04
11/5/2005	48	70	57	0	9	3.6	0
11/6/2005	55	64	59	0	7	2.8	0
11/7/2005	54	65	60	0	13	5.3	0.43
11/8/2005	52	70	58	0	7	2.0	0.22
11/9/2005	55	71	61	0	14	2.9	0.06
11/10/2005	53	68	58	0	11	4.1	0
11/11/2005	54	62	57	0	10	6.0	0
11/12/2005	50	67	57	0	8	4.4	0
11/13/2005	50	73	58	0	6	2.4	0
11/14/2005	55	74	61	0	10	2.4	0
11/15/2005	52	79	63	0	10	3.5	0
11/16/2005	52	84	61	0	3	0.8	0
11/17/2005	51	80	60	0	7	1.0	0
11/18/2005	49	83	60	0	4	0.6	0
11/19/2005	52	83	60	0	6	1.7	0

APPENDIX A

TABLE A-1

GENERAL WEATHER DATA

Date	Minimum Temperature (°F)	Maximum Temperature (°F)	Average Temperature (°F)	Minimum Wind Speed (mph)	Maximum Wind Speed (mph)	Average Wind Speed (mph)	Total Rain Fall (inches)
11/20/2005	49	76	59	0	5	1.2	0
11/21/2005	48	75	57	0	3	0.6	0
11/22/2005	48	75	58	0	6	1.2	0
11/23/2005	49	76	58	0	7	1.8	0
11/24/2005	49	62	54	0	9	4.1	0.01
11/25/2005	52	64	58	0	16	8.1	0.08
11/26/2005	47	64	53	1	9	5.0	0
11/27/2005	41	68	50	0	7	1.9	0
11/28/2005	47	61	52	0	17	4.4	0.35
11/29/2005	52	59	55	1	14	6.6	0.07
11/30/2005	51	60	54	0	8	2.9	0
12/1/2005	51	61	58	2	25	13.2	0.63
2/2/2005*A24	45	62	52	0	9	4.5	0.01
1/1/2006	53	57	54	0	13	5.4	0.07
1/2/2006	54	62	59	11	25	18.1	1.52
1/3/2006	52	61	56	4	24	10.6	0
1/4/2006	52	59	54	0	24	5.2	0.7
1/5/2006	50	55	52	0	12	5.9	0.07
1/6/2006	53	62	55	0	13	5.9	0.06
1/7/2006	52	68	57	0	10	4.1	0.0
1/8/2006	45	62	52	0	9	2.5	0.0
1/9/2006	44	69	51	0	4	1.2	0.01
1/10/2006	44	59	51	0	4	0.7	0
1/11/2006	48	62	54	0	10	3.5	0.1
1/12/2006	45	63	52	0	6	1.8	0.01
1/13/2006	47	63	54	0	15	4.4	0
1/14/2006	49	55	51	1	13	8.5	0.36
1/15/2006	44	63	49	0	8	3.7	0
1/16/2006	44	61	51	0	4	0.9	0
1/17/2006	48	58	52	0	12	3.3	0.19
1/18/2006	47	60	54	0	14	6.5	0.1
1/19/2006	44	60	49	0	8	2.8	0.01
1/20/2006	42	62	50	0	5	1.5	0
1/21/2006	47	60	51	0	7	2.4	0.17
1/22/2006	43	65	52	0	9	2.6	0
1/23/2006	43	69	53	0	5	1.4	0
1/24/2006	44	69	53	0	6	1.1	0
1/25/2006	45	60	52	0	8	4.0	0.01
1/26/2006	46	60	52	0	9	2.8	0
1/27/2006	45	63	52	0	9	3.8	0.1
1/28/2006	48	57	53	0	12	6.6	0.13
1/29/2006	50	61	54	0	5	1.6	0
1/30/2006	49	60	53	0	10	5.4	0.12
1/31/2006	43	64	50	0	6	1.8	0.01
2/1/2006	52	56	54	0	7	4.8	0.31
2/2/2006	54	64	57	0	9	4.1	0.04
2/3/2006	52	70	56	0	7	2.3	0.01
2/4/2006	51	64	56	0	7	4.4	0.0

APPENDIX A

TABLE A-1

GENERAL WEATHER DATA

Date	Minimum Temperature (°F)	Maximum Temperature (°F)	Average Temperature (°F)	Minimum Wind Speed (mph)	Maximum Wind Speed (mph)	Average Wind Speed (mph)	Total Rain Fall (inches)
2/5/2006	49	74	55	0	10	4.6	0
2/6/2006	47	65	55	0	6	2.1	0
2/7/2006	47	78	57	0	3	0.6	0
2/8/2006	48	82	58	0	3	0.9	0
2/9/2006	47	79	58	0	6	0.9	0
2/10/2006	46	73	56	0	11	3.4	0
2/11/2006	51	74	57	0	10	4.1	0
2/12/2006	49	78	57	0	5	0.9	0.01
2/13/2006	48	74	57	0	10	2.8	0
2/14/2006	46	68	54	0	17	6.2	0.01
2/15/2006	42	61	49	1	18	7.3	0
2/16/2006	38	58	47	0	8	2.8	0
2/17/2006	42	50	45	0	9	2.8	0.05
2/18/2006	40	52	45	0	11	3.9	0.07
2/19/2006	42	57	47	1	7	3.8	0
2/20/2006	40	64	48	0	9	3.5	0
2/21/2006	39	69	49	0	8	2.6	0
2/22/2006	41	74	51	0	9	2.6	0
2/23/2006	44	77	55	0	8	3.0	0
2/24/2006	46	80	56	0	9	1.9	0
2/25/2006	47	67	53	0	10	3.8	0
2/26/2006	48	58	52	0	21	7.8	0.26
2/27/2006	52	61	56	6	23	14.1	0.89
2/28/2006	48	63	54	0	18	7.8	0.05
3/1/2006	46	64	53	0	18	6.6	0.14
3/2/2006	47	65	53	1	12	5.9	0.22
3/3/2006	44	60	49	0	12	5.1	0.47
3/4/2006	44	67	51	0	14	5.2	0.05
3/5/2006	51	57	53	3	23	13.3	0.48
3/6/2006	47	59	52	0	10	4.0	0.46
3/7/2006	47	61	53	0	19	7.7	0.09
3/8/2006	42	60	50	0	16	5.6	0
3/9/2006	44	59	50	3	23	12.3	0.11
3/10/2006	40	54	46	0	9	5.1	0.15
3/11/2006	41	62	46	0	13	5.8	0.17
3/12/2006	43	51	46	0	12	6.0	0.16
3/13/2006	39	58	48	0	19	8.4	0.01
3/14/2006	47	61	51	0	15	7.8	0.46
3/15/2006	48	65	53	1	11	6.0	0.01
3/16/2006	48	60	53	1	15	8.1	0.43
3/17/2006	48	64	53	0	18	7.0	0
3/18/2006	42	68	53	0	14	4.9	0
3/19/2006	46	68	54	3	15	8.1	0
3/20/2006	45	57	50	2	14	7.1	0.51
3/21/2006	45	56	50	0	11	4.3	0.01
3/22/2006	46	56	49	0	5	1.0	0
3/24/2006	57	58	57	4	8	5.9	0.26
3/25/2006	50	63	55	5	17	11.8	0.27

APPENDIX A

TABLE A-1

GENERAL WEATHER DATA

Date	Minimum Temperature (°F)	Maximum Temperature (°F)	Average Temperature (°F)	Minimum Wind Speed (mph)	Maximum Wind Speed (mph)	Average Wind Speed (mph)	Total Rain Fall (inches)
3/26/2006	45	73	54	0	13	4.6	0
3/27/2006	46	60	52	0	22	7.1	0.11
3/28/2006	50	61	53	1	15	7.8	0.1
3/29/2006	48	56	52	0	17	7.5	0.6
3/30/2006	51	57	53	0	11	4.9	0.04
3/31/2006	49	59	52	3	13	7.5	0.3
4/1/2006	50	60	53	0	9	4.4	0.06
4/2/2006	51	58	53	0	11	5.8	0.68
4/3/2006	51	59	55	0	14	5.7	0.14
4/4/2006	50	58	53	0	14	6.0	0.53
4/5/2006	48	63	53	0	14	5.7	0.11
4/6/2006	49	67	55	0	10	3.3	0
4/7/2006	50	59	53	0	15	5.8	0.45
4/8/2006	50	64	55	0	9	4.6	0.01
4/9/2006	52	60	55	0	10	3.7	0.08
4/10/2006	51	65	56	0	11	4.9	0.05
4/11/2006	51	57	55	9	18	13.6	0.54
4/12/2006	54	58	56	0	13	5.8	0.44
4/13/2006	53	79	61	0	11	3.3	0.01
4/14/2006	54	60	57	0	17	7.5	0
4/15/2006	52	59	55	1	12	7.4	0.0
4/16/2006	49	60	53	3	16	9.0	0.41
4/17/2006	44	66	53	0	12	5.0	0.04
4/18/2006	46	69	57	0	15	6.0	0
4/19/2006	48	71	58	0	15	6.1	0
4/20/2006	52	66	57	5	17	10.1	0
4/21/2006	52	65	57	2	14	7.3	0
4/22/2006	53	65	58	3	9	6.1	0
4/23/2006	54	63	57	0	10	4.9	0
4/24/2006	53	62	56	0	10	4.7	0
4/25/2006	53	61	55	1	12	5.8	0
4/26/2006	53	64	57	0	12	6.3	0
4/27/2006	51	70	59	0	13	6.1	0
4/28/2006	53	69	59	0	12	6.1	0
4/29/2006	53	61	56	3	12	7.6	0
4/30/2006	52	74	60	0	13	4.8	0
5/1/2006	52	72	60	0	14	7.0	0
5/2/2006	50	72	59	1	16	7.6	0
5/3/2006	52	61	55	4	11	7.8	0
5/4/2006	53	67	58	0	13	5.8	0
5/5/2006*A368	54	55	55	3	8	5.5	0
5/11/2006	55	56	56	7	8	7.5	0
5/12/2006	53	68	59	2	13	7.2	0
5/13/2006	52	64	57	2	12	7.2	0
5/14/2006	51	88	66	0	11	3.6	0
5/15/2006	56	77	67	0	15	6.1	0
5/16/2006	54	66	59	3	13	8.0	0
5/17/2006	52	63	56	4	13	8.9	0

APPENDIX A

TABLE A-1

GENERAL WEATHER DATA

Date	Minimum Temperature (°F)	Maximum Temperature (°F)	Average Temperature (°F)	Minimum Wind Speed (mph)	Maximum Wind Speed (mph)	Average Wind Speed (mph)	Total Rain Fall (inches)
5/18/2006	52	64	56	2	14	8.0	0
5/19/2006	53	60	56	0	9	3.9	0.17
5/20/2006	53	71	61	0	14	3.3	0.01
5/21/2006	57	67	61	0	9	3.3	0.32
5/22/2006	55	67	60	0	12	5.8	0
5/23/2006	60	72	64	0	12	6.9	0
5/24/2006	57	72	64	0	13	5.6	0
5/25/2006	55	66	59	4	19	12.2	0
5/26/2006	54	64	58	7	19	12.5	0
5/27/2006	51	65	57	1	15	9.8	0
5/28/2006	51	68	58	0	16	7.1	0
5/29/2006	51	68	58	1	14	7.2	0
5/30/2006	53	68	58	1	18	8.1	0
5/31/2006	53	67	58	3	15	8.4	0
6/1/2006	55	72	62	1	12	6.4	0
6/2/2006	58	75	64	0	16	6.5	0
6/3/2006	56	74	63	1	15	7.7	0
6/4/2006	58	72	63	1	15	9.3	0
6/5/2006	56	66	59	5	16	10.0	0
6/6/2006	55	68	60	4	16	10.0	0
6/7/2006	54	67	59	6	16	10.5	0
6/8/2006	54	63	58	5	16	9.0	0
6/9/2006	53	68	58	1	13	6.4	0
6/10/2006	54	59	56	4	11	7.6	0
6/11/2006	55	62	58	0	8	1.1	0
6/12/2006	58	68	61	0	0	0.0	0
6/13/2006	56	69	62	0	0	0.0	0
6/14/2006	55	68	61	0	0	0.0	0
6/15/2006	54	73	62	0	15	5.2	0
6/16/2006	57	83	67	0	13	6.3	0
6/17/2006	55	75	63	3	12	7.5	0
6/18/2006	53	66	59	4	14	8.3	0
6/19/2006	53	69	59	1	13	7.2	0
6/20/2006	54	75	62	1	13	6.2	0
6/21/2006	56	88	69	0	12	4.5	0
6/22/2006	56	91	70	0	13	5.3	0
6/23/2006	55	74	61	0	16	7.4	0
6/24/2006	56	69	60	1	14	8.5	0
6/25/2006	57	71	62	2	13	8.2	0
6/26/2006	56	76	62	1	12	6.9	0
6/27/2006	57	70	62	2	13	7.8	0
6/28/2006	59	69	63	0	14	7.9	0
6/29/2006	58	71	64	0	7	1.4	0
6/30/2006	59	60	60	0	0	0.0	0
7/1/2006	54	66	59	0	0	0.0	0
7/2/2006	54	65	58	0	0	0.0	0
7/3/2006	53	64	57	0	0	0.0	0
7/4/2006	55	65	58	0	0	0.0	0

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TABLE A-1

GENERAL WEATHER DATA

Date	Minimum Temperature (°F)	Maximum Temperature (°F)	Average Temperature (°F)	Minimum Wind Speed (mph)	Maximum Wind Speed (mph)	Average Wind Speed (mph)	Total Rain Fall (inches)
7/5/2006	54	66	58	0	15	3.7	0
7/6/2006	54	68	59	3	13	8.4	0
7/7/2006	52	80	63	0	14	5.7	0
7/8/2006	55	81	64	1	15	6.6	0
7/9/2006	55	70	61	4	14	9.0	0
7/10/2006	55	63	58	1	12	6.4	0
7/11/2006	54	66	59	2	15	8.7	0
7/12/2006	56	70	62	2	13	8.8	0
7/13/2006	56	80	64	0	15	6.0	0
7/14/2006	55	68	60	2	13	7.5	0
7/15/2006	55	71	61	0	13	5.8	0
7/16/2006	55	76	62	1	14	7.2	0
7/17/2006	55	81	66	0	12	5.9	0
7/18/2006	59	81	68	0	12	5.8	0
7/19/2006	62	85	68	0	13	5.8	0
7/20/2006	60	80	69	0	12	5.7	0
7/21/2006	61	82	71	0	13	6.2	0
7/22/2006	64	99	77	0	13	5.4	0
7/23/2006	63	89	73	0	14	6.6	0
7/24/2006	60	84	68	2	12	7.5	0
7/25/2006	59	82	68	2	12	7.6	0
7/26/2006	59	73	64	5	13	8.0	0
7/27/2006	57	69	62	4	12	7.3	0
7/28/2006	59	71	63	5	14	8.4	0
7/29/2006	59	69	64	0	13	7.0	0
7/30/2006	59	74	65	0	13	5.8	0
7/31/2006	58	68	62	1	21	9.9	0
8/1/2006	56	72	62	0	13	5.9	0
8/2/2006	56	72	62	1	15	6.1	0
8/3/2006	55	74	61	0	13	5.2	0
8/4/2006	57	75	64	2	11	6.2	0
8/5/2006	59	74	66	2	11	6.3	0
8/6/2006	59	71	63	1	15	7.5	0
8/7/2006	59	72	64	3	11	6.4	0
8/8/2006	59	76	65	1	14	5.8	0
8/9/2006	60	89	71	0	13	4.2	0
8/10/2006	59	70	63	2	13	7.8	0
8/11/2006	58	65	60	3	16	9.7	0
8/12/2006	57	74	62	0	13	6.1	0
8/13/2006	57	71	62	2	12	6.4	0
8/14/2006	58	69	63	0	13	6.8	0
8/15/2006	56	67	60	3	15	9.0	0
8/16/2006	57	66	60	2	15	8.1	0
8/17/2006	55	72	61	0	14	5.3	0
8/18/2006	54	68	60	2	14	7.4	0
8/19/2006	54	64	58	4	14	8.6	0
8/20/2006	55	65	58	3	14	8.6	0
8/21/2006	56	67	58	4	13	7.9	0

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TABLE A-1

GENERAL WEATHER DATA

Date	Minimum Temperature (°F)	Maximum Temperature (°F)	Average Temperature (°F)	Minimum Wind Speed (mph)	Maximum Wind Speed (mph)	Average Wind Speed (mph)	Total Rain Fall (inches)
8/22/2006*	56	65	57	1	8	4.2	0
9/7/2006	56	69	62	1	14	8.1	0
9/8/2006	56	62	58	5	12	9.5	0
9/9/2006	56	61	58	3	14	6.9	0
9/10/2006	54	72	60	0	7	2.9	0
9/11/2006	53	81	64	0	9	1.9	0.01
9/12/2006	55	85	65	0	6	2.4	0
9/13/2006	55	68	59	0	14	4.9	0
9/14/2006	55	67	59	0	14	8.6	0
9/15/2006	54	69	59	1	16	8.4	0
9/16/2006	52	75	61	0	12	2.8	0
9/17/2006	53	86	65	0	9	1.9	0
9/18/2006	56	78	64	0	13	3.6	0
9/19/2006	57	73	61	0	11	5.7	0
9/20/2006	54	81	64	0	10	3.3	0
9/21/2006	58	76	64	0	11	3.2	0
9/22/2006	56	85	68	0	10	4.6	0
9/23/2006	55	74	62	0	9	2.6	0
9/24/2006	54	75	62	0	11	3.3	0.01
9/25/2006	54	93	66	0	5	1.7	0
9/26/2006	55	69	60	1	12	4.8	0.01
9/27/2006	57	69	60	0	11	5.7	0
9/28/2006	53	64	57	1	10	5.4	0
9/29/2006	53	65	57	2	12	6.3	0
9/30/2006	57	63	59	0	11	5.2	0
10/1/2006	56	63	60	0	6	2.8	0
10/2/2006	55	72	61	0	8	1.8	0
10/3/2006	52	68	59	0	10	3.4	0
10/4/2006	56	64	60	0	6	3.0	0.16
10/5/2006	55	71	59	0	8	1.6	0.13
10/6/2006	54	59	57	0	9	5.1	0.01
10/7/2006	54	76	61	0	11	3.3	0
10/8/2006	52	86	64	0	7	1.7	0
10/9/2006	55	77	62	0	13	3.4	0
10/10/2006	54	73	61	0	12	3.4	0
10/11/2006	54	74	62	0	11	2.6	0
10/12/2006	53	68	59	0	14	4.9	0.01
10/13/2006	56	65	59	3	9	6.3	0
10/14/2006	56	64	59	0	11	4.6	0
10/15/2006	55	58	57	3	10	6.2	0
10/16/2006	56	70	60	0	17	6.6	0
10/17/2006	51	71	60	0	13	4.1	0
10/18/2006	53	76	62	0	11	4.0	0
10/19/2006	52	82	63	0	8	3.2	0
10/20/2006	55	85	66	0	12	3.0	0
10/21/2006	54	90	67	0	7	2.0	0
10/22/2006	55	78	62	0	14	4.5	0
10/23/2006	52	79	60	0	14	5.3	0.01

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TABLE A-1

GENERAL WEATHER DATA

Date	Minimum Temperature (°F)	Maximum Temperature (°F)	Average Temperature (°F)	Minimum Wind Speed (mph)	Maximum Wind Speed (mph)	Average Wind Speed (mph)	Total Rain Fall (inches)
10/24/2006	54	65	58	2	14	7.4	0
10/25/2006	50	80	63	0	14	5.2	0.01
10/26/2006	53	82	65	0	9	2.6	0
10/27/2006	53	85	64	0	5	1.2	0
10/28/2006	52	87	63	0	12	3.9	0
10/29/2006	52	66	56	2	16	10.2	0
10/30/2006	51	58	55	1	11	6.1	0
10/31/2006	52	63	55	1	12	5.1	0
11/1/2006	50	67	57	0	11	2.9	0
11/2/2006	55	64	60	0	13	5.8	0.24
11/3/2006	59	70	61	0	10	4.3	0
11/4/2006	58	73	60	0	9	3.9	0
11/5/2006	54	73	61	0	10	3.2	0
11/6/2006	56	79	63	0	10	2.9	0.01
11/7/2006	56	67	59	0	6	2.0	0.01

Notes:

* - weather data for this time period is not available due to technical difficulties.

Abbreviations and Acronyms:

°F - degrees Fahrenheit

mph - miles per hour

APPENDIX A

TABLE A-2

WIND DIRECTION

Date	0001	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
6/22/2005																	W	W	W	W	WSW	WSW	W	SW
6/23/2005	SW	SW	WSW	S	W	SSW	S	S	S	S	S	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	SW	SW	SW	SW
6/24/2005	SW	SSW	SW	SW	SSW	SW	SW	SSW	SW	SW	SSE	SSE	SE	WSW	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
6/25/2005	WSW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	SW	SW	S	SSW	SSW	WSW	SW	WSW	WSW	WSW	WSW	WSW	SW	SW	SSW
6/26/2005	SW	SW	SW	SW	SSW	S	S	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	W	WSW	WSW	WSW	SW
6/27/2005	WSW	WSW	SW	SW	SW	SW	WSW	WSW	WSW	SW	WSW	SW	SW	WSW	WSW	SW	WSW	W	W	WSW	WSW	WSW	W	WSW
6/28/2005	WSW	WSW	SW	SW	SW	SW	SW	SW	WSW	SW	WSW	SSW	SW	WSW	WSW	W	WSW	W	W	W	W	WNW	W	W
6/29/2005	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	W	SSE	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	W	WNW
6/30/2005	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	W	W	WNW
7/1/2005	WNW	WNW	WNW	WNW	WNW	WNW	W	WNW	W	W	WSW	WSW	W	WNW	W	W	W	W	W	WSW	W	W	WSW	W
7/2/2005	W	W	W	WNW	W	W	WNW	W	W	WSW	S	SW	SW	SW	W	WSW	WSW	WSW	WSW	WSW	W	WSW	WSW	W
7/3/2005	W	W	W	NW	W	WSW	SW	WSW	WSW	WSW	WSW	W	WSW	WSW	WSW	SW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW
7/4/2005	WSW	WSW	W	W	W	WNW	WSW	WSW	WSW	ENE	ENE	ENE	SSE	W	W	SW	SW	WSW	SW	SW	SW	SW	SW	SW
7/5/2005	SW	SW	SW	SW	SW	SW	S	SSW	SW	S	SW	WSW	WSW	WSW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	SSW
7/6/2005	SW	SW	SW	SW	SW	WSW	WSW	WSW	NW	NNW	NNE	WNW	WSW	WNW	W	WSW	W	W	W	W	W	WSW	WSW	WSW
7/7/2005	SW	WSW	SW	SSW	SW	SW	SSW	SSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W
7/8/2005	WNW	WSW	WSW	WSW	WSW	WSW	WNW	W	W	WNW	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
7/9/2005	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW
7/10/2005	WSW	WSW	W	WSW	W	W	WSW	W	WSW	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	W	W	W	WNW	WNW	W	WSW
7/11/2005	W	W	WSW	WSW	WSW	WNW	WNW	NW	WNW	WNW	S	WNW	WNW	WNW	WNW	WNW	WSW	WSW	W	WSW	W	WNW	WNW	WNW
7/12/2005	W	WSW	WSW	WSW	WNW	WNW	WNW	WNW	WNW	W	WNW	E	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	WNW	W	W	WNW
7/13/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW
7/14/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	WNW	WNW	WSW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW
7/15/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WSW	WSW	WNW	W
7/16/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	SE	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW
7/17/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	WNW	W	WNW	W	WSW	W	W	W	WNW
7/18/2005	WNW	WNW	WNW	W	W	W	WNW	W	WSW	W	WSW	WSW	W	WSW	WSW	WSW	WSW	SW	WSW	WSW	WSW	SW	SW	WSW
7/19/2005	WSW	SW	SW	WSW	WSW	SSW	SW	SW	SW	SW	WSW	WSW	W	W	W	W	WSW	WSW	WSW	WSW	W	W	W	W
7/20/2005	W	WSW	WSW	W	SW	WSW	SW	WNW	SSW	SW	WSW	WNW	W	WSW	W	W	WNW	WNW	W	WNW	WNW	W	W	W
7/21/2005	W	W	W	W	W	W	W	WNW	WSW	WSW	WNW	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
7/22/2005	WSW	W	WNW	W	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	W	W	WNW	WNW	WNW
7/23/2005	WNW	WNW	WNW	WNW	WNW	---	WNW	---	WNW	SE	SSE	NNE	N	NNE	WNW	WNW	W	W	WNW	WNW	WNW	WNW	NW	WNW
7/24/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	W	W	WNW	WNW	WNW	WNW	WSW
7/25/2005	WNW	WNW	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	W	W	WNW	W	WNW	W	W	WNW	W	W	WNW
7/26/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	WSW	WSW	WNW	W	W	WNW	WNW	WNW	WNW	WSW	WNW	W	WNW	WNW	W
7/27/2005	WNW	W	W	W	W	WSW	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	WNW	W	W	W	W	W	W	W	W

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TABLE A-2

WIND DIRECTION

Date	0001	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
7/28/2005	W	WNW	W	WSW	W	W	WSW	WSW	WSW	WSW	WSW	W	WSW	W	WSW	WNW	WNW	WSW	W	W	W	WNW	W	W
7/29/2005	W	WNW	W	W	W	WSW	W	WSW	WSW	WSW	W	W	W	WSW	W	WSW	W	W	WSW	WSW	W	WSW	WNW	WNW
7/30/2005	W	W	WNW	W	WNW	WNW	W	W	W	WNW	W	WNW	WNW	WNW	WNW	WNW	WNW	WSW	W	WNW	W	W	WNW	WNW
7/31/2005	WNW	WNW	WNW	WNW	WNW	W	W	W	WNW	WNW	NNE	WNW	WNW	WNW	WNW	W	WNW	WNW	WNW	W	WSW	WSW	WSW	W
8/1/2005	W	W	W	W	W	WNW	WSW	W	WNW	WSW	WNW	WNW	W	WNW	W	WSW	W	W	WNW	WNW	WNW	WNW	WSW	W
8/2/2005	W	WSW	W	W	WNW	WNW	WSW	W	W	WNW	W	WSW	WSW	WNW	WNW	W	W	W	WNW	W	W	SW	WSW	WSW
8/3/2005	W	W	WSW	WSW	WSW	WSW	WNW	WNW	W	WSW	SE	WNW	WNW	WNW	WSW	W	WNW	WNW	WSW	W	W	W	W	W
8/4/2005	WNW	WNW	WNW	W	WNW	WNW	WNW	WNW	WNW	W	SSW	WNW	WNW	WNW	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W
8/5/2005	WNW	W	W	WNW	W	WNW	WNW	WNW	WNW	WSW	WNW	WNW	WNW	WNW	WNW	WNW	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW
8/6/2005	WNW	W	WNW	WNW	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	W	WNW	WNW	WNW	WNW	W	WNW	W	W	W
8/7/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	W	W	W	WNW	WSW	W	W	WSW	WSW	W	WSW
8/8/2005	W	WSW	WSW	WSW	WSW	W	W	W	W	W	WSW	WSW	WSW	WNW	WNW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W
8/9/2005	W	W	WNW	W	W	W	WNW	WNW	W	W	W	WSW	W	WNW	W	WNW	W	W	W	W	WSW	W	W	W
8/10/2005	WNW	WNW	WNW	W	WNW	WNW	W	W	WSW	SW	SSW	WNW	W	W	W	W	WSW	WNW	WNW	W	W	W	W	W
8/11/2005	WSW	W	W	W	W	W	WNW	W	WNW	SW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	W	WNW
8/12/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	S	N	W	WNW	W	W	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW
8/13/2005	WSW	WSW	SW	SSW	SW	SW	SW	SSW	SW	SSW	SSW	SSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	WSW	WSW	WSW
8/14/2005	SW	SW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	WSW	WSW	W	WSW	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW
8/15/2005	WSW	WSW	WSW	WSW	SW	SW	SW	WSW	SW	SW	SSW	WSW	W	WSW	WSW	WSW	WSW	W	W	W	W	W	W	W
8/16/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	W	W	W	W	W	W	WNW	WNW	WNW	W	W	W	W	W	W
8/17/2005	W	WNW	W	W	WSW	W	WSW	WSW	WSW	W	W	W	WSW	WSW	W	W	W	WSW	WSW	WSW	WSW	W	W	WSW
8/18/2005	WSW	WSW	SW	WSW	W	SW	SSW	SSW	SSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	W	SW	SW	WSW
8/19/2005	SW	WSW	SW	SSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	WSW	WSW	WSW
8/20/2005	SW	WSW	WSW	SW	WSW	WSW	SW	W	SW	WSW	W	WSW	W	W	W	W	W	WSW	SW	W	W	W	W	WSW
8/21/2005	WSW	WSW	WSW	WSW	SW	SW	SSW	WSW	SW	SW	SW	WSW	WSW	W	W	W	SW	W	SW	WSW	SW	WSW	WSW	WSW
8/22/2005	WSW	WSW	WSW	WSW	SW	SW	WSW	WNW	WNW	SSW	W	ENE	W	W	W	W	WNW	W	WNW	WNW	W	W	W	WNW
8/23/2005	WNW	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	SSE	NE	WNW	WNW	W	W	WSW	WSW	WSW	WSW	W	WSW	W	W
8/24/2005	WSW	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	SW	SE	ENE	NE	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
8/25/2005	W	W	WNW	WNW	WNW	W	W	WSW	W	WSW	SE	E	WSW	W	WSW	WNW	W	W	WNW	WNW	W	WNW	WNW	WNW
8/26/2005	WNW	WNW	WNW	WNW	WNW	W	WNW	WNW	WNW	WNW	WNW	WNW	W	WNW	WNW	W	WNW	WNW	W	W	W	W	W	WNW
8/27/2005	WNW	W	W	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	WNW	WNW	WNW
8/28/2005	WNW	WNW	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	W	W	W	W	WSW	WNW	W
8/29/2005	W	W	WSW	SW	WSW	W	W	WNW	W	W	WSW	SW												
9/1/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	W	WSW	W	W	W	W	W	W	WNW
9/2/2005	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW	SW	WSW
9/3/2005	WSW	SW	WSW	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	WSW	W	WSW	WSW	SW	SW

APPENDIX A

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WIND DIRECTION

Date	0001	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
9/4/2005	WSW	SSW	SSW	SW	SSW	S	SW	SW	SSW	SW	SW	SW	WSW	SW	SW	SW	WSW	WSW	W	WSW	W	W	W	WSW
9/5/2005	SW	SW	SW	W	W	WSW	WNW	W	WSW	WSW	WNW	WNW	SE	W	W	W	W	W	W	W	WNW	WSW	WSW	SW
9/6/2005	WSW	W	W	W	WNW	W	W	W	W	SW	SSE	WSW	WSW	W	WSW	WSW								
9/12/2005									SSW	SW	SW	SW	W	W	W	WSW	WSW	WSW	W	WSW	W	W	W	WSW
9/13/2005	W	WSW	SW	SW	SW	WSW	SW	SW	SW	W	SW	SW	SW	WSW	WSW	WSW	WSW	W	WSW	W	WSW	WSW	WSW	WSW
9/14/2005	WSW	SW	WSW	SW	SW	SW	SW	SW	SSW	SW	SW	WSW	WSW	SW	SW	WSW	WSW	W	WSW	WSW	WSW	WSW	W	WSW
9/15/2005	W	WSW	WSW	SW	SW	WSW	SW	SSW	SW	SW	SW	WSW	WSW	WNW	W	W	W	W	W	WSW	WSW	WSW	WSW	SW
9/16/2005	SSW	SSW	SW	SSW	S	S	S	S	SSW	SSW	SW	WSW	WSW	WSW	SW	WSW	W	WNW	W	W	W	W	WNW	WNW
9/17/2005	W	W	WSW	W	W	W	W	WNW	W	WSW	WSW	W	WSW	SW	WSW	W	W	W	W	W	W	W	WSW	WSW
9/18/2005	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	S	SE	SE	W	W	W	W	W	WNW	WNW	WNW	W	W	WNW
9/19/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	WNW	N	ENE	ESE	N	W	W	W	W	W	WNW	NW	WNW	WNW
9/20/2005	WNW	WNW	NW	WNW	WNW	WNW	WNW	WNW	W	W	WNW	W	W	W	W	WNW	W	WNW	W	W	WNW	W	WNW	W
9/21/2005	WNW	W	W	W	W	W	W	WSW	WSW	WSW	E	N	SSE	W	W	W	WNW	WNW	WNW	W	W	WNW	WNW	WNW
9/22/2005	WNW	WNW	WNW	W	W	W	WNW	WNW	W	SW	SSE	SE	WSW	WNW	WNW	W	W	WNW	W	WSW	W	W	SW	SW
9/23/2005	SW	SW	SW	WSW	SSW	WSW	SW	S	SW	WSW	WSW	WSW	W	WSW	WSW	W	WSW	WSW	SW	W	WSW	W	WSW	W
9/24/2005	W	W	W	W	W	W	W	NW	NW	NW	SSW	SE	N	N	WSW	WSW	W	W	W	WNW	WNW	WNW	WNW	WNW
9/25/2005	WNW	WNW	WNW	WNW	---	WNW	WNW	---	WNW	WNW	SSE	SSE	SSE	SE	S	SE	WNW	WNW	W	W	W	WNW	WNW	WNW
9/26/2005	WNW	WNW	WNW	WNW	NW	WNW	WNW	WNW	WSW	WNW	WNW	WSW	W	W	W	W	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW
9/27/2005	WSW	WSW	WSW	WSW	W	WNW	WNW	W	WNW	WSW	SE	SE	ENE	WNW	SW	W	W	WNW	WNW	WNW	W	WNW	WNW	W
9/28/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	---	WNW	S	SE	ENE	E	SE	WNW	WNW	WNW	WNW	WNW	WNW	W	W	W
9/29/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NNW	N	NE	NNE	N	SSE	W	W	W	WNW	WNW	WNW	WNW	WNW
9/30/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	ENE	NNE	N	W	W	W	W	WNW	WNW	NW	WNW	WSW	W	W
10/1/2005	SW	WSW	SW	WSW	W	W	W	WNW	W	W	W	W	W	WSW	WSW	WSW	W	W	WNW	W	W	W	W	W
10/2/2005	W	W	W	WNW	W	W	W	WNW	WNW	WNW	WSW	SE	W	W	W	WNW	W	W	W	W	W	W	WNW	WNW
10/3/2005	W	W	W	W	W	W	W	W	W	W	WSW	WSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W
10/4/2005	W	W	W	WSW	W	WNW	WNW	WNW	WNW	WNW	NNW	N	N	NW	WSW	WSW	WSW	W	W	W	W	WNW	WNW	WNW
10/5/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	SW	SE	NW	N	N	SSE	WNW	W	W	WNW	WNW	NW	WNW	WNW
10/6/2005	WNW	WNW	---	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NE	SE	ENE	ENE	WNW	W	W	WNW	W	W	W	W	W	W
10/7/2005	WNW	W	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	SSE	W	W	WSW	W	WSW	WSW	WSW	W	W	W	WNW	W
10/8/2005	W	W	W	W	W	W	W	W	W	W	W	WSW	WSW	W	WSW	WSW	W	W	W	W	W	W	W	W
10/9/2005	WNW	W	W	WSW	W	W	W	W	SSW	S	SE	SE	SE	SE	W	W	W	WNW	W	WNW	WNW	WNW	WNW	WNW
10/10/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	N	SE	SE	SE	E	W	WNW	WNW	W	WNW	WNW	W	WNW	WNW
10/11/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	WSW	WSW	WSW	WSW	WSW	WSW	W	SW	W	WSW	SW	WSW	WSW	W
10/12/2005	W	W	W	W	W	ESE	SSE	S	SSW	SSE	SSE	SSE	SE	ESE	W	WNW	WNW	W	WNW	WNW	WNW	W	W	WNW
10/13/2005	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NE	SE	N	SE	NNE	N	W	W	WNW	WNW	WNW	WNW	WNW	WNW
10/14/2005	---	---	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	WNW	W	W	W	WNW	W	W	W	WSW	WSW	WSW	SSW	S	S

APPENDIX A

TABLE A-2

WIND DIRECTION

Date	0001	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
10/15/2005	SSW	W	WNW	NW	WNW	W	WNW	W	W	W	W	W	W	WSW	W	W	W	W	W	W	WNW	NW	WNW	WNW
10/16/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	---	WNW	NE	SE	SE	SE	SE	SSE	SSE	W	W	W	WNW	W	W	W
10/17/2005	W	W	---	W	W	W	W	W	W	SE	SSE	SE	E	ENE	SE	W	W	W	W	WNW	WNW	WNW	WNW	SSE
10/18/2005	SSE	SE	WSW	N	WNW	WNW	W	WNW	S	SSW	SE	SSE	S	S	S	SSE	S	S	S	SSW	SSW	S	S	S
10/19/2005	S	S	S	S	S	SW	SSW	SW	SW	S	SSE	S	S	NNE	WSW	W	W	W	W	W	W	W	W	W
10/20/2005	W	WSW	W	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	N	N	N	W	WNW	W	WNW	W	WNW	W	W	W	W
10/21/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	SSE	E	SE	ESE	ENE	WNW	WNW	W	WNW	WNW	WNW	WNW	W	WNW
10/22/2005	W	WNW	WNW	W	WNW	WNW	WNW	WNW	WNW	WNW	S	S	W	WNW	W	W	W	W	W	W	WSW	WSW	SW	W
10/23/2005	SW	SW	SW	WSW	W	WSW	WSW	W	WSW	SW	S	SSE	E	NE	ENE	W	W	W	W	W	W	WNW	WNW	WSW
10/24/2005	W	W	WSW	SW	W	W	SSW	S	SW	S	SW	WSW	WSW	WSW	WSW	WSW	WSW	SW	W	W	W	W	SW	SW
10/25/2005	WSW	SW	SW	S	SW	SW	WSW	SW	SW	SW	SW	SW	SW	SW	W	SW	SW	SW	SW	SW	SW	SSW	W	WSW
10/26/2005	SE	SSE	SE	SE	SE	SE	SE	SE	ESE	ESE	ESE	SW	W	W	WSW	W	WSW	W	W	W	W	W	W	W
10/27/2005	W	W	W	W	W	W	W	SW	SW	SSW	SSW	SW	SW	ESE	SE	SW	WSW	SW	SW	SSW	S	S	S	SSE
10/28/2005	SSE	SSE	SSE	SE	SE	SE	SE	ESE	SE	SE	ESE	ESE	ESE	ENE	ENE	N	S	SW	W	NW	N	N	N	N
10/29/2005	N	N	NNW	NNW	NNW	NNW	NW	NW	NW	NW	WNW	NNW	N	N	WSW	W	W	W	W	W	W	WNW	WNW	W
10/30/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	N	N	N	NNW	NW	SSE	WNW	W	W	WNW	WNW	WNW	WNW	WNW
10/31/2005	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NNW	NNW	N	NNW	N	N	SSE	NNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW
11/1/2005	WNW	---	WNW	NW	NNW	NNW	NNW	---	NNW	NNW	W	W	WNW	ENE	ENE	WNW	WNW	WNW	WNW	WSW	W	W	W	SW
11/2/2005	WSW	WSW	WSW	W	SW	SW	WSW	SW	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	WSW	WSW	SW	SW	SSW
11/3/2005	SSW	W	N	N	N	N	---	N	SSE	SSE	SE	SE	S	SSW	SSW	SSW	SSW	SSW	S	S	SSE	S	SSE	SSE
11/4/2005	S	S	SSW	S	SE	SSW	S	S	W	WSW	WSW	WSW	SW	WSW	WSW	W	WSW	WSW	WSW	W	WNW	WNW	WNW	NW
11/5/2005	NW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	ESE	SE	ENE	ESE	WSW	WSW	W	W	W	W	W	W	W
11/6/2005	W	W	WSW	SW	SW	S	SE	SE	SE	SE	SE	S	SE	ESE	ESE	SE	SW	SSW	SW	S	WSW	WSW	SSW	SSW
11/7/2005	WSW	SW	---	WSW	WSW	SW	S	SSE	ESE	ESE	ESE	SE	E	ESE	ESE	S	S	S	S	SSE	SSE	W	W	WNW
11/8/2005	WNW	WNW	W	WNW	N	N	N	N	N	NE	ENE	NNE	ENE	ENE	ENE	SSE	SE	NE	NE	E	---	E	NW	N
11/9/2005	SE	N	NW	WSW	WSW	SSW	SW	WNW	W	SSE	SE	E	SE	SSW	WNW	WSW	SSW	S	S	N	N	N	NNW	NNW
11/10/2005	NW	W	W	W	W	W	W	W	W	N	ESE	ESE	SE	ESE	WSW	WSW	W	W	W	WNW	W	W	W	W
11/11/2005	WSW	WSW	WSW	WSW	WSW	SW	WSW	SW	SW	SW	WSW	WSW	W	WSW	SW	SW	SW	SW	SW	SSW	SSW	SW	SW	SW
11/12/2005	WNW	WSW	W	W	W	N	NNE	NW	NW	NNW	NNW	NNW	NNW	NNW	NW	NW	WNW	WSW	W	W	W	WNW	WNW	WNW
11/13/2005	WNW	NW	NW	NW	---	NW	NW	NW	NW	NW	NW	NE	ENE	ESE	ENE	ENE	ESE	W	W	W	W	W	W	WNW
11/14/2005	W	W	W	---	W	W	W	W	WNW	WNW	WNW	ENE	N	SSE	NNW	NNW	W	W	WNW	WNW	WNW	WNW	NW	WNW
11/15/2005	NW	WSW	W	NW	NW	W	WNW	NW	SW	SSE	SE	SE	SE	NE	ENE	ENE	ENE	NE	ENE	ENE	E	ENE	ENE	ENE
11/16/2005	ENE	ENE	ENE	ENE	---	---	ENE	ENE	SE	ESE	SE	S	SSE	S	SSE	ESE	SE	SE	SE	SE	---	SE	---	SE
11/17/2005	---	---	SE	---	SE	N	N	---	N	N	N	NNE	N	SE	E	NNW	NNW	NNW	NNW	NNW	NNW	NNW	---	---
11/18/2005	NNW	NNW	NNW	NNW	NNW	---	---	NNW	---	---	NNW	NNW	SE	SSE	SE	SSE	SSE	NNW	NNW	N	---	---	N	N
11/19/2005	---	---	N	N	N	N	N	NNW	N	N	N	N	N	N	N	NNW	N	N	N	N	N	N	---	ESE

APPENDIX A

TABLE A-2

WIND DIRECTION

Date	0001	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
11/20/2005	---	ESE	N	N	N	N	N	NW	NW	NW	N	NNW	N	SSE	N	SSE	S	SSE	SSE	---	SSE	SSE	SSE	SSE
11/21/2005	SSE	---	---	---	SSE	SSE	N	N	---	---	N	N	N	NNE	SSE	SE	SE	SE	---	---	SE	SE	SE	SE
11/22/2005	SE	---	SE	---	SE	WSW	NW	NW	---	NW	NW	NNE	S	SSE	SSE	ENE	SE	SE	SE	WNW	WNW	W	WNW	WNW
11/23/2005	WNW	WNW	WNW	WNW	WNW	---	WNW	WNW	WNW	NW	N	N	N	N	N	N	N	SSE	WNW	WNW	WNW	WNW	WNW	WNW
11/24/2005	WNW	WNW	WNW	W	W	WNW	W	W	W	WNW	ESE	SW	W	W	W	W	W	WNW	W	W	W	WSW	W	W
11/25/2005	W	SE	SE	SE	SE	SE	SE	ESE	SE	SE	SSW	SSW	W	WNW	W	W	W	W	WNW	WNW	WNW	W	WNW	W
11/26/2005	W	WNW	WNW	WNW	NNW	NW	NW	WNW	NW	WNW	W	NW	N	N	N	WNW	WNW	WNW	WNW	W	W	WNW	NW	NW
11/27/2005	NW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	N	N	N	SSE	N	N	N	W	W	WNW	WNW	WNW	WNW
11/28/2005	WNW	---	NW	ENE	ENE	E	E	ESE	E	E	ENE	ESE	SE	SE	N	N	NE	SE	SE	SE	SE	SE	SE	SE
11/29/2005	ESE	ESE	ENE	E	NE	ESE	E	ESE	ESE	SE	SE	SE	SE	ESE	SSW	SW	SW	SW	W	W	WNW	WNW	WNW	W
11/30/2005	W	W	WNW	NNW	NW	NNW	NNW	N	NE	NE	ENE	NE	ENE	E	SE	SSE	SSE	N	N	N	N	---	NE	E
12/1/2005	SE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	SSE	SSE	SE	SSE	S	S	S	S	S	SSW	SSW	W	WNW	WSW	W
12/2/2005	WSW	W	W	W	W	WNW	WNW	WNW	WNW	NW	NW	NNW	NNW	N	WNW	WSW	W							
1/1/2006		NNE	NE	SSE	---	N	NNE	---	---	---	SE	SE	SSE	SE	SE	SE	ESE	SE	SE	SE	SE	ESE	SE	SE
1/2/2006	SE	SSE	SSE	SSE	S	S	S	S	SSE	S	S	S	S	S	S	S	S	S	SSW	SSW	SSW	SW	SW	WSW
1/3/2006	WNW	WNW	WSW	WSW	SSW	SSW	SSW	SSE	SE	SE	SE	ESE	ESE	SE	SE	SE	SE	ESE	ESE	ESE	SE	SE	SE	SE
1/4/2006	SE	SE	SE	SE	SE	SW	SW	SE	E	SE	SE	SSE	SSE	ENE	ENE	E	E	ESE	---	ENE	NW	NW	NW	NW
1/5/2006	NW	NW	WNW	WNW	W	W	WNW	WNW	W	WNW	W	W	WSW	SE	SSE	SSE	SE	ESE	SE	SE	ESE	ESE	SE	SE
1/6/2006	SE	ESE	ESE	SE	SE	SE	SE	ESE	SE	SE	SE	ESE	SE	ESE	SE	---	ENE	ENE	ENE	N	N	N	SW	NNW
1/7/2006	NNW	NNW	NNW	W	WSW	WSW	WNW	WNW	WNW	WNW	WSW	S	SW	WSW	W	WSW	W	WNW	W	W	W	W	SW	SW
1/8/2006	SSW	WSW	NW	NW	NW	NW	NW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	---	NNW
1/9/2006	NNW	NNW	NNW	---	NNW	---	NNW	NNW	NNW	NNW	N	N	N	N	SE	SE	SE	W	W	WNW	WNW	WNW	WNW	WNW
1/10/2006	WNW	---	NW	NW	NW	NW	NW	NW	---	N	NNW	N	NNE	NE	N	ESE	SE	WSW	ESE	SE	SE	---	SE	SE
1/11/2006	ESE	SE	SE	SE	SSE	SE	ESE	NE	E	ESE	SE	SE	WSW	W	W	W	W	W	W	W	WNW	WNW	WNW	WNW
1/12/2006	WNW	WNW	WNW	WNW	---	WNW	WNW	NNW	NNW	NNW	ENE	NE	N	N	NNW	NNW	NW	NNW	N	N	NE	ENE	NE	ENE
1/13/2006	ENE	E	NE	NE	NE	NNW	WNW	WNW	---	NW	ENE	NNE	N	N	NE	NE	SSE	S	SE	SSE	SSE	SSE	SSE	SSE
1/14/2006	WNW	SE	SSE	SE	SSE	SSE	SSE	S	S	SSE	SW	WSW	WSW	SW	SW	WSW	WSW	W	W	WNW	WNW	WNW	WNW	WNW
1/15/2006	WNW	WNW	NW	NW	N	W	W	NW	NW	NW	N	N	N	N	N	N	N	WNW	WNW	WNW	WNW	WNW	WNW	WNW
1/16/2006	WNW	WNW	---	---	WNW	NW	ENE	ENE	E	E	E	ESE	SE	ESE	SSE	ENE	SE	SE	ESE	N	N	---	---	---
1/17/2006	N	N	N	ENE	E	E	E	E	ESE	ESE	ESE	ESE	E	ESE	SE	ESE	SSE	SSE	SSE	SSE	SE	SE	SSE	SSE
1/18/2006	SSE	SSW	SSW	SSW	SW	SW	SW	SW	WSW	WSW	SW	SW	WSW	WNW	SW	WSW	WSW	W	W	WNW	WNW	W	WSW	---
1/19/2006	W	---	SW	SW	WNW	WSW	NNW	NW	WNW	NNW	NNW	NNW	N	NNW	NNW	N	N	WSW	W	W	W	W	W	W
1/20/2006	W	NW	NNW	ENE	NE	NE	NE	NE	---	SE	SE	SE	SE	ENE	ENE	SSE	WSW	W	W	WSW	SW	WSW	SW	SW
1/21/2006	SW	SE	SE	SE	ESE	E	ENE	ENE	E	ESE	ESE	ESE	SE	N	N	NE	SE	SE	SE	WSW	NNE	N	E	SSE
1/22/2006	---	NNW	N	NNW	NNW	NNW	NNW	NNW	NW	NW	NNW	NW	NW	NW	NNW	NNW	NNW	N	N	N	NNW	NW	SW	SW
1/23/2006	WNW	N	SW	WSW	W	SSE	S	---	SE	SSE	SSE	SSE	SSE	SSE	SSE	S	SSE	SSE	SSE	SSE	NW	WNW	---	WNW

APPENDIX A

TABLE A-2

WIND DIRECTION

Date	0001	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1/24/2006	WNW	WNW	NE	SE	E	E	E	---	---	E	ENE	SE	SSE	SSE	SE	SE	NNW	NNW	NNW	NW	NW	NW	NW	NW
1/25/2006	NNW	NNW	NNW	WSW	WNW	WNW	WNW	WSW	WSW	SSW	ENE	SE	SE	SSW	SSW	SSW	SSW	SSW	S	S	S	W	W	WSW
1/26/2006	W	W	WNW	NW	WNW	WNW	WSW	WNW	WNW	WNW	ENE	ESE	SW	WSW	WSW	WSW	WSW	WSW	W	W	W	W	W	W
1/27/2006	W	W	W	SE	SE	SSE	SSE	SSW	WSW	WSW	E	E	ESE	SE	ESE	SE	WSW	WSW	W	W	W	W	W	---
1/28/2006	W	W	SE	SE	ESE	SE	SE	SE	ESE	ESE	SE	SE	SSE	SSE	S	S	S	S	S	SSW	SSW	SW	SW	SW
1/29/2006	WSW	W	WSW	WSW	WSW	WSW	WSW	---	WSW	---	WSW	SW	N	N	SSW	ESE	W	WSW	WNW	W	W	W	W	W
1/30/2006	---	W	W	W	SE	ESE	SE	ESE	SE	SSE	SE	SE	SSE	SSE	S	WSW	W	W	WNW	W	WNW	WNW	WSW	WNW
1/31/2006	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	SE	SE	E	E	ESE	SE	SW	WSW	W	W	W	WSW	SE	SE
2/1/2006	W	W	W	SSE	SSE	SE	ESE	E	ESE	ESE	ESE	ESE	ESE	ENE	SSE	SE	SE	SE	SE	SE	SE	SE	SE	SE
2/2/2006	SE	S	S	S	SSE	SW	SSW	SW	SSW	SSW	SW	SW	W	WSW	WSW	W	WSW	W	W	W	WSW	W	WSW	SW
2/3/2006	SW	WNW	WNW	SW	SSW	SSW	SSW	SSW	SE	ESE	SE	SE	SSE	SSE	SSE	SSE	N	N	W	WNW	W	W	W	W
2/4/2006	W	SE	SE	SSE	SE	SSE	SSE	NW	NW	W	W	W	WNW	NW	WNW	N	N	W	W	WNW	W	W	NW	NNW
2/5/2006	NW	NNW	NNW	N	NE	NE	NE	ENE	ENE	E	ESE	SE	SE	N	NE	ENE	NE	ENE	ENE	E	E	SE	NE	NE
2/6/2006	SE	ESE	ESE	SE	NNW	N	N	N	N	ESE	SE	SSE	SSE	SSE	NNW	NNW	NNW	N	N	---	N	N	N	---
2/7/2006	N	---	N	N	N	---	ESE	ESE	ESE	ESE	SSE	SE	ESE	SSE	SE	SSE	SE	ENE	ENE	NNW	NNW	NNW	NNW	---
2/8/2006	NNW	NNW	NNW	NNW	---	---	NNW	NNW	---	NE	N	SSE	SE	SSE	SSE	N	N	NNW	WSW	W	W	---	---	W
2/9/2006	---	N	N	---	N	N	---	---	---	N	SE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	---	---	SSE	ENE	E	---
2/10/2006	E	E	E	E	---	E	E	E	E	E	E	SSE	SSE	SSE	N	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW
2/11/2006	WSW	W	W	W	W	WNW	SSW	SE	SE	SE	SSE	ENE	NNE	SE	WSW	W	W	W	W	WNW	NW	W	W	W
2/12/2006	W	---	WNW	WNW	---	WNW	WNW	---	---	N	N	NE	SE	SE	SE	SE	SE	SE	W	WNW	W	W	W	---
2/13/2006	W	---	---	W	W	W	W	W	W	W	NNW	N	NNW	NNW	NNW	NW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW
2/14/2006	NW	NW	NW	NW	NW	NW	NW	NW	NW	SW	NNE	N	ENE	WSW	W	W	W	W	WNW	WNW	WNW	WNW	WNW	WNW
2/15/2006	WNW	WNW	WNW	WNW	NW	WNW	WNW	WNW	WNW	WNW	NW	N	N	N	N	WSW	WSW	WNW	WNW	WNW	WNW	WNW	WNW	WNW
2/16/2006	WNW	WNW	WNW	WNW	WNW	WNW	W	---	---	SE	SE	SE	SW	SW	WSW	WSW	SW	SW	WSW	WSW	WSW	WSW	SW	---
2/17/2006	---	---	SSW	---	SSW	ENE	E	NNE	NE	ENE	N	NNW	NNW	WNW	N	N	N	NNW	NNW	NNW	NW	---	NW	NW
2/18/2006	NW	W	W	W	SE	ESE	SSE	SSE	SE	SE	SE	ESE	SSE	SE	NNW	SSW	N	NNW	NW	NW	S	SW	WSW	ENE
2/19/2006	N	NE	NNE	N	N	N	NW	N	NNE	ENE	ENE	ENE	ESE	N	N	N	NNW	N	WNW	WNW	NW	NW	NW	NNW
2/20/2006	NNW	NNW	NNW	NNW	NNW	NNW	NW	NW	NNW	NNW	N	N	N	N	NNW	N	WSW	W	W	W	W	WNW	WNW	WNW
2/21/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	SSE	SE	SE	ESE	ENE	ESE	E	SE	N	SW	WNW	WNW	WNW	WNW	WNW	WNW
2/22/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	SE	SE	SE	SE	SE	SE	SE	W	W	WNW	WNW	WNW	WNW	WNW	WNW
2/23/2006	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NNW	N	N	NNW	NNW	NNW	NNW	NNW	NW	WSW	WNW	WNW	WNW	WNW	WNW	WNW
2/24/2006	WNW	WNW	WNW	WNW	WNW	---	WNW	WNW	---	NW	N	NNE	NNE	SE	SSE	N	N	N	WNW	WNW	WNW	WNW	WNW	WNW
2/25/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	N	N	W	WNW	W	W	WNW	W	W	W	WNW	WNW	---	WNW
2/26/2006	WNW	WNW	NW	NE	NNW	NNW	W	W	NNE	SW	NNE	N	SE	SSE	SE	ENE	SE	ESE	ESE	SE	SE	SE	SE	SE
2/27/2006	SE	SE	SE	ESE	ESE	SE	ESE	ESE	ESE	SE	ESE	SE	SE	SE	SE	SE	SE	SE	ESE	SSE	SSW	S	S	S
2/28/2006	SSW	WSW	WSW	WSW	SW	SW	SSW	SSE	SE	SSE	SSE	S	S	SSW	S	S	SSW	SSW	SW	WSW	SSW	SSW	---	SSW

APPENDIX A

TABLE A-2

WIND DIRECTION

Date	0001	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
3/1/2006	SSW	SSW	SSW	SSW	SSW	S	SE	SE	SE	SE	ESE	ESE	ESE	SE	S	S	SSE	S	SSE	SSE	SE	SE	SE	WNW
3/2/2006	WNW	SSW	SE	SE	ESE	SE	SE	SSE	SSE	SSE	SE	ENE	E	SE	SE	SE	S	S	SSE	SSE	SSE	SSE	SE	SE
3/3/2006	SSE	SW	SSW	SSW	SSE	SSE	SSE	SSW	WSW	SW	SW	SW	SW	SW	WSW	SW	W	WNW	W	WNW	W	NW	NW	NW
3/4/2006	---	---	NNE	ENE	ENE	SE	SE	SE	E	SSE	SE	ESE	ENE	ENE	SE	SE	E	SE	S	S	SSE	SE	SE	SE
3/5/2006	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SSE	ESE
3/6/2006	W	SW	W	WNW	NNW	---	SE	SSE	SE	ESE	ESE	ESE	SE	S	S	SW	SSW	SE	SSE	SSW	S	S	S	S
3/7/2006	S	S	S	S	SSE	SSE	SW	W	SW	W	W	W	WNW	W	W	WNW	W	W	W	WNW	WNW	WNW	W	WNW
3/8/2006	W	WNW	---	WNW	WNW	WNW	WNW	WNW	---	W	SE	SE	N	W	WSW	W	WNW	W	W	W	W	W	W	SW
3/9/2006	SW	SSW	SSW	W	WNW	W	W	W	WNW	WNW	W	WNW	W	W	W	W	W	W	W	WNW	WNW	W	WNW	WNW
3/10/2006	WNW	WNW	W	WNW	WNW	W	W	NW	SW	WNW	WSW	SW	SW	WSW	SSW	S	S	SW	WSW	SSW	W	W	SE	S
3/11/2006	SSE	ESE	ESE	SSE	S	S	ENE	N	NNW	NW	NNW	N	N	NNE	WSW	W	WSW	WSW	W	WSW	SW	NW	W	SSW
3/12/2006	S	S	SSW	SSE	SSW	SW	SSW	SW	SE	SE	ESE	SE	SSE	SE	SSE	NW	NW	WNW	NW	NW	NW	WNW	WNW	WNW
3/13/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	SE	SE	ESE	ESE	ESE	ESE	SSE	S	SSE	SSE	SSE	SSE	SSE	SSE	SE	SE
3/14/2006	SE	SSE	SSE	SE	SE	SE	SE	ESE	SSE	SSE	SW	W	SSW	SW	WSW	SSW	SSW	SSW	SSE	SW	SE	SE	SSE	SE
3/15/2006	SE	ESE	SE	SE	SE	SE	SSE	SE	SSE	SE	SE	WSW	WSW	WSW	WSW	SW	SW	SW	SW	SW	SSE	SW	S	SE
3/16/2006	SE	SE	SE	ESE	ESE	SE	SE	ESE	SE	ESE	ESE	ESE	ESE	SSE	S	SSE	SSE	SSE	SSE	WSW	SW	SE	SE	SE
3/17/2006	SW	WSW	SSW	SSW	WNW	WNW	---	NW	WNW	NNW	N	N	WNW	WSW	W	W	W	W	W	W	WNW	WNW	WNW	W
3/18/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	---	WNW	WNW	N	SE	WSW	SW	WSW	W	W	WSW	W	W	WNW	NW	WNW	WNW
3/19/2006	NW	NW	NW	NW	NW	WNW	WNW	WNW	WNW	NW	N	N	SW	WSW	WSW	WSW	W	W	W	W	W	W	W	W
3/20/2006	SSW	SSW	SSW	SSW	SSW	S	SSE	SSE	SSE	SSE	SSE	W	WNW	WSW	W	W	W	WSW	WSW	WSW	WSW	WSW	W	SSW
3/21/2006	SW	SSW	SSW	SSE	SE	SE	ESE	ESE	SE	SE	ESE	SE	SSE	SSE	SSE	SSE	N	N	N	SW	W	SW	W	W
3/22/2006	W	W	W	---	---	---	---	---	W	SE	SE	SE												
3/24/2006																						S	SSE	SSE
3/25/2006	SSE	SSE	SSE	S	S	SW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	W	SW	WSW	W	WSW	WNW	W	W	WNW
3/26/2006	W	W	WNW	WNW	WNW	WNW	WNW	NW	NNW	NNW	NNW	NNE	N	N	N	N	WNW	W	W	W	WNW	WNW	WNW	WNW
3/27/2006	WNW	WNW	WNW	WNW	WNW	---	SE	ESE	ENE	SE	S	E	SE	SSE	SSE	SE	SE	SE	SSE	SSE	S	SSE	SSE	SSE
3/28/2006	SE	SSE	ENE	SE	SSE	SSE	SSE	SE	SE	SSE	SSE	S	SSW	SSW	SSW	S	SW	SSW	SW	SSW	S	S	SSE	SE
3/29/2006	SE	SE	SE	SE	SE	SSE	SE	SE	SE	SE	ESE	ESE	ESE	ENE	ENE	ENE	NNW	NNE	NNE	---	---	---	NNE	---
3/30/2006	NNE	NNE	NE	ENE	ENE	ENE	ENE	E	SE	SE	ESE	ESE	ESE	S	S	SSE	S	SSE	S	S	SSE	SSE	SSE	SSE
3/31/2006	SSE	SSE	SSE	SSE	SE	SSE	SE	SE	SE	SE	ESE	SE	SSE	S	SSE	S	SW	SSW	SSW	SSW	SSW	S	SSW	SSW
4/1/2006	SSW	SSW	SSE	SSE	SSE	SSE	SE	SE	SE	SE	SE	ESE	SE	SE	SW	SW	SW	SW	WSW	SW	SSW	S	SSW	S
4/2/2006	SE	SE	SSE	SE	SE	SE	SE	ESE	ESE	SE	SE	ESE	ESE	SE	ENE	ESE	S	W	W	W	SE	SE	ESE	ESE
4/3/2006	E	SE	SSE	SSE	SSE	S	WSW	W	W	W	WSW	WSW	SW	SSW	SW	SW	WSW	WSW	WNW	W	WNW	WNW	WNW	WNW
4/4/2006	WNW	---	WNW	NNW	NE	ENE	NE	NNE	ENE	ENE	ENE	ENE	ESE	ESE	SE	SE	ESE	ESE	ENE	E	ESE	SE	SE	SSE
4/5/2006	---	WSW	WSW	W	W	W	SSW	WNW	WNW	WNW	WNW	W	SW	WSW	WSW	WSW	WSW	SW	WSW	SW	SSW	SSW	SSW	SSW
4/6/2006	SSW	S	SE	SE	SE	SE	SE	SE	ESE	ESE	SE	SE	SSE	N	S	SW	SW	W	WSW	W	W	W	W	W

APPENDIX A

TABLE A-2

WIND DIRECTION

Date	0001	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
4/7/2006	W	W	W	W	---	W	W	SE	ENE	ENE	ENE	SE	ESE	SSE	SE	SSE	SE	SE	SSE	S	SSW	SSW	S	SW
4/8/2006	W	SE	SSE	SE	SE	SSE	SSE	SSW	SE	ESE	ENE	ENE	SE	SE	SW	SSW	SW	SW	SW	SW	SW	SW	SW	SW
4/9/2006	SW	SW	---	SSW	SSE	SSE	SSE	SSE	SSE	SE	SE	SE	WSW	W	SW	SW	SSW	SSW	SW	SSW	SSW	SSW	S	S
4/10/2006	S	S	SSW	SW	SSW	SSW	---	SSW	SSW	SE	SE	SSW	SW	SW	SW	SW	SW	SSW	S	SSW	SSE	SSE	SSE	SE
4/11/2006	SE	SE	SE	SSE	SE	SE	ESE	ESE	SE	SE	ESE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
4/12/2006	SE	SE	SE	SE	SE	ESE	ENE	ENE	E	ENE	ESE	W	W	WNW	NW	N	ENE	ESE	ESE	SSE	SSE	SSE	SSE	WNW
4/13/2006	WNW	WNW	N	NNW	N	NNW	---	---	SE	SE	SE	SSE	SE	N	N	NNW	WNW	W	W	W	W	NW	NNW	NNW
4/14/2006	NNW	NNW	NNW	WNW	WNW	---	WNW	W	W	WSW	W	WSW	WSW	SW	WSW	W	W	WSW	W	W	WSW	WSW	W	WSW
4/15/2006	WSW	SW	SSE	S	SSE	SSE	SSE	S	SW	SSW	S	SSW	SSW	SSW	SSW	SSW	SSE	S	S	S	S	S	SSE	SSE
4/16/2006	SSE	SSE	SSE	S	S	S	S	W	W	WSW	WSW	SW	SW	SSW	SSW	WSW	SW	SW	W	WSW	WSW	WSW	WNW	W
4/17/2006	W	NW	NW	NW	NW	NW	NW	NW	NNW	N	N	N	N	NNW	NW	W	WNW	WSW	W	W	W	W	W	W
4/18/2006	W	NNW	NW	NW	NW	NW	NW	---	NNE	NNE	NNW	NNW	NNW	N	WSW	W	W	W	W	W	W	W	W	W
4/19/2006	WNW	WNW	WSW	---	WSW	WSW	WSW	WSW	WSW	ENE	SE	ENE	WSW	WSW	W	W	W	W	W	W	W	WNW	W	WSW
4/20/2006	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	SW	WSW	WSW	W	W	W	W	W	WSW	W	WSW	WSW	WSW
4/21/2006	WSW	WSW	SW	SSW	SSW	WSW	WSW	SW	SSE	W	W	ENE	WSW	SW	SW	WSW	W	WSW	W	SW	WSW	SW	SW	SW
4/22/2006	SSW	SSW	S	S	S	SSE	S	SSE	SE	SSE	ESE	ENE	ENE	ENE	SSE	SW	SW	SW	WSW	SW	SW	WSW	SW	W
4/23/2006	WSW	W	SW	SW	SSW	SSW	SSW	SSW	S	SSW	SSW	SW	SW	SSW	SW	WSW	SW	WSW	SW	SW	SW	SW	WSW	S
4/24/2006	W	SW	WSW	SW	SW	SSW	SW	SW	S	SW	WSW	SW	WSW	WSW	SW	W	WSW	WSW	W	WSW	W	WSW	W	W
4/25/2006	W	W	W	WNW	WNW	WNW	WNW	WNW	WNW	W	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	WSW	W	W	WSW	WSW	WSW
4/26/2006	W	W	SW	SSW	SW	W	WSW	W	SW		S	WSW	WSW	WSW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	SSW
4/27/2006	SW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	SSE	SE	SE	W	W	W	W	W	W	SW	SW	W	W	W	W	WNW
4/28/2006	W	W	WNW	WNW	W	W	W	W	W	W	ESE	NE	ENE	WSW	W	W	W	W	WSW	WSW	WSW	WSW	SW	SW
4/29/2006	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SW	WSW	WSW	SW	WSW	SW	WSW	SW	SW	SW	SW	SW	WSW	WSW
4/30/2006	W	W	W	W	W	W	WNW	WNW	WNW	SSE	ENE	SE	ENE	W	W	WNW	WNW	W	WNW	WNW	WSW	WSW	WSW	WSW
5/1/2006	WSW	W	WNW	WNW	W	W	WNW	WNW	WNW	WNW	WNW	NE	ENE	W	W	W	W	W	W	W	W	W	W	SW
5/2/2006	WSW	WSW	WSW	W	W	W	W	WNW	WNW	SE	SE	SE	ENE	W	W	W	W	WNW	WNW	W	WNW	W	WSW	WSW
5/3/2006	WSW	WSW	WSW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	S	SSW	SW	SW	SW	SW	SW	SW	SW	SSW	SSW	SSW
5/4/2006	SSW	SSW	SSW	S	SSW	SSW	SSW	SSW	S	SSE	SSE	SSE	SW	WSW	W	WSW	SW	SW	WSW	WSW	SW	SW	SW	SW
5/5/2006	SW	SW	SW	SW	SW	SSW	SW	WSW	SW	WSW														
5/11/2006																								WSW
5/12/2006	W	W	W	W	W	W	WNW	WSW	W	WSW	SSE	W	W	W	W	W	SW	W	WSW	SW	WSW	SW	SW	SW
5/13/2006	SW	SW	WSW	WSW	SW	SW	SSW	SSW	SW	NE	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	W	WSW
5/14/2006	WSW	W	W	WNW	WNW	WNW	WNW	WNW	WNW	SE	NE	SSE	NE	N	SE	W	WSW	W	W	WNW	WNW	WNW	WNW	WNW
5/15/2006	NW	WNW	WNW	WNW	NNE	SW	WNW	WNW	WNW	W	N	NNE	N	WNW	W	WSW	WSW	WSW	W	W	NW	WNW	W	W
5/16/2006	WNW	W	W	WNW	WNW	WNW	WSW	W	NW	W	WSW	WSW	WSW	W	WSW	W	W	W	W	W	W	W	WSW	W
5/17/2006	WSW	WSW	W	W	W	WSW	SW	WSW	WSW	WSW	W	WSW	W	W	W	W	WSW	WSW	W	WSW	WSW	W	WSW	SW

APPENDIX A

TABLE A-2

WIND DIRECTION

Date	0001	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
5/18/2006	SW	WSW	WSW	WSW	W	WSW	SW	WSW	WSW	SW	SSE	W	W	W	W	W	W	WSW	WSW	WSW	SW	SW	WSW	SW
5/19/2006	WSW	WSW	WNW	WSW	WSW	WSW	W	W	WSW	WSW	SSE	SE	WSW	WSW	W	W	WNW	SSW	SSW	ENE	N	NNW	NNW	---
5/20/2006	NNW	WNW	WNW	NW	WNW	WNW	WNW	WNW	NNE	N	NNE	NE	ENE	SE	SE	SSE	S	SSW	SSW	S	S	SSW	SSW	---
5/21/2006	N	NNW	W	NNE	NNE	NNE	NE	E	SE	SSE	S	S	SSE	SSW	SSE	W	W	WSW	WSW	WSW	W	WSW	WNW	SSW
5/22/2006	W	W	W	W	W	SSW	SSW	W	S	SSE	SE	S	S	S	S	S	S	S	S	S	S	S	SSE	SE
5/23/2006	SSE	SSE	S	SSE	S	S	S	SE	SE	SE	SE	SE	E	E	SE	S	SSW	SW	SSW	SW	SW	SW	S	SSE
5/24/2006	SE	SE	SE	S	SSE	S	SW	SW	SW	SW	SSW	ENE	NE	SSE	W	W	WSW	W	WSW	W	W	W	W	W
5/25/2006	W	W	W	W	WNW	W	W	W	W	W	W	WSW	WSW	WSW	WSW	W	W	W	W	W	W	W	W	W
5/26/2006	W	W	WNW	W	W	W	W	W	W	W	WSW	W	W	W	W	W	W	W	W	W	W	W	W	WNW
5/27/2006	WNW	WNW	WNW	WNW	WNW	W	W	W	W	W	WSW	WSW	W	W	W	WNW	W	W	W	W	W	W	W	WNW
5/28/2006	WNW	WNW	W	WNW	WNW	WNW	WNW	WNW	S	SE	ENE	SE	E	WSW	WSW	W	W	W	W	W	W	W	WNW	W
5/29/2006	WSW	W	W	WSW	WSW	WSW	WSW	WSW	WSW	SW	SSE	SE	W	W	W	W	W	W	W	W	W	WNW	W	W
5/30/2006	WSW	WSW	WSW	SW	WSW	SW	SW	WSW	WSW	SE	WSW	W	SW	WSW	W	W	W	W	W	W	W	W	W	WSW
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6/1/2006	W	W	WSW	W	W	W	W	W	SW	WSW	WSW	WSW	W	W	WSW	W	W	W	W	W	WSW	WSW	W	WNW
6/2/2006	WNW	WNW	WNW	W	WSW	WSW	---	WNW	WNW	NE	ESE	WSW	W	WSW	W	WSW	WSW	WSW	WSW	W	W	W	WSW	W
6/3/2006	W	W	WSW	W	W	WSW	W	W	W	W	SE	ESE	SE	W	W	W	W	WNW	W	WNW	W	WNW	W	WNW
6/4/2006	WNW	WNW	W	WNW	W	WNW	WNW	W	W	W	WSW	WSW	WSW	W	WNW	WSW	WSW	WSW	WSW	W	W	W	W	W
6/5/2006	W	W	WNW	W	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	W	WSW
6/6/2006	WSW	SW	SW	WSW	WSW	WSW	SW	WSW	SW	WSW	SW	WSW	WSW	WSW	SW	WSW	SW	WSW	W	W	W	W	W	W
6/7/2006	WSW	W	W	WSW	WSW	W	W	W	WSW	W	WSW	W	WSW	WSW	W	W	W	W	W	WNW	W	WSW	W	W
6/8/2006	W	W	W	WSW	WSW	SW	WSW	SW	SW	SW	SW	WSW	WSW	WSW	SW	SW	SSW	WSW	WSW	WSW	SW	SSW	SSW	SW
6/9/2006	SW	WSW	W	W	WSW	WSW	WSW	WSW	S	S	S	S	SSE	WSW	WSW	W	WSW	SW	WSW	WSW	WSW	WSW	SW	SW
6/10/2006	SW	SSW	SSW	SSW	SSW	SSW	SSW	S	SSW	SSE	WSW	SW	SW	SW	SW	SW	SW	SW	WSW	SW	SW	SW	SW	SW
6/11/2006	SSW	SSW	SSW	SW	SW	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6/12/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6/13/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6/14/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6/15/2006	---	---	---	---	---	---	---	---	---	---	---	---	E	W	W	W	W	W	W	W	WNW	W	WNW	WNW
6/16/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	SE	SE	SSE	SE	W	W	W	WNW	WNW	W	WNW	W	W	W	WNW
6/17/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	W	W	W	WSW	WSW
6/18/2006	W	W	W	W	W	WSW	W	W	W	WSW	W	W	WSW	SW	W	WSW	WSW	WSW	W	WNW	ENE	WSW	WSW	SW
6/19/2006	SW	WSW	SW	SW	SSW	SSW	SW	WSW	WSW	WSW	SE	SE	NE	WSW	WSW	W	W	W	WSW	W	W	W	WNW	WNW
6/20/2006	WNW	WNW	NW	WNW	WNW	WNW	WNW	WNW	WNW	SSE	SE	SE	WNW	WNW	W	W	W	W	W	W	W	W	W	WNW
6/21/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	SSE	SE	SSE	E	N	W	W	W	WNW	WNW	WNW	NW	WNW	WNW	WNW
6/22/2006	WNW	WNW	WNW	WNW	WNW	---	WNW	WNW	WNW	NE	SE	SE	NNE	W	WNW	WNW	W	W	W	NW	WNW	WNW	WNW	WNW

APPENDIX A

TABLE A-2

WIND DIRECTION

Date	0001	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
6/23/2006	WNW	WNW	WNW	WNW	NW	NW	NW	WNW	WNW	S	SSE	NNE	W	WNW	WNW	W	W	W	W	W	W	W	W	W
6/24/2006	WNW	WNW	WNW	WNW	W	W	WNW	WNW	WNW	WNW	WNW	W	W	W	W	W	W	W	W	W	W	W	W	W
6/25/2006	W	W	W	W	WNW	W	W	W	W	W	WNW	WNW	W	W	W	W	W	W	W	W	W	W	WNW	W
6/26/2006	W	WNW	WNW	WNW	W	W	WNW	W	WNW	SSE	W	WNW	WNW	W	W	W	W	W	W	W	WNW	WNW	WNW	W
6/27/2006	WNW	W	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	W	W	W	W	WSW	W	WSW	WSW	W	W	WSW	W
6/28/2006	W	W	W	WSW	W	W	W	WNW	WNW	ESE	WNW	W	W	WSW	W	W	W	W	W	W	W	W	W	W
6/29/2006	W	W	WSW	W	WSW	SW	SW	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6/30/2006	---	---	---	---	---	---	---	---																
7/1/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7/2/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7/3/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7/4/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7/5/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	W
7/6/2006	W	W	W	W	W	W	W	WSW	WSW	SW	SW	WSW	WSW	WSW	WSW	WSW	SW	WSW	W	WNW	W	W	WSW	SW
7/7/2006	WSW	WNW	W	WNW	WNW	WNW	WNW	WNW	W	SE	SE	SSW	ENE	ENE	W	W	W	W	WNW	W	WNW	WNW	WNW	W
7/8/2006	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	NNW	NNE	NNE	WNW	WNW	WNW	W	WNW	WNW	NW	WNW	W	W	W
7/9/2006	WNW	WNW	WNW	W	WNW	WNW	W	WNW	WNW	W	W	W	WNW	WNW	WNW	W	WNW	W	W	W	WSW	WSW	WSW	WSW
7/10/2006	SW	WSW	W	WNW	WNW	W	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	SW	SSW	WSW	SW	WSW	W	SSW	WSW	SW	SSW
7/11/2006	SW	SW	SW	SW	WSW	WSW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
7/12/2006	WSW	W	WNW	WNW	WNW	W	W	W	W	WSW	WSW	WSW	WSW	W	W	W	W	W	W	W	W	WSW	W	W
7/13/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	SE	ENE	NNE	NNE	WNW	WNW	WNW	W	W	W	WNW	WNW	WNW	W	WSW
7/14/2006	W	W	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WNW	W	W	WNW	W	W	W	W	SW	WSW	WSW	WSW	WSW
7/15/2006	WSW	WSW	WNW	WNW	W	W	W	W	W	SSE	SSE	WNW	WNW	WNW	WNW	WNW	W	WNW	WNW	WNW	WNW	W	W	W
7/16/2006	WNW	WNW	WNW	WNW	WNW	WNW	W	WNW	WNW	WNW	WNW	ENE	N	WNW	WNW	WNW	WNW	WNW	WNW	NW	WNW	WNW	WNW	WNW
7/17/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	NW	SE	SSE	ENE	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW
7/18/2006	WNW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	N	NNW	WNW	WNW	WNW	WNW	WNW	W	W	W	WNW	WNW	WNW	WNW
7/19/2006	WNW	WNW	W	NW	WNW	WNW	WNW	W	ENE	ENE	WNW	WNW	NW	W	WSW	WNW	W	WNW	WNW	W	W	WNW	WNW	WNW
7/20/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	ENE	NNE	N	WNW	WNW	W	W	W	W	W	WNW	W	WNW	WNW
7/21/2006	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NE	ENE	W	WNW	WNW	W	W	W	W	W	WNW	WNW	WNW	WNW	NW
7/22/2006	WNW	NW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	SW	E	WSW	WNW	WNW	WNW	W	WNW	WNW	WNW	WNW	W	NW	WNW
7/23/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	SW	SSE	WNW	WNW	WNW	WNW	WNW	WNW	NW	WNW	WNW	W	WNW
7/24/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	SW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	WNW	WNW
7/25/2006	W	WNW	WNW	WNW	NW	WNW	WNW	WNW	NW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	W	W	WNW
7/26/2006	WNW	WNW	WNW	WNW	WNW	W	WNW	W	W	W	WNW	WNW	W	W	W	W	WSW	WSW	W	W	W	W	WNW	W
7/27/2006	W	W	W	W	W	W	W	WSW	WSW	WSW	WSW	W	W	WSW	WSW	W	WSW	WSW	W	WSW	W	W	WSW	W
7/28/2006	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	WSW	WSW

APPENDIX A

TABLE A-2

WIND DIRECTION

Date	0001	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
7/29/2006	W	WSW	W	W	WNW	WNW	W	W	W	W	WNW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	WSW	WSW	WSW	WSW	WSW
7/30/2006	WSW	WSW	WSW	W	W	W	W	W	W	W	W	WNW	W	W	W	SSW	SSW	W	W	WSW	W	W	SW	WSW
7/31/2006	WSW	WSW	W	SSW	SW	W	W	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	W	W	WSW	WSW	WSW	WSW	W	W	W
8/1/2006	W	WSW	W	WSW	SW	WSW	WSW	WSW	WSW	WSW	SE	SE	WNW	WNW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W
8/2/2006	W	W	WNW	W	W	W	WNW	WNW	W	SSE	SE	NE	WNW	WNW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W
8/3/2006	WSW	WSW	W	W	W	W	W	W	W	W	W	SE	ENE	N	W	W	WSW	W	W	WSW	W	W	W	WSW
8/4/2006	WSW	WSW	WSW	WSW	WSW	SSW	SSW	SSW	SSW	S	S	SSE	SE	ENE	W	SW	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW
8/5/2006	WSW	WSW	W	WSW	WSW	WSW	W	W	W	W	WSW	N	SW	WSW	WSW	SW	SW	SW	WSW	WSW	WSW	W	W	W
8/6/2006	WNW	W	W	W	W	WSW	W	W	W	WSW	WSW	WSW	W	WSW	WSW	W	WSW	W	W	W	W	WSW	WSW	WSW
8/7/2006	SW	WSW	SW	WSW	SW	W	W	W	SW	WSW	W	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W
8/8/2006	WSW	WSW	SW	SSW	WSW	W	SSW	WSW	WSW	WSW	WSW	E	SE	E	WSW	W	W	W	W	W	W	W	W	W
8/9/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	---	WNW	WNW	SE	SE	NNE	NE	W	W	W	W	W	WNW	NW	W	W
8/10/2006	WNW	WNW	WNW	W	W	W	W	W	W	W	W	W	W	W	WSW	WSW	W	W	WSW	WSW	WSW	W	SW	WSW
8/11/2006	W	W	W	WSW	W	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	SW	WSW	WSW	SW
8/12/2006	SW	WSW	SSW	SW	WSW	SW	SSW	SSW	SSW	S	SE	ENE	NE	NNE	W	W	W	W	WSW	WSW	W	W	W	W
8/13/2006	W	WSW	WSW	W	W	W	W	W	W	W	WSW	SE	W	W	W	W	WSW	WSW	WSW	WSW	W	W	WSW	W
8/14/2006	W	W	W	W	SW	SW	SW	SW	WSW	WSW	W	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
8/15/2006	WSW	WSW	WSW	WSW	WSW	SW	WSW	SSW	WSW	WSW	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	SW
8/16/2006	SW	SW	SW	W	W	SSW	SSW	SSW	SSW	SSW	SW	SW	WSW	WSW	WSW	WSW	WSW	SW	WSW	SW	SW	SSW	WSW	WSW
8/17/2006	SW	SW	SW	WSW	WSW	WNW	WNW	WNW	W	W	SSE	S	SE	W	W	W	W	W	W	W	WNW	W	W	W
8/18/2006	W	W	W	W	W	W	WSW	WSW	WSW	SSW	SW	WNW	W	W	W	W	W	W	WSW	W	WSW	W	W	W
8/19/2006	W	W	W	WSW	SW	WSW	SW	S	WSW	WSW	SW	WSW	WSW	W	WSW	W	W	W	WSW	WSW	WSW	WSW	WSW	WSW
8/20/2006	WSW	WSW	WSW	SW	SW	SW	SW	SSW	SW	SW	SW	SW	WSW	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W
8/21/2006	WSW	WSW	WSW	SW	WSW	SW	SW	W	SSW	SW	SW	WSW	WSW	WSW	WSW	W	W	W	WSW	W	WSW	W	WSW	W
8/22/2006	W	WSW	W	W	W	W	W	WSW	WSW	W	SE	WNW												
9/7/2006											SSE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
9/8/2006	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SSW	SSW	SW	SW	SW	SW	SW	SW
9/9/2006	SSW	S	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	WSW	WSW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	SW	SW	SW
9/10/2006	SW	SW	SW	WSW	S	S	SSW	SSW	W	W	W	W	SE	SE	WSW	SSW	WSW	WSW	NE	NW	N	ENE	W	WSW
9/11/2006	WNW	W	NE	WNW	WNW	---	WNW	WNW	WNW	WNW	WNW	NNE	NNE	NNE	NNE	WSW	WSW	WSW	NW	NW	NW	NW	NW	WNW
9/12/2006	NW	NW	WNW	WNW	WNW	WNW	WNW	WNW	---	WNW	N	NNE	NNE	N	NW	NW	NE	ENE	NW	NW	NW	NW	NW	NW
9/13/2006	WSW	WSW	WSW	WSW	WNW	W	NW	NW	WNW	NNW	NW	E	WSW	WSW	E	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
9/14/2006	SW	SW	SW	SSW	SW	SSW	SW	S	SSW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SW	SSW	SSW	SW	SW	WSW	WSW
9/15/2006	WSW	WSW	WSW	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
9/16/2006	WSW	WNW	NW	NW	WNW	WNW	WNW	WNW	WNW	WNW	ENE	ENE	NNW	N	WSW	WSW	WSW	WSW	WSW	WSW	NW	NW	WNW	W
9/17/2006	NW	NW	NW	NW	NW	NW	NW	NW	---	NW	SE	ENE	NE	SE	SSE	WSW	WSW	W	WSW	WNW	NW	WNW	WNW	WNW

APPENDIX A

TABLE A-2

WIND DIRECTION

Date	0001	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
9/18/2006	WNW	NW	WNW	WNW	WNW	WNW	WNW	NW	WNW	NW	W	W	N	NNE	WSW	WSW	WSW	WSW	SW	WSW	WSW	WSW	SW	WSW
9/19/2006	WSW	WSW	WNW	WNW	SW	WSW	WSW	SW	SW	SW	SW	SW	WSW	SW	WSW	WSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW
9/20/2006	WNW	WNW	SSW	NW	NW	NW	NW	NW	NW	NW	ENE	N	N	NNW	WSW	WSW	WSW	WSW	SW	NW	NW	NW	NW	WNW
9/21/2006	WNW	NW	NW	NW	NW	NW	NW	NW	NW	W	NW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	NW	WNW
9/22/2006	WNW	NW	WNW	NW	NW	WNW	WNW	W	NNW	N	N	N	N	NNW	NNW	N	WSW	WSW	WSW	WSW	WSW	W	NW	WNW
9/23/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	---	---	WNW	WNW	ESE	ESE	WSW	WSW	WSW	WSW	WSW	SW	WSW	WNW	W	NW	NW
9/24/2006	NW	NW	NW	NW	NW	NW	NW	NW	---	NW	N	ENE	ENE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WNW
9/25/2006	WNW	WNW	WNW	WNW	---	WNW	WNW	WNW	WNW	N	N	NNE	NNE	NNE	N	S	SSE	SSW	SW	WSW	E	NW	WNW	WNW
9/26/2006	SW	NNW	N	WSW	SW	WSW	WSW	WSW	WSW	WSW	SSE	NE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
9/27/2006	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	WSW	WSW	NW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
9/28/2006	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WNW	W	WNW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
9/29/2006	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	SW	SW	SW	WSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
9/30/2006	WSW	SW	SW	SW	SSW	S	W	WSW	SW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SSW	WSW	WSW
10/1/2006	SW	W	WSW	WSW	SW	WSW	SW	W	W	W	WSW	WSW	WSW	SW	SW	SSW	SW	SW	SW	SW	WSW	WSW	W	WSW
10/2/2006	W	WNW	WNW	NNW	---	NNE	---	NNW	WSW	SW	ESE	SE	SE	SE	SW	WSW	WSW	SW	WSW	WSW	WNW	WNW	---	WNW
10/3/2006	WNW	---	WNW	---	WNW	WNW	---	WNW	---	---	WNW	NE	ENE	NE	WSW	SW	WSW	WSW	WSW	SW	SW	WSW	SW	WSW
10/4/2006	SW	SW	SSW	SSW	S	SSE	SSE	SSE	SSE	SE	SE	SE	SSE	SSW	SSW	SW	WSW	WSW	WSW	SW	NW	SW	WSW	W
10/5/2006	N	SSW	WNW	WNW	WSW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	SE	N	W	NNW	SW	SW	WSW	WSW	WSW	W	WNW	NW
10/6/2006	NW	NW	NW	NW	WSW	W	SW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	SW	SW	SSW	SW	SW	SW	SSW	SSW	S
10/7/2006	SSW	SSW	S	SW	S	SW	---	---	SW	SW	SE	SE	SSE	SE	N	SSE	WSW	WSW	WSW	NW	WSW	WSW	WSW	WNW
10/8/2006	WNW	W	WNW	NW	NW	NW	NW	NW	NW	NW	NW	ESE	ENE	ENE	SE	SSE	WSW	SW	SW	WNW	NW	NW	NW	WNW
10/9/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NE	SE	SE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
10/10/2006	WNW	WNW	WNW	WNW	WNW	---	WNW	WNW	---	WNW	SE	ESE	ENE	ENE	NNE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
10/11/2006	WNW	WNW	WNW	WNW	WNW	---	---	WNW	SSE	E	ENE	SE	SE	SE	SE	WSW	WSW	WSW	WSW	WSW	W	ESE	SSE	ESE
10/12/2006	E	SE	SE	NNW	E	NE	NW	NW	NW	NW	S	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	SW
10/13/2006	SW	SW	WSW	WSW	SW	SW	SSW	SW	SW	SSW	SSW	SW	WSW	WSW	WSW	WSW	W	WSW	SW	SW	SW	SW	WSW	SW
10/14/2006	SSW	WSW	WSW	WSW	W	WSW	W	W	WSW	W	SSW	SW	WSW	SW	WSW	WSW	WSW	WSW	SW	WSW	WSW	SW	SW	WSW
10/15/2006	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
10/16/2006	SSW	WSW	SSW	S	SSE	SSE	SSE	SSE	S	SW	SW	WSW	WSW	WSW	WNW	W	WNW	W	WNW	W	WNW	WNW	W	WNW
10/17/2006	WSW	WSW	W	WNW	WNW	WNW	WNW	WNW	WNW	---	SE	SE	E	NNW	W	W	W	W	WNW	WNW	WNW	WNW	WNW	WNW
10/18/2006	---	WNW	WNW	W	W	S	NW	SE	---	NE	SE	SSE	SSE	SSE	SE	SSE	WSW	WSW	W	WNW	WNW	WNW	WNW	WNW
10/19/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	---	WNW	WNW	ESE	SE	ESE	SE	SE	SSE	W	W	WNW	WNW	WNW	WNW	WNW	WNW
10/20/2006	WNW	WNW	WNW	WNW	WNW	---	WNW	WNW	WNW	WNW	WNW	SE	S	SSE	SE	N	WSW	W	W	WNW	WNW	NW	NW	WNW
10/21/2006	---	---	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	SE	SSE	S	NNW	E	N	W	W	WNW	WNW	WNW	WNW	WNW
10/22/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	---	WNW	NNE	NNE	NNE	NE	NNE	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW
10/23/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	N	N	N	N	N	N	NNE	W	W	WNW	WNW	WNW	WNW	WNW	WNW

APPENDIX A

TABLE A-2

WIND DIRECTION

Date	0001	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
10/24/2006	W	W	W	W	W	W	W	W	WSW	WSW	W	W	W	W	W	W	W	W	WNW	WNW	WNW	WNW	WNW	WNW
10/25/2006	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NNE	N	N	NNW	NW	NNW	NNW	NNW	NNW	NNW	NW	NW	NW	NNW	N
10/26/2006	NNW	NNE	N	NNW	NNW	NE	NNW	---	NNW	NE	NNE	N	N	SSE	N	NNW	NNW	NNW	NNW	N	NE	NE	NE	NE
10/27/2006	N	N	N	N	N	N	NNW	WNW	---	---	ENE	SE	N	N	SE	ESE	SSE	NNW	N	WNW	W	---	---	---
10/28/2006	---	W	---	W	W	W	W	W	NW	N	NNW	N	N	N	NNW	SSE	SSE	NNW	W	WNW	WNW	WNW	WNW	W
10/29/2006	WNW	W	W	W	W	WSW	W	SW	WSW	WSW	WSW	W	W	W	W	W	W	WSW	W	SW	WSW	WSW	WSW	SW
10/30/2006	SW	SW	SW	SW	SSW	S	SE	SSE	SSE	S	SSW	WSW	SW	WSW	SW	SW	WSW	SW	SW	WSW	SW	SW	SW	SW
10/31/2006	SW	WSW	SW	SSW	WSW	SSW	SSW	SSW	S	SW	S	W	S	WSW	SW	W	W	W	W	WSW	W	W	W	W
11/1/2006	W	W	W	---	W	W	W	W	W	W	ENE	SE	SE	SSE	SSE	NNE	N	W	W	WNW	WNW	WNW	SE	ESE
11/2/2006	SE	ESE	SE	ESE	SE	ENE	ENE	SE	SSE	SE	SE	SE	SE	SSE	SSE	SSE	S	S	SSW	SW	SW	SW	WSW	WSW
11/3/2006	N	N	N	N	N	N	NW	NW	NW	NW	N	N	N	N	SE	W	W	W	W	WSW	W	W	W	W
11/4/2006	W	W	NW	NW	NW	N	N	N	NNW	NNW	N	N	N	NNE	NNW	N	WSW	WSW	W	W	WNW	W	W	WNW
11/5/2006	W	NW	---	WNW	WNW	WNW	WNW	ENE	S	SSE	SE	SE	ENE	N	NNW	W	WSW	W	W	WNW	WNW	WNW	WNW	WNW
11/6/2006	WNW	WNW	WNW	---	WNW	WNW	WNW	WNW	WNW	WNW	NNW	NNE	NNE	SSE	ESE	WNW	WNW	WNW	WNW	WNW	NW	WNW	NW	WNW
11/7/2006	WNW	WNW	WNW	WNW	W	WNW	WNW	---	WNW	WNW	WNW	WNW	SE											

Abreviations and Acronyms:

E - East
ENE- East, North, East
ESE - East, Sout, East
N - North
NE - Northeast
NNE - North, North East
NNW - North, North, West
NW - Northwest
S - South
SE - Southeast
SSE - South, South, East
SSW - South, South, West
SW - Southwest
W - West
WNW - West, North, West
WSW - West, South, West

APPENDIX A

AIR MONITORING REPORT

(Appendices available on CD only)

July 30, 2007

Ambient Air Sampling

at Hunter's Point Shipyard,

San Francisco, California

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1.0 INTRODUCTION

Tracer Environmental Sciences & Technologies (ES&T) was contracted to provide air monitoring support to a remediation program conducted under Contract Number N68711-93-D5713 and Contract Task Orders (CTO) NO 0072 and 0084 by Tetra Tech EC at Hunters Point Shipyard. The specific support included the following tasks:

- Provide sampling equipment
- Establish sampling network
- Training of on-site operators
- Calibration and maintenance support
- Analytical laboratory coordination
- Data management.

The sampling network consisted of five sampling sites as well as a meteorological monitor. The sampling sites were set up so that there was an upwind sampling site and four downwind sites specific to work areas (Figure 1). Each set of samplers consisted of three high and medium-volume samplers and a small sampling pump. The high-volume samplers collected total suspended particulates (TSP) and particulate matter less than 10μm (PM_{10}) samples while the medium volume sampler collected polyurethane foam (PUF) samples for analysis of polychlorinated biphenyls (PCBs). Additional analyses for lead and magnesium were performed on TSP filters. A 1-3 lpm KNF sampling pump and rotameter collected samples for asbestos analysis.

Prior to remediation activities, five (5) days of background sampling took place at one upwind location beginning on May 14, 2005.

This report provides the data collected during this program from May 14, 2005 through December 21, 2006. In addition to this introduction, the report consists of five sections and two appendices. Section 2 provides operational information on the sampling program. Section 3 provides general information on the samplers and meteorological monitor. Section 4 gives details on sampler calibrations while Section 5 provides the calculations used to determine pollutant concentrations. Section 6 discusses the results and conclusions.

The appendices provide calibration data as well as the sampling results. The sampling results also provide comparisons to threshold limiting values (TLV) for applicable parameters. The sampling results indicated that no sample concentration exceeded these limits other than one PM_{10} sample taken during an abbreviated 8-minute sampling period when the generator ran out of fuel (the 8-minute run time was derived solely from the elapsed time meter on the PUF sampler).

2.0 OPERATING PROCEDURES

2.1 Sampling Methods

The U.S. Environmental Protection Agency (EPA) has developed numerous test methods for a variety of pollutants. The following is a summary of the methods that were used in this program for collection of the data found in this report.

2.1.1 Total Suspended Particulate (TSP)

This method (40 CFR Part 50, Appendix B) is for measuring the mass concentration of total suspended particulate matter in ambient air. The method calls for an air sampler, which draws ambient air at a constant and specific flow rate into a specially shaped inlet and through a filter. The sampling is done at a constant flow rate and for a specific time period to determine the total volume of ambient air sampled. The sampler is designed such that the collection of particles in the range of 25-50μm is favored. Each filter is weighed prior to, and after sampling to determine the net weight collected during sampling. The mass concentration of TSP is computed by dividing the net weight collected during sampling by the total volume of ambient air sampled and is expressed in $\mu g/m^3$.

2.1.2 Particulate Matter with Aerodynamic Diameter Less Than 10μm (PM_{10})

This method (40 CFR Part 50, Appendix J) is for measuring the mass concentration of particulate matter with an aerodynamic diameter less than 10 microns (μm) in ambient air. The method calls for an air sampler, which draws ambient air at a constant and specific flow rate [approximately 40 cubic feet per minute (ft^3/min)] into a specially shaped inlet. Only particulate matter with an aerodynamic diameter of less than 10 μm is allowed to flow through the filtration medium. The filtration system separates the matter into specific size ranges. The sampling is done at a constant flow rate and for a specific time period to determine the total volume of ambient air sampled. Each filter is weighed prior to, and after sampling to determine the net weight collected during sampling. The mass concentration of PM_{10} is computed by dividing the net weight collected during sampling by the total volume of ambient air sampled and is expressed in micrograms per standard cubic meter ($\mu g/m^3$).

2.1.3 Polychlorinated Biphenyls (PCBs)

The most applicable test method for measuring the concentration of PCBs in the atmosphere of the test location was determined to be the EPA Method TO-4a. This method utilizes a medium-volume air sampler equipped with a quartz-fiber filter and a polyurethane foam filter (PUF) adsorbent. The quartz-fiber filters and PUF were prepared and packaged, prior to testing, in order to insure cleanliness and integrity.

To begin sampling, the prepared quartz-fiber filter and glass cartridge containing the PUF were installed into the medium-volume sampler. The sampler was then turned on immediately, at which time the calibrated magnehelic gauge pressure was recorded in order to determine an

initial flow rate. At the termination of the sampling run the final magnehelic gauge pressure is recorded in order to ensure the accuracy of the total volume sampled. The sampler head containing the pre-filter was removed from the sampler, affixed with a protective cover, and transported to the office trailer. Using protective gloves, the glass Pyrex® sleeve that contained the sampling media and quartz-filter is wrapped with the original aluminum foil that it was shipped in and capped. Finally, the sample is placed in a Ziplock® bag, wrapped in bubble wrap, identified with chain-of-custody documentation and shipped to the analytical laboratory in a cooler with ice for analysis.

2.1.4 Asbestos

The sampling pumps used in these applications were low volume (1-3 lpm) vacuum pumps fitted with flow control rotometers for flow rate setting and verification.

2.2 Project Data Limits

This subsection provides reporting and quality control limits.

2.2.1 Project-Required Reporting Limits

TSP and PM_{10} are reported to the 0.1 $\mu g/m^3$. Lead and manganese are detected to the nearest µg. Asbestos is detected to the nearest 7 fibers/mm^2 for each filter. Detection limits for PCBs are listed in the table below.

Table 1: Reporting Limits for PCBs

Compound	Detection Limit (µg)
Aroclor 1016	.5
Aroclor 1221	.5
Aroclor 1232	.5
Aroclor 1242	.5
Aroclor 1248	.5
Aroclor 1254	.5
Aroclor 1260	.5
Aroclor 1268	.5

2.2.2 Project Quality Control Limits

Laboratory quality control procedures for PCBs included blank samples and spiked samples. Sample recoveries for individual compounds generally fall within the range of 90 to 110%, but recoveries ranging from 65 to 125% are considered acceptable per EPA Method TO-4A.

2.3 Quality Assurance/Quality Control

This subsection provides information on the quality control program supporting the air monitoring effort.

2.3.1 Sample Custody and Documentation

The integrity and traceability of samples from the time they are collected through the time data are reported are essential in any sampling and analysis program. The handling of the samples and transfer of custody must be well documented given the evidentiary nature of the data. A sample is considered to be in one's custody if it meets any of the following criteria:

1. In actual possession or in view of the person who collected the sample;
2. Locked in a secure area; and
3. Placed in an area restricted to authorized personnel.

2.3.1.1 Field Sample Custody and Documentation

In order to maintain the integrity and traceability of samples, all information pertinent to field sampling was recorded on field log sheets. All samples were properly labeled and custody sealed prior to transport to the laboratory and were accompanied by completed chain-of-custody documentation. All documentation was recorded in black indelible ink.

2.3.1.2 Sample Labeling

Sample labels were used to prevent misidentification of samples. Labels were filled out and affixed to sample containers at the time of sample collection.

2.3.1.3 Custody Seals

Sample custody seals were used to detect unauthorized tampering of samples from the time of sample collection to the time of analysis. The seals were signed and dated by the sampler. The seals were placed on the sample containers and shipping containers in such a way that they must be broken in order to open the containers. Seals were affixed to containers before the samples left the custody of sampling personnel.

2.3.1.4 Chain-of-Custody Records

To establish the documentation necessary to trace the sample possession from the time of collection, a chain-of-custody record was completely filled out and accompanied every sample. Copies of the Chain-of-Custody forms were kept on site. Samples were delivered to the laboratory for analysis as soon as practical.

2.3.2 Analytical Quality Control Procedures

This section describes analytical quality control (QC) procedures, including laboratory qualification and quality assurance (QA) and QC associated with analytical methods.

2.3.2.1 Laboratory Qualification

Laboratory analyses were performed by Data Chem Labs. Data Chem is a certified laboratory capable of providing the required sample analysis turnaround times and project QC. Data Chem is certified by the National Environmental Laboratory Accreditation Conference (NELAC) and is accredited by the American Industrial Hygiene Association (AIHA).

2.3.2.2 Laboratory Quality Control Procedures

The air matrix laboratory has written standard operating procedures (SOPs) defining the instrumentation, instrumentation maintenance, tuning, calibration, method detection limits, QC acceptance criteria, blank requirements and stepwise procedures for each analytical method. The SOPs are available to the analysts in the laboratory. The laboratories maintained logs of all activities that had an impact on the quality of the laboratory results.

The laboratory has maintained the instruments required by the methods specified for the analyses. Sufficient redundancy in equipment was available in the laboratory to handle downtime situations.

2.3.2.3 Laboratory Quality Control Samples

Calibration

All instruments and equipment must be calibrated in accordance with each specified method unless different instructions are included in this document.

Initial calibrations (ICAL) are performed when the method is first used and again whenever the continuing calibrations fail to meet their respective acceptance criteria. In addition, if the instrument undergoes significant maintenance, the ICAL must be repeated.

Continuing calibrations were used to verify that the instrument performance remained within the limits set at the time of the ICAL. The frequency of continuing calibrations is method dependent.

Instrument Blanks

Instrument blanks were run to ensure that analytes from previous runs were out of the system and did not contaminate succeeding runs. Instrument blanks must be run following calibration runs, before sample analyses are performed, and after samples containing high concentrations of potentially interfering materials.

Target analytes did not appear in the instrument blanks at concentrations greater than the required quantification limits. When the laboratory observed contaminants in the instrument blanks, the laboratory investigated the source of the contamination and eliminated it, if possible.

Method Blanks

Method blanks were prepared in the same manner as the samples, using the same reagents and glassware used for samples. The purpose of the method blank was to ensure that the equipment and reagents used in preparing the samples were free of contaminants that could interfere with the analysis. Method blank results for PCBs are included with each laboratory report.

The method blank must not exhibit analytes at concentrations greater than the required quantification limits. If contaminants were found that either contributed to the apparent concentration of a particular target analyte or interfered with the analysis, the analysis sequence was stopped, the source of contamination identified and corrected, and the analysis repeated. Contamination in the method blank above reporting limits required that the entire associated batch of extracts or digestates be re-prepared.

Laboratory Control Samples (LCSs)

LCSs were purchased samples containing known concentration of specific target analytes. LCSs were also prepared by spiking known amounts (5 μg) of target analytes into a well-characterized blank matrix. The matrix was laboratory reagent injected into the PUF or PUF cartridges and then extracted as a liquid. Method blank results for PCBs are included with each laboratory report. The results of the spiked samples for PCBs are included with each laboratory report.

The LCS was prepared and run with the associated samples, using the same reagents. All analytes in the LCS met recovery criteria. If the criteria were not met, the entire batch of samples was re-prepared, together with a new LCS, and reanalyzed.

Matrix Spike and Matrix Spike Duplicate (MS/MSD)

The matrix spike/matrix spike duplicate (MS/MSD) served to determine whether matrix effects were affecting recoveries. For inorganic analyses, only a single MS was performed per batch. A MS/MSD was prepared by spiking a known amount of solution to two portion of a sample being run in a batch. The recoveries were compared against each other and against the known amount of the spike. From this data, both accuracy and precision were determined.

Duplicates

The laboratory duplicate was created by the laboratory, where two aliquots were intentionally taken from the same sample and analyzed in parallel. This analysis served to measure the precision of laboratory operations. Duplicate analyses were applied only for inorganic analyses.

2.4 Preventive Maintenance

All instruments were maintained in accordance with the manufacturer's recommended procedures. The laboratory recorded all maintenance activities in an instrument logbook.

In addition to preventive maintenance, the laboratory kept, on hand, a sufficient supply of replacement parts for those parts known to require frequent changes due to wear and tear or due to contamination.

Whenever preventive or corrective maintenance was applied to an instrument, the laboratory demonstrated the instrument's return to operating conditions and recalibrated the instrument prior to resumption of sample analyses.

3.0 SAMPLING EQUIPMENT

3.1 High-Medium Volume Samplers

High and medium-volume samplers provided means for drawing an air sample downward through a filter at a uniform face velocity. This provided a quantifiable flow rate and sample volume given an accurate sampling time. Sampling time was monitored through the use of an elapsed time meter. Flow rates of high-volume samplers ranged from 36 to 44 cubic feet per minute (cfm) with medium volume samplers operated at a flow rate of 5 to 12 cfm. The samplers functioned similarly for the types of analytes discussed in previous sections. However, the flow rates and inlet heads differed for the total suspended particulates (TSP), particulate matter with aerodynamic diameter less than 10 microns (PM_{10}) and PCB samplers.

3.2 Asbestos

The sampling pumps used in these applications were low volume (1-3 lpm) KNF vacuum pumps fitted with flow control rotometers for flow rate setting and verification. These air samplers allow for inlet adaptations for various types of sampling filters

4.0 CALIBRATION PROCEDURES

Multipoint flow rate calibrations were performed according to the following:

- Semiannually;
- after 1,500 hours of operation;
- after any maintenance that might affect the calibration; or
- any deviations in the manometer reading before or after a sample run.

A top-loading orifice calibrator using a variable resistance knob was used to determine the actual flow rate of the sampler. The orifice was standardized against a primary standard roots meter at the California Air Resources Board (CARB). The coefficients from the CARB certification were then used to determine the actual flow rate at ambient conditions for comparison to the look-up table values obtained at the same conditions.

The look-up tables for each sampler have been linearized to eliminate the need for the operator to actually "look up" a value. A four-coefficient equation was used to determine a flow rate value for a given stagnation pressure differential, ambient temperature, and ambient pressure.

The station ambient temperature sensor was used for the ambient temperature reading during calibrations, and an aneroid barometer at the site was used for the ambient pressure readings during calibrations. The station barometer was routinely referenced to a mercury barometer to maintain its accuracy.

The steps for performing a calibration check were as follows:

1. Assemble the calibration equipment at the sampler location.
   - Calibration orifice and current CARB certification flow factors
   - Orifice manometer with zero to 16 inches of water ("H_2O) and 0.1-inch scale divisions
   - Sampler manometer with zero to 30 "H_2O and 0.1-inch scale divisions
   - Clean filter and filter cassette
   - Flow check calibration form, filled out with pertinent information

2. Prepare the sampler and equipment for calibrations.
   - Properly process and remove any previously installed filter in the sampler before proceeding with the calibration
   - Open the sampler head and install the orifice adapter plate (with a filter) evenly and secure
   - Assemble the orifice (without any plates) to the orifice adapter using a gasket and secure
   - Open, zero, and hang the orifice manometer on the sampler
   - Open, zero, and hang the sampler manometer on the sampler
   - Install the chart in the recorder

3. Turn on the sampler and check for any leaks by plugging the orifice inlet and checking for any deflections, or any whining air leak sounds. Proceed with calibration once a satisfactory leak test is achieved.

4. Connect both manometers to their respective ports and let the sampler run for 5 to 15 minutes. Then observe and record the readings for each manometer on the calibration form.

5. Turn off the sampler and remove the calibration orifice and adapter plate.

6. Install a filter cassette with a clean filter and secure it.

7. Turn on the sampler and let it run for 5 to 10 minutes. Then observe and record the sampler manometer reading on the form.

8. Turn off the sampler, remove the calibration equipment, and disconnect the power or set up the next sample run.

9. Use the three raw pressure readings, the current ambient readings, the orifice calibration factors, and the flow look-up equations to calculate the three actual flow rates. The formulas to use are listed at the bottom of the calibration form.

10. Examine the results to determine if the sampler is within control limits or if maintenance and further calibrations are required.

If the results were outside the control limits, then maintenance would be performed to correct the problem and a multipoint flow rate calibration would be performed. This did not occur.
onal times using varying inlet areas to simulate different loading conditions.

The five points were chosen to span the flow rate range of the look-up table. The lowest point and the highest point were at the extreme ends of the table at approximately 8 to 10 "H_2O and 26 to 28 "H_2O. The other three points were chosen evenly in between these extreme points.

The results were determined using the formulas presented at the bottom of the multipoint calibration form. When the sampler failed the control limits presented on the form, then further maintenance and multipoint calibrations were performed until the unit passed them satisfactorily.

5.0 CALCULATIONS

Calculations are necessary for determining sampling volumes and corresponding concentrations. The following section outlines the calculations that were completed for correcting flow rate values based on changes in temperature and pressure from standard conditions and steps needed to attain analyte concentrations, given the measured parameters and laboratory results.

5.1 Standard Flow Rate Calculations

For most of the test methods used in this project, a specified flow rate was used. Verification and validation of flow rate was measured by the use of pressure gauges. However, the flow rates determined using these devices needed to be corrected based on deviations from standard conditions [(760 millimeters of mercury (mmHg), 298 Kelvin (K)]. The following equation is used to make this correction:

$$Q_{std} = Q_a\left(\frac{P_a}{29.92_{inHg}}\right)\left(\frac{298K}{273 + Ta}\right)$$

where the units of P_a and T_a are:

$[P_a]$= mmHg
$[T_a]$= °C

and Q_a was the actual measured flow rate (cfm).

5.2 Sample Volume and Concentration

The standard flow rate was used to determine the sample volume by multiplying it by the sample time according to the equation.

$$V = Q_{std} * t_s$$

where the units of V and t_s are:

[V]= cubic feet
$[t_s]$= minutes

The final step for determining the analyte concentration was to divide the mass per sample (given by the results of laboratory analysis) by the volume per sample according to the following:

$$C = \frac{M_s}{V}$$

Units of concentration are determined by the mass of analyte per sample provided by the analytical laboratory.

6.0 RESULTS AND CONCLUSIONS

6.1 Meteorological Results

Meteorological data were logged for each day of sampling with temperature and pressure recorded at the beginning and end of each sample run on the sample log sheets. An average temperature and atmospheric pressure for sample runs were calculated in order to calculate the corrected sampling volumes. These averages are included in the sampling results for each parameter.

6.2 Data Sampling Results

Data sampling results are presented in Appendix B. Sample results were separated into the following two sections:

- Sample Results: Shows the results of the sampling and analysis for each sample.
- Threshold Limiting Values (TLV) Comparisons (presented in Appendix C): Compares the sampling results with published threshold limit values.

6.3 Conclusions

The Air Monitoring Plan for the project identifies comparison concentrations for certain measured parameters. These concentrations are presented in the table below.

Table 2: Comparison Levels by Parameter

Parameter	Comparison Standard	Reference
TSP	0.5 mg/m^3	Based on permissible dust release from site
Manganese	0.2 $\mu g/m^3$	OEHHA lifetime reference concentration
Lead	50 $\mu g/m^3$	Lead was added after the start of the program
PM_{10}	50 $\mu g/m^3$	24-hour NAAQS
PCBs	0.5 $\mu g/m^3$	1/1000 of OSHA 8-hour PEL

OEHHA: California Office of Environmental Health Hazard Assessment
NAAQS: National Ambient Air Quality Standards
OSHA: Occupational Safety and Health Administration
PEL: Personal Exposure Limit

All samples were below the project-specific standards for lead, PCBs and TSP. This was not the case for PM_{10} and manganese. There were 13 exceedances of the project-specific standard for

manganese. Many were the result of project-related emissions as corresponding backgrounds were at zero.

There were over 160 instances of the PM_{10} concentration exceeding project-imposed limits. This is not a surprising result since this is the NAAQS for PM_{10} and the Bay Area has not been classified as an attainment area.

APPENDIX B

PRE-FINAL INSPECTION CHECKLIST, AND FINAL INSPECTION CHECKLIST

PRE-FINAL INSPECTION CHECKLIST

Date 11/15/06

Report No.

Contract No.: N68711-98-D-5713, CTO No. 0084 | Contract Title: CTO 0084

Contract Specifications: PCB Hot Spots

Major Definable Features of Work: PCB Hot Spot Soil Excavation Site

Attendees: See Attached

A. Open Punchlist Items From Follow-Up Phase Checklist: None

B. New Punchlist Items Noted:

	Item	Date of Completion
	PCB Hot Spots	
1.	Sample water in Baker Tank and dispose of water	
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
12.		
13.		
14.		
.		

C. ROICC NOTIFIED? ☒ Yes ☐ No ROICC [signature] Date 11-28-06

On behalf of Tetra Tech EC, Inc., I certify that this activity is in accordance with the Contract Documents, based upon the information available to me.

Tetra Tech EC, Inc. Representative/Date	CSO/Date
[signature] 11/17/06	[signature] 12/1/06

ATTENDANCE

DATE: 11/16/17
TIME: 10:00 am
LOCATION: TtEC HPS SITE TRAILER
CTO: 84

PRINT NAME	SIGNATURE	REPRESENTING
ULRIKA T. MESSER	[signature]	TtEC
Jackwell	[signature]	TtEC
Mike Mentink	[signature]	NAVY CSO
J K Uehia	[signature]	ROICC
Brad Wheeler	[signature]	TtEC
Larry Sexton	[signature]	TtEC
Richard Kanaya	[signature]	TtEC

COMPLETION INSPECTION CHECKLIST

Date 12-04-06

Report No.

Contract No.: N68711-98D-5713, CTO No. 0072

Contract Title: PCB Hot Spots

Contract Specifications: Final Closure Action

Major Definable Features of Work: Removal of PCB contaminated soils area E

A. Open Punchlist Items From Follow-Up Phase Checklist:

	Item	Date of Completion
1.	Disposal of water and demobilization of Plastic Tank	12/01/06
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

B. New Punchlist Items Noted:

	Item	Date of Completion
1.	None	
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

On behalf of Tetra Tech FW Inc., I certify this activity is completely in accordance with the Contract Documents, based upon the information available to me.

12/4/06

Project Quality Control Manager

APPENDIX C

WELL COMPLETION REPORTS

ORIGINAL
File with DWR
Page 1 of 1
Owner's Well No. IR01MW43A
Date Work Began 6/7/05 Ended 6/7/05
Local Permit Agency None required - Superfund Site
Permit No. N/A Permit Date N/A

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No.

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION Describe material, grain size, color, etc.
	Overdrill to 32' (12" diameter)
	Remove all material: casing, filter
	pack + seal
	Original boring = 26.5'

TOTAL DEPTH OF BORING 32 (Feet)
TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command, Southwest Div.
Mailing Address 1230 Columbia St Suite 1100
San Diego CA 92101
CITY STATE ZIP

WELL LOCATION

Address Northwest of corner between 6th & Spear Ave
City Hunters Point Shipyard San Francisco, CA
County San Francisco, CA
APN Book ___ Page ___ Parcel ___
Township ___ Range ___ Section ___
Latitude ___ NORTH Longitude ___ WEST
DEG. MIN. SEC. DEG. MIN. SEC.

LOCATION SKETCH

NORTH
WEST EAST
SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ✓
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* May not be representative of a well's long-term yield.

CASING (S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE CE-MENT (✓)	BEN-TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0 22	✓	✓		

ATTACHMENTS (✓)

✓ Geologic Log
✓ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.
NAME Test America Drilling
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
1016 E. Katella Ave Anaheim CA 92805
ADDRESS CITY STATE ZIP
Signed [signature] 6/24/05 819548
WELL OWNER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV. 11-92 IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No.

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Page 1 of 1
Owner's Well No. IRO / MW44A
Date Work Began 6/7/05, Ended 6/7/05
Local Permit Agency None required - Superfund Site
Permit No. N/a Permit Date N/a

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Overdrill to 23' (diameter 12")
	Remove all material: casing, filter
	pack + seal.
	Original boring = 16.5'

TOTAL DEPTH OF BORING 23 (Feet)
TOTAL DEPTH OF COMPLETED WELL NA (Feet)

WELL OWNER

Name Naval Facilities Engineering Command, Southwest D.
Mailing Address 1230 Columbia St / Suite 1100
San Diego CA 92101
CITY STATE ZIP

WELL LOCATION

Address West of corner between 6th & Spear Ave
City Hunters Point Shipyard, San Francisco, CA
County San Francisco, CA
APN Book ___ Page ___ Parcel ___
Township ___ Range ___ Section ___
Latitude ___ NORTH Longitude ___ WEST
DEG. MIN. SEC. DEG. MIN. SEC.

LOCATION SKETCH

NORTH
WEST EAST
SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
✓ MONITORING
___ TEST WELL
___ CATHODIC PROTECTION
___ HEAT EXCHANGE
___ DIRECT PUSH
___ INJECTION
___ VAPOR EXTRACTION
___ SPARGING
___ REMEDIATION
___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (inches)	TYPE (✓) BLANK	SCREEN	COR-ROSION	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0 22	✓	✓		

ATTACHMENTS (✓)

✓ Geologic Log
✓ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME [signature] Pacific Drilling
(PERSON, FIRM OR CORPORATION) (TYPED OR PRINTED)
1016 E. Katella Ave Anaheim CA 92805
ADDRESS CITY STATE ZIP
Signed [signature] 6/24/05 819548
WELL DRILLING MACHINERY AND RESPONSIBLE DATE SIGNED CLASSIFICATION NUMBER

DWR 188 REV. 11/02 IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR
Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instructing Pamphlet

No.

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. IROIMW1-3
Date Work Begun 6/7/05, Ended 6/7/05
Local Permit Agency None required - Superfund Site
Permit No. N/a Permit Date N/a

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION Describe material, grain size, color, etc.
	Overdrill to 22' (8" diameter). Remove all material; casing, filter pack + seal. Original boring = 17'

TOTAL DEPTH OF BORING 22 (Feet)
TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command Southwest Div
Mailing Address 1230 Columbia St Suite 1100
San Diego CA 92101
CITY STATE ZIP

WELL LOCATION

Address Northwest of corner Bobrech 6th & Spear Ave.
City Hunters Point Shipyard, San Francisco CA
County San Francisco, CA
APN Book ___ Page ___ Parcel ___
Township ___ Range ___ Section ___
Latitude ___ DEG. MIN. SEC. NORTH Longitude ___ DEG. MIN. SEC. WEST

LOCATION SKETCH

NORTH
WEST EAST
SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ✓
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	CASING (S) TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

DEPTH FROM SURFACE Ft. to Ft.	ANNULAR MATERIAL TYPE CE-MENT (✓)	BEN-TONITE (✓)	FILL (✓)	FILTER PACK (TYPE-SIZE)
0 - 22	✓	✓		

ATTACHMENTS (✓)

✓ Geologic Log
✓ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analysis
___ Other ___
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
1016 E Ratella Av Anaheim CA 92805
ADDRESS CITY STATE ZIP
Signed [signature] 6/24/05 819548
(WELL DRILLING AUTHORIZED REPRESENTATIVE) DATE SIGNED C-57 LICENSE NUMBER

DWR 1M REV. 11-97 IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

Owner's Well No. P2-107F

No.

Date Work Began 9/15/05, Ended 9/15/05

Local Permit Agency None required - Superfund site

Permit No. N/A Permit Date N/A

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
		Overdrill to 15'. 8" diameter. Remove all materials & piezometer. Original piezometer pushed to 9' bgs (1.5" diameter) (present grade)

TOTAL DEPTH OF BORING 15 (Feet)

TOTAL DEPTH OF COMPLETED WELL NA (Feet)

WELL OWNER

Name Naval Facilities Engineering Command, SW Div.

Mailing Address 1230 Columbia St. Ste. 1100

City San Diego State CA Zip 92101

WELL LOCATION

Address Northwest corner between 4th + Spear Ave

City Hunters Point Shipyard San Francisco, CA

County San Francisco, CA

APN Book ___ Page ___ Parcel ___

Township ___ Range ___ Section ___

Latitude ___ DEG. ___ MIN. ___ SEC. NORTH · Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH / WEST / EAST / SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL

MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)

✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial

___ MONITORING
___ TEST WELL
___ CATHODIC PROTECTION
___ HEAT EXCHANGE
___ DIRECT PUSH
___ INJECTION
___ VAPOR EXTRACTION
___ SPARGING
___ REMEDIATION
___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___

ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___

TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)

* *May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	15	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

ADDRESS 1016 E. Kattella Ave. CITY Anaheim STATE CA ZIP 92805

Signed ___ (WELL DRILLER/AUTHORIZED REPRESENTATIVE) DATE SIGNED 9-16-05

C-57 LICENSE NUMBER 819548

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

Owner's Well No. PZ-107E No.

Date Work Began 9/15/05 Ended 9/15/05

Local Permit Agency None required - Superfund Site

Permit No. N/A Permit Date N/A

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
		Overdrill to 10'. 8" diameter. Remove all materials: piezometer. Original piezometer pushed to 5' bgs (present grade) (1.5" diameter)

TOTAL DEPTH OF BORING 10 (Feet)

TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command, Southwest Div.

Mailing Address 1230 Columbia St., Ste 1100

City San Diego State CA Zip 92101

WELL LOCATION

Address Northwest of corner between 6th & Spear Ave.

City Hunters Point Shipyard San Francisco, CA

County San Francisco, CA

APN Book ___ Page ___ Parcel ___

Township ___ Range ___ Section ___

Latitude ___ DEG. ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH / WEST / EAST / SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL

MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)

✓ DESTROY (*Describe Procedures and Materials Under "GEOLOGIC LOG"*)

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial

___ MONITORING
___ TEST WELL
___ CATHODIC PROTECTION
___ HEAT EXCHANGE
___ DIRECT PUSH
___ INJECTION
___ VAPOR EXTRACTION
___ SPARGING
___ REMEDIATION
___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___

ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___

TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)

* *May not be representative of a well's long-term yield.*

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	CASING (S) TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

DEPTH FROM SURFACE Ft.	to Ft.	ANNULAR MATERIAL TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	10	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

1016 E Kattella Ave. Anaheim CA 92805
ADDRESS CITY STATE ZIP

Signed [signature] WELL DRILLER/AUTHORIZED REPRESENTATIVE

8-16-05 DATE SIGNED

819548 C-57 LICENSE NUMBER

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

Owner's Well No. P2-100E No.

Date Work Began 9/15/05, Ended 9/15/05

Local Permit Agency None Required - Superfund Site

Permit No. 9/15/05 JR N/A Permit Date 9/15/05 JR N/A

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (=) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD _____ FLUID _____

DEPTH FROM SURFACE Fl.	to Fl.	DESCRIPTION *Describe material, grain size, color, etc.*
		Overdrill to 10'. 8" diameter. Remove all material: 1.5" diameter piezometer. Original piezometer pushed to 3' below present ground surface

TOTAL DEPTH OF BORING 10 (Feet)

TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command SW Div.

Mailing Address 1230 Columbia St., Ste. 1100

City San Diego State CA Zip 92101

WELL LOCATION

Address Northwest of corner Innes Ave. & Spear Ave.

City Hunters Point Shipyard San Francisco, CA

County San Francisco, CA

APN Book _____ Page _____ Parcel _____

Township _____ Range _____ Section _____

Latitude _____ DEG. _____ MIN. _____ SEC. NORTH

Longitude _____ DEG. _____ MIN. _____ SEC. WEST

LOCATION SKETCH

NORTH / WEST / EAST / SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (=)

___ NEW WELL

MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)

✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (=)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial

___ MONITORING
___ TEST WELL
___ CATHODIC PROTECTION
___ HEAT EXCHANGE
___ DIRECT PUSH
___ INJECTION
___ VAPOR EXTRACTION
___ SPARGING
___ REMEDIATION
___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER _____ (Fl.) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL _____ (Fl.) & DATE MEASURED _____

ESTIMATED YIELD * _____ (GPM) & TEST TYPE _____

TEST LENGTH _____ (Hrs.) TOTAL DRAWDOWN _____ (Fl.)

* *May not be representative of a well's long-term yield.*

DEPTH FROM SURFACE Fl.	to Ft.	BORE-HOLE DIA. (Inches)	CASING (S) TYPE (=) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

DEPTH FROM SURFACE Fl.	to Fl.	ANNULAR MATERIAL TYPE CEMENT (=)	BENTONITE (=)	FILL (=)	FILTER PACK (TYPE/SIZE)
0	10	✓	✓		

ATTACHMENTS (=)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other _____

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

1016 E Kattella Ave Anaheim CA 92805
ADDRESS CITY STATE ZIP

Signed _____ 9-16-05 819548
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

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File with DWR

Page 1 of 1

STATE OF CALIFORNIA

WELL COMPLETION REPORT

Refer to Instruction Pamphlet

No.

DWR USE ONLY — DO NOT FILL IN

STATE WELL NO./STATION NO.

LATITUDE LONGITUDE

APN/TRS/OTHER

Owner's Well No. P2-93D

Date Work Began 9/15/05 Ended 9/15/05

Local Permit Agency None Required - Superfund Site

Permit No. N/A Permit Date N/A

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE FL	to FL	DESCRIPTION *Describe material, grain size, color, etc.*
		Overdrill to 10'. 8" diameter. Remove all material: 1.5" diameter piezometer originally pushed to 5' below present grade.

TOTAL DEPTH OF BORING 10 (Feet)

TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command, SW Div.

Mailing Address 1230 Columbia St. Ste. 1100

San Diego CA 92101

CITY STATE ZIP

WELL LOCATION

Address Northwest of corner between 6th + Spear Ave

City Hunters Point Shipyard San Francisco CA

County San Francisco CA

APN Book ___ Page ___ Parcel ___

Township ___ Range ___ Section ___

Latitude ___ DEG. ___ MIN. ___ SEC. NORTH

Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH

WEST EAST

SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL

MODIFICATION/REPAIR

___ Deepen

___ Other (Specify)

✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (✓)

WATER SUPPLY

___ Domestic ___ Public

___ Irrigation ___ Industrial

MONITORING ___

TEST WELL ___

CATHODIC PROTECTION ___

HEAT EXCHANGE ___

DIRECT PUSH ___

INJECTION ___

VAPOR EXTRACTION ___

SPARGING ___

REMEDIATION ___

OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (FL) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL ___ (FL) & DATE MEASURED ___

ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___

TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (FL)

* *May not be representative of a well's long-term yield.*

DEPTH FROM SURFACE FL	to FL	BORE-HOLE DIA. (Inches)	CASING (S) TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

DEPTH FROM SURFACE FL	to FL	ANNULAR MATERIAL TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	10	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log

___ Well Construction Diagram

___ Geophysical Log(s)

___ Soil/Water Chemical Analyses

___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

1016 E Kattella Ave Anaheim CA 92805

ADDRESS CITY STATE ZIP

Signed ___ WELL DRILLER/AUTHORIZED REPRESENTATIVE

9-16-05 DATE SIGNED

819548 C-57 LICENSE NUMBER

DWR 188 REV 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

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Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

Owner's Well No. PZ-100B No.

Date Work Began 9/15/05, Ended 9/15/05

Local Permit Agency None Required - Superfund Site

Permit No. N/A Permit Date N/A

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
		Overdrill to 10', 8" diameter. Remove all material; 1.5" diameter piezometer originally pushed to 4' below present grade.

TOTAL DEPTH OF BORING 10 (Feet)

TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command SW Div.

Mailing Address 1230 Columbia St., Ste. 1100

City San Diego State CA Zip 92101

WELL LOCATION

Address Northwest of corner Between 6th & Spear Ave.

City Hunters Point Shipyard San Francisco CA

County San Francisco, CA

APN Book ___ Page ___ Parcel ___

Township ___ Range ___ Section ___

Latitude ___ DEG. ___ MIN. ___ SEC. NORTH

Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH / WEST / EAST / SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL

MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)

✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial

___ MONITORING
___ TEST WELL
___ CATHODIC PROTECTION
___ HEAT EXCHANGE
___ DIRECT PUSH
___ INJECTION
___ VAPOR EXTRACTION
___ SPARGING
___ REMEDIATION
___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___

ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___

TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)

* *May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	10	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

1016 E Kattella Ave. Anaheim CA 92805
ADDRESS CITY STATE ZIP

Signed Isaac Santos (WELL DRILLER/AUTHORIZED REPRESENTATIVE) 9-16-05 (DATE SIGNED) 819548 (C-57 LICENSE NUMBER)

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

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STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No.

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. PZ-114D
Date Work Began 9/15/05, Ended 9/15/05
Local Permit Agency None required - Superfund site.
Permit No. N/A Permit Date N/A

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Overdrill to 10', 8" diameter Remove all material: 1.5" diameter piezometer. Originally pushed to 6' below present grade

TOTAL DEPTH OF BORING 10 (Feet)
TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command, SW Div.
Mailing Address 1230 Columbia St. Ste. 1100
San Diego CA 92101
CITY STATE ZIP

WELL LOCATION

Address Northwest of Corner between 6th + Spear Ave.
City Hunters Point Shipyard San Francisco, CA
County San Francisco CA
APN Book ___ Page ___ Parcel ___
Township ___ Range ___ Section ___
Latitude ___ NORTH DEG. MIN. SEC. Longitude ___ WEST DEG. MIN. SEC.

LOCATION SKETCH

NORTH
WEST EAST
SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. **PLEASE BE ACCURATE & COMPLETE.**

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY (*Describe Procedures and Materials Under "GEOLOGIC LOG"*)

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE CE-MENT (✓)	BEN-TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0 10	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
1016 E Kattella Ave. Anaheim CA 92805
ADDRESS CITY STATE ZIP
Signed [signature] 9-16-05 819548
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

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STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No.

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. PZ-121E
Date Work Began 9/15/05 Ended 9/15/05
Local Permit Agency None required - Superfund site
Permit No. N/A Permit Date N/A

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Overdrill to 10', 8" diameter. Remove all material: piezometer (1.5' diameter metal). Originally pushed to 5' below present grade

TOTAL DEPTH OF BORING 10 (Feet)
TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command. SW Div.
Mailing Address 1230 Columbia St. Ste. 1100
City San Diego CA State 92101 Zip

WELL LOCATION

Address Northwest of corner between 6th & Spear Ave.
City Hunters Point Shipyard, San Francisco CA
County San Francisco CA
APN Book ___ Page ___ Parcel ___
Township ___ Range ___ Section ___
Latitude ___ DEG. ___ MIN. ___ SEC. NORTH
Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH / WEST / EAST / SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY (*Describe Procedures and Materials Under "GEOLOGIC LOG"*)

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	CASING (S) TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

DEPTH FROM SURFACE Ft. to Ft.	ANNULAR MATERIAL TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0 10	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS 1016 E Kettella Ave CITY Anaheim STATE CA ZIP 92805
Signed ___ (WELL DRILLER/AUTHORIZED REPRESENTATIVE) DATE SIGNED 9-16-05
C-57 LICENSE NUMBER 819548

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 1 of 1
Owner's Well No. PZ-121B
Date Work Began 9/16/05, Ended 9/16/05
Local Permit Agency Not required - Superfund site
Permit No. N/A Permit Date N/A

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No.

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
		Overdrill to 10'. 8" diameter. Remove all material: 1.5" dia. piezometer. Originally pushed to -7' below present grade.

TOTAL DEPTH OF BORING 10 (Feet)
TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command, SW Div.
Mailing Address 1220 Columbia St. Ste. 1100
City San Diego State CA ZIP 92101

WELL LOCATION

Address Northwest of corner of 6th + Spear
City Hunters Point Shipyard, San Francisco CA
County San Francisco CA
APN Book ___ Page ___ Parcel ___
Township ___ Range ___ Section ___
Latitude ___ DEG. ___ MIN. ___ SEC. NORTH
Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH / WEST / EAST / SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	10	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS 1016 E Kattella Ave. CITY Anaheim STATE CA ZIP 92805
Signed ___ (WELL DRILLER/AUTHORIZED REPRESENTATIVE) DATE SIGNED 9-16-05 C-57 LICENSE NUMBER 819548

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

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STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

Owner's Well No. PZ-107D — No.

Date Work Began 9/16/05 — Ended 9/16/05

Local Permit Agency Not required - Superfund Site

Permit No. N/A — Permit Date N/A

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO
LATITUDE — LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
		overdrill 10', 8" diameter. Materials removed - 1.5" dia. piezometer. Originally pushed to 5' below present grade

TOTAL DEPTH OF BORING 10 (Feet)

TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command. SW Div.

Mailing Address 1230 Columbia St. Ste. 1100

City San Diego — State CA — ZIP 92101

WELL LOCATION

Address Northwest of corner at 6th & Spear

City Hunters Point Shipyard San Francisco CA

County San Francisco CA

APN Book ___ Page ___ Parcel ___

Township ___ Range ___ Section ___

Latitude ___ DEG. ___ MIN. ___ SEC. NORTH — Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH / WEST / EAST / SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL

MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)

✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial

___ MONITORING
___ TEST WELL
___ CATHODIC PROTECTION
___ HEAT EXCHANGE
___ DIRECT PUSH
___ INJECTION
___ VAPOR EXTRACTION
___ SPARGING
___ REMEDIATION
___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___

ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___

TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)

* *May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CE-MENT (✓)	BEN-TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	10	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

1016 E Kettella Ave — Anaheim — CA — 92805
ADDRESS — CITY — STATE — ZIP

Signed [signature] (WELL DRILLER/AUTHORIZED REPRESENTATIVE) — 9-16-05 (DATE SIGNED) — 819548 (C-57 LICENSE NUMBER)

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

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STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No.

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. PZ-107C
Date Work Began 9/16/05 , Ended 9/16/05
Local Permit Agency Not required - Superfund Site
Permit No. N/A Permit Date N/A

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Overdrill 10" 8" diameter. Materials removed: 1.5" dia. piezometer. Originally pushed to 6' below present grade.

TOTAL DEPTH OF BORING 10 (Feet)
TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineer Command. SW Div
Mailing Address 1230 Columbia St. Ste. 1100
San Diego CA 92101
CITY STATE ZIP

WELL LOCATION

Address Northwest of Corner of 6th & Spear
City Hunters Point Shipyard, San Francisco, CA
County San Francisco, CA
APN Book ___ Page ___ Parcel ___
Township ___ Range ___ Section ___
Latitude ___ DEG. ___ MIN. ___ SEC. NORTH
Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH / WEST / EAST / SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE: CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0 to 10	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
1016 E. Katella Ave Anaheim CA 92805
ADDRESS CITY STATE ZIP
Signed [signature] 9-16-05 819548
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV. 11-87 IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

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STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

Owner's Well No. PZ-1216 No.

Date Work Began 9/16/05 Ended 9/16/05

Local Permit Agency Not required - Superfund Site

Permit No. N/A Permit Date N/A

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE FL	to FL	DESCRIPTION *Describe material, grain size, color, etc.*
		Overdrill to 10'; 8" dia. Remove all 1.5" dia. piez. (originally pushed to 4' below present grade.

TOTAL DEPTH OF BORING 10 (Feet)

TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command, SW Div

Mailing Address 1230 Columbia St. Ste. 1100

City Anaheim State CA Zip 92101

WELL LOCATION

Address Northwest of corner of 6th + Spear

City Hunters Point Shipyard San Francisco, CA

County San Francisco CA

APN Book ___ Page ___ Parcel ___

Township ___ Range ___ Section ___

Latitude ___ DEG. ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH / WEST / EAST / SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL

MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)

✓ DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial

___ MONITORING
___ TEST WELL
___ CATHODIC PROTECTION
___ HEAT EXCHANGE
___ DIRECT PUSH
___ INJECTION
___ VAPOR EXTRACTION
___ SPARGING
___ REMEDIATION
___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___

ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___

TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)

* *May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	10	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Fast America Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

1016 E Katella Ave Anaheim CA 92805
ADDRESS CITY STATE ZIP

Signed [signature] (WELL DRILLER/AUTHORIZED REPRESENTATIVE) Date Signed 9-16-05 C-57 License Number 812548

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. P2-131D No.
Date Work Began 9/16/05 Ended 9/16/05
Local Permit Agency Not required - Superfund Site
Permit No. N/A Permit Date N/A

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Fl.	to Fl.	DESCRIPTION *Describe material, grain size, color, etc.*
		Overdrill to 15' 8" diameter. Material removed - all - 1.5" dia. metal piezometer. Originally pushed to 12' below present grade.

TOTAL DEPTH OF BORING 15 (Feet)
TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command, SW Div
Mailing Address 1230 Columbia St. Ste 1100
City San Diego State CA Zip 92101

WELL LOCATION

Address Northwest of corner of 6th & Spear
City Hunters Point Shipyard San Francisco CA
County San Francisco CA
APN Book ___ Page ___ Parcel ___
Township ___ Range ___ Section ___
Latitude ___ DEG. ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH / WEST / EAST / SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Fl.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Fl.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Fl.)
* *May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Fl.	to Fl.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON. DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Fl.	to Fl.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	15	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
1016 E Kotella Ave Anaheim CA 92805
ADDRESS CITY STATE ZIP
Signed [signature] (WELL DRILLER/AUTHORIZED REPRESENTATIVE) 9-16-05 (DATE SIGNED) 819548 (C-57 LICENSE NUMBER)

DWR 188 REV. 11-97 IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

Owner's Well No. PZ-131 E No.

Date Work Began 9/16/05 Ended 9/16/05

Local Permit Agency Not required - Superfund Site

Permit No. N/A Permit Date N/A

OWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
		Overdrill 20'. 8 dia. Remove all 1.5" dia piezometer. Originally pushed to 17' below present grade.

TOTAL DEPTH OF BORING 20 (Feet)

TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command SW Div.

Mailing Address 1230 Columbia St. Ste 1100

City San Diego State CA Zip 92101

WELL LOCATION

Address Northwest of corner of 6th & Spear

City Hunters Point Shipyard San Francisco CA

County San Francisco CA

APN Book ___ Page ___ Parcel ___

Township ___ Range ___ Section ___

Latitude ___ DEG. ___ MIN. ___ SEC. NORTH

Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH / WEST / EAST / SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL

MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)

✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial

___ MONITORING
___ TEST WELL
___ CATHODIC PROTECTION
___ HEAT EXCHANGE
___ DIRECT PUSH
___ INJECTION
___ VAPOR EXTRACTION
___ SPARGING
___ REMEDIATION
___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___

ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___

TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)

* *May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	20	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

1016 E Kattella Ave Anaheim CA 92805
ADDRESS CITY STATE ZIP

Signed ___ 9-16-05 817548
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

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Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No.

Owner's Well No. EW-134

Date Work Began 9/16/05 Ended 9/16/05

Local Permit Agency not required - Superfund Site

Permit No. N/A Permit Date N/A

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE FL	to FL	DESCRIPTION *Describe material, grain size, color, etc.*
		Manually 5' Auger 8" dia - Remove all 6" PVC. PVC originally to (2') below present grade.
		2'

TOTAL DEPTH OF BORING 5 (Feet)

TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command SW Div.

Mailing Address 1230 Columbia St. Ste. 1100

City San Diego State CA Zip 92101

WELL LOCATION

Address Northwest of Corner of 6th + Spear

City Hunters Point Shipyard San Francisco CA

County San Francisco CA

APN Book ___ Page ___ Parcel ___

Township ___ Range ___ Section ___

Latitude ___ DEG. ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH / WEST / EAST / SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL

MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)

✓ DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial

___ MONITORING
___ TEST WELL
___ CATHODIC PROTECTION
___ HEAT EXCHANGE
___ DIRECT PUSH
___ INJECTION
___ VAPOR EXTRACTION
___ SPARGING
___ REMEDIATION
___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___

ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___

TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)

* *May not be representative of a well's long-term yield.*

CASING (5)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0 to 5	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

ADDRESS 1016 E Cattella Ave. City Anaheim State CA Zip 92805

Signed ___ (WELL DRILLER/AUTHORIZED REPRESENTATIVE) Date Signed 9-16-05 C-57 License Number 319548

DWR 188 REV 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR
Page 1 of 1
Owner's Well No. PZ-150 A
Date Work Began 9/16/05, Ended 9/16/05
Local Permit Agency not required - Superfund Site
Permit No. N/A Permit Date N/A

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No.

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Overdrill - 15' 8" Diameter. Remove all - 1.5" dia. piez. Original piez. pushed to 12' below present grade

TOTAL DEPTH OF BORING 15 (Feet)
TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command SW Div.
Mailing Address 1230 Columbia St., Ste. 1100
San Diego CA
CITY STATE ZIP

WELL LOCATION

Address Northwest of corner of 6th + Spear
City Hunters Point Shipyard San Francisco CA
County San Francisco CA
APN Book ___ Page ___ Parcel ___
Township ___ Range ___ Section ___
Latitude ___ NORTH DEG. MIN. SEC. Longitude ___ WEST DEG. MIN. SEC.

LOCATION SKETCH

NORTH
WEST EAST
SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	CE-MENT (✓)	BEN-TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0 15	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America ~~Test~~ JR Drilling
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
1016 E Kattella Ave. Anaheim CA 92805
ADDRESS CITY STATE ZIP
Signed [signature] 9-16-05 819548
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV 11-97 IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR
Page 1 of 1
Owner's Well No. PZ-150B
Date Work Began 9/16/05, Ended 9/16/05
Local Permit Agency Not required - Superfund Site
Permit No. N/A Permit Date N/A

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No.

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Overdrill 15' .8" diameter, Remove all: 1.5" dia. piezometer. Originally pushed 12' below present grade.

TOTAL DEPTH OF BORING 15' (Feet)
TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command SW Div.
Mailing Address 1230 Columbia St., Ste. 1100
San Diego CA 92101
CITY STATE ZIP

WELL LOCATION

Address Northwest of Corner of 6th + Spear
City Hunters Point Shipyard San Francisco
County San Francisco CA
APN Book ___ Page ___ Parcel ___
Township ___ Range ___ Section ___
Latitude ___ NORTH DEG. MIN. SEC. Longitude ___ WEST DEG. MIN. SEC.

LOCATION SKETCH

NORTH
WEST EAST
SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE CE-MENT (✓)	BEN-TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0 : 15	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
1016 E Kattella Ave. Anaheim CA 92805
ADDRESS CITY STATE ZIP
Signed [signature] 9-16-05 819548
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV. 11-97 IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR
Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No.

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. MW-60-4
Date Work Began 9/16/05, Ended 9/16/05
Local Permit Agency not required - Superfund Site
Permit No. N/A Permit Date N/A

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
		Quadrill 10' - 8" dia - Remove all: Total 8' of PVC (schd. 40 - 4") originally to 5 below grade prior grade

TOTAL DEPTH OF BORING 10 (Feet)
TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command SW Div
Mailing Address 1220 Columbia St., Ste. 1100
San Diego CA
CITY STATE ZIP

WELL LOCATION

Address Northwest of 6th + Spear corner
City Hunters Point Shipyard - San Francisco, CA
County San Francisco CA
APN Book ___ Page ___ Parcel ___
Township ___ Range ___ Section ___
Latitude ___ DEG. ___ MIN. ___ SEC. NORTH
Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH / WEST / EAST / SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	CASING(S) TYPE (✓) BLANK	SCREEN	CON-STRUCTION	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

DEPTH FROM SURFACE Ft.	to Ft.	ANNULAR MATERIAL TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	10	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
1016 E Katella Ave Anaheim CA 92805
ADDRESS CITY STATE ZIP
Signed [signature] (WELL DRILLER/AUTHORIZED REPRESENTATIVE) 9-16-05 (DATE SIGNED) 819578 (C-57 LICENSE NUMBER)

DWR 188 REV. 11-97 IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA

WELL COMPLETION REPORT

Refer to Instruction Pamphlet

No. 130A

Owner's Well No. PZ-130A

Date Work Began 9/16/05 Ended 9/16/05

Local Permit Agency not required - Superfund Site

Permit No. N/A Permit Date N/A

DWR USE ONLY — DO NOT FILL IN

STATE WELL NO./STATION NO.

LATITUDE LONGITUDE

APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE FL	to FL	DESCRIPTION *Describe material, grain size, color, etc.*
		Overdrill to 15', 8" diameter. Remove all - 1.5" dia metal piezometer, originally pushed to 10' below present grade.

TOTAL DEPTH OF BORING 15 (Feet)

TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command SW Div

Mailing Address 1230 Columbia St. Ste. 1100

City San Diego State CA Zip 92101

WELL LOCATION

Address Northwest Corner of 6th + Spear

City Hunters Point Shipyard, San Francisco CA

County San Francisco, CA

APN Book ___ Page ___ Parcel ___

Township ___ Range ___ Section ___

Latitude ___ DEG. ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH

WEST EAST

SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL

MODIFICATION/REPAIR

___ Deepen

___ Other (Specify)

✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (✓)

WATER SUPPLY

___ Domestic ___ Public

___ Irrigation ___ Industrial

___ MONITORING

___ TEST WELL

___ CATHODIC PROTECTION

___ HEAT EXCHANGE

___ DIRECT PUSH

___ INJECTION

___ VAPOR EXTRACTION

___ SPARGING

___ REMEDIATION

___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___

ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___

TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)

* *May not be representative of a well's long-term yield.*

DEPTH FROM SURFACE FL	to FL	BORE-HOLE DIA. (Inches)	CASING (S) TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

DEPTH FROM SURFACE Ft.	to Ft.	ANNULAR MATERIAL TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	15	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log

___ Well Construction Diagram

___ Geophysical Log(s)

___ Soil/Water Chemical Analyses

___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

1016 E Katella Ave. Anaheim CA 92805

ADDRESS CITY STATE ZIP

Signed ___ (WELL DRILLER/AUTHORIZED REPRESENTATIVE) 9-16-05 (DATE SIGNED) 819548 (C-57 LICENSE NUMBER)

DWR 188 REV. 11-92

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

138 B

Owner's Well No. PZ-~~138~~B

No.

Date Work Began 9/16/05 Ended 9/16/05

Local Permit Agency not required - Superfund site

Permit No. N/A Permit Date N/A

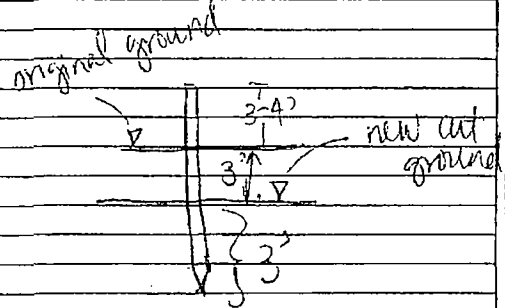
DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
		3' - pull piezometer. Next to wall. Can't drill. Pulled all out. Filled.



3' because could not drill due to proximity to the sheet pile wall.

TOTAL DEPTH OF BORING 31 (Feet)

TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command, SW Div.

Mailing Address ___

City San Diego State CA Zip ___

WELL LOCATION

Address Northwest of corner of 6th + Spear

City Hunters Point Shipyard San Francisco

County San Francisco CA

APN Book ___ Page ___ Parcel ___

Township ___ Range ___ Section ___

Latitude ___ DEG ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH

WEST EAST

SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL

MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)

✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial

___ MONITORING
___ TEST WELL
___ CATHODIC PROTECTION
___ HEAT EXCHANGE
___ DIRECT PUSH
___ INJECTION
___ VAPOR EXTRACTION
___ SPARGING
___ REMEDIATION
___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___

ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___

TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)

* *May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	3	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

1016 E Kattella Ave. Anaheim CA 92805
ADDRESS CITY STATE ZIP

Signed ___ (WELL DRILLER/AUTHORIZED REPRESENTATIVE) 9-16-05 (DATE SIGNED) 819548 (C-57 LICENSE NUMBER)

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR
Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

Owner's Well No. P2-121F
No.
Date Work Began 9/16/05 Ended 9/16/05
Local Permit Agency not required - Superfund Site
Permit No. N/A Permit Date N/A

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
		Overdrill 15' - 8" dia., 1.5" diameter metal piezometer removed. Originally pushed to 10' below present grade

TOTAL DEPTH OF BORING 15 (Feet)
TOTAL DEPTH OF COMPLETED WELL N/A (Feet)

WELL OWNER

Name Naval Facilities Engineering Command, SW Div.
Mailing Address 1220 Columbia St. Ste. 1100
City San Diego State CA Zip 92101

WELL LOCATION

Address Northwest of corner of 6th + Spear
City Hunters Point Shipyard San Francisco, CA
County San Francisco CA
APN Book ___ Page ___ Parcel ___
Township ___ Range ___ Section ___
Latitude ___ DEG. ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH / WEST / EAST / SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

CASING(S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	15	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
1016 E Katella Ave Anaheim CA 92805
ADDRESS CITY STATE ZIP
Signed ___ (WELL DRILLER/AUTHORIZED REPRESENTATIVE) 9-16-05 (DATE SIGNED) 819548 (C-57 LICENSE NUMBER)

DWR 188 REV. 11-97 IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR
Page 1 of 1
Owner's Well No. MW-6B-2
Date Work Began 10-27-05 Ended 10-27-05
Local Permit Agency None Required - Superfund
Permit No. NA Permit Date NA

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No.

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN TRB/OTHER

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD Hollow Stem FLUID ___

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION Describe material, grain size, color, etc.
		removed 4' PVC well - Depth of well
		26.3' - Overbrill to 27', Back fill
		E'l Borehole w/ Cement/Bent Slurry

TOTAL DEPTH OF BORING 27' (Feet)
TOTAL DEPTH OF COMPLETED WELL — (Feet)

WELL OWNER

Name Navy Facility Eng Command SW DIV
Mailing Address 1230 Columbia Street Suite 1100
San Diego CA 92101
CITY STATE ZIP

WELL LOCATION

Address NW Corner - Between 6th & Spear
City Hunters Point Shipyard
County San Francisco
APN Book ___ Page ___ Parcel ___
Township ___ Range ___ Section ___
Latitude ___ NORTH Longitude ___ WEST
DEG MIN. SEC. DEG MIN SEC

LOCATION SKETCH

NORTH
WEST EAST
SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
X DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* May not be representative of a well's long-term yield.

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CE-MENT (✓)	BEN-TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	27	X	X		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

NAME Test America Drilling
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
1016 E. Patella Ave Anaheim CA 92805
ADDRESS CITY STATE ZIP
Signed [signature] 10/27/05 819 848
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED (LICENSE NUMBER)

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR
Page 1 of 1
Owner's Well No. IR01 MW47B
Date Work Began 10-27-05, Ended 10-27-05
Local Permit Agency None Required Superfund Site
Permit No. NA Permit Date NA

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No.

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD Hollow Stem FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	remove 4" PVC Well Depth - 29.3'
	Overdrill To 30', fill Borehole (2" Dia)
	w/ Bent/Cement Slurry -

TOTAL DEPTH OF BORING 30 (Feet)
TOTAL DEPTH OF COMPLETED WELL — (Feet)

WELL OWNER

Name Navy Facility Eng Command SW DIV
Mailing Address 1230 Columbia St Suite 1100
San Diego CA 92101
CITY STATE ZIP

WELL LOCATION

Address NW Corner Hudson 6th & Spear St.
City Hunters Point Shipyard
County San Francisco
APN Book ___ Page ___ Parcel ___
Township ___ Range ___ Section ___
Latitude ___ NORTH Longitude ___ WEST
DEG. MIN. SEC. DEG. MIN. SEC.

LOCATION SKETCH

NORTH
WEST EAST
SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
X DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
** May not be representative of a well's long-term yield.*

CASING (B)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0 30	Y	Y		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.
NAME [signature] Drilling
PERSON, FIRM OR CORPORATION (TYPED OR PRINTED)
ADDRESS [illegible] Anaheim CA 92805
CITY STATE ZIP
Signed [signature] 10/27/05 819548
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

Page 1 of 1
Owner's Well No. PZ-150C
No.
Date Work Began 10-27-05, Ended 10-27-05
Local Permit Agency None Required - Superfund
Permit No. NA Permit Date NA

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TH&/OTHER

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD Hollow Stem FLUID ___

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION Describe material, grain size, color, etc.
		removed 1½ S.S. Piezometer -
		overdrilled to 20' - (Drive point 7.5'-4')
		Backfilled Borehole w/ Bent/Cement grout.
		Fill 3' to Grand w/ Bent. Chips.

TOTAL DEPTH OF BORING 20' (Feet)
TOTAL DEPTH OF COMPLETED WELL ___ (Feet)

WELL OWNER

Name Dry Facility Engineering Command SW DIV
Mailing Address 1230 Columbia St. Suite 1100
San Diego CA 92101
CITY STATE ZIP

WELL LOCATION

Address NW of Corner Between 6th & Spear
City Hunters Point Shipyard
County San Francisco
APN Book ___ Page ___ Parcel ___
Township ___ Range ___ Section ___
Latitude ___ NORTH Longitude ___ WEST
DEG MIN. SEC DEG MIN SEC

LOCATION SKETCH

NORTH
WEST EAST
SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* May not be representative of a well's long-term yield.

GASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CE-MENT (✓)	BEN-TONITE (✓)	FILL (✓)	FILTER PACK (TYPE-SIZE)
20	3	X	X		
3	0		X		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling
(PERSON, FIRM OR CORPORATION) (TYPED OR PRINTED)
Dale E. Katella Av. Anaheim CA 92805
ADDRESS CITY STATE
Signed [signature] 10/24/05 819548
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED B.C. LICENSE NUMBER

DWR 188 REV. 10/97 IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 1 of 1

Owner's Well No. PZ-159A

Date Work Began 10-27-05, Ended 10-27-05

Local Permit Agency Done Required - Superfund

Permit No. N/A Permit Date N/A

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instructions Pamphlet

No.

DWR USE ONLY — DO NOT FILL IN

STATE WELL NO./STATION NO.

LATITUDE LONGITUDE

APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ___ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD Hollow Stem FLUID ___

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION Describe material, grain size, color, etc.
		over drill to 17' remove all material
		1½ Stainless Piezometer: driver point pushed to
		16'- 8' Borehole filled w/ Bent/Cement
		Slurry. To 11', Bent chips to Surface.

TOTAL DEPTH OF BORING 17 (Feet)

TOTAL DEPTH OF COMPLETED WELL NA (Feet)

WELL OWNER

Name Navy Facility Engineering Command SW/DIV

Mailing Address 1230 Columbia Street Suite 1100

San Diego CA 92101

CITY STATE ZIP

WELL LOCATION

Address NW of Corner of/Between 6th & Spear

City Hunters Point Shipyard

County San Francisco

APN Book ___ Page ___ Parcel ___

Township ___ Range ___ Section ___

Latitude ___ NORTH Longitude ___ WEST

DEG. MIN. DEG. DEG. MIN. SEC.

LOCATION SKETCH

NORTH

WEST EAST

SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Rivers, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL

MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)

✓ DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial

MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___

ESTIMATED YIELD ___ (GPM) & TEST TYPE ___

TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)

* May not be representative of a well's long-term yield.

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	11		X		
11	17	X	X		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

Wile E Patella Ave Anaheim CA 92805
ADDRESS CITY STATE ZIP

Signed [signature] 10/24/05 819548
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV. 11/87

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

Owner's Well No. MW-60-3 No.

Date Work Began 12/6/05, Ended 12/6/05

Local Permit Agency None required - CERCLA Site

Permit No. NA Permit Date NA

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ___ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	13	Remove 4" PVC well (@ ~ 8.6 ft). Overdrill boring to a depth of 13 feet. Backfill with high solids Bentonite cement

TOTAL DEPTH OF BORING 13 (Feet)
TOTAL DEPTH OF COMPLETED WELL 8.6 (Feet)

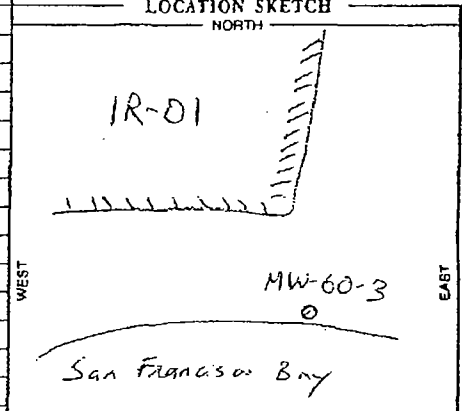
WELL OWNER

Name NAVAL FACILITY ENGINEERING COMMAND SW DIV
Mailing Address ___
CITY STATE ZIP

WELL LOCATION

Address Hunters Point
City San Francisco
County San Francisco
APN Book ___ Page ___ Parcel ___
Township ___ Range ___ Section ___
Latitude ___ DEG. MIN. SEC. NORTH Longitude ___ DEG. MIN. SEC. WEST

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
✓ MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
X DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ~ 8 (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ~ 8 (Ft.) & DATE MEASURED 12/6/05 1309
ESTIMATED YIELD * NA (GPM) & TEST TYPE N.A
TEST LENGTH NA (Hrs.) TOTAL DRAWDOWN NA (Ft.)
* *May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	4	✓			
4	13	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Groundwater Chemical Analyses
___ Other ___
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
1016 East Katella Ave Anaheim CA 92805
ADDRESS CITY STATE ZIP
Signed ___ 12/16/05 815548
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV. 11-97 IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 1 of 1

Owner's Well No. PZ-121A

Date Work Began 12/6/05 Ended 12/6/05

Local Permit Agency None required – CERCLA S/K

Permit No. NA Permit Date NA

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No.

DWR USE ONLY — DO NOT FILL IN

STATE WELL NO./STATION NO.

LATITUDE LONGITUDE

APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ___ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD _____ FLUID _____

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	13	Remove 1" ID stainless steel well (0-8.5 ft). Overdrill boring to a depth of 13 feet. Backfill with high-solids bentonite cement.

TOTAL DEPTH OF BORING 13 (Feet)

TOTAL DEPTH OF COMPLETED WELL 8.5 (Feet)

WELL OWNER

Name Navy Facility Engineering Command SW Div

Mailing Address _____

CITY _____ STATE _____ ZIP _____

WELL LOCATION

Address NA

City Hunters Point B, San Francisco

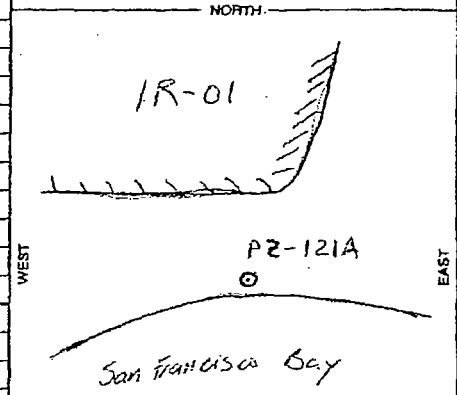
County San Francisco

APN Book _____ Page _____ Parcel _____

Township _____ Range _____ Section _____

Latitude _____ DEG. MIN. SEC. NORTH Longitude _____ DEG. MIN. SEC. WEST

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL

✓ MODIFICATION/REPAIR

___ Deepen

___ Other (Specify)

___ DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)

WATER SUPPLY

___ Domestic ___ Public

___ Irrigation ___ Industrial

___ MONITORING

___ TEST WELL

___ CATHODIC PROTECTION

___ HEAT EXCHANGE

___ DIRECT PUSH

___ INJECTION

___ VAPOR EXTRACTION

___ SPARGING

___ REMEDIATION

___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ~9 (Ft.) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL ~8 (Ft.) & DATE MEASURED 12/6/05 1200

ESTIMATED YIELD * NA (GPM) & TEST TYPE NA

TEST LENGTH NA (Hrs.) TOTAL DRAWDOWN NA (Ft.)

* *May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	4	✓			
4	13	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log

___ Well Construction Diagram

___ Geophysical Log(s)

___ Soil/Water Chemical Analyses

___ Other _____

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

1016 East Katella Ave ADDRESS Anaheim CITY CA STATE 92805 ZIP

Signed _____ WELL DRILLER/AUTHORIZED REPRESENTATIVE

12/16/05 DATE SIGNED

819548 C-57 LICENSE NUMBER

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 1 of 1

Owner's Well No. PZ-138D

Date Work Began 12/7/05 Ended 12/7/05

Local Permit Agency None Required - CERCLA Site

Permit No. NA Permit Date NA

STATE OF CALIFORNIA

WELL COMPLETION REPORT

Refer to Instruction Pamphlet

No.

DWR USE ONLY — DO NOT FILL IN

STATE WELL NO./STATION NO.

LATITUDE LONGITUDE

APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ___ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE FL	to FL	DESCRIPTION *Describe material, grain size, color, etc.*
0	20	Remove 1" stainless steel well Overdrill to a depth of 20 feet and backfill with bentonite cement.

TOTAL DEPTH OF BORING 20 (Feet)

TOTAL DEPTH OF COMPLETED WELL 15.7 (Feet)

WELL OWNER

Name Navy Facility Engineering Command SW Div

Mailing Address ___

CITY ___ STATE ___ ZIP ___

WELL LOCATION

Address Hunters Point

City San Francisco

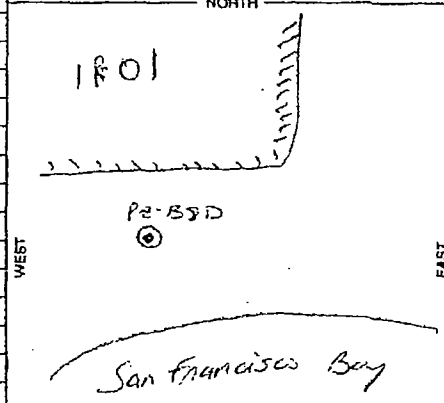
County San Francisco

APN Book ___ Page ___ Parcel ___

Township ___ Range ___ Section ___

Latitude ___ DEG. ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL

MODIFICATION/REPAIR

___ Deepen

___ Other (Specify)

X DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)

WATER SUPPLY

___ Domestic ___ Public

___ Irrigation ___ Industrial

___ MONITORING

___ TEST WELL

___ CATHODIC PROTECTION

___ HEAT EXCHANGE

___ DIRECT PUSH

___ INJECTION

___ VAPOR EXTRACTION

___ SPARGING

___ REMEDIATION

___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ~14.5 (FL) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL 14.5 (FL) & DATE MEASURED 12/7/05 0830

ESTIMATED YIELD * NA (GPM) & TEST TYPE NA

TEST LENGTH NA (Hrs.) TOTAL DRAWDOWN NA (FL.)

* *May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE FL	to FL	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	BLANK/SCREEN	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
		8"								

ANNULAR MATERIAL

DEPTH FROM SURFACE FL	to FL	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	4	✓			
4	20	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log

___ Well Construction Diagram

___ Geophysical Log(s)

___ Soil/Water Chemical Analyses

___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

1016 East Kathleen Ave Anaheim CA 92805

ADDRESS CITY STATE ZIP

Signed ___ (WELL DRILLER/AUTHORIZED REPRESENTATIVE) 12/16/05 (DATE SIGNED) 819548 (C-57 LICENSE NUMBER)

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No.

Owner's Well No. PZ+138C

Date Work Began 12/7/05 . Ended 12/7/05

Local Permit Agency None Required - CERCLA Site

Permit No. NA Permit Date NA

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ___ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE FL	to FL	DESCRIPTION *Describe material, grain size, color, etc.*
		Remove 1" stainless steel well from boring, Overdrill to 7ft. Unable to advance auger due to debris in boring

TOTAL DEPTH OF BORING 7 (Feet)

TOTAL DEPTH OF COMPLETED WELL 16.7 (Feet)

WELL OWNER

Name Navy Facility Engineering Command SW DIV

Mailing Address ___

CITY ___ STATE ___ ZIP ___

WELL LOCATION

Address Hunters Point

City San Francisco

County San Francisco

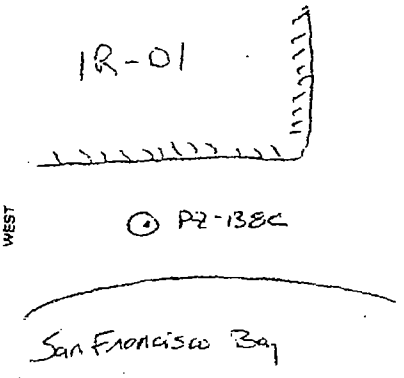
APN Book ___ Page ___ Parcel ___

Township ___ Range ___ Section ___

Latitude ___ DEG. ___ MIN. ___ SEC. NORTH . Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH



WEST EAST

SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL

MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)

X DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial

___ MONITORING
___ TEST WELL
___ CATHODIC PROTECTION
___ HEAT EXCHANGE
___ DIRECT PUSH
___ INJECTION
___ VAPOR EXTRACTION
___ SPARGING
___ REMEDIATION
___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ~15 (FL) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL ~15 (FL.) & DATE MEASURED 12/7/05 1050

ESTIMATED YIELD * NA (GPM) & TEST TYPE NA

TEST LENGTH NA (Hrs.) TOTAL DRAWDOWN NA (FL)

* *May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE FL	to FL	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE FL	to FL	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	4	✓			
4	7	✓	✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

1016 East Katella Ave Anaheim CA 92805
ADDRESS CITY STATE ZIP

Signed ___ 12/16/05 819548
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

Owner's Well No. PZ-144C No.

Date Work Began 12/7/05, Ended 12/7/05

Local Permit Agency None Required - CERCLA 5.k

Permit No. NA Permit Date NA

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ___ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	4	Remove ~ 5 ft of 1" Stainless steel well. Well snapped off in boring. Unable to over drill. Excavate to 3 feet and try to pull but unable. Back fill with cement

TOTAL DEPTH OF BORING ___ (Feet)

TOTAL DEPTH OF COMPLETED WELL ___ (Feet)

WELL OWNER

Name Navy Facility Engineering Command SW Div

Mailing Address ___

CITY ___ STATE ___ ZIP ___

WELL LOCATION

Address Hunters Point

City San Francisco

County San Francisco

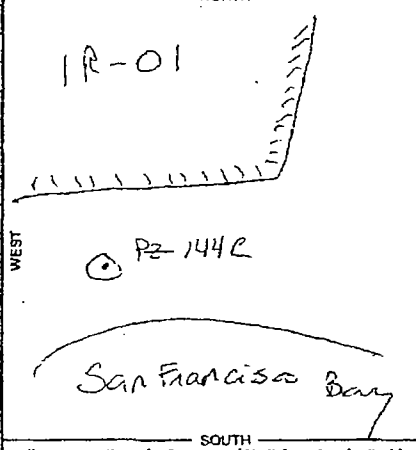
APN Book ___ Page ___ Parcel ___

Township ___ Range ___ Section ___

Latitude ___ DEG. ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL

MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)

X DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial

___ MONITORING
___ TEST WELL
___ CATHODIC PROTECTION
___ HEAT EXCHANGE
___ DIRECT PUSH
___ INJECTION
___ VAPOR EXTRACTION
___ SPARGING
___ REMEDIATION
___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER NA (Ft.) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL NA (Ft.) & DATE MEASURED NA

ESTIMATED YIELD * NA (GPM) & TEST TYPE NA

TEST LENGTH NA (Hrs.) TOTAL DRAWDOWN NA (Ft.)

** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	4	✓			

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

1016 East Katella Ave Anaheim CA 92805
ADDRESS CITY STATE ZIP

Signed ___ 12/16/05 819548
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No.

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. 131A
Date Work Began 3/14/06, Ended 3/14/06
Local Permit Agency None required - CERCLA site
Permit No. NA Permit Date NA

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD NA FLUID NA

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	1	Fill Natural
1	22	Pull well from ground, remove bollards and monument. Overdrill to 22 feet with 4" OD Augers. Backfill boring with High Solids bentonite grout. 1" well.

TOTAL DEPTH OF BORING 19 (Feet)
TOTAL DEPTH OF COMPLETED WELL 18 (Feet)

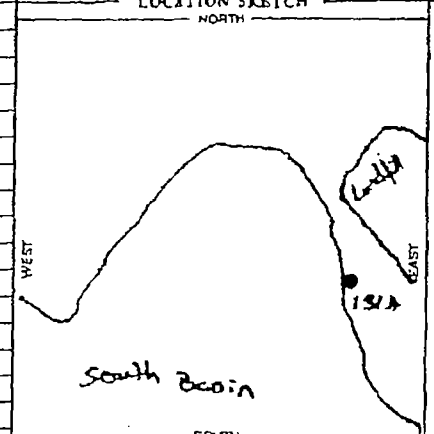
WELL OWNER

Name NAVY FACILITY ENGINEERING COMMAND
Mailing Address EWDIV
CITY STATE ZIP

WELL LOCATION

Address HUNTERS POINT
City San Francisco
County San Francisco
APN Book — Page — Parcel —
Township — Range — Section —
Latitude — DEG. — MIN. — SEC. NORTH Longitude — DEG. — MIN. — SEC. WEST

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
X DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER NA (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL NA (Ft.) & DATE MEASURED NA
ESTIMATED YIELD * NA (GPM) & TEST TYPE NA
TEST LENGTH NA (Hrs.) TOTAL DRAWDOWN NA (Ft.)
* *May not be representative of a well's long-term yield.*

CASING (5)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	MONI-TORING	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0 1			—	
1 22	—			grout

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Test America Drilling Corp
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
1026 E Katella Ave Anaheim CA 92805
ADDRESS CITY STATE ZIP
Signed [signature] 4-19-06 89548
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV. 11/96 IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

APPENDIX D

POST-EXCAVATION CHEMICAL AND RADIOLOGICAL SAMPLING RESULTS

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-444	84-445	84-539	84-540	84-541	84-542	84-543	84-544	84-545	84-546	84-547
Location:			GRID 123 BOTTOM	GRID 124 BOTTOM	GRID 94 BOTTOM	GRID 95 BOTTOM	GRID 102 BOTTOM	GRID 103 BOTTOM	GRID 116 BOTTOM	GRID 117 BOTTOM	GRID 94 BOTTOM	GRID 95 BOTTOM	GRID 102 BOTTOM
Sample Date:			10/21/2005	10/21/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005
Start Depth (feet):			0	0	3	3	3	3	3	3	8	8	8
End Depth (feet):			0.5	0.5	3.5	3.5	3.5	3.5	3.5	3.5	8.5	8.5	8.5
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	5.3 HY	14 HY	38 HY	21 HY	35 HY	8.2 HY	240 HY	33 HY	64 HY	8.4 HY	5.8 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	1.8 U	1.7 U	0.22 U	0.22 U	0.23 U	0.061 J	0.22 U	0.26 U	0.064 J	0.23 U	0.25 J
MOTOR OIL C24-C36	MG/KG	EPA 8015B	27	26 L	140	57	180	35	470 L	96 L	120 L	29	26
Total TPH	MG/KG	EPA 8015B	32	40	178	78	215	43	710	129	184	37	32
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN KETONE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	20 UJ	19 UJ	53 U	10 U	11 U	13 U	52 U	13 U	11 U	12 U	16 U
AROCLOR-1221	UG/KG	EPA 8082	40 UJ	38 UJ	110 U	21 U	21 U	26 U	100 U	26 U	22 U	23 U	32 U
AROCLOR-1232	UG/KG	EPA 8082	20 UJ	19 UJ	53 U	10 U	11 U	13 U	52 U	13 U	11 U	12 U	16 U
AROCLOR-1242	UG/KG	EPA 8082	20 UJ	19 UJ	53 U	10 U	11 U	13 U	52 U	13 U	11 U	12 U	16 U
AROCLOR-1248	UG/KG	EPA 8082	20 UJ	19 UJ	53 U	10 U	11 U	13 U	52 U	13 U	11 U	12 U	16 U
AROCLOR-1254	UG/KG	EPA 8082	20 UJ	19 UJ	53 U	10 U	11 U	13 U	52 U	13 U	11 U	12 U	16 U

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-444	84-445	84-539	84-540	84-541	84-542	84-543	84-544	84-545	84-546	84-547
Location:			GRID 123 BOTTOM	GRID 124 BOTTOM	GRID 94 BOTTOM	GRID 95 BOTTOM	GRID 102 BOTTOM	GRID 103 BOTTOM	GRID 116 BOTTOM	GRID 117 BOTTOM	GRID 94 BOTTOM	GRID 95 BOTTOM	GRID 102 BOTTOM
Sample Date:			10/21/2005	10/21/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005
Start Depth (feet):			0	0	3	3	3	3	3	3	8	8	8
End Depth (feet):			0.5	0.5	3.5	3.5	3.5	3.5	3.5	3.5	8.5	8.5	8.5
Analyte	**Units**	**Method**											
AROCLOR-1260	UG/KG	EPA 8082	20 UJ	19 UJ	570	31	110	19	750	190	58	12 U	16 U
Total PCBs	UG/KG	EPA 8082	ND	ND	570	31	110	19	750	190	58	ND	ND
Metals													
ANTIMONY	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	MG/KG	EPA 7471A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble standard

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-548	84-549	84-550	84-551	84-552	84-553	84-554	84-555	84-556	84-557	84-558
Location:			GRID 103 BOTTOM	GRID 116 BOTTOM	GRID 117 BOTTOM	GRID 177 BOTTOM	GRID 174 BOTTOM	GRID 172 BOTTOM	GRID 173 BOTTOM	GRID 171 BOTTOM	GRID 85 BOTTOM	GRID 170 BOTTOM	GRID 84 BOTTOM
Sample Date:			11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005
Start Depth (feet):			8	8	8	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
End Depth (feet):			8.5	8.5	8.5	11	11	11	11	11	11	11	11
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	7.8 HY	4 HY	4.2 HY	1200 HY	38 HY	190 HYJ	230 HY	380 HY	1000 HY	620 HLY	1300 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	1.6 U	1.8 U	1.8 U	0.54 J	0.34 J	0.27 J	0.82 J	1.5 HY	3.5 HY	2.4 HY	11 HYJ
MOTOR OIL C24-C36	MG/KG	EPA 8015B	26	27	22	3000 L	72 L	460 J	490	630 L	950 L	630 L	3100
Total TPH	MG/KG	EPA 8015B	34	31	26	4200	110	650	721	1012	1954	1252	4411
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN KETONE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	*UG/KG*	*EPA 8081A*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	16 U	17 U	16 U	190 U	14 U	66 U	58 U	64 U	160 U	12 U	65 U
AROCLOR-1221	UG/KG	EPA 8082	31 U	34 U	32 U	390 U	27 U	130 U	120 U	130 U	310 U	24 U	130 U
AROCLOR-1232	UG/KG	EPA 8082	16 U	17 U	16 U	190 U	14 U	66 U	58 U	64 U	160 U	12 U	65 U
AROCLOR-1242	UG/KG	EPA 8082	16 U	17 U	16 U	190 U	14 U	66 U	58 U	64 U	160 U	12 U	65 U
AROCLOR-1248	UG/KG	EPA 8082	16 U	17 U	16 U	6000	14 U	790	58 U	680	2500	97	2000
AROCLOR-1254	UG/KG	EPA 8082	16 U	17 U	16 U	6400	14 U	66 U	58 U	540	4600	120	2200

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-548	84-549	84-550	84-551	84-552	84-553	84-554	84-555	84-556	84-557	84-558
Location:			GRID 103 BOTTOM	GRID 116 BOTTOM	GRID 117 BOTTOM	GRID 177 BOTTOM	GRID 174 BOTTOM	GRID 172 BOTTOM	GRID 173 BOTTOM	GRID 171 BOTTOM	GRID 85 BOTTOM	GRID 170 BOTTOM	GRID 84 BOTTOM
Sample Date:			11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005	11/28/2005
Start Depth (feet):			8	8	8	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
End Depth (feet):			8.5	8.5	8.5	11	11	11	11	11	11	11	11
Analyte	**Units**	**Method**											
AROCLOR-1260	UG/KG	EPA 8082	16 U	17 U	16 U	4400	82	2000	1600	1100	7100	220	2700
Total PCBs	UG/KG	EPA 8082	ND	ND	ND	16800	82	2790	1600	2320	14200	437	6900
Metals													
ANTIMONY	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	MG/KG	EPA 7471A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-563	84-564	84-565	84-566	84-567	84-568	84-569	84-570	84-578	84-579	84-582
Location:			GRID 123 BOTTOM	GRID 124 BOTTOM	GRID 132 BOTTOM	GRID 131 BOTTOM	GRID 130 BOTTOM	GRID 139 SIDEWALL	GRID 129 BOTTOM	GRID 128 BOTTOM	GRID 83 BOTTOM	GRID 82 BOTTOM	GRID 132 SIDEWALL
Sample Date:			12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/13/2005	12/13/2005	12/13/2005
Start Depth (feet):			9.98	9.63		9.34	9.3	5.8	8.67	7.75	3.09	6.61	1
End Depth (feet):													1.5
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	20 HY	4.2 HY	12000 L	210 HY	1300 HY	37 HY	2700 HY	6800 HY	950 HLY	1900 HY	84 HYJ
GASOLINE C6-C10	MG/KG	EPA 8015B	0.14 J	0.17 U	7.6 HYJ	0.54 J	1.8 HY	0.18 U	5.7 HYJ	12 HYJ	0.63 HJY	1.1 HJY	0.18 U
MOTOR OIL C24-C36	MG/KG	EPA 8015B	44	21	2000 LY	180 L	810 L	350	2200 L	10000 L	1700 L	3000 L	270 J
Total TPH	MG/KG	EPA 8015B	64	25	14008	391	2112	387	4906	16812	2651	4901	354
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	77 U	NA	NA	NA	NA	150 U
ACENAPHTHYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	77 U	NA	NA	NA	NA	150 U
ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	77 UJ	NA	NA	NA	NA	28 J
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	77 U	NA	NA	NA	NA	100 J
BENZO(A)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	77 U	NA	NA	NA	NA	140 J
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	77 U	NA	NA	NA	NA	150 J
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	77 U	NA	NA	NA	NA	140 J
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	77 UJ	NA	NA	NA	NA	180
CHRYSENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	44 J	NA	NA	NA	NA	180
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	77 U	NA	NA	NA	NA	43 J
FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	77 U	NA	NA	NA	NA	240
FLUORENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	77 U	NA	NA	NA	NA	150 U
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	77 U	NA	NA	NA	NA	110 J
NAPHTHALENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	77 U	NA	NA	NA	NA	150 U
PHENANTHRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	77 U	NA	NA	NA	NA	140 J
PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	23 J	NA	NA	NA	NA	210
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	3.8 U	NA	NA	NA	NA	37 UJ
4,4'-DDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	1.8 J	NA	NA	NA	NA	37 UJ
4,4'-DDT	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	3.6 J	NA	NA	NA	NA	81 J
ALDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	19 U
ALPHA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	19 U
BETA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	19 U
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	35 U	NA	NA	NA	NA	340 U
DELTA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	19 U
DIELDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	6.4	NA	NA	NA	NA	43 J
ENDOSULFAN I	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	19 U
ENDOSULFAN II	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	3.7 J	NA	NA	NA	NA	37 U
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	8.5 J	NA	NA	NA	NA	37 U
ENDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	6.4 J	NA	NA	NA	NA	37 U
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	12 J	NA	NA	NA	NA	37 U
ENDRIN KETONE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	3.8 UJ	NA	NA	NA	NA	37 U
GAMMA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	19 U
HEPTACHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	19 U
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	3.8	NA	NA	NA	NA	6.5 J
METHOXYCHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	20 UJ	NA	NA	NA	NA	190 UJ
TOXAPHENE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	69 U	NA	NA	NA	NA	680 U
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	16 U	16 U	20 U	16 U	78 U	11 U	22 U	63 U	62 U	240 U	22 U
AROCLOR-1221	UG/KG	EPA 8082	32 U	31 U	40 U	32 U	160 U	22 U	45 U	130 U	120 U	480 U	43 U
AROCLOR-1232	UG/KG	EPA 8082	16 U	16 U	20 U	16 U	78 U	11 U	22 U	63 U	62 U	240 U	22 U
AROCLOR-1242	UG/KG	EPA 8082	16 U	16 U	20 U	16 U	78 U	11 U	22 U	63 U	62 U	240 U	22 U
AROCLOR-1248	UG/KG	EPA 8082	16 U	16 U	20 U	16 U	78 U	11 U	22 U	63 U	62 U	240 U	22 U
AROCLOR-1254	UG/KG	EPA 8082	16 U	16 U	320	390	2400	11 U	22 U	3900	62 U	240 U	22 U

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-563	84-564	84-565	84-566	84-567	84-568	84-569	84-570	84-578	84-579	84-582
Location:			GRID 123 BOTTOM	GRID 124 BOTTOM	GRID 132 BOTTOM	GRID 131 BOTTOM	GRID 130 BOTTOM	GRID 139 SIDEWALL	GRID 129 BOTTOM	GRID 128 BOTTOM	GRID 83 BOTTOM	GRID 82 BOTTOM	GRID 132 SIDEWALL
Sample Date:			12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/13/2005	12/13/2005	12/13/2005
Start Depth (feet):			9.98	9.63		9.34	9.3	5.8	8.67	7.75	3.09	6.61	1
End Depth (feet):													1.5
Analyte	**Units**	**Method**											
AROCLOR-1260	UG/KG	EPA 8082	230	19	780	680	3900	410 J	720	2300	2000	11000	1100
Total PCBs	UG/KG	EPA 8082	230	19	1100	1070	6300	410	720	6200	2000	11000	1100
Metals													
ANTIMONY	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	1.3 J	NA	NA	NA	NA	9.7
ARSENIC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	3.6	NA	NA	NA	NA	8.5
BARIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	76	NA	NA	NA	NA	180
BERYLLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	0.32	NA	NA	NA	NA	0.25
CADMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	0.72	NA	NA	NA	NA	1.2
CHROMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	99	NA	NA	NA	NA	180
COBALT	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	9.6	NA	NA	NA	NA	15
COPPER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	46	NA	NA	NA	NA	670
LEAD	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	9	NA	NA	NA	NA	180
MERCURY	MG/KG	EPA 7471A	NA	NA	NA	NA	NA	0.092	NA	NA	NA	NA	1.1
MOLYBDENUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	0.29 UJ	NA	NA	NA	NA	3.5
NICKEL	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	83	NA	NA	NA	NA	71
SELENIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	0.59 U	NA	NA	NA	NA	0.29 U
SILVER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	0.27 U	NA	NA	NA	NA	0.29 U
THALLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	0.68	NA	NA	NA	NA	0.29 U
VANADIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	40	NA	NA	NA	NA	110
ZINC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	46 J	NA	NA	NA	NA	1100

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-583	84-584	84-585	84-586	84-587	84-588	84-605	84-606	84-608	84-609	84-610
Location:			GRID 123 SIDEWALL	GRID 131 SIDEWALL	GRID 139 SIDEWALL	GRID 129 SIDEWALL	GRID 128 SIDEWALL	GRID 117 SIDEWALL	GRID 139 SIDEWALL	GRID 131 SIDEWALL	GRID 123 SIDEWALL	GRID 117 SIDEWALL	GRID 129 SIDEWALL
Sample Date:			12/13/2005	12/13/2005	12/13/2005	12/13/2005	12/13/2005	12/13/2005	12/14/2005	12/14/2005	12/14/2005	12/14/2005	12/14/2005
Start Depth (feet):			3	2	3	1	2	3	0	0	0	0	0
End Depth (feet):			3.06				2.6		1	5.04	5.6	4.6	5.73
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	140 HY	51 HY	220 HY	78 HY	140 HYJ	2700 H	1800 HY	710 HY	3600 HY	2800 HY	4600 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	0.19 U	0.24 U	0.18 U	0.19 U	0.18 U	0.19 HY	84 HYJ	5.8 HY	0.41 HY	0.64 J	19 HYJ
MOTOR OIL C24-C36	MG/KG	EPA 8015B	440	230	330 L	170	290 J	5400 L	2700	970	3400 L	13000	7000 L
Total TPH	MG/KG	EPA 8015B	580	281	550	248	430	8100	4584	1686	7000	15801	11619
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	190 J	370 U	150 U	110 J	67 J	NA	3600 U	1400 U	3100 U	7400 U	14000 U
ACENAPHTHYLENE	UG/KG	EPA 8270C	200 J	370 U	150 U	49 J	140 U	NA	3600 U	1400 U	3100 U	7400 U	14000 U
ANTHRACENE	UG/KG	EPA 8270C	390 J	370 UJ	56 J	160 J	98 J	NA	3600 UJ	1400 UJ	3100 UJ	7400 U	14000 UJ
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	1500	370 U	220	670	360	NA	1700 J	1400 U	460 J	7400 U	14000 U
BENZO(A)PYRENE	UG/KG	EPA 8270C	1800	370 U	230	700	370	NA	1200 J	1400 U	470 J	7400 U	14000 U
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	2000	370 U	310	650	400	NA	1400 J	1400 U	600 J	7400 U	14000 U
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	1500	370 U	170	540	290	NA	690 J	1400 U	3100 U	7400 U	14000 U
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	2100	370 U	290	860	440	NA	2000 J	1400 U	3100 U	7400 U	14000 U
CHRYSENE	UG/KG	EPA 8270C	2500	370 U	650	850	480	NA	5700	4900	940 J	3300 J	14000 U
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	380	370 U	46 J	150 J	71 J	NA	3600 U	1400 U	3100 U	7400 U	14000 U
FLUORANTHENE	UG/KG	EPA 8270C	4300	370 U	520	1600	750	NA	5500	440 J	1000 J	7400 U	14000 U
FLUORENE	UG/KG	EPA 8270C	190 J	370 U	150 U	75 J	63 J	NA	860 J	1400 U	3100 U	7400 U	14000 U
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	1300	370 U	150 J	440	240	NA	600 J	1400 U	3100 U	7400 U	14000 U
NAPHTHALENE	UG/KG	EPA 8270C	110 J	370 U	29 J	37 J	34 J	NA	3600 U	220 J	3100 U	7400 U	14000 U
PHENANTHRENE	UG/KG	EPA 8270C	2600	370 U	230	870	480	NA	1800 J	350 J	3100 U	7400 U	14000 U
PYRENE	UG/KG	EPA 8270C	4600	370 U	530	1500	770	NA	5500	570 J	1300 J	3900 J	14000 U
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	36 UJ	36 UJ	36 UJ	17 UJ	17 UJ	NA	35 UJ	17 UJ	26 J	110 J	70 UJ
4,4'-DDE	UG/KG	EPA 8081A	76 J	36 UJ	36 UJ	17 UJ	17 UJ	NA	39 J	17 UJ	77 UJ	36 UJ	34 J
4,4'-DDT	UG/KG	EPA 8081A	130 J	41 J	98 J	24 J	37 J	NA	120 J	250 J	83 J	120 J	180 J
ALDRIN	UG/KG	EPA 8081A	18 U	19 U	19 U	8.9 U	1.7 J	NA	18 U	9 U	40 U	19 U	36 U
ALPHA-BHC	UG/KG	EPA 8081A	18 U	19 U	19 U	8.9 U	8.9 U	NA	5.1 J	9 U	40 U	5.4 J	36 U
BETA-BHC	UG/KG	EPA 8081A	18 U	19 U	19 U	8.9 U	8.9 U	NA	18 U	9 U	40 U	8.6 J	8 J
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	320 U	330 U	330 U	160 U	160 U	NA	320 U	160 U	700 U	330 U	640 U
DELTA-BHC	UG/KG	EPA 8081A	18 U	19 U	19 U	8.9 U	8.9 U	NA	18 U	1.6 J	40 U	19 U	36 U
DIELDRIN	UG/KG	EPA 8081A	43 J	20 J	7.3 J	13 J	23 J	NA	52 J	110 J	42 J	83 J	63 J
ENDOSULFAN I	UG/KG	EPA 8081A	18 U	19 U	19 U	8.9 U	8.9 U	NA	18 U	9 U	40 U	19 U	36 U
ENDOSULFAN II	UG/KG	EPA 8081A	36 U	36 U	36 U	17 U	17 U	NA	35 U	17 U	77 U	19 J	70 U
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	36 U	36 U	36 U	17 U	17 U	NA	10 J	9.8 J	77 U	36 U	70 U
ENDRIN	UG/KG	EPA 8081A	36 U	36 U	36 U	17 U	17 U	NA	35 U	17 U	77 U	36 U	70 U
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	36 U	36 U	36 U	17 U	17 U	NA	35 U	14 J	77 U	36 U	70 U
ENDRIN KETONE	UG/KG	EPA 8081A	36 U	36 U	36 U	17 U	17 U	NA	35 U	17 U	77 U	36 U	70 U
GAMMA-BHC	UG/KG	EPA 8081A	18 U	19 U	19 U	8.9 U	8.9 U	NA	18 U	9 U	40 U	3.8 J	36 U
HEPTACHLOR	UG/KG	EPA 8081A	18 U	19 U	19 U	8.9 U	8.9 U	NA	4.6 J	9 U	40 U	19 U	36 U
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	26 J	3.1 J	12 J	2.9 J	4.6 J	NA	14 J	30 J	15 J	33 J	19 J
METHOXYCHLOR	UG/KG	EPA 8081A	180 UJ	190 UJ	190 UJ	89 UJ	89 UJ	NA	180 UJ	47 J	400 UJ	190 UJ	360 UJ
TOXAPHENE	UG/KG	EPA 8081A	650 U	660 U	660 U	310 U	310 U	NA	650 U	320 U	1400 U	650 U	1300 U
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	21 U	21 U	51 U	9.9 U	20 U	53 U	100 U	250 U	55 U	52 U	51 U
AROCLOR-1221	UG/KG	EPA 8082	41 U	43 U	100 U	20 U	40 U	110 U	210 U	510 U	110 U	100 U	100 U
AROCLOR-1232	UG/KG	EPA 8082	21 U	21 U	51 U	9.9 U	20 U	53 U	100 U	250 U	55 U	52 U	51 U
AROCLOR-1242	UG/KG	EPA 8082	21 U	21 U	51 U	9.9 U	20 U	53 U	100 U	250 U	55 U	52 U	51 U
AROCLOR-1248	UG/KG	EPA 8082	420	21 U	51 U	9.9 U	20 U	520	3800	250 U	55 U	680	51 U
AROCLOR-1254	UG/KG	EPA 8082	1000	21 U	51 U	9.9 U	20 U	600	1500	250 U	580	1500	51 U

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-583	84-584	84-585	84-586	84-587	84-588	84-605	84-606	84-608	84-609	84-610
Location:			GRID 123 SIDEWALL	GRID 131 SIDEWALL	GRID 139 SIDEWALL	GRID 129 SIDEWALL	GRID 128 SIDEWALL	GRID 117 SIDEWALL	GRID 139 SIDEWALL	GRID 131 SIDEWALL	GRID 123 SIDEWALL	GRID 117 SIDEWALL	GRID 129 SIDEWALL
Sample Date:			12/13/2005	12/13/2005	12/13/2005	12/13/2005	12/13/2005	12/13/2005	12/14/2005	12/14/2005	12/14/2005	12/14/2005	12/14/2005
Start Depth (feet):			3	2	3	1	2	3	0	0	0	0	0
End Depth (feet):			3.06				2.6		1	5.04	5.6	4.6	5.73
Analyte	Units	Method											
AROCLOR-1260	UG/KG	EPA 8082	1100	890	2200	440	760	1100	3600	7100	1600	1400	1800
Total PCBs	UG/KG	EPA 8082	2520	890	2200	440	760	2220	8900	7100	2180	3580	1800
Metals													
ANTIMONY	MG/KG	EPA 6010B	1.1 J	2.3 J	2.2 J	1.7 J	2.8 J	NA	3.5	4.9	5.9	110	28
ARSENIC	MG/KG	EPA 6010B	10	6.9	13	15	21	NA	3.1	2.2	5.5	4.5	3.2
BARIUM	MG/KG	EPA 6010B	380	220	300	430	400	NA	27	17	170	63	110
BERYLLIUM	MG/KG	EPA 6010B	0.35	0.29	0.42	0.35	0.51	NA	0.06 J	0.041 J	0.28	0.12	0.066 J
CADMIUM	MG/KG	EPA 6010B	0.63	0.77	0.51	0.59	0.79	NA	2.2	0.63	0.94	12	0.45
CHROMIUM	MG/KG	EPA 6010B	110	340	210	310	250	NA	120	40	160	200	110
COBALT	MG/KG	EPA 6010B	22	24	20	22	28	NA	2.9	0.91 J	21	10	2.5
COPPER	MG/KG	EPA 6010B	2100	970	1200	1600	2200	NA	3000	470	1200	2200	1800
LEAD	MG/KG	EPA 6010B	230	230	160	130	180	NA	500	270	450	620	580
MERCURY	MG/KG	EPA 7471A	0.9	0.36	1.3	0.58	0.2	NA	2.4 J	2.4 J	0.81 UJ	6.5 J	4.2 J
MOLYBDENUM	MG/KG	EPA 6010B	9.6	1.5	2.8	2.5	4.3	NA	0.77 J	0.41 J	1.5	3.5	3.2
NICKEL	MG/KG	EPA 6010B	82	290	94	150	95	NA	16	12	230	220	39
SELENIUM	MG/KG	EPA 6010B	0.48 U	0.15 UJ	0.29 U	0.18 U	0.78	NA	0.17 J	0.25 U	1.4	1.8	0.4
SILVER	MG/KG	EPA 6010B	0.23 U	0.28 U	0.29 U	0.18 U	0.28 U	NA	0.26 U	0.25 U	0.25 U	16	0.21 U
THALLIUM	MG/KG	EPA 6010B	0.23 U	0.28 U	0.29 U	0.18 U	0.28 U	NA	0.16 UJ	0.13 UJ	0.24 UJ	0.26 U	0.21 U
VANADIUM	MG/KG	EPA 6010B	110	83	69	63	91	NA	12	3.8	63	38	14
ZINC	MG/KG	EPA 6010B	770	310	400	820	1100	NA	3000	330	1300	2000	750

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-611	84-612	84-613	84-614	84-615	84-616	84-617	84-618	84-619	84-620	84-621
Location:			GRID 128 SIDEWALL	GRID 169 SIDEWALL	GRID 169 SIDEWALL	GRID 170 SIDEWALL	GRID 170 SIDEWALL	GRID 171 SIDEWALL	GRID 171 SIDEWALL	GRID 172 SIDEWALL	GRID 172 SIDEWALL	GRID 173 SIDEWALL	GRID 173 SIDEWALL
Sample Date:			12/14/2005	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006
Start Depth (feet):			0	0	3	0	3	3	4.3	0	3.6	0	3
End Depth (feet):			4.46	3	4.5	3	3.5	3	4.3	3.6	4.2	3	4
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	540 HY	200 HLY	88 HLY	150 HLY	260 HY	160 HY	850 HY	290 HY	880 HY	13 HY	41 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	1.1 U	0.54 HYJ	0.41 HYJ	0.19 U	0.21 UJ	0.17 U	0.19 U	0.048 J	0.16 J	1.3 U	0.22 U
MOTOR OIL C24-C36	MG/KG	EPA 8015B	220	740 H	180	770 H	1300 H	710	3200 H	1600 H	3500 H	84	220
Total TPH	MG/KG	EPA 8015B	760	941	268	920	1560	870	4050	1890	4380	97	261
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	250 U	NA	140 UJ	NA	360 UJ	NA	NA	NA	NA	150 UJ	79 UJ
ACENAPHTHYLENE	UG/KG	EPA 8270C	30 J	NA	140 UJ	NA	360 UJ	NA	NA	NA	NA	150 UJ	79 UJ
ANTHRACENE	UG/KG	EPA 8270C	63 J	NA	140 UJ	NA	360 UJ	NA	NA	NA	NA	150 UJ	24 J
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	130 J	NA	100 J	NA	250 J	NA	NA	NA	NA	150 UJ	320 J
BENZO(A)PYRENE	UG/KG	EPA 8270C	130 J	NA	170 J	NA	310 J	NA	NA	NA	NA	150 UJ	220 J
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	230 J	NA	250 J	NA	300 J	NA	NA	NA	NA	150 UJ	170 J
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	210 J	NA	130 J	NA	460 J	NA	NA	NA	NA	150 UJ	68 J
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	260	NA	130 J	NA	320 J	NA	NA	NA	NA	150 UJ	210 J
CHRYSENE	UG/KG	EPA 8270C	3300	NA	140 J	NA	340 J	NA	NA	NA	NA	150 UJ	420 J
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	72 J	NA	140 UJ	NA	130 J	NA	NA	NA	NA	150 UJ	27 J
FLUORANTHENE	UG/KG	EPA 8270C	150 J	NA	190 J	NA	400 J	NA	NA	NA	NA	160 J	450 J
FLUORENE	UG/KG	EPA 8270C	250 U	NA	140 UJ	NA	360 UJ	NA	NA	NA	NA	150 UJ	30 J
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	170 J	NA	100 J	NA	280 J	NA	NA	NA	NA	150 UJ	72 J
NAPHTHALENE	UG/KG	EPA 8270C	250 U	NA	140 UJ	NA	360 UJ	NA	NA	NA	NA	150 UJ	79 UJ
PHENANTHRENE	UG/KG	EPA 8270C	170 J	NA	77 J	NA	360 UJ	NA	NA	NA	NA	150 UJ	130 J
PYRENE	UG/KG	EPA 8270C	220 J	NA	180 J	NA	360 J	NA	NA	NA	NA	83 J	540 J
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	7.4 J	NA	22 J	NA	150 J	NA	NA	NA	NA	1.4 J	39 UJ
4,4'-DDE	UG/KG	EPA 8081A	21 UJ	NA	19 J	NA	95 J	NA	NA	NA	NA	1.2 J	39 UJ
4,4'-DDT	UG/KG	EPA 8081A	16 J	NA	230 J	NA	770 J	NA	NA	NA	NA	8.6 J	34 J
ALDRIN	UG/KG	EPA 8081A	1.3 J	NA	18 UJ	NA	93 UJ	NA	NA	NA	NA	2 UJ	20 UJ
ALPHA-BHC	UG/KG	EPA 8081A	2.9 J	NA	18 UJ	NA	93 UJ	NA	NA	NA	NA	2 UJ	20 UJ
BETA-BHC	UG/KG	EPA 8081A	11 U	NA	18 UJ	NA	93 UJ	NA	NA	NA	NA	2 UJ	20 UJ
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	190 U	NA	320 UJ	NA	1600 UJ	NA	NA	NA	NA	34 UJ	350 UJ
DELTA-BHC	UG/KG	EPA 8081A	11 U	NA	18 UJ	NA	93 UJ	NA	NA	NA	NA	2 UJ	20 UJ
DIELDRIN	UG/KG	EPA 8081A	9.7 J	NA	6.6 J	NA	85 J	NA	NA	NA	NA	3.8 UJ	8.3 J
ENDOSULFAN I	UG/KG	EPA 8081A	11 U	NA	18 UJ	NA	93 UJ	NA	NA	NA	NA	2 UJ	20 UJ
ENDOSULFAN II	UG/KG	EPA 8081A	21 U	NA	35 UJ	NA	180 UJ	NA	NA	NA	NA	3.8 UJ	39 UJ
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	8.1 J	NA	35 UJ	NA	180 UJ	NA	NA	NA	NA	3.8 UJ	39 UJ
ENDRIN	UG/KG	EPA 8081A	21 U	NA	35 UJ	NA	180 UJ	NA	NA	NA	NA	3.8 UJ	39 UJ
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	21 U	NA	35 UJ	NA	180 UJ	NA	NA	NA	NA	3.8 UJ	39 UJ
ENDRIN KETONE	UG/KG	EPA 8081A	21 U	NA	35 UJ	NA	180 UJ	NA	NA	NA	NA	3.8 UJ	39 UJ
GAMMA-BHC	UG/KG	EPA 8081A	11 U	NA	18 UJ	NA	93 UJ	NA	NA	NA	NA	2 UJ	20 UJ
HEPTACHLOR	UG/KG	EPA 8081A	3 J	NA	18 UJ	NA	93 UJ	NA	NA	NA	NA	2 UJ	20 UJ
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	3.9 J	NA	18 UJ	NA	93 UJ	NA	NA	NA	NA	2 UJ	20 UJ
METHOXYCHLOR	UG/KG	EPA 8081A	110 UJ	NA	180 UJ	NA	930 UJ	NA	NA	NA	NA	20 UJ	200 UJ
TOXAPHENE	UG/KG	EPA 8081A	380 U	NA	640 UJ	NA	3300 UJ	NA	NA	NA	NA	69 UJ	710 UJ
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	24 U	27 U	25 U	65 U	26 U	66 U	6200 U	13 U	130 U	14 U	14 U
AROCLOR-1221	UG/KG	EPA 8082	48 U	54 U	50 U	130 U	52 U	130 U	12000 U	26 U	270 U	28 U	29 U
AROCLOR-1232	UG/KG	EPA 8082	24 U	27 U	25 U	65 U	26 U	66 U	6200 U	13 U	130 U	14 U	14 U
AROCLOR-1242	UG/KG	EPA 8082	24 U	27 U	25 U	65 U	26 U	66 U	6200 U	13 U	130 U	14 U	14 U
AROCLOR-1248	UG/KG	EPA 8082	24 U	27 U	25 U	65 U	26 U	66 U	6200 U	13 U	130 U	14 U	14 U
AROCLOR-1254	UG/KG	EPA 8082	280	27 U	25 U	65 U	26 U	66 U	6200 U	13 U	130 U	14 U	14 U

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-611	84-612	84-613	84-614	84-615	84-616	84-617	84-618	84-619	84-620	84-621
Location:			GRID 128 SIDEWALL	GRID 169 SIDEWALL	GRID 169 SIDEWALL	GRID 170 SIDEWALL	GRID 170 SIDEWALL	GRID 171 SIDEWALL	GRID 171 SIDEWALL	GRID 172 SIDEWALL	GRID 172 SIDEWALL	GRID 173 SIDEWALL	GRID 173 SIDEWALL
Sample Date:			12/14/2005	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006
Start Depth (feet):			0	0	3	0	3	3	4.3	0	3.6	0	3
End Depth (feet):			4.46	3	4.5	3	3.5	3	4.3	3.6	4.2	3	4
Analyte	Units	Method											
AROCLOR-1260	UG/KG	EPA 8082	210	1900	1600	4100	1500	4400	380000	420	5600	230 J	150
Total PCBs	UG/KG	EPA 8082	490	1900	1600	4100	1500	4400	380000	420	5600	230	150
Metals													
ANTIMONY	MG/KG	EPA 6010B	3.3 J	NA	16 J	NA	26 J	NA	NA	NA	NA	0.53 J	3.5 J
ARSENIC	MG/KG	EPA 6010B	2.4	NA	3.8	NA	4.7	NA	NA	NA	NA	3.9	9.9
BARIUM	MG/KG	EPA 6010B	18	NA	56 J	NA	80 J	NA	NA	NA	NA	110 J	160 J
BERYLLIUM	MG/KG	EPA 6010B	0.058 J	NA	0.068 UJ	NA	0.16	NA	NA	NA	NA	0.39	0.27
CADMIUM	MG/KG	EPA 6010B	0.51	NA	0.53	NA	1.8	NA	NA	NA	NA	0.22 J	1.1
CHROMIUM	MG/KG	EPA 6010B	40	NA	71 J	NA	84 J	NA	NA	NA	NA	65 J	120 J
COBALT	MG/KG	EPA 6010B	1.9	NA	2.4	NA	6.2	NA	NA	NA	NA	11	16
COPPER	MG/KG	EPA 6010B	890	NA	300 J	NA	1000 J	NA	NA	NA	NA	32 J	250 J
LEAD	MG/KG	EPA 6010B	290 J	NA	400 J	NA	2200 J	NA	NA	NA	NA	14 J	79 J
MERCURY	MG/KG	EPA 7471A	5.2	NA	0.72	NA	1.9	NA	NA	NA	NA	0.92	0.38
MOLYBDENUM	MG/KG	EPA 6010B	0.56 J	NA	0.66 J	NA	3.7 J	NA	NA	NA	NA	0.37 J	7.7 J
NICKEL	MG/KG	EPA 6010B	16	NA	18 J	NA	130 J	NA	NA	NA	NA	89 J	130 J
SELENIUM	MG/KG	EPA 6010B	0.17 UJ	NA	0.2 J	NA	0.6	NA	NA	NA	NA	0.1 J	3.4
SILVER	MG/KG	EPA 6010B	0.28 U	NA	0.28 UJ	NA	0.2 UJ	NA	NA	NA	NA	0.28 UJ	0.27 UJ
THALLIUM	MG/KG	EPA 6010B	0.15 UJ	NA	0.098 UJ	NA	0.44 U	NA	NA	NA	NA	0.28 U	0.27 U
VANADIUM	MG/KG	EPA 6010B	3.7	NA	10 J	NA	47 J	NA	NA	NA	NA	42 J	60 J
ZINC	MG/KG	EPA 6010B	1400	NA	430	NA	870	NA	NA	NA	NA	45	230

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-622	84-623	84-624	84-625	84-626	84-627	84-628	84-629	84-630	84-631	84-671
Location:			GRID 174 SIDEWALL	GRID 174 SIDEWALL	GRID 85 SIDEWALL	GRID 85 SIDEWALL	GRID 84 SIDEWALL	GRID 84 SIDEWALL	GRID 83 SIDEWALL	GRID 83 SIDEWALL	GRID 82 SIDEWALL	GRID 82 SIDEWALL	GRID 95 SIDEWALL
Sample Date:			1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/24/2006
Start Depth (feet):			0	3	0	3	0	5.6	0	3	0	3	0
End Depth (feet):			3	5	3	6	3	6	3	8	3		3
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	260 HLY	540 HLY	400 HY	570 HY	110 HYJ	1900 HY	210 HY	1900 HLY	28 HY	33 HY	60 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	0.45 J	0.49 HJY	1.3 U	0.2 J	0.19 U	13 HY	0.18 U	49 HYJ	1.1 U	1.3 U	1.3 U
MOTOR OIL C24-C36	MG/KG	EPA 8015B	1300	1900	1300	1400 HL	330 LJ	6000 Z	970	3400	110	160	230
Total TPH	MG/KG	EPA 8015B	1560	2440	1700	1970	440	7913	1180	5349	138	193	290
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	NA	1500 UJ	NA	32 J	NA	NA	NA	NA	150 UJ	160 UJ	400 J
ACENAPHTHYLENE	UG/KG	EPA 8270C	NA	1500 UJ	NA	85 UJ	NA	NA	NA	NA	150 UJ	160 UJ	420 U
ANTHRACENE	UG/KG	EPA 8270C	NA	1500 UJ	NA	89 J	NA	NA	NA	NA	150 UJ	160 UJ	520
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	NA	170 J	NA	320 J	NA	NA	NA	NA	150 UJ	160 UJ	1200
BENZO(A)PYRENE	UG/KG	EPA 8270C	NA	200 J	NA	230 J	NA	NA	NA	NA	150 UJ	160 UJ	1000
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	NA	1300 J	NA	230 J	NA	NA	NA	NA	150 UJ	160 UJ	620
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	NA	1000 J	NA	84 J	NA	NA	NA	NA	31 J	160 UJ	770
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	NA	1500 UJ	NA	300 J	NA	NA	NA	NA	150 UJ	160 UJ	1000
CHRYSENE	UG/KG	EPA 8270C	NA	180 J	NA	380 J	NA	NA	NA	NA	150 UJ	160 UJ	1500
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	NA	720 J	NA	39 J	NA	NA	NA	NA	150 UJ	160 UJ	160 J
FLUORANTHENE	UG/KG	EPA 8270C	NA	160 J	NA	750 J	NA	NA	NA	NA	150 UJ	160 UJ	2500
FLUORENE	UG/KG	EPA 8270C	NA	1500 UJ	NA	56 J	NA	NA	NA	NA	150 UJ	160 UJ	320 J
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	NA	1500 UJ	NA	80 J	NA	NA	NA	NA	150 UJ	160 UJ	580
NAPHTHALENE	UG/KG	EPA 8270C	NA	1500 UJ	NA	31 J	NA	NA	NA	NA	150 UJ	160 UJ	130 J
PHENANTHRENE	UG/KG	EPA 8270C	NA	170 J	NA	360 J	NA	NA	NA	NA	69 J	40 J	4000
PYRENE	UG/KG	EPA 8270C	NA	180 J	NA	710 J	NA	NA	NA	NA	42 J	37 J	3500
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	NA	63 J	NA	6.4 J	NA	NA	NA	NA	19 UJ	4 UJ	84 U
4,4'-DDE	UG/KG	EPA 8081A	NA	72 U	NA	21 U	NA	NA	NA	NA	19 UJ	4 UJ	84 U
4,4'-DDT	UG/KG	EPA 8081A	NA	220 J	NA	20 J	NA	NA	NA	NA	17 J	17 J	50 J
ALDRIN	UG/KG	EPA 8081A	NA	37 UJ	NA	11 UJ	NA	NA	NA	NA	9.7 UJ	2 UJ	43 U
ALPHA-BHC	UG/KG	EPA 8081A	NA	37 UJ	NA	3.9 J	NA	NA	NA	NA	9.7 UJ	2 UJ	43 U
BETA-BHC	UG/KG	EPA 8081A	NA	37 UJ	NA	11 UJ	NA	NA	NA	NA	9.7 UJ	2 UJ	43 U
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	NA	660 UJ	NA	190 UJ	NA	NA	NA	NA	170 UJ	36 UJ	760 U
DELTA-BHC	UG/KG	EPA 8081A	NA	37 UJ	NA	11 UJ	NA	NA	NA	NA	9.7 UJ	2 UJ	43 U
DIELDRIN	UG/KG	EPA 8081A	NA	97 J	NA	15 J	NA	NA	NA	NA	3.6 J	2.2 J	15 J
ENDOSULFAN I	UG/KG	EPA 8081A	NA	37 UJ	NA	11 UJ	NA	NA	NA	NA	9.7 UJ	2 UJ	43 U
ENDOSULFAN II	UG/KG	EPA 8081A	NA	72 UJ	NA	21 UJ	NA	NA	NA	NA	19 UJ	4 UJ	84 U
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	NA	72 UJ	NA	21 UJ	NA	NA	NA	NA	19 UJ	4 UJ	84 U
ENDRIN	UG/KG	EPA 8081A	NA	72 UJ	NA	21 UJ	NA	NA	NA	NA	19 UJ	3.3 J	84 U
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	NA	72 UJ	NA	21 UJ	NA	NA	NA	NA	19 UJ	4 UJ	84 U
ENDRIN KETONE	UG/KG	EPA 8081A	NA	19 J	NA	21 UJ	NA	NA	NA	NA	19 UJ	4 UJ	84 U
GAMMA-BHC	UG/KG	EPA 8081A	NA	20 UJ	NA	3.1 J	NA	NA	NA	NA	9.7 UJ	2 UJ	43 U
HEPTACHLOR	UG/KG	EPA 8081A	NA	37 UJ	NA	11 UJ	NA	NA	NA	NA	9.7 UJ	2 UJ	43 U
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	NA	11 J	NA	11 UJ	NA	NA	NA	NA	9.7 UJ	0.89 J	43 U
METHOXYCHLOR	UG/KG	EPA 8081A	NA	370 UJ	NA	110 UJ	NA	NA	NA	NA	97 UJ	20 UJ	430 U
TOXAPHENE	UG/KG	EPA 8081A	NA	1300 UJ	NA	380 UJ	NA	NA	NA	NA	340 UJ	72 UJ	1500 U
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	13 U	270 U	1800 U	15 U	52 U	150 U	69 U	82 U	14 U	15 U	15 U
AROCLOR-1221	UG/KG	EPA 8082	25 U	530 U	3700 U	31 U	100 U	300 U	140 U	160 U	28 U	29 U	30 U
AROCLOR-1232	UG/KG	EPA 8082	13 U	270 U	1800 U	15 U	52 U	150 U	69 U	82 U	14 U	15 U	15 U
AROCLOR-1242	UG/KG	EPA 8082	13 U	15000	1800 U	720	2900	4400	69 U	1600	14 U	15 U	15 U
AROCLOR-1248	UG/KG	EPA 8082	13 U	270 U	1800 U	15 U	52 U	150 U	69 U	82 U	14 U	15 U	15 U
AROCLOR-1254	UG/KG	EPA 8082	530 J	270 U	1800 U	540	1800	5100	69 U	3200	14 U	15 U	15 U

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-622	84-623	84-624	84-625	84-626	84-627	84-628	84-629	84-630	84-631	84-671
Location:			GRID 174 SIDEWALL	GRID 174 SIDEWALL	GRID 85 SIDEWALL	GRID 85 SIDEWALL	GRID 84 SIDEWALL	GRID 84 SIDEWALL	GRID 83 SIDEWALL	GRID 83 SIDEWALL	GRID 82 SIDEWALL	GRID 82 SIDEWALL	GRID 95 SIDEWALL
Sample Date:			1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/17/2006	1/24/2006
Start Depth (feet):			0	3	0	3	0	5.6	0	3	0	3	0
End Depth (feet):			3	5	3	6	3	6	3	8	3		3
Analyte	Units	Method											
AROCLOR-1260	UG/KG	EPA 8082	520 J	3800	94000	570	1800	5400	3300	5100	440	560	690
Total PCBs	UG/KG	EPA 8082	1050	18800	94000	1830	6500	14900	3300	9900	440	560	690
Metals													
ANTIMONY	MG/KG	EPA 6010B	NA	110 J	NA	1.8 J	NA	NA	NA	NA	1.4 J	0.61 J	9.7 J
ARSENIC	MG/KG	EPA 6010B	NA	5.7	NA	2.8	NA	NA	NA	NA	5.2	7.3	7.3
BARIUM	MG/KG	EPA 6010B	NA	69 J	NA	9.4 J	NA	NA	NA	NA	150 J	93 J	150 J
BERYLLIUM	MG/KG	EPA 6010B	NA	0.13	NA	0.037 UJ	NA	NA	NA	NA	0.57	0.26	0.3
CADMIUM	MG/KG	EPA 6010B	NA	4.1	NA	0.12 J	NA	NA	NA	NA	0.33	0.23 J	0.65
CHROMIUM	MG/KG	EPA 6010B	NA	210 J	NA	42	NA	NA	NA	NA	50 J	89 J	110 J
COBALT	MG/KG	EPA 6010B	NA	8.6	NA	2.4	NA	NA	NA	NA	12	13	13
COPPER	MG/KG	EPA 6010B	NA	1600 J	NA	280 J	NA	NA	NA	NA	81 J	52 J	420 J
LEAD	MG/KG	EPA 6010B	NA	1400 J	NA	1200 J	NA	NA	NA	NA	38 J	22 J	160 J
MERCURY	MG/KG	EPA 7471A	NA	3.6	NA	2.3	NA	NA	NA	NA	1.2	0.062	1.7
MOLYBDENUM	MG/KG	EPA 6010B	NA	3.9 J	NA	3.7 J	NA	NA	NA	NA	0.55 J	0.5 J	1.2 J
NICKEL	MG/KG	EPA 6010B	NA	230 J	NA	60 J	NA	NA	NA	NA	92 J	110 J	130 J
SELENIUM	MG/KG	EPA 6010B	NA	0.66	NA	0.16 J	NA	NA	NA	NA	0.3 U	0.24 J	0.62
SILVER	MG/KG	EPA 6010B	NA	0.28 UJ	NA	0.24 UJ	NA	NA	NA	NA	0.3 UJ	0.26 UJ	0.29 UJ
THALLIUM	MG/KG	EPA 6010B	NA	0.28 U	NA	0.044 UJ	NA	NA	NA	NA	0.3 U	0.26 U	0.1 UJ
VANADIUM	MG/KG	EPA 6010B	NA	39 J	NA	6 J	NA	NA	NA	NA	38 J	68 J	91 J
ZINC	MG/KG	EPA 6010B	NA	1100	NA	160	NA	NA	NA	NA	78	65	520

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-672	84-673	84-674	84-940	84-957	84-958	84-959	84-960	84-1010	84-1011	84-1012
Location:			GRID 102 SIDEWALL	GRID 132 SIDEWALL	GRID 138 SIDEWALL	GRID 102 SIDEWALL	GRID 117 SIDEWALL	GRID 117 SIDEWALL	GRID 123 SIDEWALL	GRID 123 SIDEWALL	GRID 131 SIDEWALL	GRID 131 SIDEWALL	GRID 138 SIDEWALL
Sample Date:			1/24/2006	1/24/2006	1/24/2006	2/23/2006	2/27/2006	2/27/2006	2/27/2006	2/27/2006	3/2/2006	3/2/2006	3/2/2006
Start Depth (feet):			0	3	0	0	2	10	2	10	3	7	2
End Depth (feet):			2.5	3	3	3					3.5	7.5	2.5
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	820 HY	3300 H	700 H	13 HY	7000 HY	30 HY	5400 HY	520 HY	160 HY	4400 HY	560 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	1.2 U	1.2 U	1.2 U	0.3 U	37 HYJ	1.9 U	37 HYJ	0.21 J	0.25 J	53 HY	0.13 J
MOTOR OIL C24-C36	MG/KG	EPA 8015B	1600	710 L	1100 L	34	26000 L	150 L	8900 L	380 L	190 L	1400 L	500 L
Total TPH	MG/KG	EPA 8015B	2420	4010	1800	47	33037	180	14337	900	350	5853	1060
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	NA	NA	NA	100 U	NA	570 U	NA	99 U	NA	NA	NA
ACENAPHTHYLENE	UG/KG	EPA 8270C	NA	NA	NA	100 U	NA	570 U	NA	99 U	NA	NA	NA
ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	100 U	NA	570 U	NA	99 U	NA	NA	NA
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	100 U	NA	570 U	NA	99 U	NA	NA	NA
BENZO(A)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	100 U	NA	570 U	NA	99 U	NA	NA	NA
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	100 U	NA	570 U	NA	99 U	NA	NA	NA
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	NA	NA	NA	100 U	NA	570 U	NA	99 U	NA	NA	NA
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	100 U	NA	570 U	NA	99 U	NA	NA	NA
CHRYSENE	UG/KG	EPA 8270C	NA	NA	NA	100 U	NA	570 U	NA	99 U	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	100 UJ	NA	570 U	NA	99 U	NA	NA	NA
FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	100 U	NA	570 U	NA	99 U	NA	NA	NA
FLUORENE	UG/KG	EPA 8270C	NA	NA	NA	100 U	NA	570 U	NA	99 U	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	100 U	NA	570 U	NA	99 U	NA	NA	NA
NAPHTHALENE	UG/KG	EPA 8270C	NA	NA	NA	100 U	NA	570 U	NA	99 U	NA	NA	NA
PHENANTHRENE	UG/KG	EPA 8270C	NA	NA	NA	100 U	NA	570 U	NA	99 U	NA	NA	NA
PYRENE	UG/KG	EPA 8270C	NA	NA	NA	100 U	NA	570 U	NA	99 U	NA	NA	NA
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	NA	NA	NA	5 U	NA	11 U	NA	9.8 U	NA	NA	NA
4,4'-DDE	UG/KG	EPA 8081A	NA	NA	NA	5 U	NA	11 U	NA	9.8 U	NA	NA	NA
4,4'-DDT	UG/KG	EPA 8081A	NA	NA	NA	2.1 J	NA	11 U	NA	9.8 U	NA	NA	NA
ALDRIN	UG/KG	EPA 8081A	NA	NA	NA	2.6 U	NA	5.8 U	NA	5.1 U	NA	NA	NA
ALPHA-BHC	UG/KG	EPA 8081A	NA	NA	NA	2.6 U	NA	5.8 U	NA	5.1 U	NA	NA	NA
BETA-BHC	UG/KG	EPA 8081A	NA	NA	NA	2.6 UJ	NA	5.8 U	NA	5.1 U	NA	NA	NA
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	NA	NA	NA	46 U	NA	100 U	NA	89 U	NA	NA	NA
DELTA-BHC	UG/KG	EPA 8081A	NA	NA	NA	2.6 UJ	NA	5.8 U	NA	5.1 U	NA	NA	NA
DIELDRIN	UG/KG	EPA 8081A	NA	NA	NA	5 U	NA	11 U	NA	9.8 U	NA	NA	NA
ENDOSULFAN I	UG/KG	EPA 8081A	NA	NA	NA	2.6 U	NA	5.8 U	NA	5.1 U	NA	NA	NA
ENDOSULFAN II	UG/KG	EPA 8081A	NA	NA	NA	5 U	NA	11 U	NA	9.8 U	NA	NA	NA
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	NA	NA	NA	5 U	NA	4.5 J	NA	9.8 U	NA	NA	NA
ENDRIN	UG/KG	EPA 8081A	NA	NA	NA	5 U	NA	11 U	NA	9.8 U	NA	NA	NA
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	NA	NA	NA	5.6 J	NA	4.5 J	NA	9.8 U	NA	NA	NA
ENDRIN KETONE	UG/KG	EPA 8081A	NA	NA	NA	1.3 J	NA	11 UJ	NA	9.8 UJ	NA	NA	NA
GAMMA-BHC	UG/KG	EPA 8081A	NA	NA	NA	2.6 U	NA	5.8 U	NA	5.1 U	NA	NA	NA
HEPTACHLOR	UG/KG	EPA 8081A	NA	NA	NA	2.6 U	NA	5.8 U	NA	5.1 U	NA	NA	NA
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	NA	NA	NA	2.6 U	NA	5.8 U	NA	5.1 U	NA	NA	NA
METHOXYCHLOR	UG/KG	EPA 8081A	NA	NA	NA	26 U	NA	58 UJ	NA	51 UJ	NA	NA	NA
TOXAPHENE	UG/KG	EPA 8081A	NA	NA	NA	91 U	NA	210 U	NA	180 U	NA	NA	NA
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	140 U	28 U	76 U	15 U	110 U	16 UJ	57 U	14 UJ	110 U	210 U	110 U
AROCLOR-1221	UG/KG	EPA 8082	280 U	56 U	150 U	29 U	210 U	33 U	110 U	29 U	210 U	410 U	220 U
AROCLOR-1232	UG/KG	EPA 8082	140 U	28 U	76 U	15 U	110 U	16 UJ	57 U	14 UJ	110 U	210 U	110 U
AROCLOR-1242	UG/KG	EPA 8082	140 U	28 U	76 U	15 U	110 U	16 U	57 U	14 U	110 U	210 U	110 U
AROCLOR-1248	UG/KG	EPA 8082	140 U	28 U	76 U	15 U	110 U	16 U	57 U	14 U	110 U	210 U	110 U
AROCLOR-1254	UG/KG	EPA 8082	140 U	640	76 U	15 U	3300	49	1400	14 U	110 U	210 U	110 U

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-672	84-673	84-674	84-940	84-957	84-958	84-959	84-960	84-1010	84-1011	84-1012
Location:			GRID 102 SIDEWALL	GRID 132 SIDEWALL	GRID 138 SIDEWALL	GRID 102 SIDEWALL	GRID 117 SIDEWALL	GRID 117 SIDEWALL	GRID 123 SIDEWALL	GRID 123 SIDEWALL	GRID 131 SIDEWALL	GRID 131 SIDEWALL	GRID 138 SIDEWALL
Sample Date:			1/24/2006	1/24/2006	1/24/2006	2/23/2006	2/27/2006	2/27/2006	2/27/2006	2/27/2006	3/2/2006	3/2/2006	3/2/2006
Start Depth (feet):			0	3	0	0	2	10	2	10	3	7	2
End Depth (feet):			2.5	3	3	3					3.5	7.5	2.5
Analyte	Units	Method											
AROCLOR-1260	UG/KG	EPA 8082	8100	1500	2600	43	6700	79	2600	8.4 J	4700	10000	6300
Total PCBs	UG/KG	EPA 8082	8100	2140	2600	43	10000	128	4000	8.4 J	4700	10000	6300
Metals													
ANTIMONY	MG/KG	EPA 6010B	NA	NA	NA	1 J	NA	0.36 J	NA	0.57 J	NA	NA	NA
ARSENIC	MG/KG	EPA 6010B	NA	NA	NA	12	NA	8.3	NA	7.1	NA	NA	NA
BARIUM	MG/KG	EPA 6010B	NA	NA	NA	33	NA	34	NA	37	NA	NA	NA
BERYLLIUM	MG/KG	EPA 6010B	NA	NA	NA	0.45	NA	0.47	NA	0.34	NA	NA	NA
CADMIUM	MG/KG	EPA 6010B	NA	NA	NA	0.57	NA	0.49	NA	0.4	NA	NA	NA
CHROMIUM	MG/KG	EPA 6010B	NA	NA	NA	70	NA	74	NA	75	NA	NA	NA
COBALT	MG/KG	EPA 6010B	NA	NA	NA	15	NA	15	NA	10	NA	NA	NA
COPPER	MG/KG	EPA 6010B	NA	NA	NA	32 J	NA	41	NA	33	NA	NA	NA
LEAD	MG/KG	EPA 6010B	NA	NA	NA	8.2	NA	13	NA	12	NA	NA	NA
MERCURY	MG/KG	EPA 7471A	NA	NA	NA	0.069	NA	0.089	NA	0.094	NA	NA	NA
MOLYBDENUM	MG/KG	EPA 6010B	NA	NA	NA	2.8	NA	1.7	NA	3.4	NA	NA	NA
NICKEL	MG/KG	EPA 6010B	NA	NA	NA	75	NA	77	NA	61	NA	NA	NA
SELENIUM	MG/KG	EPA 6010B	NA	NA	NA	0.97	NA	1.2	NA	0.21 J	NA	NA	NA
SILVER	MG/KG	EPA 6010B	NA	NA	NA	0.32 UJ	NA	0.34 U	NA	0.35 U	NA	NA	NA
THALLIUM	MG/KG	EPA 6010B	NA	NA	NA	1.3	NA	0.95	NA	1.1	NA	NA	NA
VANADIUM	MG/KG	EPA 6010B	NA	NA	NA	66	NA	68	NA	71	NA	NA	NA
ZINC	MG/KG	EPA 6010B	NA	NA	NA	75 J	NA	79	NA	77	NA	NA	NA

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1013	84-1014	84-1015	84-1016	84-1017	84-1018	84-1108	84-1110	84-1111	84-1112	84-1113
Location:			GRID 138 SIDEWALL	GRID 139 SIDEWALL	GRID 139 SIDEWALL	GRID 129 SIDEWALL	GRID 129 SIDEWALL	GRID 129 BOTTOM	GRID 153 SIDEWALL	GRID 112 BOTTOM	GRID 127 BOTTOM	GRID 108 BOTTOM	GRID 109 BOTTOM
Sample Date:			3/2/2006	3/2/2006	3/2/2006	3/2/2006	3/2/2006	3/2/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006
Start Depth (feet):			6	2	8	3	8	9	7	5	3	10	8
End Depth (feet):			6.5	2.5	8.5	3.5	8.5	9.5	7.5	5.9	4	10.7	8.5
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	520 HYJ	110 HY	780 HY	47 HY	15000 H	550 H	8100 HY	700 HLY	790 H	160 HY	14 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	5.3 HYJ	0.21 J	0.76 HYJ	0.16 U	520 HY	3.9 HY	1.7 HY	2.7 HYJ	0.77 J	0.78 J	0.2 J
MOTOR OIL C24-C36	MG/KG	EPA 8015B	830 J	480	990	110	11000 L	440 L	10000 L	660 L	970 L	310	35 Y
Total TPH	MG/KG	EPA 8015B	1355	590	1771	157	26520	994	18102	1363	1761	471	49
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	1800 U	NA	760 U	350 U	37000 U	NA	190 U	NA	NA	NA	NA
ACENAPHTHYLENE	UG/KG	EPA 8270C	1800 U	NA	760 U	350 U	37000 U	NA	86 J	NA	NA	NA	NA
ANTHRACENE	UG/KG	EPA 8270C	1200 J	NA	760 U	350 U	37000 U	NA	270	NA	NA	NA	NA
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	4600	NA	490 J	190 J	37000 U	NA	460	NA	NA	NA	NA
BENZO(A)PYRENE	UG/KG	EPA 8270C	4500	NA	760 U	240 J	37000 U	NA	290	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	5800	NA	740 J	360	37000 U	NA	690	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	2200	NA	760 U	350 U	37000 U	NA	190	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	2800	NA	330 J	160 J	37000 U	NA	280	NA	NA	NA	NA
CHRYSENE	UG/KG	EPA 8270C	7400	NA	4100	250 J	37000 U	NA	5100	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	710 J	NA	760 U	350 U	37000 U	NA	190 UJ	NA	NA	NA	NA
FLUORANTHENE	UG/KG	EPA 8270C	11000	NA	1100	370	37000 U	NA	1600	NA	NA	NA	NA
FLUORENE	UG/KG	EPA 8270C	490 J	NA	760 U	350 U	37000 U	NA	52 J	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	2000	NA	760 U	350 U	37000 U	NA	180 J	NA	NA	NA	NA
NAPHTHALENE	UG/KG	EPA 8270C	1800 U	NA	760 U	350 U	37000 U	NA	190 U	NA	NA	NA	NA
PHENANTHRENE	UG/KG	EPA 8270C	2100	NA	210 J	220 J	19000 J	NA	92 J	NA	NA	NA	NA
PYRENE	UG/KG	EPA 8270C	8400	NA	890	390	37000 U	NA	8800	NA	NA	NA	NA
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	35 U	NA	19 U	18 U	190 U	NA	37 J	NA	NA	NA	NA
4,4'-DDE	UG/KG	EPA 8081A	72 J	NA	19 J	9.8 J	190 U	NA	52 J	NA	NA	NA	NA
4,4'-DDT	UG/KG	EPA 8081A	35 UJ	NA	65 J	6.6 J	190 UJ	NA	120 J	NA	NA	NA	NA
ALDRIN	UG/KG	EPA 8081A	18 U	NA	9.8 U	9 U	96 U	NA	18 J	NA	NA	NA	NA
ALPHA-BHC	UG/KG	EPA 8081A	18 U	NA	3.7 J	9 U	37 J	NA	48 U	NA	NA	NA	NA
BETA-BHC	UG/KG	EPA 8081A	18 U	NA	2.7 J	9 U	96 U	NA	48 U	NA	NA	NA	NA
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	320 U	NA	170 U	160 U	1700 U	NA	850 U	NA	NA	NA	NA
DELTA-BHC	UG/KG	EPA 8081A	18 U	NA	9.8 U	9 U	96 U	NA	48 U	NA	NA	NA	NA
DIELDRIN	UG/KG	EPA 8081A	35 U	NA	19 U	18 U	190 U	NA	39 J	NA	NA	NA	NA
ENDOSULFAN I	UG/KG	EPA 8081A	7.4 J	NA	9.8 U	9 U	96 U	NA	48 U	NA	NA	NA	NA
ENDOSULFAN II	UG/KG	EPA 8081A	35 U	NA	19 U	25	190 U	NA	93 U	NA	NA	NA	NA
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	120 J	NA	140	11 J	190 U	NA	31 J	NA	NA	NA	NA
ENDRIN	UG/KG	EPA 8081A	35 U	NA	16 J	18 U	190 U	NA	93 UJ	NA	NA	NA	NA
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	35 U	NA	39 J	18 U	190 U	NA	93 U	NA	NA	NA	NA
ENDRIN KETONE	UG/KG	EPA 8081A	35 UJ	NA	19 UJ	18 UJ	190 UJ	NA	93 U	NA	NA	NA	NA
GAMMA-BHC	UG/KG	EPA 8081A	18 U	NA	9.8 U	9 U	96 U	NA	48 U	NA	NA	NA	NA
HEPTACHLOR	UG/KG	EPA 8081A	18 U	NA	9.8 U	9 U	96 U	NA	48 U	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	110	NA	45	7 J	96 U	NA	38 J	NA	NA	NA	NA
METHOXYCHLOR	UG/KG	EPA 8081A	180 UJ	NA	98 UJ	90 UJ	960 UJ	NA	480 UJ	NA	NA	NA	NA
TOXAPHENE	UG/KG	EPA 8081A	640 U	NA	350 U	320 U	3400 U	NA	1700 U	NA	NA	NA	NA
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	420 U	110 U	220 U	10 U	11 UJ	16 U	140 U	1300 U	1200 U	1400 U	29 U
AROCLOR-1221	UG/KG	EPA 8082	830 U	230 U	440 U	20 U	22 UJ	32 U	270 U	2500 U	2300 U	2900 U	59 U
AROCLOR-1232	UG/KG	EPA 8082	420 U	110 U	220 U	10 U	11 UJ	16 U	140 U	1300 U	1200 U	1400 U	29 U
AROCLOR-1242	UG/KG	EPA 8082	420 U	110 U	220 U	10 U	11 UJ	16 U	140 U	1300 U	1200 U	1400 U	29 U
AROCLOR-1248	UG/KG	EPA 8082	420 U	110 U	220 U	10 U	11 UJ	16 U	140 U	1300 U	1200 U	1400 U	29 U
AROCLOR-1254	UG/KG	EPA 8082	420 U	110 U	220 U	10 U	11 UJ	16 U	5900	1300 U	1200 U	1400 U	29 U

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1013	84-1014	84-1015	84-1016	84-1017	84-1018	84-1108	84-1110	84-1111	84-1112	84-1113
Location:			GRID 138 SIDEWALL	GRID 139 SIDEWALL	GRID 139 SIDEWALL	GRID 129 SIDEWALL	GRID 129 SIDEWALL	GRID 129 BOTTOM	GRID 153 SIDEWALL	GRID 112 BOTTOM	GRID 127 BOTTOM	GRID 108 BOTTOM	GRID 109 BOTTOM
Sample Date:			3/2/2006	3/2/2006	3/2/2006	3/2/2006	3/2/2006	3/2/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006
Start Depth (feet):			6	2	8	3	8	9	7	5	3	10	8
End Depth (feet):			6.5	2.5	8.5	3.5	8.5	9.5	7.5	5.9	4	10.7	8.5
Analyte	Units	Method											
AROCLOR-1260	UG/KG	EPA 8082	21000	5600	9800	490	330 J	300	2100	57000	35000	39000	900
Total PCBs	UG/KG	EPA 8082	21000	5600	9800	490	330	300	8000	57000	35000	39000	900
Metals													
ANTIMONY	MG/KG	EPA 6010B	4.6	NA	4.7	5.7	2 J	NA	27 J	NA	NA	NA	NA
ARSENIC	MG/KG	EPA 6010B	3.1	NA	2.9	13	2.9	NA	3.9	NA	NA	NA	NA
BARIUM	MG/KG	EPA 6010B	46	NA	19	330	110	NA	40	NA	NA	NA	NA
BERYLLIUM	MG/KG	EPA 6010B	0.058 J	NA	0.032 J	0.33	0.1 J	NA	0.15 U	NA	NA	NA	NA
CADMIUM	MG/KG	EPA 6010B	1.3	NA	1	0.7	0.67	NA	1.7	NA	NA	NA	NA
CHROMIUM	MG/KG	EPA 6010B	110	NA	38	640	56	NA	140	NA	NA	NA	NA
COBALT	MG/KG	EPA 6010B	2.7	NA	2.1	24	5.8	NA	3.4	NA	NA	NA	NA
COPPER	MG/KG	EPA 6010B	1200	NA	670	2000	330	NA	3600	NA	NA	NA	NA
LEAD	MG/KG	EPA 6010B	370	NA	200	180	130	NA	770	NA	NA	NA	NA
MERCURY	MG/KG	EPA 7471A	2.4	NA	1.6	0.42	1.7	NA	11	NA	NA	NA	NA
MOLYBDENUM	MG/KG	EPA 6010B	0.68 J	NA	0.68 J	2.7	0.78 J	NA	0.97 J	NA	NA	NA	NA
NICKEL	MG/KG	EPA 6010B	27	NA	10	280	41	NA	20 J	NA	NA	NA	NA
SELENIUM	MG/KG	EPA 6010B	0.23	NA	0.13 J	3.3	0.7	NA	0.38 U	NA	NA	NA	NA
SILVER	MG/KG	EPA 6010B	0.22 U	NA	0.29 U	0.19 U	0.3 U	NA	0.37 J	NA	NA	NA	NA
THALLIUM	MG/KG	EPA 6010B	0.047 UJ	NA	0.29 U	0.19 U	0.3 U	NA	0.38 U	NA	NA	NA	NA
VANADIUM	MG/KG	EPA 6010B	15	NA	5.5	62	25	NA	7.6	NA	NA	NA	NA
ZINC	MG/KG	EPA 6010B	1200	NA	1000	1200	290	NA	1900	NA	NA	NA	NA

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1153	84-1107	84-1184
Location:			GRID 128 BOTTOM	GRID 153 SIDEWALL	GRID 125 BOTTOM
Sample Date:			3/30/2006	4/20/2006	4/20/2006
Start Depth (feet):			11	1.5	10.1
End Depth (feet):			11.6	2	10.6
Analyte	**Units**	**Method**			
TPH					
DIESEL C10-C24	MG/KG	EPA 8015B	12 HY	57 HYJ	6.4 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	1.8 U	0.19 U	0.081 J
MOTOR OIL C24-C36	MG/KG	EPA 8015B	31	170 J	21
Total TPH	MG/KG	EPA 8015B	43	227	28
Semivolatiles					
ACENAPHTHENE	UG/KG	EPA 8270C	NA	NA	NA
ACENAPHTHYLENE	UG/KG	EPA 8270C	NA	NA	NA
ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA
BENZO(A)PYRENE	UG/KG	EPA 8270C	NA	NA	NA
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	NA	NA	NA
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA
CHRYSENE	UG/KG	EPA 8270C	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA
FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA
FLUORENE	UG/KG	EPA 8270C	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	NA	NA	NA
NAPHTHALENE	UG/KG	EPA 8270C	NA	NA	NA
PHENANTHRENE	UG/KG	EPA 8270C	NA	NA	NA
PYRENE	UG/KG	EPA 8270C	NA	NA	NA
Pesticides					
4,4'-DDD	UG/KG	EPA 8081A	NA	NA	NA
4,4'-DDE	UG/KG	EPA 8081A	NA	NA	NA
4,4'-DDT	UG/KG	EPA 8081A	NA	NA	NA
ALDRIN	UG/KG	EPA 8081A	NA	NA	NA
ALPHA-BHC	UG/KG	EPA 8081A	NA	NA	NA
BETA-BHC	UG/KG	EPA 8081A	NA	NA	NA
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	NA	NA	NA
DELTA-BHC	UG/KG	EPA 8081A	NA	NA	NA
DIELDRIN	UG/KG	EPA 8081A	NA	NA	NA
ENDOSULFAN I	UG/KG	EPA 8081A	NA	NA	NA
ENDOSULFAN II	UG/KG	EPA 8081A	NA	NA	NA
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	NA	NA	NA
ENDRIN	UG/KG	EPA 8081A	NA	NA	NA
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	NA	NA	NA
ENDRIN KETONE	UG/KG	EPA 8081A	NA	NA	NA
GAMMA-BHC	UG/KG	EPA 8081A	NA	NA	NA
HEPTACHLOR	UG/KG	EPA 8081A	NA	NA	NA
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	NA	NA	NA
METHOXYCHLOR	UG/KG	EPA 8081A	NA	NA	NA
TOXAPHENE	UG/KG	EPA 8081A	NA	NA	NA
PCBs					
AROCLOR-1016	UG/KG	EPA 8082	15 U	100 U	16 U
AROCLOR-1221	UG/KG	EPA 8082	31 U	210 U	32 U
AROCLOR-1232	UG/KG	EPA 8082	15 U	100 U	16 U
AROCLOR-1242	UG/KG	EPA 8082	15 U	100 U	16 U
AROCLOR-1248	UG/KG	EPA 8082	15 U	100 U	16 U
AROCLOR-1254	UG/KG	EPA 8082	15 U	100 U	16 U

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1153	84-1107	84-1184
Location:			GRID 128 BOTTOM	GRID 153 SIDEWALL	GRID 125 BOTTOM
Sample Date:			3/30/2006	4/20/2006	4/20/2006
Start Depth (feet):			11	1.5	10.1
End Depth (feet):			11.6	2	10.6
Analyte	**Units**	**Method**			
AROCLOR-1260	UG/KG	EPA 8082	9.6 J	3900	16 U
Total PCBs	UG/KG	EPA 8082	9.6 J	3900	ND
Metals					
ANTIMONY	MG/KG	EPA 6010B	NA	NA	NA
ARSENIC	MG/KG	EPA 6010B	NA	NA	NA
BARIUM	MG/KG	EPA 6010B	NA	NA	NA
BERYLLIUM	MG/KG	EPA 6010B	NA	NA	NA
CADMIUM	MG/KG	EPA 6010B	NA	NA	NA
CHROMIUM	MG/KG	EPA 6010B	NA	NA	NA
COBALT	MG/KG	EPA 6010B	NA	NA	NA
COPPER	MG/KG	EPA 6010B	NA	NA	NA
LEAD	MG/KG	EPA 6010B	NA	NA	NA
MERCURY	MG/KG	EPA 7471A	NA	NA	NA
MOLYBDENUM	MG/KG	EPA 6010B	NA	NA	NA
NICKEL	MG/KG	EPA 6010B	NA	NA	NA
SELENIUM	MG/KG	EPA 6010B	NA	NA	NA
SILVER	MG/KG	EPA 6010B	NA	NA	NA
THALLIUM	MG/KG	EPA 6010B	NA	NA	NA
VANADIUM	MG/KG	EPA 6010B	NA	NA	NA
ZINC	MG/KG	EPA 6010B	NA	NA	NA

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1185	84-1186	84-1187	84-1188	84-1190	84-1191	84-1192	84-1193	84-1194	84-1195	84-1196
Location:			GRID 126 BOTTOM	GRID 127 BOTTOM	GRID 114 BOTTOM	GRID 115 BOTTOM	GRID 127 BOTTOM	GRID 112 BOTTOM	GRID 115 BOTTOM	GRID 104 BOTTOM	GRID 93 BOTTOM	GRID 93 BOTTOM	GRID 113 BOTTOM
Sample Date:			4/20/2006	4/20/2006	4/20/2006	4/20/2006	4/25/2006	4/25/2006	4/27/2006	4/27/2006	4/27/2006	4/27/2006	4/27/2006
Start Depth:			8.1	5.9	5.9	6.4	8	8	8	4	4	8	4.5
End Depth:			8.6	6.4	6.4	6.9	8.5	8.2	8.2	4.4	4.6	8.5	4.9
Analyte	Units	Method											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	6 5 HY	9.9 HY	18 HY	12 HY	3.5 YU	13 HY	5.6 HY	44 HY	110 HY	22 HY	21 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	0.074 J	0.073 J	0.29 U	0.061 J	0.4 U	0.34 U	0.038 J	0.33 U	0.2 U	0.036 J	0.28 U
MOTOR OIL C24-C36	MG/KG	EPA 8015B	23	41	27	26	11 Y	25 L	19 L	140 L	240 L	55 L	70 L
Total TPH	MG/KG	EPA 8015B	30	51	45	38	14.5	38	25	184	350	77	91
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN KETONE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	16 U	15 U	15 U	14 U	15 U	14 U	14 U	74 U	11 U	12 U	14 U
AROCLOR-1221	UG/KG	EPA 8082	31 U	29 U	29 U	28 U	30 U	27 U	28 U	150 U	22 U	24 U	28 U
AROCLOR-1232	UG/KG	EPA 8082	16 U	15 U	15 U	14 U	15 U	14 U	14 U	74 U	11 U	12 U	14 U
AROCLOR-1242	UG/KG	EPA 8082	16 U	15 U	15 U	14 U	15 U	14 U	14 U	74 U	11 U	12 U	14 U
AROCLOR-1248	UG/KG	EPA 8082	16 U	15 U	15 U	14 U	15 U	14 U	14 U	74 U	11 U	12 U	14 U
AROCLOR-1254	UG/KG	EPA 8082	16 U	15 U	15 U	14 U	15 U	14 U	14 U	74 U	11 U	12 U	14 U
AROCLOR-1260	UG/KG	EPA 8082	16 U	15 U	15 U	14 U	15 U	110	30	3000	62	17	37

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1185	84-1186	84-1187	84-1188	84-1190	84-1191	84-1192	84-1193	84-1194	84-1195	84-1196
Location:			GRID 126 BOTTOM	GRID 127 BOTTOM	GRID 114 BOTTOM	GRID 115 BOTTOM	GRID 127 BOTTOM	GRID 112 BOTTOM	GRID 115 BOTTOM	GRID 104 BOTTOM	GRID 93 BOTTOM	GRID 93 BOTTOM	GRID 113 BOTTOM
Sample Date:			4/20/2006	4/20/2006	4/20/2006	4/20/2006	4/25/2006	4/25/2006	4/27/2006	4/27/2006	4/27/2006	4/27/2006	4/27/2006
Start Depth:			8.1	5.9	5.9	6.4	8	8	8	4	4	8	4.5
End Depth:			8.6	6.4	6.4	6.9	8.5	8.2	8.2	4.4	4.6	8.5	4.9
Analyte	**Units**	**Method**											
Total PCBs	UG/KG	EPA 8082	ND	ND	ND	ND	ND	110	30	3000	62	17	37
Metals													
MERCURY	MG/KG	EPA 7471A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms

EPA - U.S. Environmental Protection Agency

H - heavier hydrocarbons contributed to the quantitation

J - estimated value

L - lighter hydrocarbons contributed to the quantitation

mg/kg - milligrams per kilograms

NA - not analyzed

U - not detected at the stated reporting limit

Y - sample exhibits chromatographic pattern which does not resemble standard

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1197	84-1198	84-1200	84-1201	84-1202	84-1203	84-1204	84-1205	84-1206	84-1207	84-1208
Location:			GRID 127-1 BOTTOM	GRID 111 BOTTOM	GRID 104 BOTTOM	GRID 113 BOTTOM	GRID 73 BOTTOM	GRID 73 BOTTOM	GRID 72 BOTTOM	GRID 72 BOTTOM	GRID 71 BOTTOM	GRID 71 BOTTOM	GRID 71 BOTTOM
Sample Date:			4/27/2006	4/27/2006	4/28/2006	4/28/2006	5/2/2006	5/2/2006	5/2/2006	5/2/2006	5/3/2006	5/3/2006	5/3/2006
Start Depth:			10	11	8	8	4.5	8.6	5.9	8	3.4	7.9	3
End Depth:			10.8	11.5	8.4	8.5	5	9.1	6.4	8.5			
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	11 HY	17 HY	7.1 HY	5.1 HY	16 HY	14 HY	17 HY	6.9 HY	47 HY	3 HY	13 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	0.32 U	0.04 J	0.36 U	0.43 U	0.2 U	0.24 U	0.18 U	0.22 U	0.2 U	0.25 U	0.18 U
MOTOR OIL C24-C36	MG/KG	EPA 8015B	41 L	38 L	19	15	29	16	29	10	160	14	54
Total TPH	MG/KG	EPA 8015B	52	55	26	20	45	30	46	17	207	17	67
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN KETONE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	15 U	15 U	16 U	16 U	11 U	12 U	11 U	22 U	11 U	16 U	11 U
AROCLOR-1221	UG/KG	EPA 8082	31 U	31 U	32 U	31 U	23 U	23 U	22 U	45 U	21 U	32 U	21 U
AROCLOR-1232	UG/KG	EPA 8082	15 U	15 U	16 U	16 U	11 U	12 U	11 U	22 U	11 U	16 U	11 U
AROCLOR-1242	UG/KG	EPA 8082	15 U	15 U	16 U	16 U	11 U	12 U	11 U	22 U	11 U	16 U	11 U
AROCLOR-1248	UG/KG	EPA 8082	15 U	15 U	16 U	16 U	11 U	12 U	11 U	22 U	11 U	16 U	11 U
AROCLOR-1254	UG/KG	EPA 8082	15 U	15 U	16 U	16 U	11 U	12 U	11 U	22 U	11 U	16 U	11 U
AROCLOR-1260	UG/KG	EPA 8082	15 U	28	16 U	16	8.3 J	12 U	11 U	670	320	16 U	73

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1197	84-1198	84-1200	84-1201	84-1202	84-1203	84-1204	84-1205	84-1206	84-1207	84-1208
Location:			GRID 127-1 BOTTOM	GRID 111 BOTTOM	GRID 104 BOTTOM	GRID 113 BOTTOM	GRID 73 BOTTOM	GRID 73 BOTTOM	GRID 72 BOTTOM	GRID 72 BOTTOM	GRID 71 BOTTOM	GRID 71 BOTTOM	GRID 71 BOTTOM
Sample Date:			4/27/2006	4/27/2006	4/28/2006	4/28/2006	5/2/2006	5/2/2006	5/2/2006	5/2/2006	5/3/2006	5/3/2006	5/3/2006
Start Depth:			10	11	8	8	4.5	8.6	5.9	8	3.4	7.9	3
End Depth:			10.8	11.5	8.4	8.5	5	9.1	6.4	8.5			
Analyte	**Units**	**Method**											
Total PCBs	UG/KG	EPA 8082	ND	28	ND	16	8.3 J	ND	ND	670	320	ND	73
Metals													
MERCURY	MG/KG	EPA 7471A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1209	84-1219	84-1220	84-1222	84-1223	84-1224	84-1225	84-1226	84-1227	84-1249	84-1250
Location:			GRID 71 SIDEWALL	GRID 105 BOTTOM	GRID 105 BOTTOM	GRID 92 BOTTOM	GRID 74 BOTTOM	GRID 74 BOTTOM	GRID 92 BOTTOM	GRID 105 BOTTOM	GRID 112 BOTTOM	GRID 106 BOTTOM	GRID 106 BOTTOM
Sample Date:			5/3/2006	5/9/2006	5/9/2006	5/9/2006	5/10/2006	5/10/2006	5/10/2006	5/10/2006	5/10/2006	5/11/2006	5/11/2006
Start Depth:			3	3	8	8	3	8	5.9	6	9.5	6.3	8.5
End Depth:				3.2	8.2	8.5	3.5	8.3	6	6.1	9.9		
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	780 HY	470 HY	22 HY	19 HY	290 HY	31 HY	190 HY	7.4 HY	6 HY	9.8 HY	6.4 HYJ
GASOLINE C6-C10	MG/KG	EPA 8015B	0.84 HY	0.21 U	0.32 U	0.3 U	0.17 U	0.19 U	0.21 U	0.39 U	0.35 U	0.14 J	1.7 U
MOTOR OIL C24-C36	MG/KG	EPA 8015B	960 L	520 L	44 L	37 L	510 L	72 L	610 LY	26 L	20 L	25	19 J
Total TPH	MG/KG	EPA 8015B	1741	990	66	56	800	103	800	33	26	35	25
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN KETONE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	54 U	120 U	15 U	15 U	210 U	12 U	11 U	15 U	15 U	14 U	15 U
AROCLOR-1221	UG/KG	EPA 8082	110 U	230 U	29 U	30 U	430 U	23 U	23 U	31 U	30 U	28 U	30 U
AROCLOR-1232	UG/KG	EPA 8082	54 U	120 U	15 U	15 U	210 U	12 U	11 U	15 U	15 U	14 U	15 U
AROCLOR-1242	UG/KG	EPA 8082	54 U	120 U	15 U	15 U	210 U	12 U	11 U	15 U	15 U	14 U	15 U
AROCLOR-1248	UG/KG	EPA 8082	54 U	120 U	15 U	15 U	210 U	12 U	11 U	15 U	15 U	14 U	15 U
AROCLOR-1254	UG/KG	EPA 8082	610	120 U	15 U	15 U	210 U	12 U	11 U	15 U	15 U	14 U	15 U
AROCLOR-1260	UG/KG	EPA 8082	1700	5500	46	31	12000	8 J	110	3.1 J	37	46	31

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1209	84-1219	84-1220	84-1222	84-1223	84-1224	84-1225	84-1226	84-1227	84-1249	84-1250
Location:			GRID 71 SIDEWALL	GRID 105 BOTTOM	GRID 105 BOTTOM	GRID 92 BOTTOM	GRID 74 BOTTOM	GRID 74 BOTTOM	GRID 92 BOTTOM	GRID 105 BOTTOM	GRID 112 BOTTOM	GRID 106 BOTTOM	GRID 106 BOTTOM
Sample Date:			5/3/2006	5/9/2006	5/9/2006	5/9/2006	5/10/2006	5/10/2006	5/10/2006	5/10/2006	5/10/2006	5/11/2006	5/11/2006
Start Depth:			3	3	8	8	3	8	5.9	6	9.5	6.3	8.5
End Depth:				3.2	8.2	8.5	3.5	8.3	6	6.1	9.9		
Analyte	Units	Method											
Total PCBs	UG/KG	EPA 8082	2310	5500	46	31	12000	8 J	110	8.1 J	37	46	31
Metals													
MERCURY	MG/KG	EPA 7471A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1252	84-1253	84-1254	84-1255	84-1256	84-1257	84-1258	84-1259	84-1261	84-1262	84-1263
Location:			GRID 91 BOTTOM	GRID 91 BOTTOM	GRID 107 BOTTOM	GRID 107 BOTTOM	GRID 88 BOTTOM	GRID 87 BOTTOM	GRID 89 BOTTOM	GRID 89 BOTTOM	GRID 75 BOTTOM	GRID 75 BOTTOM	GRID 90 BOTTOM
Sample Date:			5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/17/2006	5/17/2006	5/17/2006
Start Depth:			3.5	8	6	8	8	9.2	6.1	7.9	4.4	8.5	5
End Depth:			3.9	8.1	6.8	8.5	8.2				4.5	9	5.5
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	15 HY	9.8 HY	160 HY	57 HY	66 HY	18 HY	15 HY	9.1 HY	17 HY	12 HY	5.7 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	0.095 J	0.11 J	0.13 J	0.11 J	1.1 J	0.18 J	0.11 J	0.13 J	0.17 U	0.19 U	0.33 U
MOTOR OIL C24-C36	MG/KG	EPA 8015B	57 L	39 L	5300 Y	240	81 L	53 L	40 L	37 L	51	41	20
Total TPH	MG/KG	EPA 8015B	72	49	5460	297	148	71	55	46	68	53	26
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	110 U	NA	97 U	110 U	NA	NA	NA
ACENAPHTHYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	110 U	NA	97 U	110 U	NA	NA	NA
ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	110 U	NA	97 U	110 U	NA	NA	NA
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	110 U	NA	97 U	110 U	NA	NA	NA
BENZO(A)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	110 U	NA	97 U	110 UJ	NA	NA	NA
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	110 U	NA	97 U	110 UJ	NA	NA	NA
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	110 U	NA	97 U	110 UJ	NA	NA	NA
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	110 U	NA	97 U	110 UJ	NA	NA	NA
CHRYSENE	UG/KG	EPA 8270C	NA	NA	NA	NA	110 U	NA	97 U	110 U	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	110 U	NA	97 U	110 UJ	NA	NA	NA
FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	110 U	NA	97 U	110 U	NA	NA	NA
FLUORENE	UG/KG	EPA 8270C	NA	NA	NA	NA	110 U	NA	97 U	110 U	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	110 U	NA	97 U	110 UJ	NA	NA	NA
NAPHTHALENE	UG/KG	EPA 8270C	NA	NA	NA	NA	110 U	NA	97 U	110 U	NA	NA	NA
PHENANTHRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	110 U	NA	97 U	110 U	NA	NA	NA
PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	110 U	NA	97 U	110 U	NA	NA	NA
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	NA	NA	NA	NA	21 U	NA	19 U	21 U	NA	NA	NA
4,4'-DDE	UG/KG	EPA 8081A	NA	NA	NA	NA	21 UJ	NA	19 UJ	21 UJ	NA	NA	NA
4,4'-DDT	UG/KG	EPA 8081A	NA	NA	NA	NA	5.4 J	NA	19 UJ	21 UJ	NA	NA	NA
ALDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	11 U	NA	10 U	11 U	NA	NA	NA
ALPHA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	11 U	NA	10 U	11 U	NA	NA	NA
BETA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	11 U	NA	10 U	11 U	NA	NA	NA
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	NA	NA	NA	NA	190 U	NA	180 U	190 U	NA	NA	NA
DELTA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	11 UJ	NA	10 UJ	11 UJ	NA	NA	NA
DIELDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	21 U	NA	19 U	21 U	NA	NA	NA
ENDOSULFAN I	UG/KG	EPA 8081A	NA	NA	NA	NA	11 U	NA	10 U	11 U	NA	NA	NA
ENDOSULFAN II	UG/KG	EPA 8081A	NA	NA	NA	NA	21 U	NA	19 U	21 U	NA	NA	NA
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	NA	NA	NA	NA	21 U	NA	19 U	21 U	NA	NA	NA
ENDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	21 U	NA	19 U	21 U	NA	NA	NA
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	NA	NA	NA	NA	21 U	NA	19 U	21 U	NA	NA	NA
ENDRIN KETONE	UG/KG	EPA 8081A	NA	NA	NA	NA	21 U	NA	19 U	21 U	NA	NA	NA
GAMMA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	11 U	NA	10 U	11 U	NA	NA	NA
HEPTACHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	11 U	NA	10 U	11 U	NA	NA	NA
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	NA	NA	NA	NA	11 U	NA	10 U	11 U	NA	NA	NA
METHOXYCHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	110 UJ	NA	100 UJ	110 UJ	NA	NA	NA
TOXAPHENE	UG/KG	EPA 8081A	NA	NA	NA	NA	390 U	NA	350 U	380 U	NA	NA	NA
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	13 U	15 U	110 UJ	31 UJ	16 U	15 U	14 U	15 U	11 U	12 U	29 U
AROCLOR-1221	UG/KG	EPA 8082	26 U	30 U	220 UJ	61 UJ	31 U	30 U	28 U	31 U	21 U	23 U	58 U
AROCLOR-1232	UG/KG	EPA 8082	13 U	15 U	110 UJ	31 UJ	16 U	15 U	14 U	15 U	11 U	12 U	29 U
AROCLOR-1242	UG/KG	EPA 8082	13 UJ	15 U	110 UJ	31 UJ	16 U	15 U	14 U	15 U	11 U	12 UJ	29 U
AROCLOR-1248	UG/KG	EPA 8082	13 UJ	15 U	110 UJ	31 UJ	16 U	15 U	14 U	15 U	11 U	12 UJ	29 U
AROCLOR-1254	UG/KG	EPA 8082	13 UJ	15 U	110 UJ	31 UJ	16 U	15 U	14 U	15 U	11 U	12 UJ	29 U
AROCLOR-1260	UG/KG	EPA 8082	49 J	120	4300 J	1800 J	290	24	14 U	8.9 J	170	130 J	1700

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1252	84-1253	84-1254	84-1255	84-1256	84-1257	84-1258	84-1259	84-1261	84-1262	84-1263
Location:			GRID 91 BOTTOM	GRID 91 BOTTOM	GRID 107 BOTTOM	GRID 107 BOTTOM	GRID 88 BOTTOM	GRID 87 BOTTOM	GRID 89 BOTTOM	GRID 89 BOTTOM	GRID 75 BOTTOM	GRID 75 BOTTOM	GRID 90 BOTTOM
Sample Date:			5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/17/2006	5/17/2006	5/17/2006
Start Depth:			3.5	8	6	8	8	9.2	6.1	7.9	4.4	8.5	5
End Depth:			3.9	8.1	6.8	8.5	8.2				4.5	9	5.5
Analyte	**Units**	**Method**											
Total PCBs	UG/KG	EPA 8082	49	120	4300	1800	290	24	ND	8.9 J	170	130	1700
Metals													
MERCURY	MG/KG	EPA 7471A	NA	NA	NA	NA	0.075 J	NA	0.081 J	0.076 J	NA	NA	NA
ANTIMONY	MG/KG	EPA 6010B	NA	NA	NA	NA	2.5 J	NA	0.59 J	0.26 J	NA	NA	NA
ARSENIC	MG/KG	EPA 6010B	NA	NA	NA	NA	11	NA	12	11	NA	NA	NA
BARIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	42	NA	40	36	NA	NA	NA
BERYLLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	0.55	NA	0.47	0.47	NA	NA	NA
CADMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	0.63	NA	0.58	0.66	NA	NA	NA
CHROMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	85	NA	80	80	NA	NA	NA
COBALT	MG/KG	EPA 6010B	NA	NA	NA	NA	17	NA	15	15	NA	NA	NA
COPPER	MG/KG	EPA 6010B	NA	NA	NA	NA	51 J	NA	33 J	30 J	NA	NA	NA
LEAD	MG/KG	EPA 6010B	NA	NA	NA	NA	11	NA	9.2	9	NA	NA	NA
MOLYBDENUM	MG/KG	EPA 6010B	NA	NA	NA	NA	2.1 J	NA	2.2 J	2.5 J	NA	NA	NA
NICKEL	MG/KG	EPA 6010B	NA	NA	NA	NA	89	NA	81	80	NA	NA	NA
SELENIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	0.4 U	NA	0.36 U	0.4 U	NA	NA	NA
SILVER	MG/KG	EPA 6010B	NA	NA	NA	NA	0.4 UJ	NA	0.36 UJ	0.4 UJ	NA	NA	NA
THALLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	0.59 U	NA	0.44 U	0.24 UJ	NA	NA	NA
VANADIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	77	NA	70	69	NA	NA	NA
ZINC	MG/KG	EPA 6010B	NA	NA	NA	NA	90	NA	74	78	NA	NA	NA

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1264	84-1265	84-1266	84-1267	84-1268	84-1269	84-1270	84-1271	84-1272	84-1273	84-1274
Location:			GRID 90 BOTTOM	GRID 77 BOTTOM	GRID 77 BOTTOM	GRID 76 BOTTOM	GRID 78 BOTTOM	GRID 78 BOTTOM	GRID 79 BOTTOM	GRID 80 BOTTOM	GRID 64 BOTTOM	GRID 64 BOTTOM	GRID 92 BOTTOM
Sample Date:			5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/23/2006	5/23/2006	5/23/2006
Start Depth:			8	3.5	8	8	5.4	8.5	8.8	12.8	3	8.2	11.3
End Depth:			8.5	3.5	8.5	8.5	5.9	9	9.3	13.3	3.5	8.5	11.8
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	2.8 HY	160 HY	790 HL	13 HYJ	31 HLY	86 HY	11 HY	6.1 HY	44 H	35 HY	140 H
GASOLINE C6-C10	MG/KG	EPA 8015B	0.4 U	0.19 U	1.9 HYJ	0.25 U	0.091 J	0.6 HY	0.15 J	1.6 U	0.16 U	0.18 U	0.16 J
MOTOR OIL C24-C36	MG/KG	EPA 8015B	12	410	510 L	27 J	45 L	220 H	32	31	76 L	140	310 L
Total TPH	MG/KG	EPA 8015B	15	570	1302	40	76	307	43	37	120	175	450
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN KETONE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	16 U	1100 U	1100 U	1200 U	11 U	11 U	15 U	16 U	13 U	14 UJ	16 UJ
AROCLOR-1221	UG/KG	EPA 8082	32 U	2100 U	2300 U	2400 U	22 U	22 U	30 U	31 U	26 U	28 UJ	32 UJ
AROCLOR-1232	UG/KG	EPA 8082	16 U	1100 U	1100 U	1200 U	11 U	11 U	15 U	16 U	13 U	14 UJ	16 UJ
AROCLOR-1242	UG/KG	EPA 8082	16 U	1100 U	1100 U	1200 U	11 UJ	11 UJ	15 UJ	16 UJ	13 U	14 UJ	16 UJ
AROCLOR-1248	UG/KG	EPA 8082	16 U	1100 U	1100 U	1200 U	11 UJ	11 UJ	15 UJ	16 UJ	13 U	14 UJ	16 UJ
AROCLOR-1254	UG/KG	EPA 8082	16 U	1100 U	1100 U	1200 U	11 UJ	11 UJ	15 UJ	16 UJ	13 U	14 UJ	16 UJ
AROCLOR-1260	UG/KG	EPA 8082	19	41000	23000	22000	11 J	420 J	15 J	23 J	33 J	140 J	450 J

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1264	84-1265	84-1266	84-1267	84-1268	84-1269	84-1270	84-1271	84-1272	84-1273	84-1274
Location:			GRID 90 BOTTOM	GRID 77 BOTTOM	GRID 77 BOTTOM	GRID 76 BOTTOM	GRID 78 BOTTOM	GRID 78 BOTTOM	GRID 79 BOTTOM	GRID 80 BOTTOM	GRID 64 BOTTOM	GRID 64 BOTTOM	GRID 92 BOTTOM
Sample Date:			5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/23/2006	5/23/2006	5/23/2006
Start Depth:			8	3.5	8	8	5.4	8.5	8.8	12.8	3	8.2	11.3
End Depth:			8.5	3.5	8.5	8.5	5.9	9	9.3	13.3	3.5	8.5	11.8
Analyte	Units	Method											
Total PCBs	UG/KG	EPA 8082	19	41000	23000	22000	11	420	15	23	33	140	450
Metals													
MERCURY	MG/KG	EPA 7471A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1275	84-1276	84-1277	84-1278	84-1279	84-1280	84-1281	84-1282	84-1283	84-1284	84-1286
Location:			GRID 74 BOTTOM	GRID 63 BOTTOM	GRID 63 BOTTOM	GRID 62 BOTTOM	GRID 62 BOTTOM	GRID 60 BOTTOM	GRID 60 BOTTOM	GRID 61 BOTTOM	GRID 59 BOTTOM	GRID 58 BOTTOM	GRID 57 BOTTOM
Sample Date:			5/23/2006	5/23/2006	5/23/2006	5/23/2006	5/23/2006	5/23/2006	5/23/2006	5/24/2006	5/24/2006	5/24/2006	5/24/2006
Start Depth:			12.1	4.1	8	7	8.6	6.2	8.3	15.1	12.6	7.8	7.8
End Depth:			12.6	4.6	8.5	7.5		6.6	8.8	15.6	13.1	8.3	8.3
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	56 H	1200 H	20 H	14 HY	17 HY	37 HY	16 HY	850 HLY	10 HY	16 HY	15 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	0.17 J	0.15 J	0.21 U	0.21 U	0.21 U	0.097 J	0.12 J	130 HYJ	0.048 J	0.023 J	0.052 J
MOTOR OIL C24-C36	MG/KG	EPA 8015B	140 L	1300 L	46 L	17	43 L	100 L	45 L	1500 L	29	40	28
Total TPH	MG/KG	EPA 8015B	196	2500	66	31	60	137	61	2480	39	56	43
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN KETONE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	16 UJ	13 UJ	14 UJ	14 UJ	14 UJ	14 UJ	16 UJ	120 U	15 U	11 U	12 U
AROCLOR-1221	UG/KG	EPA 8082	32 UJ	26 UJ	29 UJ	28 UJ	28 UJ	27 UJ	32 UJ	230 U	30 U	22 U	23 U
AROCLOR-1232	UG/KG	EPA 8082	16 UJ	13 UJ	14 UJ	14 UJ	14 UJ	14 UJ	16 UJ	120 U	15 U	11 U	12 U
AROCLOR-1242	UG/KG	EPA 8082	16 UJ	13 UJ	14 UJ	14 UJ	14 UJ	14 UJ	16 UJ	120 UJ	15 U	11 U	12 U
AROCLOR-1248	UG/KG	EPA 8082	16 UJ	13 UJ	14 UJ	14 UJ	14 UJ	14 UJ	16 UJ	120 UJ	15 U	11 U	12 U
AROCLOR-1254	UG/KG	EPA 8082	16 UJ	13 UJ	14 UJ	14 UJ	14 UJ	14 UJ	16 UJ	120 UJ	15 U	11 U	12 U
AROCLOR-1260	UG/KG	EPA 8082	660 J	260 J	15 J	500 J	69 J	77 J	4 J	4700 J	4.9 J	11	46

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1275	84-1276	84-1277	84-1278	84-1279	84-1280	84-1281	84-1282	84-1283	84-1284	84-1286
Location:			GRID 74 BOTTOM	GRID 63 BOTTOM	GRID 63 BOTTOM	GRID 62 BOTTOM	GRID 62 BOTTOM	GRID 60 BOTTOM	GRID 60 BOTTOM	GRID 61 BOTTOM	GRID 59 BOTTOM	GRID 58 BOTTOM	GRID 57 BOTTOM
Sample Date:			5/23/2006	5/23/2006	5/23/2006	5/23/2006	5/23/2006	5/23/2006	5/23/2006	5/24/2006	5/24/2006	5/24/2006	5/24/2006
Start Depth:			12.1	4.1	8	7	8.6	6.2	8.3	15.1	12.6	7.8	7.8
End Depth:			12.6	4.6	8.5	7.5		6.6	8.8	15.6	13.1	8.3	8.3
Analyte	Units	Method											
Total PCBs	UG/KG	EPA 8082	660	260	15	500	69	77	4 J	4700	4.9 J	11	46
Metals													
MERCURY	MG/KG	EPA 7471A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1289	84-1290	84-1291	84-1292	84-1293	84-1294	84-1295	84-1303	84-1305	84-1306	84-1307
Location:			GRID 54 BOTTOM	GRID 54 BOTTOM	GRID 55 BOTTOM	GRID 55 BOTTOM	GRID 56 BOTTOM	GRID 56 BOTTOM	GRID 86 BOTTOM	GRID 81 BOTTOM	GRID 81 BOTTOM	GRID 81 SIDEWALL	GRID 81 SIDEWALL
Sample Date:			6/2/2006	6/2/2006	6/2/2006	6/2/2006	6/2/2006	6/2/2006	6/2/2006	6/16/2006	6/22/2006	6/22/2006	6/22/2006
Start Depth:			3.1	8.1	4.8	8.2	5.1	8	10	20.2	11.5	1	11
End Depth:			3.6	8.6	5.3	8.7	5.6	8.5	10.5	20.8	12	1.5	11.5
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	75 H	13 HY	24 HY	34 H	12 HY	30 HY	5.1 HY	19 HY	14 HY	160 HY	450 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	0.2 U	0.033 J	0.19 U	0.19 U	0.027 J	0.026 J	0.16 J	0.61 HJY	0.36 U	0.2 U	0.14 J
MOTOR OIL C24-C36	MG/KG	EPA 8015B	120 L	20 L	140 L	78 L	38	84	24	44 L	33	500	560
Total TPH	MG/KG	EPA 8015B	195	33	164	112	50	114	29	64	47	660	1010
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	720 U	350 U
ACENAPHTHYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	720 U	350 U
ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	720 U	350 U
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	720 U	190 J
BENZO(A)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	720 U	300 J
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	720 U	260 J
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	720 U	210 J
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	720 U	360
CHRYSENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	720 U	340 J
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	720 U	99 J
FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	720 U	290 J
FLUORENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	720 U	350 U
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	720 U	180 J
NAPHTHALENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	720 U	350 U
PHENANTHRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	720 U	350 U
PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	720 U	510
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	35 U	35 U
4,4'-DDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	35 U	35 U
4,4'-DDT	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	35 U	43 J
ALDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	18 U	18 U
ALPHA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	18 U	18 U
BETA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	18 U	18 U
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	320 U	310 U
DELTA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	18 U	18 U
DIELDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	35 U	35 U
ENDOSULFAN I	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	18 U	18 U
ENDOSULFAN II.	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	35 U	35 U
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	32 J	150
ENDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	35 UJ	35 UJ
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	35 U	35 U
ENDRIN KETONE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	35 U	35 U
GAMMA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	18 U	18 U
HEPTACHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	18 U	18 U
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.6 J	35
METHOXYCHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	180 UJ	180 UJ
TOXAPHENE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	640 U	630 U
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	14 U	15 U	13 U	14 U	14 U	28 U	19 U	15 UJ	16 U	51 U	10 U
AROCLOR-1221	UG/KG	EPA 8082	27 U	30 U	26 U	28 U	27 U	57 U	38 U	29 UJ	32 U	100 U	20 U
AROCLOR-1232	UG/KG	EPA 8082	14 U	15 U	13 U	14 U	14 U	28 U	19 U	15 UJ	16 U	51 U	10 U
AROCLOR-1242	UG/KG	EPA 8082	14 U	15 U	13 U	14 U	14 U	28 U	19 U	15 UJ	16 U	51 U	10 U
AROCLOR-1248	UG/KG	EPA 8082	14 U	15 U	13 U	14 U	14 U	28 U	19 U	15 UJ	16 U	51 U	10 U
AROCLOR-1254	UG/KG	EPA 8082	14 U	15 U	13 U	14 U	14 U	28 U	19 U	15 UJ	16 U	51 U	10 U
AROCLOR-1260	UG/KG	EPA 8082	380	19	98	76	36	1600	19 U	15 UJ	230	2900	470

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1289	84-1290	84-1291	84-1292	84-1293	84-1294	84-1295	84-1303	84-1305	84-1306	84-1307
Location:			GRID 54 BOTTOM	GRID 54 BOTTOM	GRID 55 BOTTOM	GRID 55 BOTTOM	GRID 56 BOTTOM	GRID 56 BOTTOM	GRID 86 BOTTOM	GRID 81 BOTTOM	GRID 81 BOTTOM	GRID 81 SIDEWALL	GRID 81 SIDEWALL
Sample Date:			6/2/2006	6/2/2006	6/2/2006	6/2/2006	6/2/2006	6/2/2006	6/2/2006	6/16/2006	6/22/2006	6/22/2006	6/22/2006
Start Depth:			3.1	8.1	4.8	8.2	5.1	8	10	20.2	11.5	1	11
End Depth:			3.6	8.6	5.3	8.7	5.6	8.5	10.5	20.8	12	1.5	11.5
Analyte	Units	Method											
Total PCBs	UG/KG	EPA 8082	380	19	98	76	36	1600	ND	ND	230	2900	470
Metals													
MERCURY	MG/KG	EPA 7471A	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.82	0.35
ANTIMONY	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 9 J	1.2 J
ARSENIC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6	3.3
BARIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	190	9.3
BERYLLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39	0.032 J
CADMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.36	0.55
CHROMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	180 J	29 J
COBALT	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	24 J	1.8 J
COPPER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	210	49
LEAD	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	140 J	22 J
MOLYBDENUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.8 J	1.5
NICKEL	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	200 J	13 J
SELENIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.3	0.46 U
SILVER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.27 UJ	0.26 UJ
THALLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.27 U	0.14 UJ
VANADIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	98	5.9
ZINC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	140 J	530 J

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1308	84-1309	84-1310	84-1311	84-1312	84-1313	84-1314	84-1316	84-1317	84-1318	84-1319
Location:			GRID 110 BOTTOM	GRID 110 BOTTOM	GRID 127-1 SIDEWALL	GRID 110 SIDEWALL	GRID 110 SIDEWALL	GRID 86 SIDEWALL	GRID 156 SIDEWALL	GRID 127-1 SIDEWALL	GRID 156 BOTTOM	GRID 111 SIDEWALL	GRID 159 SIDEWALL
Sample Date:			6/22/2006	6/22/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006
Start Depth:			6	8.2	0	1.8	6	1	2.5	8	8	2.8	0
End Depth:			6.7	8.7	1.8	1.8	6.4	1.4	2.9	8.5	8.3	2.8	3
Analyte	Units	Method											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	30 HY	58 HLY	45 HY	750 HY	9000 HLY	210 HY	330 HY	50 HY	37 HY	290 HY	3200 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	0.11 J	1.1 HY	0.25 U	0.18 U	550 HYJ	0.18 U	0.21 U	0.34 U	0.33 U	0.18 U	1 HYJ
MOTOR OIL C24-C36	MG/KG	EPA 8015B	100	130	150	2200	24000 L	840	840	140 L	100 L	970 L	2800 L
Total TPH	MG/KG	EPA 8015B	130	189	195	2950	33550	1050	1170	190	137	1260	6001
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	NA	NA	340 U	3600 U	4400 U	690 U	690 U	340 U	NA	1100 U	7200 U
ACENAPHTHYLENE	UG/KG	EPA 8270C	NA	NA	340 U	3600 U	4400 U	690 U	690 U	340 U	NA	1100 U	7200 U
ANTHRACENE	UG/KG	EPA 8270C	NA	NA	90 J	3600 U	4400 U	690 U	690 U	340 U	NA	1100 U	7200 U
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	290 J	3600 U	4400 U	680 J	250 J	340 U	NA	500 J	3300 J
BENZO(A)PYRENE	UG/KG	EPA 8270C	NA	NA	330 J	3600 U	4400 U	770	280 J	340 U	NA	530 J	2200 J
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	300 J	3600 U	1000 J	840	250 J	340 U	NA	470 J	2000 J
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	NA	NA	230 J	3600 U	4400 U	570 J	400 J	340 U	NA	500 J	1800 J
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	390	3600 U	4400 U	940	360 J	340 U	NA	730 J	3500 J
CHRYSENE	UG/KG	EPA 8270C	NA	NA	340	1300 J	6700	1100	410 J	340 U	NA	760 J	8000
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	90 J	3600 U	4400 U	230 J	690 U	340 U	NA	1100 U	7200 U
FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	650	3600 U	1800 J	1400	550 J	340 U	NA	830 J	5300 J
FLUORENE	UG/KG	EPA 8270C	NA	NA	340 U	3600 U	1500 J	690 U	690 U	340 U	NA	1100 U	7200 U
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	NA	NA	200 J	3600 U	4400 U	520 J	310 J	340 U	NA	420 J	7200 U
NAPHTHALENE	UG/KG	EPA 8270C	NA	NA	340 U	3600 U	7900	690 U	690 U	340 U	NA	1100 U	7200 U
PHENANTHRENE	UG/KG	EPA 8270C	NA	NA	400	3600 U	3400 J	620 J	380 J	340 U	NA	300 J	5400 J
PYRENE	UG/KG	EPA 8270C	NA	NA	530	850 J	5100	1400	480 J	340 U	NA	790 J	8900
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	NA	NA	17 UJ	350 U	440 U	170 U	170 U	55 U	NA	180 U	180 U
4,4'-DDE	UG/KG	EPA 8081A	NA	NA	17 U	990 J	960 J	180 J	140 J	55 U	NA	290 J	260 J
4,4'-DDT	UG/KG	EPA 8081A	NA	NA	30 J	4700 J	3600 J	600 J	660 J	140 J	NA	930 J	1200 J
ALDRIN	UG/KG	EPA 8081A	NA	NA	8.6 U	180 U	230 U	88 U	88 U	28 U	NA	41 J	36 J
ALPHA-BHC	UG/KG	EPA 8081A	NA	NA	8.6 U	180 U	230 U	88 U	88 U	28 U	NA	92 U	92 U
BETA-BHC	UG/KG	EPA 8081A	NA	NA	8.6 U	180 U	230 U	88 U	88 U	28 U	NA	92 U	26 J
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	NA	NA	150 U	3200 U	4000 U	1600 U	1500 U	500 U	NA	1600 U	1600 U
DELTA-BHC	UG/KG	EPA 8081A	NA	NA	8.6 U	180 UJ	230 UJ	88 UJ	88 UJ	28 U	NA	92 U	92 U
DIELDRIN	UG/KG	EPA 8081A	NA	NA	20 J	350 U	440 U	170 U	170 U	55 U	NA	180 U	180 U
ENDOSULFAN I	UG/KG	EPA 8081A	NA	NA	8.6 UJ	180 U	230 U	88 U	88 U	28 U	NA	92 U	92 U
ENDOSULFAN II	UG/KG	EPA 8081A	NA	NA	17 U	4000 J	440 U	170 U	170 U	300 J	NA	4800	180 U
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	NA	NA	17 U	13000	11000	2300	2300	260	NA	4300	3300
ENDRIN	UG/KG	EPA 8081A	NA	NA	17 U	350 UJ	440 UJ	170 UJ	170 UJ	55 UJ	NA	180 UJ	180 UJ
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	NA	NA	17 U	350 U	440 U	170 U	170 U	55 U	NA	180 U	180 U
ENDRIN KETONE	UG/KG	EPA 8081A	NA	NA	17 U	350 U	440 U	170 U	170 U	55 U	NA	180 U	180 U
GAMMA-BHC	UG/KG	EPA 8081A	NA	NA	8.6 U	180 U	230 U	88 U	88 U	28 U	NA	92 U	92 U
HEPTACHLOR	UG/KG	EPA 8081A	NA	NA	8.6 U	180 U	230 U	88 U	88 U	28 U	NA	92 U	92 U
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	NA	NA	3.2 J	3200	2900	550	460	61	NA	830	930
METHOXYCHLOR	UG/KG	EPA 8081A	NA	NA	26 J	3300 J	2400 J	560 J	490 J	66 J	NA	960 J	1000 J
TOXAPHENE	UG/KG	EPA 8081A	NA	NA	300 U	6300 U	8000 U	3100 U	3100 U	1000 U	NA	3200 U	3200 U
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	15 U	150 U	49 U	10000 U	13000 U	2000 U	2500 U	80 U	16 U	2100 U	2100 U
AROCLOR-1221	UG/KG	EPA 8082	30 U	300 U	98 U	20000 U	26000 U	4000 U	5000 U	160 U	31 U	4200 U	4100 U
AROCLOR-1232	UG/KG	EPA 8082	15 U	150 U	49 U	10000 U	13000 U	2000 U	2500 U	80 U	16 U	2100 U	2100 U
AROCLOR-1242	UG/KG	EPA 8082	15 U	150 U	49 U	10000 UJ	13000 UJ	2000 UJ	2500 UJ	80 UJ	16 UJ	2100 U	2100 U
AROCLOR-1248	UG/KG	EPA 8082	15 U	150 U	49 U	10000 UJ	13000 UJ	2000 UJ	2500 UJ	80 UJ	16 UJ	2100 U	2100 U
AROCLOR-1254	UG/KG	EPA 8082	15 U	150 U	600	10000 UJ	13000 UJ	2000 UJ	2500 UJ	80 UJ	16 UJ	2100 U	2100 U
AROCLOR-1260	UG/KG	EPA 8082	99	9200	1900	450000 J	400000 J	59000 J	52000 J	4300 J	250 J	120000	120000

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1308	84-1309	84-1310	84-1311	84-1312	84-1313	84-1314	84-1316	84-1317	84-1318	84-1319
Location:			GRID 110 BOTTOM	GRID 110 BOTTOM	GRID 127-1 SIDEWALL	GRID 110 SIDEWALL	GRID 110 SIDEWALL	GRID 86 SIDEWALL	GRID 156 SIDEWALL	GRID 127-1 SIDEWALL	GRID 156 BOTTOM	GRID 111 SIDEWALL	GRID 159 SIDEWALL
Sample Date:			6/22/2006	6/22/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006
Start Depth:			6	8.2	0	1.8	6	1	2.5	8	8	2.8	0
End Depth:			6.7	8.7	1.8	1.8	6.4	1.4	2.9	8.5	8.3	2.8	3
Analyte	Units	Method											
Total PCBs	UG/KG	EPA 8082	99	9200	2500	450000	400000	59000	52000	4300	250	120000	120000
Metals													
MERCURY	MG/KG	EPA 7471A	NA	NA	0.18	12	12	3.5	3.5	0.63	NA	9.9	35
ANTIMONY	MG/KG	EPA 6010B	NA	NA	23	9	16	12	17	0.63 J	NA	16 J	8.9 J
ARSENIC	MG/KG	EPA 6010B	NA	NA	17	5.1	6.2	6.7	6.8	11	NA	6.4	2.9
BARIUM	MG/KG	EPA 6010B	NA	NA	650	160	97	280	170	52 J	NA	140 J	200 J
BERYLLIUM	MG/KG	EPA 6010B	NA	NA	0.71	0.16	0.082 J	0.34	0.3	0.54	NA	0.23	0.046 J
CADMIUM	MG/KG	EPA 6010B	NA	NA	0.41 U	0.85	2	0.76	1.2	0.7	NA	0.83	1.3
CHROMIUM	MG/KG	EPA 6010B	NA	NA	210	160	170	150	220	94	NA	120	140
COBALT	MG/KG	EPA 6010B	NA	NA	30	6.2	6.6	20	14	14	NA	9.5	1.6
COPPER	MG/KG	EPA 6010B	NA	NA	2100	2000	3000	1800	1600	890	NA	1600	2100
LEAD	MG/KG	EPA 6010B	NA	NA	230	770	950	370	660	90	NA	610	470
MOLYBDENUM	MG/KG	EPA 6010B	NA	NA	4.4	2	3	4.6	3.3	2.5 J	NA	1.7 J	0.91 J
NICKEL	MG/KG	EPA 6010B	NA	NA	92	46	41	160	82	78 J	NA	49 J	20 J
SELENIUM	MG/KG	EPA 6010B	NA	NA	3.9	0.4 U	0.33 U	1.8	1.5	0.34 J	NA	0.71	0.14 J
SILVER	MG/KG	EPA 6010B	NA	NA	0.96	0.57	0.41 U	0.44	0.39 U	0.42 UJ	NA	0.27 UJ	0.27 UJ
THALLIUM	MG/KG	EPA 6010B	NA	NA	0.26 U	0.14 UJ	0.1 UJ	0.26 U	0.26 U	0.83	NA	0.38	0.21 J
VANADIUM	MG/KG	EPA 6010B	NA	NA	91	48	19	69	49	71 J	NA	43 J	12 J
ZINC	MG/KG	EPA 6010B	NA	NA	1500	690	2500	870	1200	280	NA	850	980

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1320	84-1321	84-1322	84-1323	84-1324	84-1325	84-1326	84-1327	84-1328	84-1329	84-1330
Location:			GRID 159 BOTTOM	GRID 111 SIDEWALL	GRID 159 SIDEWALL	GRID 156 SIDEWALL	GRID 86 SIDEWALL	GRID 165 BOTTOM	GRID 165 SIDEWALL	GRID 165 SIDEWALL	GRID 81 SIDEWALL	GRID 81 SIDEWALL	GRID 59 SIDEWALL
Sample Date:			6/29/2006	6/30/2006	6/30/2006	6/30/2006	7/5/2006	7/5/2006	7/5/2006	7/5/2006	7/5/2006	7/5/2006	7/6/2006
Start Depth:			7	6	6	7	7	6	5	0	5.9	3	0
End Depth:			7.7	6.3	6.3	7.4	7.5	6.5	5.2	1.3	6	3	5
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	1200 HY	8200 HY	15000 HY	2000 HY	5100 HLY	7300 Y	9700 HLY	240 HY	580 HY	110 HY	180 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	0.77 HY	71 HYJ	120 HY	0.94 J	31 HY	49 HY	380 HYJ	0.11 J	0.093 J	0.27 U	0.022 J
MOTOR OIL C24-C36	MG/KG	EPA 8015B	1400 L	12000 L	19000 L	10000 L	8800 L	5800 L	12000 L	770	1600 L	500	910
Total TPH	MG/KG	EPA 8015B	2601	20271	34120	12001	13931	13149	22080	1010	2180	610	1090
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	NA	1200 J	27000 U	4600 U	2600 U	NA	2700 U	4100 U	3700 U	2000 U	3400 U
ACENAPHTHYLENE	UG/KG	EPA 8270C	NA	3100 U	27000 U	4600 U	2600 U	NA	2700 U	4100 U	3700 U	2000 U	3400 U
ANTHRACENE	UG/KG	EPA 8270C	NA	3100 U	27000 U	4600 U	2600 U	NA	2700 U	4100 U	3700 U	2000 U	3400 U
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	NA	1100 J	27000 U	4600 U	2600 U	NA	2700 U	4100 U	3700 U	2000 U	3400 U
BENZO(A)PYRENE	UG/KG	EPA 8270C	NA	860 J	27000 U	4600 U	2600 U	NA	2700 U	4100 U	3700 U	2000 U	3400 U
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	NA	1600 J	27000 U	4600 U	2600 U	NA	2700 U	4100 U	3700 U	2000 U	3400 U
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	NA	3100 U	27000 U	4600 U	2600 U	NA	2700 U	4100 U	3700 U	2000 U	3400 U
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	NA	3100 U	27000 U	4600 U	2600 U	NA	2700 U	4100 U	3700 U	2000 U	3400 U
CHRYSENE	UG/KG	EPA 8270C	NA	3500	27000 U	4600 U	2900	NA	2800	4100 U	3700 U	2000 U	3400 U
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	NA	3100 U	27000 U	4600 U	2600 U	NA	2700 U	4100 U	3700 U	2000 U	3400 U
FLUORANTHENE	UG/KG	EPA 8270C	NA	2200 J	27000 U	4600 U	2600 U	NA	2700 U	4100 U	3700 U	2000 U	3400 U
FLUORENE	UG/KG	EPA 8270C	NA	3100 U	27000 U	4600 U	2600 U	NA	2700 U	4100 U	3700 U	2000 U	3400 U
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	NA	3100 U	27000 U	4600 U	2600 U	NA	2700 U	4100 U	3700 U	2000 U	3400 U
NAPHTHALENE	UG/KG	EPA 8270C	NA	3100 U	27000 U	4600 U	2600 U	NA	2700 U	4100 U	3700 U	2000 U	3400 U
PHENANTHRENE	UG/KG	EPA 8270C	NA	3100 U	27000 U	4600 U	2600 U	NA	2700 U	4100 U	3700 U	2000 U	3400 U
PYRENE	UG/KG	EPA 8270C	NA	3400	5200 J	3600 J	2400 J	NA	3500	4100 U	3700 U	2000 U	3400 U
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	NA	5100 UJ	27000 UJ	45 UJ	2100 U	NA	220 UJ	68 U	72 U	68 U	34 U
4,4'-DDE	UG/KG	EPA 8081A	NA	2300 J	24000 J	21 J	3200 J	NA	720 J	380 J	340	68 U	16 J
4,4'-DDT	UG/KG	EPA 8081A	NA	8900 J	110000 J	39 J	11000 J	NA	740 J	510 J	570 J	70 J	91 J
ALDRIN	UG/KG	EPA 8081A	NA	2600 U	14000 U	5.3 J	1100 U	NA	110 U	35 U	37 U	35 U	17 U
ALPHA-BHC	UG/KG	EPA 8081A	NA	2600 U	14000 U	23 U	1100 U	NA	110 U	35 U	37 U	35 U	17 U
BETA-BHC	UG/KG	EPA 8081A	NA	2600 U	14000 U	14 J	1100 U	NA	110 U	35 U	37 U	35 U	5.1 J
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	NA	46000 U	240000 U	410 U	19000 U	NA	2000 U	620 U	650 U	610 U	310 U
DELTA-BHC	UG/KG	EPA 8081A	NA	2600 U	14000 U	23 U	1100 U	NA	110 UJ	35 UJ	37 UJ	35 UJ	17 UJ
DIELDRIN	UG/KG	EPA 8081A	NA	5100 U	27000 U	45 U	7900	NA	220 U	68 U	72 U	68 U	32 J
ENDOSULFAN I	UG/KG	EPA 8081A	NA	2600 U	14000 U	23 U	1100 U	NA	110 U	35 U	17 J	35 U	17 U
ENDOSULFAN II	UG/KG	EPA 8081A	NA	5100 U	27000 U	45 U	2100 U	NA	220 U	68 U	2300	68 U	34 U
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	NA	29000	250000	120	61000	NA	6200	1800	1700	230	230
ENDRIN	UG/KG	EPA 8081A	NA	5100 UJ	27000 UJ	45 UJ	2100 UJ	NA	250 J	68 UJ	65 J	68 UJ	34 U
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	NA	5100 U	27000 U	45 U	49000 J	NA	190 J	68 UJ	64 J	68 UJ	250
ENDRIN KETONE	UG/KG	EPA 8081A	NA	5100 U	27000 U	45 U	3000 J	NA	220 U	68 U	72 U	68 U	34 U
GAMMA-BHC	UG/KG	EPA 8081A	NA	2600 U	14000 U	23 U	1100 U	NA	110 U	35 U	37 U	35 U	2.9 J
HEPTACHLOR	UG/KG	EPA 8081A	NA	2600 UJ	14000 UJ	23 UJ	1100 U	NA	110 U	35 U	37 U	35 U	17 UJ
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	NA	8700	86000	41	1100 U	NA	1000 J	390	610	49	6.2 J
METHOXYCHLOR	UG/KG	EPA 8081A	NA	26000 U	85000 J	230 UJ	11000 UJ	NA	1200 J	360 J	370 J	350 UJ	170 UJ
TOXAPHENE	UG/KG	EPA 8081A	NA	93000 U	490000 U	830 U	39000 U	NA	4000 U	1200 U	1300 U	1200 U	610 U
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	15000 U	15000 U	780000 U	130 U	31000 U	1500 U	2600 U	990 U	1000 U	980 U	98 U
AROCLOR-1221	UG/KG	EPA 8082	29000 U	30000 U	1600000 U	260 U	62000 U	3000 U	5100 U	2000 U	2100 U	2000 U	200 U
AROCLOR-1232	UG/KG	EPA 8082	15000 U	15000 U	780000 U	130 U	31000 U	1500 U	2600 U	990 U	1000 U	980 U	98 U
AROCLOR-1242	UG/KG	EPA 8082	15000 U	15000 U	780000 U	1200	31000 U	1500 U	2600 U	990 U	1000 U	980 U	450
AROCLOR-1248	UG/KG	EPA 8082	15000 U	15000 U	780000 U	130 U	31000 U	1500 U	2600 U	990 U	1000 U	980 U	98 U
AROCLOR-1254	UG/KG	EPA 8082	15000 U	15000 U	780000 U	130 U	31000 U	1500 U	2600 U	990 U	1000 U	980 U	98 U
AROCLOR-1260	UG/KG	EPA 8082	950000	750000	12000000	3400	1500000	19000	99000	48000	51000	5300	5700

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1320	84-1321	84-1322	84-1323	84-1324	84-1325	84-1326	84-1327	84-1328	84-1329	84-1330
Location:			GRID 159 BOTTOM	GRID 111 SIDEWALL	GRID 159 SIDEWALL	GRID 156 SIDEWALL	GRID 86 SIDEWALL	GRID 165 BOTTOM	GRID 165 SIDEWALL	GRID 165 SIDEWALL	GRID 81 SIDEWALL	GRID 81 SIDEWALL	GRID 59 SIDEWALL
Sample Date:			6/29/2006	6/30/2006	6/30/2006	6/30/2006	7/5/2006	7/5/2006	7/5/2006	7/5/2006	7/5/2006	7/5/2006	7/6/2006
Start Depth:			7	6	6	7	7	6	5	0	5.9	3	0
End Depth:			7.7	6.3	6.3	7.4	7.5	6.5	5.2	1.3	6	3	5
Analyte	Units	Method											
Total PCBs	UG/KG	EPA 8082	950000	750000	12000000	4600	1500000	19000	99000	48000	51000	5300	6150
Metals													
MERCURY	MG/KG	EPA 7471A	NA	18	5	8.5	2.9	NA	2.6	2.7	5.9	1	4.5
ANTIMONY	MG/KG	EPA 6010B	NA	14	13	14	40 J	NA	2.3 J	42 J	64 J	8.5 J	12
ARSENIC	MG/KG	EPA 6010B	NA	5.8	26	17	4.4	NA	0.36 U	5.5	4	3.1	4.5
BARIUM	MG/KG	EPA 6010B	NA	160	200	140	130	NA	38	120	360	38	110
BERYLLIUM	MG/KG	EPA 6010B	NA	0.076 J	0.28	0.33	0.11 J	NA	0.096 J	0.2	0.17	0.099 J	0.27
CADMIUM	MG/KG	EPA 6010B	NA	2.1	1.6	1.2	1.5	NA	0.32 J	0.84	17	0.33	1.7
CHROMIUM	MG/KG	EPA 6010B	NA	220	140	170	160 J	NA	540 J	150 J	940 J	45 J	130
COBALT	MG/KG	EPA 6010B	NA	9.5	20	12	11 J	NA	71 J	9.2 J	21 J	3.5 J	10
COPPER	MG/KG	EPA 6010B	NA	1800	810	1700	2000	NA	230	1100	2000	230	1200
LEAD	MG/KG	EPA 6010B	NA	450	620	490	9300 J	NA	52 J	9700 J	930 J	210 J	260
MOLYBDENUM	MG/KG	EPA 6010B	NA	2	3.3	8.4	2.6	NA	0.44 UJ	2	2.8	0.79 J	1.2
NICKEL	MG/KG	EPA 6010B	NA	190	490	110	140 J	NA	1500 J	80 J	160 J	32 J	83
SELENIUM	MG/KG	EPA 6010B	NA	1.7	2	2.8	0.76	NA	1.3	0.43 U	0.29 UJ	0.63 U	0.44
SILVER	MG/KG	EPA 6010B	NA	0.52	0.8	0.72	0.32 UJ	NA	0.36 UJ	0.26 UJ	0.29 UJ	0.25 UJ	0.26 U
THALLIUM	MG/KG	EPA 6010B	NA	0.39 U	0.41 U	0.35 U	0.4 U	NA	0.36 U	0.6	0.16 UJ	0.082 UJ	0.96 J
VANADIUM	MG/KG	EPA 6010B	NA	20	44	36	59	NA	37	54	200	53	63
ZINC	MG/KG	EPA 6010B	NA	1500	910	1200	1300 J	NA	130 J	800 J	5100 J	300 J	580

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1331	84-1332	84-1333	84-1334	84-1338	84-1339	84-1340 (FD)	84-1341 (FD)	84-1342	84-1343 (FD)	84-1345
Location:			GRID 59-1 SIDEWALL	GRID 59 SIDEWALL	GRID 59-1 BOTTOM	GRID 59-1 SIDEWALL	GRID 109 SIDEWALL	GRID 109 SIDEWALL	GRID 109 SIDEWALL	GRID 109 SIDEWALL	GRID 86 BOTTOM	GRID 86 BOTTOM	GRID 87 BOTTOM
Sample Date:			7/6/2006	7/6/2006	7/6/2006	7/6/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/12/2006
Start Depth:			0	8.6	9.5	8.1	2.5	6.5	2.5	6.5	8.4	8.4	8.6
End Depth:			5	9.1	10	8.6	3	7	3	7	8.9	8.9	9.1
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	280 HY	360 HY	14 HY	470 HY	4100 HY	11000 HY	3300 HY	3000 HY	59 HY	47 HY	14 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	0.029 J	1.3 HY	0.034 J	2.8 HYJ	0.07 J	80 HYJ	0.062 J	67 HYJ	0.35 YZ	0.27 J	0.31 U
MOTOR OIL C24-C36	MG/KG	EPA 8015B	590	540	64	900	8100 L	14000 L	6600 L	4300 L	60 L	46 L	53
Total TPH	MG/KG	EPA 8015B	870	901	78	1373	12200	25080	9900	7367	119	93	67
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	1300 U	7900 U	NA	7200 U	3400 U	2100 U	6900 U	3600 U	NA	NA	NA
ACENAPHTHYLENE	UG/KG	EPA 8270C	1300 U	7900 U	NA	7200 U	3400 U	2100 U	6900 U	3600 U	NA	NA	NA
ANTHRACENE	UG/KG	EPA 8270C	1300 U	7900 U	NA	7200 U	3400 U	2100 U	6900 U	3600 U	NA	NA	NA
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	1300 U	7900 U	NA	7200 U	3400 U	1100 J	6900 U	2100 J	NA	NA	NA
BENZO(A)PYRENE	UG/KG	EPA 8270C	1300 U	7900 U	NA	7200 U	3400 U	960 J	6900 U	1900 J	NA	NA	NA
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	1300 U	7900 U	NA	2700 J	2200 J	2200 J	3800 J	3600 U	NA	NA	NA
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	1300 U	7900 U	NA	7200 U	3400 U	2100 UJ	6900 U	3600 U	NA	NA	NA
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	1300 U	7900 U	NA	3800 J	3400 U	1200 J	6900 U	3600 U	NA	NA	NA
CHRYSENE	UG/KG	EPA 8270C	1300 U	6300 J	NA	7300	7300	13000	8800	15000	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	1300 U	7900 U	NA	7200 U	3400 U	2100 UJ	6900 U	3600 U	NA	NA	NA
FLUORANTHENE	UG/KG	EPA 8270C	1300 U	7900 U	NA	4600 J	2400 J	3700	6300 J	4900	NA	NA	NA
FLUORENE	UG/KG	EPA 8270C	1300 U	7900 U	NA	7200 U	3400 U	2100 U	6900 U	3600 U	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	1300 U	7900 U	NA	7200 U	3400 U	2100 UJ	6900 U	3600 U	NA	NA	NA
NAPHTHALENE	UG/KG	EPA 8270C	1300 U	7900 U	NA	7200 U	3400 U	2100 U	6900 U	3600 U	NA	NA	NA
PHENANTHRENE	UG/KG	EPA 8270C	1300 U	7900 U	NA	7200 U	3400 U	2100 U	3900 J	3600 U	NA	NA	NA
PYRENE	UG/KG	EPA 8270C	1300 U	4300 J	NA	6100 J	5300	5000	11000	5400	NA	NA	NA
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	33 U	19 U	NA	35 U	680	36	680	36	NA	NA	NA
4,4'-DDE	UG/KG	EPA 8081A	53 J	39	NA	79 J	1400 J	74 J	1000 J	80 J	NA	NA	NA
4,4'-DDT	UG/KG	EPA 8081A	40 J	110 J	NA	1200 J	5300 J	230 J	4100 J	55 J	NA	NA	NA
ALDRIN	UG/KG	EPA 8081A	17 U	9.8 U	NA	6.6 J	350 U	8.3 J	350 U	18 U	NA	NA	NA
ALPHA-BHC	UG/KG	EPA 8081A	17 U	9.8 U	NA	18 U	350 U	19 U	350 U	18 U	NA	NA	NA
BETA-BHC	UG/KG	EPA 8081A	17 U	9.8 U	NA	4.4 J	350 U	4 J	350 U	3.6 J	NA	NA	NA
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	300 U	170 U	NA	320 U	6200 U	330 U	6200 U	330 U	NA	NA	NA
DELTA-BHC	UG/KG	EPA 8081A	2.9 J	9.8 UJ	NA	18 UJ	350 U	19 U	350 U	18 U	NA	NA	NA
DIELDRIN	UG/KG	EPA 8081A	33 UJ	19 UJ	NA	120 J	2700	36 U	1700 J	36 U	NA	NA	NA
ENDOSULFAN I	UG/KG	EPA 8081A	17 U	9.8 U	NA	18 U	350 U	19 U	350 U	18 U	NA	NA	NA
ENDOSULFAN II	UG/KG	EPA 8081A	33 U	19 U	NA	35 U	680 U	36 U	680 U	36 U	NA	NA	NA
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	130	5.7 J	NA	560	18000	980	15000	580	NA	NA	NA
ENDRIN	UG/KG	EPA 8081A	17 J	14 J	NA	35 U	680 UJ	36 UJ	680 UJ	11 J	NA	NA	NA
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	17 J	38 J	NA	610	19000 J	36 UJ	14000 J	31 J	NA	NA	NA
ENDRIN KETONE	UG/KG	EPA 8081A	33 U	19 U	NA	35 U	680 U	36 U	680 U	36 U	NA	NA	NA
GAMMA-BHC	UG/KG	EPA 8081A	17 U	9.8 U	NA	18 U	350 U	19 U	350 U	18 U	NA	NA	NA
HEPTACHLOR	UG/KG	EPA 8081A	17 UJ	9.8 UJ	NA	18 UJ	350 U	6.7 J	350 U	18 U	NA	NA	NA
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	17 J	45	NA	18 J	4100	240 J	350 U	180 J	NA	NA	NA
METHOXYCHLOR	UG/KG	EPA 8081A	170 UJ	98 UJ	NA	99 J	3500 UJ	200 J	2300 J	160 J	NA	NA	NA
TOXAPHENE	UG/KG	EPA 8081A	610 U	350 U	NA	630 U	12000 U	650 U	12000 U	650 U	NA	NA	NA
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	49 U	55 U	14 U	510 U	49000 U	1000 U	49000 U	420 U	1400 U	72 U	14 U
AROCLOR-1221	UG/KG	EPA 8082	97 U	110 U	28 U	1000 U	99000 U	2100 U	99000 U	840 U	2800 U	140 U	28 U
AROCLOR-1232	UG/KG	EPA 8082	49 U	55 U	14 U	510 U	49000 U	1000 U	49000 U	420 U	1400 U	72 U	14 U
AROCLOR-1242	UG/KG	EPA 8082	49 U	55 U	14 U	510 U	49000 U	1000 U	49000 U	420 U	1400 U	72 U	14 U
AROCLOR-1248	UG/KG	EPA 8082	49 U	55 U	14 U	510 U	49000 U	1000 U	49000 U	420 U	1400 U	72 U	14 U
AROCLOR-1254	UG/KG	EPA 8082	2400	1800	14 U	510 U	49000 U	1000 U	49000 U	420 U	1400 U	72 U	14 U
AROCLOR-1260	UG/KG	EPA 8082	2500	370	23	19000	640000	42000	400000	26000	43000	1600	14 U

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1331	84-1332	84-1333	84-1334	84-1338	84-1339	84-1340 (FD)	84-1341 (FD)	84-1342	84-1343 (FD)	84-1345
Location:			GRID 59-1 SIDEWALL	GRID 59 SIDEWALL	GRID 59-1 BOTTOM	GRID 59-1 SIDEWALL	GRID 109 SIDEWALL	GRID 109 SIDEWALL	GRID 109 SIDEWALL	GRID 109 SIDEWALL	GRID 86 BOTTOM	GRID 86 BOTTOM	GRID 87 BOTTOM
Sample Date:			7/6/2006	7/6/2006	7/6/2006	7/6/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/12/2006
Start Depth:			0	8.6	9.5	8.1	2.5	6.5	2.5	6.5	8.4	8.4	8.6
End Depth:			5	9.1	10	8.6	3	7	3	7	8.9	8.9	9.1
Analyte	Units	Method											
Total PCBs	UG/KG	EPA 8082	4900	2170	23	19000	640000	42000	400000	26000	43000	1600	ND
Metals													
MERCURY	MG/KG	EPA 7471A	38	6.7	NA	9 6	28	39	30	51	NA	NA	NA
ANTIMONY	MG/KG	EPA 6010B	18	3 J	NA	9.8	5 J	4.1 J	3.2 J	5.5 J	NA	NA	NA
ARSENIC	MG/KG	EPA 6010B	4.9	7	NA	3.5	3.5	3.8	4	3.3	NA	NA	NA
BARIUM	MG/KG	EPA 6010B	93	420	NA	120	160 J	110 J	130 J	170 J	NA	NA	NA
BERYLLIUM	MG/KG	EPA 6010B	0.22	0.055 J	NA	0.071 J	0.059 J	0.041 J	0.052 J	0.034 J	NA	NA	NA
CADMIUM	MG/KG	EPA 6010B	2.3	3.3	NA	2	1.5	1.3	1.7	1.9	NA	NA	NA
CHROMIUM	MG/KG	EPA 6010B	340	150	NA	270	130	130	130	150	NA	NA	NA
COBALT	MG/KG	EPA 6010B	12	5.9	NA	2.3	4.1	2.6	2.5	2	NA	NA	NA
COPPER	MG/KG	EPA 6010B	1100	2200	NA	4700	2700	3100	2500	2700	NA	NA	NA
LEAD	MG/KG	EPA 6010B	840	610	NA	750	1000	450	490	640	NA	NA	NA
MOLYBDENUM	MG/KG	EPA 6010B	4.1	4.2	NA	1.2	1 J	1.7 J	2 J	0.81 J	NA	NA	NA
NICKEL	MG/KG	EPA 6010B	200	34	NA	29	20	22	22 J	18 J	NA	NA	NA
SELENIUM	MG/KG	EPA 6010B	0.59	1	NA	1 4	0 31	0.15 J	2.4 U	0.096 J	NA	NA	NA
SILVER	MG/KG	EPA 6010B	0.27 U	0.29 U	NA	0.2 UJ	0.26 UJ	0.27 UJ	0.26 UJ	0.27 UJ	NA	NA	NA
THALLIUM	MG/KG	EPA 6010B	0.064 UJ	0.29 U	NA	0.41 U	0.14 J	2.6 U	0.21 J	0.14 J	NA	NA	NA
VANADIUM	MG/KG	EPA 6010B	860	34	NA	46	15 J	7.3 J	7.5 J	8.3 J	NA	NA	NA
ZINC	MG/KG	EPA 6010B	2900	2500	NA	2000	1400	1700	1800	1600	NA	NA	NA

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1346 (FD)	84-1347	84-1348 (FD)	84-1349	84-1350 (FD)	84-1351	84-1352 (FD)	84-1353	84-1354 (FD)	84-1355	84-1356 (FD)
Location:			GRID 87 BOTTOM	GRID 80 BOTTOM	GRID 80 BOTTOM	GRID 59 BOTTOM	GRID 59 BOTTOM	GRID 66 BOTTOM	GRID 66 BOTTOM	GRID 66 BOTTOM	GRID 66 BOTTOM	GRID 65 BOTTOM	GRID 65 BOTTOM
Sample Date:			7/12/2006	7/12/2006	7/12/2006	7/12/2006	7/12/2006	7/17/2006	7/17/2006	7/17/2006	7/17/2006	7/17/2006	7/17/2006
Start Depth:			8.6	10.3	10.3	11.5	11.5	4.5	4.5	8	8	3.7	3.7
End Depth:			9.1	10.8	10.8	12	12	5	5	8.5	8.5	4.2	4.2
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	19 HYJ	15 HY	22 HYJ	15 HY	14 HY	140 HY	100 HY	29 HY	29 HY	62 HY	36 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	0.3 U	0.3 U	0.39 U	1.6 U	1.6 U	0.2 U	0.2 U	0.22 U	0.23 U	0.13 J	0.2 U
MOTOR OIL C24-C36	MG/KG	EPA 8015B	71 J	50	77 J	62	55	220 L	490 L	110 L	110 L	160 L	80 L
Total TPH	MG/KG	EPA 8015B	90	65	99	77	69	360	590	139	139	222	116
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN KETONE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	UG/KG	EPA 8081A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	14 U	15 U	15 U	16 U	16 U	14 U	14 U	15 U	15 U	14 U	14 U
AROCLOR-1221	UG/KG	EPA 8082	27 U	29 U	30 U	31 U	32 U	27 U	27 U	29 U	30 U	27 U	27 U
AROCLOR-1232	UG/KG	EPA 8082	14 U	15 U	15 U	16 U	16 U	14 U	14 U	15 U	15 U	14 U	14 U
AROCLOR-1242	UG/KG	EPA 8082	14 U	15 U	15 U	16 U	16 U	14 U	14 U	15 U	15 U	14 U	14 U
AROCLOR-1248	UG/KG	EPA 8082	14 U	15 U	15 U	16 U	16 U	14 U	14 U	15 U	15 U	14 U	14 U
AROCLOR-1254	UG/KG	EPA 8082	14 U	15 U	15 U	16 U	16 U	14 U	14 U	15 U	15 U	14 U	14 U
AROCLOR-1260	UG/KG	EPA 8082	17	15 U	15 U	16 U	16 U	140	32	56	110	310	77

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1346 (FD)	84-1347	84-1348 (FD)	84-1349	84-1350 (FD)	84-1351	84-1352 (FD)	84-1353	84-1354 (FD)	84-1355	84-1356 (FD)
Location:			GRID 87 BOTTOM	GRID 80 BOTTOM	GRID 80 BOTTOM	GRID 59 BOTTOM	GRID 59 BOTTOM	GRID 66 BOTTOM	GRID 66 BOTTOM	GRID 66 BOTTOM	GRID 66 BOTTOM	GRID 65 BOTTOM	GRID 65 BOTTOM
Sample Date:			7/12/2006	7/12/2006	7/12/2006	7/12/2006	7/12/2006	7/17/2006	7/17/2006	7/17/2006	7/17/2006	7/17/2006	7/17/2006
Start Depth:			8.6	10.3	10.3	11.5	11.5	4.5	4.5	8	8	3.7	3.7
End Depth:			9.1	10.8	10.8	12	12	5	5	8.5	8.5	4.2	4.2
Analyte	Units	Method											
Total PCBs	UG/KG	EPA 8082	17	ND	ND	ND	ND	140	32	56	110	310	77
Metals													
MERCURY	MG/KG	EPA 7471A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	MG/KG	EPA 6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1357	84-1358 (FD)	84-1359
Location:			GRID 65 BOTTOM	GRID 65 BOTTOM	GRID 59 BOTTOM
Sample Date:			7/17/2006	7/17/2006	7/18/2006
Start Depth:			8.5	8.5	13.9
End Depth:			9	9	14.4
Analyte	**Units**	**Method**			
TPH					
DIESEL C10-C24	MG/KG	EPA 8015B	15 HY	17 HY	2 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	0.21 U	0.2 U	0.29 U
MOTOR OIL C24-C36	MG/KG	EPA 8015B	44 L	48 L	7.6
Total TPH	MG/KG	EPA 8015B	59	65	9.6
Semivolatiles					
ACENAPHTHENE	UG/KG	EPA 8270C	NA	NA	NA
ACENAPHTHYLENE	UG/KG	EPA 8270C	NA	NA	NA
ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA
BENZO(A)PYRENE	UG/KG	EPA 8270C	NA	NA	NA
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	NA	NA	NA
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA
CHRYSENE	UG/KG	EPA 8270C	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	NA	NA	NA
FLUORANTHENE	UG/KG	EPA 8270C	NA	NA	NA
FLUORENE	UG/KG	EPA 8270C	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	NA	NA	NA
NAPHTHALENE	UG/KG	EPA 8270C	NA	NA	NA
PHENANTHRENE	UG/KG	EPA 8270C	NA	NA	NA
PYRENE	UG/KG	EPA 8270C	NA	NA	NA
Pesticides					
4,4'-DDD	UG/KG	EPA 8081A	NA	NA	NA
4,4'-DDE	UG/KG	EPA 8081A	NA	NA	NA
4,4'-DDT	UG/KG	EPA 8081A	NA	NA	NA
ALDRIN	UG/KG	EPA 8081A	NA	NA	NA
ALPHA-BHC	UG/KG	EPA 8081A	NA	NA	NA
BETA-BHC	UG/KG	EPA 8081A	NA	NA	NA
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	NA	NA	NA
DELTA-BHC	UG/KG	EPA 8081A	NA	NA	NA
DIELDRIN	UG/KG	EPA 8081A	NA	NA	NA
ENDOSULFAN I	UG/KG	EPA 8081A	NA	NA	NA
ENDOSULFAN II	UG/KG	EPA 8081A	NA	NA	NA
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	NA	NA	NA
ENDRIN	UG/KG	EPA 8081A	NA	NA	NA
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	NA	NA	NA
ENDRIN KETONE	UG/KG	EPA 8081A	NA	NA	NA
GAMMA-BHC	UG/KG	EPA 8081A	NA	NA	NA
HEPTACHLOR	UG/KG	EPA 8081A	NA	NA	NA
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	NA	NA	NA
METHOXYCHLOR	UG/KG	EPA 8081A	NA	NA	NA
TOXAPHENE	UG/KG	EPA 8081A	NA	NA	NA
PCBs					
AROCLOR-1016	UG/KG	EPA 8082	14 U	14 U	18 U
AROCLOR-1221	UG/KG	EPA 8082	28 U	28 U	36 U
AROCLOR-1232	UG/KG	EPA 8082	14 U	14 U	18 U
AROCLOR-1242	UG/KG	EPA 8082	14 U	14 UJ	18 U
AROCLOR-1248	UG/KG	EPA 8082	14 U	14 UJ	18 U
AROCLOR-1254	UG/KG	EPA 8082	14 U	14 UJ	18 U
AROCLOR-1260	UG/KG	EPA 8082	44	110 J	18 U

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1357	84-1358 (FD)	84-1359
Location:			GRID 65 BOTTOM	GRID 65 BOTTOM	GRID 59 BOTTOM
Sample Date:			7/17/2006	7/17/2006	7/18/2006
Start Depth:			8.5	8.5	13.9
End Depth:			9	9	14.4
Analyte	**Units**	**Method**			
Total PCBs	UG/KG	EPA 8082	44	110	ND
Metals					
MERCURY	MG/KG	EPA 7471A	NA	NA	NA
ANTIMONY	MG/KG	EPA 6010B	NA	NA	NA
ARSENIC	MG/KG	EPA 6010B	NA	NA	NA
BARIUM	MG/KG	EPA 6010B	NA	NA	NA
BERYLLIUM	MG/KG	EPA 6010B	NA	NA	NA
CADMIUM	MG/KG	EPA 6010B	NA	NA	NA
CHROMIUM	MG/KG	EPA 6010B	NA	NA	NA
COBALT	MG/KG	EPA 6010B	NA	NA	NA
COPPER	MG/KG	EPA 6010B	NA	NA	NA
LEAD	MG/KG	EPA 6010B	NA	NA	NA
MOLYBDENUM	MG/KG	EPA 6010B	NA	NA	NA
NICKEL	MG/KG	EPA 6010B	NA	NA	NA
SELENIUM	MG/KG	EPA 6010B	NA	NA	NA
SILVER	MG/KG	EPA 6010B	NA	NA	NA
THALLIUM	MG/KG	EPA 6010B	NA	NA	NA
VANADIUM	MG/KG	EPA 6010B	NA	NA	NA
ZINC	MG/KG	EPA 6010B	NA	NA	NA

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1360 (FD)	84-1361	84-1362 (FD)	84-1363	84-1364	84-1365 (FD)	84-1366	84-1367 (FD)	84-1368	84-1369	84-1370 (FD)
Location:			GRID 59 BOTTOM	GRID 66 SIDEWALL	GRID 66 SIDEWALL	GRID 66 SIDEWALL	GRID 65 SIDEWALL	GRID 65 SIDEWALL	GRID 54 SIDEWALL	GRID 54 SIDEWALL	GRID 65 SIDEWALL	GRID 55 SIDEWALL	GRID 55 SIDEWALL
Sample Date:			7/18/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006
Start Depth:			13.9	2	2	3	3	0	3	0	4	2.8	0
End Depth:			14.4	2.1	2.2	3.7	3	3	3	3	4.5	2.8	2.8
Analyte	Units	Method											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	13 HLY	220 HY	160 HY	150 HY	180 HY	140 HY	230 H	200 H	18 HY	350 H	380 H
GASOLINE C6-C10	MG/KG	EPA 8015B	0.3 U	0.02 J	0.028 J	0.021 J	0.12 J	0.29 HY	0.024 J	0.023 J	0.19 U	0.18 U	0.19 U
MOTOR OIL C24-C36	MG/KG	EPA 8015B	36 L	620	450	520	440	360	510 L	400 L	60	1200 L	1800 L
Total TPH	MG/KG	EPA 8015B	49	840	610	670	620	500	740	600	78	1550	2180
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	NA	710 U	710 U	740 U	350 U	720 U	740 U	740 U	770 U	730 U	720 U
ACENAPHTHYLENE	UG/KG	EPA 8270C	NA	710 U	710 U	740 U	350 U	720 U	740 U	740 U	770 U	730 U	720 U
ANTHRACENE	UG/KG	EPA 8270C	NA	710 U	88 J	160 J	350 U	44 J	740 U	56 J	770 U	730 U	720 U
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	NA	130 J	290 J	200 J	66 J	180 J	120 J	170 J	770 U	730 U	720 U
BENZO(A)PYRENE	UG/KG	EPA 8270C	NA	140 J	230 J	230 J	85 J	150 J	110 J	110 J	770 U	730 UJ	720 UJ
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	NA	210 J	390 J	460 J	150 J	270 J	160 J	250 J	770 U	730 UJ	720 UJ
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	NA	710 UJ	710 UJ	740 UJ	350 UJ	720 U	740 U	740 U	770 U	730 UJ	720 UJ
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	NA	100 J	210 J	210 J	59 J	110 J	89 J	98 J	770 U	730 UJ	720 UJ
CHRYSENE	UG/KG	EPA 8270C	NA	190 J	810	530 J	170 J	380 J	650 J	550 J	770 U	190 J	170 J
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	NA	710 UJ	710 UJ	740 UJ	350 UJ	720 U	740 U	740 U	770 U	730 UJ	720 UJ
FLUORANTHENE	UG/KG	EPA 8270C	NA	390 J	460 J	580 J	160 J	310 J	260 J	380 J	770 U	92 J	82 J
FLUORENE	UG/KG	EPA 8270C	NA	710 U	710 U	740 U	350 U	720 U	740 U	740 U	770 U	730 U	720 U
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	NA	710 UJ	710 UJ	740 UJ	350 UJ	720 U	740 U	740 U	770 U	730 UJ	720 UJ
NAPHTHALENE	UG/KG	EPA 8270C	NA	710 U	710 U	740 U	350 U	720 U	740 U	740 U	770 U	730 U	720 U
PHENANTHRENE	UG/KG	EPA 8270C	NA	230 J	240 J	230 J	110 J	280 J	190 J	180 J	770 U	120 J	83 J
PYRENE	UG/KG	EPA 8270C	NA	460 J	580 J	730 J	210 J	420 J	840	790	770 U	210 J	240 J
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	NA	35 UJ	35 UJ	73 UJ	35 UJ	35 UJ	36 UJ	36 UJ	19 UJ	72 UJ	72 UJ
4,4'-DDE	UG/KG	EPA 8081A	NA	11 J	35 U	73 U	35 U	35 U	50 J	79 J	19 U	32 J	17 J
4,4'-DDT	UG/KG	EPA 8081A	NA	40 J	23 J	80 J	36 J	8.8 J	1200 J	36 UJ	14 J	130 J	72 UJ
ALDRIN	UG/KG	EPA 8081A	NA	18 U	18 U	38 U	18 U	18 U	19 U	19 U	9.9 U	37 U	37 U
	2 UG/KG	EPA 8081A	NA	18 U	18 U	38 U	18 U	18 U	19 U	19 U	9.9 U	37 U	37 U
BETA-BHC	UG/KG	EPA 8081A	NA	18 UJ	18 U	38 U	18 U	18 U	5.2 J	19 U	9.9 U	37 U	37 U
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	NA	320 U	320 U	670 U	320 U	320 U	330 U	330 U	180 U	650 U	660 U
DELTA-BHC	UG/KG	EPA 8081A	NA	18 U	18 U	38 U	18 U	18 U	19 U	19 U	9.9 U	37 U	37 U
DIELDRIN	UG/KG	EPA 8081A	NA	35 U	35 U	73 U	35 U	35 U	36 U	36 U	19 U	65 J	72 U
ENDOSULFAN I	UG/KG	EPA 8081A	NA	18 U	18 U	38 U	18 U	18 U	3.1 J	3.4 J	9.9 U	37 U	37 U
ENDOSULFAN II	UG/KG	EPA 8081A	NA	35 U	35 U	73 U	35 U	35 U	36 U	36 U	19 U	72 U	72 U
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	NA	100	43	36 J	77	51 J	530	870	23 J	440	220
ENDRIN	UG/KG	EPA 8081A	NA	23 J	35 U	73 U	35 U	35 U	36 U	36 U	19 U	72 U	72 U
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	NA	35 U	35 U	39 J	35 U	35 U	450	36 U	19 U	72 U	72 U
ENDRIN KETONE	UG/KG	EPA 8081A	NA	35 U	35 U	73 U	35 U	35 U	36 U	36 U	19 U	72 U	72 U
GAMMA-BHC	UG/KG	EPA 8081A	NA	18 U	18 U	38 U	18 U	18 U	2.7 J	19 U	9.9 U	37 U	37 U
HEPTACHLOR	UG/KG	EPA 8081A	NA	18 U	18 U	38 U	18 U	18 U	19 U	19 U	9.9 U	37 U	37 U
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	NA	18 U	18 U	38 U	18 U	16 J	120	190	7.5 J	37 U	66
METHOXYCHLOR	UG/KG	EPA 8081A	NA	180 UJ	180 UJ	380 UJ	180 UJ	180 UJ	190 UJ	240 J	99 UJ	370 UJ	370 UJ
TOXAPHENE	UG/KG	EPA 8081A	NA	640 U	640 U	1300 U	630 U	650 U	660 U	660 U	350 U	1300 U	1300 U
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	18 U	51 U	20 U	11 U	51 U	52 U	210 U	530 U	22 U	210 U	110 U
AROCLOR-1221	UG/KG	EPA 8082	36 U	100 U	41 U	21 U	100 U	100 U	420 U	1100 U	45 U	420 U	210 U
AROCLOR-1232	UG/KG	EPA 8082	18 U	51 U	20 U	11 U	51 U	52 U	210 U	530 U	22 U	210 U	110 U
AROCLOR-1242	UG/KG	EPA 8082	18 U	51 U	20 U	11 U	51 U	52 U	210 U	530 U	22 U	210 U	110 U
AROCLOR-1248	UG/KG	EPA 8082	18 U	51 U	20 U	11 U	51 U	52 U	210 U	530 U	22 U	210 U	110 U
AROCLOR-1254	UG/KG	EPA 8082	18 U	51 U	20 U	11 U	51 U	52 U	210 U	530 U	22 U	210 U	110 U

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1360 (FD)	84-1361	84-1362 (FD)	84-1363	84-1364	84-1365 (FD)	84-1366	84-1367 (FD)	84-1368	84-1369	84-1370 (FD)
Location:			GRID 59 BOTTOM	GRID 66 SIDEWALL	GRID 66 SIDEWALL	GRID 66 SIDEWALL	GRID 65 SIDEWALL	GRID 65 SIDEWALL	GRID 54 SIDEWALL	GRID 54 SIDEWALL	GRID 65 SIDEWALL	GRID 55 SIDEWALL	GRID 55 SIDEWALL
Sample Date:			7/18/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006
Start Depth:			13.9	2	2	3	3	0	3	0	4	2.8	0
End Depth:			14.4	2.1	2.2	3.7	3	3	3	3	4.5	2.8	2.8
Analyte	**Units**	**Method**											
AROCLOR-1260	UG/KG	EPA 8082	18 U	2500	860	520	1800	1600	11000	24000	560	11000	6500
Total PCBs	UG/KG	EPA 8082	ND	2500	860	520	1800	1600	11000	24000	560	11000	6500
Metals													
MERCURY	MG/KG	EPA 7471A	NA	1.5 J	0.45 J	0.43 J	0.23 J	0.47 J	0.96 J	1.1 J	0.05 J	0.4 J	0.3 J
ANTIMONY	MG/KG	EPA 6010B	NA	1.9 J	1.5 J	0.68 J	2.1 J	1.4 J	9.3	1.5 J	0.28 J	0.42 J	3.3 U
ARSENIC	MG/KG	EPA 6010B	NA	4.8	9	6.1	16	9.3	4.5	3.5	1.9	2.6	2.3 U
BARIUM	MG/KG	EPA 6010B	NA	83	87	120	82	93	75	74	88	180	120
BERYLLIUM	MG/KG	EPA 6010B	NA	0.5	0.77	0.41	0.74	0.77	0.22	0.24	0.2	0.21	0.18
CADMIUM	MG/KG	EPA 6010B	NA	0.34	0.32	0.27 J	0.34	0.34	0.46	0.43	0.2 J	0.24 J	0.23 J
CHROMIUM	MG/KG	EPA 6010B	NA	69	66	190	67	70	310	280	380	240	310
COBALT	MG/KG	EPA 6010B	NA	14	19	27	18	19	40	40	64	38	46
COPPER	MG/KG	EPA 6010B	NA	110	69	48	100	140	7700	260	23	73	57
LEAD	MG/KG	EPA 6010B	NA	72	33	17	56	36	270	94	1.8	30	19
MOLYBDENUM	MG/KG	EPA 6010B	NA	0.64 J	0.53 UJ	0.61 J	0.62 J	0.62 J	1.3	0.75 J	0.081 UJ	0.33 UJ	0.3 UJ
NICKEL	MG/KG	EPA 6010B	NA	64	89	390	100	92	850	780	1400	760	970
SELENIUM	MG/KG	EPA 6010B	NA	0.27 U	0.27 U	0.27 U	0.27 U	0.22 UJ	5.2 U	0.23 UJ	0.29 U	2.3 U	2.3 U
SILVER	MG/KG	EPA 6010B	NA	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.28 U	0.28 U	0.29 U	0.27 U	0.27 U
THALLIUM	MG/KG	EPA 6010B	NA	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.28 U	0.28 U	0.29 U	0.27 U	0.27 U
VANADIUM	MG/KG	EPA 6010B	NA	60	57	55	56	58	53	51	46	43	43
ZINC	MG/KG	EPA 6010B	NA	160	98	74	110	120	520	160	37	62	53

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble standard

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1371	84-1372	84-1373 (FD)	84-1374	84-1375 (FD)	84-1376	84-1377 (FD)	84-1378	84-1379 (FD)	84-1380	84-1381 (FD)
Location:			GRID 55 SIDEWALL	GRID 56 SIDEWALL	GRID 56 SIDEWALL	GRID 56 SIDEWALL	GRID 56 SIDEWALL	GRID 57 BOTTOM	GRID 57 BOTTOM	GRID 57 BOTTOM	GRID 57 BOTTOM	GRID 57 BOTTOM	GRID 57 BOTTOM
Sample Date:			7/20/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006
Start Depth:			5	1.3	1.3	7.4	7.4	14.1	14.1	19.3	19.3	16.9	16.9
End Depth:			5.4	1.8	1.8	7.9	7.9	14.6	14.6	19.8	19.8	17.4	17.4
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	360 H	130 HY	540 HY	190 HY	320 HY	27 HY	13 HY	39 H	96 H	150 H	43 H
GASOLINE C6-C10	MG/KG	EPA 8015B	0.19 U	0.21 U	0.21 U	0.2 U	0.21 U	0.2 U	0.19 U	0.063 J	0.063 J	2.8	7.5
MOTOR OIL C24-C36	MG/KG	EPA 8015B	530 L	280 L	1100 L	500 L	610 L	36 L	21 L	46 L	80 L	97 L	40 L
Total TPH	MG/KG	EPA 8015B	890	410	1640	690	930	63	34	85	176	250	91
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	720 U	70 U	360 U	74 U	390 U	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	UG/KG	EPA 8270C	720 U	70 U	360 U	74 U	390 U	NA	NA	NA	NA	NA	NA
ANTHRACENE	UG/KG	EPA 8270C	720 U	4.3 J	360 U	9.9 J	31 J	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	720 U	19 J	40 J	16 J	62 J	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	UG/KG	EPA 8270C	720 U	18 J	41 J	22 J	91 J	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	720 U	30 J	50 J	38 J	120 J	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	720 U	15 J	360 U	17 J	83 J	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	720 U	15 J	38 J	21 J	48 J	NA	NA	NA	NA	NA	NA
CHRYSENE	UG/KG	EPA 8270C	720 U	98	210 J	66 J	270 J	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	720 U	70 UJ	360 U	74 UJ	390 UJ	NA	NA	NA	NA	NA	NA
FLUORANTHENE	UG/KG	EPA 8270C	73 J	51 J	120 J	34 J	110 J	NA	NA	NA	NA	NA	NA
FLUORENE	UG/KG	EPA 8270C	720 U	70 U	360 U	74 U	390 U	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	720 U	12 J	360 U	14 J	67 J	NA	NA	NA	NA	NA	NA
NAPHTHALENE	UG/KG	EPA 8270C	720 U	70 U	360 U	74 U	390 U	NA	NA	NA	NA	NA	NA
PHENANTHRENE	UG/KG	EPA 8270C	93 J	38 J	100 J	31 J	57 J	NA	NA	NA	NA	NA	NA
PYRENE	UG/KG	EPA 8270C	190 J	130	330 J	79	270 J	NA	NA	NA	NA	NA	NA
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	36 UJ	17 UJ	70 UJ	18 UJ	40 UJ	NA	NA	NA	NA	NA	NA
4,4'-DDE	UG/KG	EPA 8081A	130 J	6.4 J	9 J	1.6 J	9.9 J	NA	NA	NA	NA	NA	NA
4,4'-DDT	UG/KG	EPA 8081A	570 J	74 J	120 J	19 J	260 J	NA	NA	NA	NA	NA	NA
ALDRIN	UG/KG	EPA 8081A	19 U	8.9 UJ	36 UJ	9.2 UJ	20 UJ	NA	NA	NA	NA	NA	NA
	2 UG/KG	EPA 8081A	19 U	8.9 U	36 U	9.2 U	20 U	NA	NA	NA	NA	NA	NA
BETA-BHC	UG/KG	EPA 8081A	19 U	8.9 UJ	36 UJ	9.2 UJ	20 UJ	NA	NA	NA	NA	NA	NA
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	330 U	160 U	640 U	160 U	360 U	NA	NA	NA	NA	NA	NA
DELTA-BHC	UG/KG	EPA 8081A	19 U	8.9 U	36 U	9.2 U	20 U	NA	NA	NA	NA	NA	NA
DIELDRIN	UG/KG	EPA 8081A	36 U	120 J	130 J	22 J	40 UJ	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	UG/KG	EPA 8081A	19 U	1.8 J	36 U	9.2 U	2.1 J	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	UG/KG	EPA 8081A	36 U	17 UJ	70 UJ	18 UJ	340 J	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	1300	160 J	280	49	380 J	NA	NA	NA	NA	NA	NA
ENDRIN	UG/KG	EPA 8081A	36 U	67 J	140 J	19 J	7.3 J	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	36 U	17 U	70 U	12 J	52 J	NA	NA	NA	NA	NA	NA
ENDRIN KETONE	UG/KG	EPA 8081A	36 U	450 J	800 J	130 J	150 J	NA	NA	NA	NA	NA	NA
GAMMA-BHC	UG/KG	EPA 8081A	19 U	8.9 U	36 U	9.2 U	20 U	NA	NA	NA	NA	NA	NA
HEPTACHLOR	UG/KG	EPA 8081A	19 U	8.9 U	36 U	9.2 U	20 U	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	410	66 J	36 UJ	22 J	90 J	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	UG/KG	EPA 8081A	510 J	40 J	71 J	12 J	57 J	NA	NA	NA	NA	NA	NA
TOXAPHENE	UG/KG	EPA 8081A	660 U	320 U	1300 U	330 U	720 U	NA	NA	NA	NA	NA	NA
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	1100 U	250 U	410 U	100 U	290 U	11 U	11 U	15 U	14 U	12 U	11 U
AROCLOR-1221	UG/KG	EPA 8082	2100 U	500 U	820 U	210 U	580 U	23 U	22 U	29 U	27 U	24 U	23 U
AROCLOR-1232	UG/KG	EPA 8082	1100 U	250 U	410 U	100 U	290 U	11 U	11 U	15 U	14 U	12 U	11 U
AROCLOR-1242	UG/KG	EPA 8082	1100 U	250 UJ	410 UJ	100 UJ	290 UJ	11 UJ	11 UJ	15 U	14 U	12 U	11 U
AROCLOR-1248	UG/KG	EPA 8082	1100 U	250 UJ	410 UJ	100 UJ	290 UJ	11 UJ	11 UJ	15 U	14 U	12 U	11 U
AROCLOR-1254	UG/KG	EPA 8082	1100 U	250 UJ	410 UJ	100 UJ	290 UJ	11 UJ	11 UJ	15 U	14 U	12 U	11 U

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1371	84-1372	84-1373 (FD)	84-1374	84-1375 (FD)	84-1376	84-1377 (FD)	84-1378	84-1379 (FD)	84-1380	84-1381 (FD)
Location:			GRID 55 SIDEWALL	GRID 56 SIDEWALL	GRID 56 SIDEWALL	GRID 56 SIDEWALL	GRID 56 SIDEWALL	GRID 57 BOTTOM	GRID 57 BOTTOM	GRID 57 BOTTOM	GRID 57 BOTTOM	GRID 57 BOTTOM	GRID 57 BOTTOM
Sample Date:			7/20/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006
Start Depth:			5	1.3	1.3	7.4	7.4	14.1	14.1	19.3	19.3	16.9	16.9
End Depth:			5.4	1.8	1.8	7.9	7.9	14.6	14.6	19.8	19.8	17.4	17.4
Analyte	**Units**	**Method**											
AROCLOR-1260	UG/KG	EPA 8082	51000	11000 J	17000 J	3400 J	15000 J	27 J	11 J	12 J	4.2 J	12	14
Total PCBs	UG/KG	EPA 8082	51000	11000	17000	3400	15000	27	11 J	12 J	4.2 J	12	14
Metals													
MERCURY	MG/KG	EPA 7471A	0.45 J	0.16 J	0.2 J	0.15 J	0.57 J	NA	NA	NA	NA	NA	NA
ANTIMONY	MG/KG	EPA 6010B	0.98 J	3.1 U	0.21 J	1.1 J	0.67 J	NA	NA	NA	NA	NA	NA
ARSENIC	MG/KG	EPA 6010B	2.9	2.6	2.7	4.4	2.4	NA	NA	NA	NA	NA	NA
BARIUM	MG/KG	EPA 6010B	75	68	77	65	57	NA	NA	NA	NA	NA	NA
BERYLLIUM	MG/KG	EPA 6010B	0.18	0.15	0.15	0.21	0.15	NA	NA	NA	NA	NA	NA
CADMIUM	MG/KG	EPA 6010B	0.29	0.29	0.33	0.44	0.27 J	NA	NA	NA	NA	NA	NA
CHROMIUM	MG/KG	EPA 6010B	300	280	340	260	250	NA	NA	NA	NA	NA	NA
COBALT	MG/KG	EPA 6010B	36	53	52	42	51	NA	NA	NA	NA	NA	NA
COPPER	MG/KG	EPA 6010B	160	80	140	240	91	NA	NA	NA	NA	NA	NA
LEAD	MG/KG	EPA 6010B	38	14	130	55	20	NA	NA	NA	NA	NA	NA
MOLYBDENUM	MG/KG	EPA 6010B	0.38 UJ	0.28 UJ	0.43 UJ	0.83 UJ	0.42 UJ	NA	NA	NA	NA	NA	NA
NICKEL	MG/KG	EPA 6010B	750	940	1000	820	1300	NA	NA	NA	NA	NA	NA
SELENIUM	MG/KG	EPA 6010B	1.9 U	1.3	1.5	1.7	1.3	NA	NA	NA	NA	NA	NA
SILVER	MG/KG	EPA 6010B	0.27 U	0.26 U	0.27 U	0.27 U	0.3 U	NA	NA	NA	NA	NA	NA
THALLIUM	MG/KG	EPA 6010B	0.27 U	0.26 U	0.27 U	0.27 U	0.3 U	NA	NA	NA	NA	NA	NA
VANADIUM	MG/KG	EPA 6010B	46	46	40	46	33	NA	NA	NA	NA	NA	NA
ZINC	MG/KG	EPA 6010B	93	54	110	140	69	NA	NA	NA	NA	NA	NA

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1382	84-1383 (FD)	84-1384	84-1385 (FD)	84-1386	84-1387 (FD)	84-1388	84-1389 (FD)	84-1390	84-1391 (FD)	84-1392
Location:			GRID 58 SIDEWALL	GRID 58 SIDEWALL	GRID 58 SIDEWALL	GRID 58 SIDEWALL	GRID 60 SIDEWALL	GRID 60 SIDEWALL	GRID 60 SIDEWALL	GRID 60 SIDEWALL	GRID 65 BOTTOM	GRID 65 BOTTOM	GRID 66 BOTTOM
Sample Date:			7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/24/2006	7/24/2006	7/24/2006	7/24/2006	7/24/2006	7/24/2006	7/24/2006
Start Depth:			2.1	2.1	6	6	2.8	2.8	4.6	4.6	5.5	5.5	5.6
End Depth:			2.5	2.5	6.5	6.5	3.3	3.3	5.1	5.1	6	6	7.1
Analyte	Units	Method											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	2900 HY	3100 HY	7500 HY	8900 HY	280 HY	520 HY	6000 HY	8300 HY	930 HY	470 HY	180 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	0.025 J	0.038 J	1.6 HYJ	2.3 HY	0.22 U	0.27 U	0.51 HY	0.19 J	0.21 U	0.21 U	0.24 U
MOTOR OIL C24-C36	MG/KG	EPA 8015B	5400 L	6700 L	14000 L	18000 L	930 L	2300 L	11000 L	14000 L	1700 L	1100 L	430 L
Total TPH	MG/KG	EPA 8015B	8300	9800	21502	26902	1210	2820	17001	22300	2630	1570	610
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	2100 U	3600 U	3600 U	14000 U	340 U	670 U	260 J	3400 U	NA	NA	NA
ACENAPHTHYLENE	UG/KG	EPA 8270C	2100 U	3600 U	3600 U	14000 U	340 U	670 U	2100 U	3400 U	NA	NA	NA
ANTHRACENE	UG/KG	EPA 8270C	2100 U	3600 U	3600 U	14000 U	21 J	670 U	620 J	420 J	NA	NA	NA
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	230 J	390 J	3600 U	14000 U	110 J	110 J	1800 J	1800 J	NA	NA	NA
BENZO(A)PYRENE	UG/KG	EPA 8270C	350 J	480 J	3600 U	14000 U	93 J	130 J	860 J	1100 J	NA	NA	NA
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	420 J	750 J	340 J	14000 U	200 J	340 J	2200 J	2600 J	NA	NA	NA
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	2100 UJ	3600 U	3600 U	14000 U	110 J	200 J	860 J	1200 J	NA	NA	NA
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	290 J	3600 U	3600 U	14000 U	73 J	150 J	1100 J	1200 J	NA	NA	NA
CHRYSENE	UG/KG	EPA 8270C	1100 J	1500 J	1300 J	14000 U	130 J	400 J	11000	12000	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	2100 UJ	3600 U	3600 U	14000 U	340 UJ	670 UJ	2100 UJ	3400 UJ	NA	NA	NA
FLUORANTHENE	UG/KG	EPA 8270C	390 J	580 J	710 J	14000 U	200 J	180 J	4400	4600	NA	NA	NA
FLUORENE	UG/KG	EPA 8270C	2100 U	3600 U	3600 U	14000 U	340 U	670 U	2100 U	3400 U	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	2100 UJ	3600 U	3600 U	14000 U	97 J	170 J	830 J	870 J	NA	NA	NA
NAPHTHALENE	UG/KG	EPA 8270C	2100 U	3600 U	3600 U	14000 U	340 U	670 U	2100 U	3400 U	NA	NA	NA
PHENANTHRENE	UG/KG	EPA 8270C	180 J	310 J	780 J	900 J	100 J	130 J	5800	4600	NA	NA	NA
PYRENE	UG/KG	EPA 8270C	1200 J	1500 J	1800 J	1900 J	270 J	420 J	13000	14000	NA	NA	NA
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	59 J	25 J	2.6 J	3.4 J	69 U	34 UJ	68 UJ	68 UJ	NA	NA	NA
4,4'-DDE	UG/KG	EPA 8081A	35 J	16 J	18 UJ	4.6 J	57 J	61 J	68 UJ	120 J	NA	NA	NA
4,4'-DDT	UG/KG	EPA 8081A	200 J	220 J	5.7 J	16 J	1400 J	76 J	150 J	120 J	NA	NA	NA
ALDRIN	UG/KG	EPA 8081A	35 UJ	36 UJ	9.2 UJ	18 UJ	36 U	18 U	39 J	35 UJ	NA	NA	NA
	2 UG/KG	EPA 8081A	35 U	36 U	9.2 U	18 U	36 U	18 UJ	35 U	35 U	NA	NA	NA
BETA-BHC	UG/KG	EPA 8081A	16 J	36 UJ	9.2 UJ	18 UJ	36 U	18 UJ	17 J	35 UJ	NA	NA	NA
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	620 U	630 U	160 U	320 U	630 U	310 U	620 U	620 U	NA	NA	NA
DELTA-BHC	UG/KG	EPA 8081A	35 U	36 U	9.2 U	2.7 J	36 U	18 UJ	35 UJ	35 UJ	NA	NA	NA
DIELDRIN	UG/KG	EPA 8081A	240 J	220 J	6.9 J	31 J	69 U	170 J	68 UJ	170 J	NA	NA	NA
ENDOSULFAN I	UG/KG	EPA 8081A	10 J	36 U	1.6 J	1.5 J	36 U	4.1 J	35 U	35 U	NA	NA	NA
ENDOSULFAN II	UG/KG	EPA 8081A	68 UJ	240 J	7.5 J	35 UJ	69 U	99 J	110 J	110 J	NA	NA	NA
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	580	540	19	45	500	270	68 U	250	NA	NA	NA
ENDRIN	UG/KG	EPA 8081A	180 J	180 J	8.7 J	18 J	210 J	45 J	150 J	170 J	NA	NA	NA
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	68 U	70 U	18 U	9.5 J	69 U	34 U	32 J	27 J	NA	NA	NA
ENDRIN KETONE	UG/KG	EPA 8081A	1800 J	1600 J	52 J	130 J	69 U	1100 J	1200	1300 J	NA	NA	NA
GAMMA-BHC	UG/KG	EPA 8081A	9.7 J	4.9 J	1 J	18 U	36 U	18 U	6.6 J	6.6 J	NA	NA	NA
HEPTACHLOR	UG/KG	EPA 8081A	35 U	36 U	9.2 U	18 U	36 U	18 U	48 J	24 J	NA	NA	NA
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	35 UJ	36 UJ	9.2 UJ	18 UJ	180	18 UJ	190 J	35 UJ	NA	NA	NA
METHOXYCHLOR	UG/KG	EPA 8081A	150 J	120 J	33 J	24 J	150 J	270 J	330 J	100 J	NA	NA	NA
TOXAPHENE	UG/KG	EPA 8081A	1200 U	1300 U	320 U	640 U	1300 U	620 U	1200 U	1200 U	NA	NA	NA
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	500 U	510 U	10 U	51 U	500 UJ	200 U	250 UJ	200 U	2300 UJ	4600 UJ	230 U
AROCLOR-1221	UG/KG	EPA 8082	990 U	1000 U	21 U	100 U	1000 UJ	400 U	490 UJ	390 U	4500 UJ	9200 UJ	470 U
AROCLOR-1232	UG/KG	EPA 8082	500 U	510 U	10 U	51 U	500 UJ	200 U	250 UJ	200 U	2300 UJ	4600 UJ	230 U
AROCLOR-1242	UG/KG	EPA 8082	500 U	510 U	10 U	51 U	500 UJ	200 U	250 UJ	200 U	2300 UJ	4600 UJ	230 U
AROCLOR-1248	UG/KG	EPA 8082	500 U	510 U	10 U	51 U	500 UJ	200 U	250 UJ	200 U	2300 UJ	4600 UJ	230 U
AROCLOR-1254	UG/KG	EPA 8082	500 U	510 U	10 U	51 U	500 UJ	200 U	250 UJ	200 U	2300 UJ	4600 UJ	230 U

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1382	84-1383 (FD)	84-1384	84-1385 (FD)	84-1386	84-1387 (FD)	84-1388	84-1389 (FD)	84-1390	84-1391 (FD)	84-1392
Location:			GRID 58 SIDEWALL	GRID 58 SIDEWALL	GRID 58 SIDEWALL	GRID 58 SIDEWALL	GRID 60 SIDEWALL	GRID 60 SIDEWALL	GRID 60 SIDEWALL	GRID 60 SIDEWALL	GRID 65 BOTTOM	GRID 65 BOTTOM	GRID 66 BOTTOM
Sample Date:			7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/24/2006	7/24/2006	7/24/2006	7/24/2006	7/24/2006	7/24/2006	7/24/2006
Start Depth:			2.1	2.1	6	6	2.8	2.8	4.6	4.6	5.5	5.5	5.6
End Depth:			2.5	2.5	6.5	6.5	3.3	3.3	5.1	5.1	6	6	7.1
Analyte	**Units**	**Method**											
AROCLOR-1260	UG/KG	EPA 8082	29000	34000	560	2000	26000 J	13000	12000 J	12000	82000 J	240000 J	8200
Total PCBs	UG/KG	EPA 8082	29000	34000	560	2000	26000	13000	12000	12000	82000	240000	8200
Metals													
MERCURY	MG/KG	EPA 7471A	3.1 J	3.3 J	0.18 J	0.89 J	6.3	3.6	21	28	NA	NA	NA
ANTIMONY	MG/KG	EPA 6010B	11	7.7	0.41 J	0.36 J	15 J	11 J	12 J	14 J	NA	NA	NA
ARSENIC	MG/KG	EPA 6010B	5.8	5.7	4	3	4.9 J	5.3 J	3.8 J	3.5 J	NA	NA	NA
BARIUM	MG/KG	EPA 6010B	110	100	67	63	96	94	400	420	NA	NA	NA
BERYLLIUM	MG/KG	EPA 6010B	0.22	0.22	0.17	0.14	0.23	0.21	0.056 J	0.053 J	NA	NA	NA
CADMIUM	MG/KG	EPA 6010B	2.2	2.2	0.47	0.5	1.2 J	0.8 J	1.9 J	2.4 J	NA	NA	NA
CHROMIUM	MG/KG	EPA 6010B	290	220	87	120	220 J	240 J	180 J	190 J	NA	NA	NA
COBALT	MG/KG	EPA 6010B	14	13	13	12	20	16	2.1	3.5	NA	NA	NA
COPPER	MG/KG	EPA 6010B	2700	2700	400	590	960	740	3700	3600	NA	NA	NA
LEAD	MG/KG	EPA 6010B	490	480	50	47	360 J	660 J	600 J	520 J	NA	NA	NA
MOLYBDENUM	MG/KG	EPA 6010B	3.1	2.9	0.57 UJ	0.73 J	2.5	2.7	2.1	1 UJ	NA	NA	NA
NICKEL	MG/KG	EPA 6010B	300	290	130	96	330	310	32	48	NA	NA	NA
SELENIUM	MG/KG	EPA 6010B	1.4	1.3	1.1	1.1	1.9	1.5	0.87	1.5	NA	NA	NA
SILVER	MG/KG	EPA 6010B	0.26 U	0.27 U	0.27 U	0.27 U	0.26 UJ	0.27 UJ	0.26 UJ	0.26 UJ	NA	NA	NA
THALLIUM	MG/KG	EPA 6010B	0.11 UJ	0.27 U	0.26 UJ	0.27 U	0.074 UJ	0.27 U	0.25 UJ	0.2 UJ	NA	NA	NA
VANADIUM	MG/KG	EPA 6010B	420	520	66	58	89 J	68 J	33 J	50 J	NA	NA	NA
ZINC	MG/KG	EPA 6010B	1400	1200	200	180	640	380	1500	1700	NA	NA	NA

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1393 (FD)	84-1406	84-1407 (FD)	84-1408	84-1409 (FD)	84-1410	84-1411 (FD)	84-1412	84-1413 (FD)	84-1414	84-1415 (FD)
Location:			GRID 66 BOTTOM	GRID 37 SIDEWALL	GRID 37 SIDEWALL	GRID 37 SIDEWALL	GRID 37 SIDEWALL	GRID 57-1 SIDEWALL	GRID 57-1 SIDEWALL	GRID 57-1 SIDEWALL	GRID 57-1 SIDEWALL	GRID 58-1 SIDEWALL	GRID 58-1 SIDEWALL
Sample Date:			7/24/2006	7/31/2006	7/31/2006	7/31/2006	7/31/2006	7/31/2006	7/31/2006	7/31/2006	7/31/2006	8/1/2006	8/1/2006
Start Depth:			5.6	1.1	1.1	4.6	4.6	0.8	0.8	8	8	2.2	2.2
End Depth:			7.1	1.6	1.6	5.1	5.1	1.3	1.3	8.5	8.5	2.7	2.7
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	170 HY	1600 H	1400 H	1100 H	1500 H	830 H	1400 H	9800 H	5400 H	1100 HY	2200 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	0.19 U	0.072 J	0.042 J	0.15 J	0.042 J	0.14 J	0.1 J	44 HY	46 HY	0.2 UJ	0.029 J
MOTOR OIL C24-C36	MG/KG	EPA 8015B	330 L	2000 L	2100 L	2800 L	2500 L	1600 L	2600 L	7000 L	3900 L	2200 Y	3400 Y
Total TPH	MG/KG	EPA 8015B	500	3600	3500	3900	4000	2430	4000	16844	9346	3300	5600
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	NA	440 J	220 J	750 U	780 U	710 U	750 U	2300 J	1600 J	1400 U	700 U
ACENAPHTHYLENE	UG/KG	EPA 8270C	NA	730 U	740 U	750 U	780 U	710 U	750 U	8000 U	7800 U	1400 U	700 U
ANTHRACENE	UG/KG	EPA 8270C	NA	390 J	190 J	750 U	140 J	710 U	750 U	1500 J	7800 U	1400 U	480 J
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	NA	240 J	200 J	750 U	130 J	710 U	150 J	8000 U	7800 U	1100 J	3300
BENZO(A)PYRENE	UG/KG	EPA 8270C	NA	180 J	180 J	750 U	780 U	710 U	750 U	8000 U	7800 U	1200 J	2900
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	NA	730 U	740 U	750 U	780 U	710 U	750 U	8000 U	7800 U	2000	2700
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	NA	730 U	740 U	750 U	780 U	710 U	750 U	8000 U	7800 U	920 J	700 U
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	NA	730 U	740 U	750 U	780 U	710 U	750 U	8000 U	7800 U	2000	3800
CHRYSENE	UG/KG	EPA 8270C	NA	480 J	450 J	210 J	310 J	390 J	600 J	8000 U	7800 U	7500	7900
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	NA	730 U	740 U	750 U	780 U	710 U	750 U	8000 U	7800 U	1400 U	610 J
FLUORANTHENE	UG/KG	EPA 8270C	NA	370 J	390 J	750 U	240 J	200 J	320 J	8000 U	7800 U	2900	5900
FLUORENE	UG/KG	EPA 8270C	NA	730	310 J	750 U	210 J	710 U	750 U	3200 J	2200 J	1400 U	700 U
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	NA	730 U	740 U	750 U	780 U	710 U	750 U	8000 U	7800 U	770 J	700 U
NAPHTHALENE	UG/KG	EPA 8270C	NA	1300	500 J	750 U	270 J	710 U	750 U	7500 J	6400 J	1400 U	700 U
PHENANTHRENE	UG/KG	EPA 8270C	NA	2100	940	190 J	700 J	150 J	400 J	8100	5900 J	1400 U	1200
PYRENE	UG/KG	EPA 8270C	NA	1000	780	180 J	420 J	240 J	490 J	2800 J	1800 J	2900	6200
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	NA	72 U	1200	190 U	760 U	35 U	74 U	200 U	200 U	9.1 J	6 J
4,4'-DDE	UG/KG	EPA 8081A	NA	72 U	45 J	1000 J	630 J	35 U	18 J	200 U	200 U	3.1 J	9 J
4,4'-DDT	UG/KG	EPA 8081A	NA	72 U	74 U	190 U	760 U	100 J	74 U	200 U	200 U	29 J	31 J
ALDRIN	UG/KG	EPA 8081A	NA	37 U	38 U	96 U	390 U	18 U	38 U	100 U	100 U	17 U	18 U
	2 UG/KG	EPA 8081A	NA	37 U	38 U	96 U	390 UJ	18 U	38 UJ	100 UJ	100 UJ	17 U	18 U
BETA-BHC	UG/KG	EPA 8081A	NA	37 U	38 U	96 U	390 UJ	18 U	38 UJ	100 UJ	100 UJ	17 U	18 U
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	NA	650 U	680 U	1700 U	6900 U	320 U	670 U	1800 U	1800 U	310 U	320 U
DELTA-BHC	UG/KG	EPA 8081A	NA	37 U	38 U	96 U	390 U	18 U	38 U	100 U	100 U	17 U	18 U
DIELDRIN	UG/KG	EPA 8081A	NA	19 J	250	6800	4600	20 J	110	200 U	200 U	24 J	13 J
ENDOSULFAN I	UG/KG	EPA 8081A	NA	37 U	38 U	96 U	390 U	18 U	38 U	100 U	100 U	4.7 J	8.2 J
ENDOSULFAN II	UG/KG	EPA 8081A	NA	72 U	130 J	3200 J	2300 J	8.7 J	54 J	200 U	200 U	34 U	35 U
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	NA	72 U	280 J	7400	4800 J	23 J	110 J	200 U	200 U	29 J	31 J
ENDRIN	UG/KG	EPA 8081A	NA	72 U	85 J	2300 J	1200 J	6.5 J	38 J	200 U	200 U	34 U	6.7 J
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	NA	72 U	74 U	190 U	760 U	35 U	74 U	200 U	200 U	34 UJ	35 UJ
ENDRIN KETONE	UG/KG	EPA 8081A	NA	72 U	74 U	380 J	220 J	35 U	74 UJ	200 UJ	200 UJ	120	150
GAMMA-BHC	UG/KG	EPA 8081A	NA	37 U	38 U	96 U	390 U	18 U	38 U	100 U	100 U	2.1 J	18 U
HEPTACHLOR	UG/KG	EPA 8081A	NA	37 U	38 U	96 U	390 U	18 U	38 U	100 U	100 U	3.1 J	18 U
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	NA	37 U	120	2600	1900	13 J	58	100 U	100 U	17 U	18 U
METHOXYCHLOR	UG/KG	EPA 8081A	NA	370 UJ	380 UJ	1800 J	3900 UJ	180 UJ	380 UJ	1000 UJ	1000 UJ	39 J	110 J
TOXAPHENE	UG/KG	EPA 8081A	NA	1300 U	1400 U	3400 U	14000 U	640 U	1300 U	3700 U	3600 U	610 U	630 U
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	110 U	10 U	110 U	5400 U	2200 U	10 U	54 U	12 U	11 U	20 U	20 U
AROCLOR-1221	UG/KG	EPA 8082	220 U	21 U	220 U	11000 U	4400 U	20 U	110 U	23 U	23 U	39 U	41 U
AROCLOR-1232	UG/KG	EPA 8082	110 U	10 U	110 U	5400 U	2200 U	10 U	54 U	12 U	11 U	20 U	20 U
AROCLOR-1242	UG/KG	EPA 8082	110 U	10 U	110 U	5400 U	2200 U	10 U	54 U	12 U	11 U	20 U	20 U
AROCLOR-1248	UG/KG	EPA 8082	110 U	10 U	110 U	5400 U	2200 U	10 U	54 U	12 U	11 U	20 U	20 U
AROCLOR-1254	UG/KG	EPA 8082	110 U	10 U	110 U	5400 U	2200 U	10 U	54 U	12 U	11 U	620	1000

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1393 (FD)	84-1406	84-1407 (FD)	84-1408	84-1409 (FD)	84-1410	84-1411 (FD)	84-1412	84-1413 (FD)	84-1414	84-1415 (FD)
Location:			GRID 66 BOTTOM	GRID 37 SIDEWALL	GRID 37 SIDEWALL	GRID 37 SIDEWALL	GRID 37 SIDEWALL	GRID 57-1 SIDEWALL	GRID 57-1 SIDEWALL	GRID 57-1 SIDEWALL	GRID 57-1 SIDEWALL	GRID 58-1 SIDEWALL	GRID 58-1 SIDEWALL
Sample Date:			7/24/2006	7/31/2006	7/31/2006	7/31/2006	7/31/2006	7/31/2006	7/31/2006	7/31/2006	7/31/2006	8/1/2006	8/1/2006
Start Depth:			5.6	1.1	1.1	4.6	4.6	0.8	0.8	8	8	2.2	2.2
End Depth:			7.1	1.6	1.6	5.1	5.1	1.3	1.3	8.5	8.5	2.7	2.7
Analyte	**Units**	**Method**											
AROCLOR-1260	UG/KG	EPA 8082	2200	170	5100	200000	93000	340	1900	12 U	11 U	1000	1200
Total PCBs	UG/KG	EPA 8082	2200	170	5100	200000	93000	340	1900	ND	ND	1620	2200
Metals													
MERCURY	MG/KG	EPA 7471A	NA	0.11 J	0.89 J	0.69 J	0.99 J	0.94 J	0.59 J	0.013 J	0.023 J	26 J	12 J
ANTIMONY	MG/KG	EPA 6010B	NA	3.7	3.1 J	1.8 J	2.4 J	2.2 J	2.1 J	3.1 J	2.1 J	9.7	6.9
ARSENIC	MG/KG	EPA 6010B	NA	3.1	2.5	2.4	3	2	1.7	0.81 U	0.26 UJ	4.1	3.9
BARIUM	MG/KG	EPA 6010B	NA	110	65	50	55	51	66	24	18	220	150
BERYLLIUM	MG/KG	EPA 6010B	NA	0.21	0.15	0.13	0.12	0.16	0.16	0.051 J	0.12 U	0.068 J	0.058 J
CADMIUM	MG/KG	EPA 6010B	NA	0.27 U	0.28 U	0.069 UJ	0.16 UJ	0.16 UJ	0.099 UJ	0.3 U	0.29 U	2.5	2.7
CHROMIUM	MG/KG	EPA 6010B	NA	270	380	240	170	110	190	370	610	250	320
COBALT	MG/KG	EPA 6010B	NA	46	57	42	46	31	29	86	79	3.5	4
COPPER	MG/KG	EPA 6010B	NA	58	61	120	480	330	130	6.4	2.7	4400	4900
LEAD	MG/KG	EPA 6010B	NA	13	9.9	52	210	52	24	0.18 U	0.18 U	680	670
MOLYBDENUM	MG/KG	EPA 6010B	NA	0.45 UJ	0.39 UJ	0.23 UJ	0.42 UJ	0.4 UJ	0.32 UJ	0.57 UJ	0.39 UJ	2	1.6
NICKEL	MG/KG	EPA 6010B	NA	900	1200	730	820	380	460	1700	1600	48	38
SELENIUM	MG/KG	EPA 6010B	NA	0.95	0.28 U	0.26 J	0.29 U	0.28 U	0.28 U	0.3 U	0.28 J	0.88	1.1
SILVER	MG/KG	EPA 6010B	NA	0.27 U	0.28 U	0.22 J	0.24 J	0.12 J	0.11 J	0.3 U	0.29 U	0.52	0.61
THALLIUM	MG/KG	EPA 6010B	NA	0.27 U	0.28 U	0.28 U	0.29 U	0.28 U	0.28 U	0.3 U	0.29 U	0.26 U	0.26 U
VANADIUM	MG/KG	EPA 6010B	NA	46	35	31	43	36	36	27	25	35	24
ZINC	MG/KG	EPA 6010B	NA	56	48	140	210	130	74	29	22	1600	1700

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1416	84-1417 (FD)	84-1450	84-1451	84-1452	84-1453	84-1454	84-1455	84-1456	84-1457	84-1458
Location:			GRID 58-1 SIDEWALL	GRID 58-1 SIDEWALL	GRID 65 BOTTOM	GRID 114 BOTTOM	GRID 64 SIDEWALL	GRID 72 SIDEWALL	GRID 72 SIDEWALL	GRID 174 SIDEWALL	GRID 177 SIDEWALL	GRID 177 SIDEWALL	GRID 172 SIDEWALL
Sample Date:			8/1/2006	8/1/2006	8/21/2006	8/29/2006	8/29/2006	8/29/2006	8/29/2006	8/29/2006	8/29/2006	8/29/2006	8/29/2006
Start Depth:			8	8	8	8	2.9	3	4.6	3	2.8	6	2.9
End Depth:			8.5	8.5	8.7	8.5	3.4	3.5	5.1	3.5	3.3	6.5	3.4
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	280 HY	55 HY	32 HY	16 HY	82 H	54 H	27 H	NA	22 HY	420 HY	NA
GASOLINE C6-C10	MG/KG	EPA 8015B	0.59 HY	0.9 HY	J	0.35 U	0.19 U	0.19 U	0.19 U	NA	0.2 U	0.15 J	NA
MOTOR OIL C24-C36	MG/KG	EPA 8015B	620	260	0.2 U	42 HL	180 L	140 L	61 L	NA	150 H	1700 L	NA
Total TPH	MG/KG	EPA 8015B	901	316	124	58	262	194	88	NA	172	2120	NA
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	81 U	240 U	NA	NA	73 U	75 U	75 U	80 U	140 U	1600 U	1300 U
ACENAPHTHYLENE	UG/KG	EPA 8270C	81 U	240 U	NA	NA	73 U	75 U	75 U	69 J	140 U	1600 U	1300 U
ANTHRACENE	UG/KG	EPA 8270C	81 U	240 U	NA	NA	73 U	6.7 J	5 J	260	140 U	1600 U	1300 U
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	81 U	240 U	NA	NA	14 J	16 J	13 J	280	140 U	250 J	1300 U
BENZO(A)PYRENE	UG/KG	EPA 8270C	81 U	240 U	NA	NA	16 J	21 J	16 J	310	16 J	430 J	130 J
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	81 U	240 U	NA	NA	27 J	33 J	25 J	320	16 J	470 J	190 J
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	81 U	240 U	NA	NA	73 U	75 U	75 U	86	140 U	360 J	1300 U
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	61 J	180 J	NA	NA	9.8 J	11 J	9.2 J	110	140 U	1600 U	1300 U
CHRYSENE	UG/KG	EPA 8270C	35 J	99 J	NA	NA	67 J	45 J	29 J	390	19 J	430 J	1300 U
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	81 U	240 U	NA	NA	73 U	75 U	75 U	80 U	140 U	1600 U	1300 U
FLUORANTHENE	UG/KG	EPA 8270C	81 U	240 U	NA	NA	33 J	31 J	26 J	590	31 J	150 J	150 J
FLUORENE	UG/KG	EPA 8270C	81 U	240 U	NA	NA	6.7 J	13 J	12 J	120	140 U	1600 U	1300 U
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	81 U	240 U	NA	NA	73 U	75 U	75 U	78 J	140 U	1600 U	1300 U
NAPHTHALENE	UG/KG	EPA 8270C	81 U	240 U	NA	NA	8 J	42 J	32 J	12 J	140 U	1600 U	1300 J
PHENANTHRENE	UG/KG	EPA 8270C	43 J	120 J	NA	NA	25 J	45 J	34 J	890	15 J	300 J	140 J
PYRENE	UG/KG	EPA 8270C	81 U	160 J	NA	NA	93	54 J	36 J	960	33 J	710 J	260 J
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	40 UJ	39 UJ	NA	NA	37 U	24 J	38 UJ	40 UJ	34 UJ	75 J	34 UJ
4,4'-DDE	UG/KG	EPA 8081A	6.3 J	8 J	NA	NA	37 UJ	37 U	38 U	110	34 U	28 J	54 J
4,4'-DDT	UG/KG	EPA 8081A	6.4 J	39 UJ	NA	NA	100 J	7.2 J	21 J	87 J	8.3 J	140 J	580 J
ALDRIN	UG/KG	EPA 8081A	20 U	9.9 J	NA	NA	19 U	19 U	20 U	20 U	18 U	20 U	4.6 J
	2 UG/KG	EPA 8081A	20 U	20 U	NA	NA	19 U	19 U	20 U	20 U	18 U	20 U	17 U
BETA-BHC	UG/KG	EPA 8081A	15 J	65	NA	NA	19 U	19 U	20 U	20 U	18 U	17 J	17 U
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	360 U	350 U	NA	NA	330 U	340 U	340 U	360 U	310 U	350 U	310 U
DELTA-BHC	UG/KG	EPA 8081A	20 U	9.3 J	NA	NA	19 U	19 U	20 U	20 U	18 U	20 U	17 U
DIELDRIN	UG/KG	EPA 8081A	4.7 J	5.8 J	NA	NA	76	37 U	31 J	40 U	34 U	44	710
ENDOSULFAN I	UG/KG	EPA 8081A	6 J	7.4 J	NA	NA	19 U	19 U	20 U	20 U	18 U	20 U	17 U
ENDOSULFAN II	UG/KG	EPA 8081A	16 J	15 J	NA	NA	49 J	37 U	18 J	30 J	34 U	39 U	460 J
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	11 J	39 UJ	NA	NA	90 J	37 U	38 U	40 U	34 U	39 J	34 U
ENDRIN	UG/KG	EPA 8081A	40 U	39 U	NA	NA	31 J	37 U	6.3 J	170	34 U	39 U	240 J
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	40 UJ	39 UJ	NA	NA	37 UJ	37 UJ	38 UJ	12 J	34 UJ	40 J	34 UJ
ENDRIN KETONE	UG/KG	EPA 8081A	12 J	11 J	NA	NA	37 UJ	37 UJ	100 J	40 UJ	34 UJ	39 UJ	130 UJ
GAMMA-BHC	UG/KG	EPA 8081A	20 U	3.3 J	NA	NA	19 U	19 U	20 U	20 U	18 U	16 J	3.7 J
HEPTACHLOR	UG/KG	EPA 8081A	4 J	10 J	NA	NA	19 U	19 U	20 U	20 U	18 U	3.7 J	7.5 J
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	11 J	10 J	NA	NA	42	19 U	20 U	170	18 U	110	320
METHOXYCHLOR	UG/KG	EPA 8081A	200 U	200 U	NA	NA	190 UJ	190 UJ	200 UJ	200 UJ	180 UJ	200 UJ	190 J
TOXAPHENE	UG/KG	EPA 8081A	720 U	710 U	NA	NA	660 U	680 U	690 U	720 U	630 U	710 U	610 U
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	12 U	11 U	11 U	15 U	53 U	11 U	11 U	NA	10 U	23 U	NA
AROCLOR-1221	UG/KG	EPA 8082	23 U	23 U	23 U	31 U	110 U	22 U	22 U	NA	20 U	45 U	NA
AROCLOR-1232	UG/KG	EPA 8082	12 U	11 U	11 U	15 U	53 U	11 U	11 U	NA	10 U	23 U	NA
AROCLOR-1242	UG/KG	EPA 8082	12 U	11 U	11 U	15 U	53 U	11 U	11 U	NA	10 U	23 U	NA
AROCLOR-1248	UG/KG	EPA 8082	12 U	11 U	11 U	15 U	53 U	11 U	11 U	NA	10 U	570	NA
AROCLOR-1254	UG/KG	EPA 8082	12 U	11 U	11 U	15 U	53 U	11 U	11 U	NA	10 U	1100	NA

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1416	84-1417 (FD)	84-1450	84-1451	84-1452	84-1453	84-1454	84-1455	84-1456	84-1457	84-1458
Location:			GRID 58-1 SIDEWALL	GRID 58-1 SIDEWALL	GRID 65 BOTTOM	GRID 114 BOTTOM	GRID 64 SIDEWALL	GRID 72 SIDEWALL	GRID 72 SIDEWALL	GRID 174 SIDEWALL	GRID 177 SIDEWALL	GRID 177 SIDEWALL	GRID 172 SIDEWALL
Sample Date:			8/1/2006	8/1/2006	8/21/2006	8/29/2006	8/29/2006	8/29/2006	8/29/2006	8/29/2006	8/29/2006	8/29/2006	8/29/2006
Start Depth:			8	8	8	8	2.9	3	4.6	3	2.8	6	2.9
End Depth:			8.5	8.5	8.7	8.5	3.4	3.5	5.1	3.5	3.3	6.5	3.4
Analyte	Units	Method											
AROCLOR-1260	UG/KG	EPA 8082	12 U	11 U	190	15 U	1800	47	540	NA	38	680	NA
Total PCBs	UG/KG	EPA 8082	ND	ND	190	ND	1800	47	540	NA	38	2350	NA
Metals													
MERCURY	MG/KG	EPA 7471A	0.12 J	0.19 J	NA	NA	0.28	0.045	0.029	0.53	0.15	2.7	4
ANTIMONY	MG/KG	EPA 6010B	4.6	3 J	NA	NA	3.3 U	3.4 U	3.4 U	22	0.22 J	23	52
ARSENIC	MG/KG	EPA 6010B	4.2	3.4	NA	NA	1.4	3.2	2.8	10	3.4	3.7	3.6
BARIUM	MG/KG	EPA 6010B	310	62	NA	NA	39	95	100	20	120	53	67
BERYLLIUM	MG/KG	EPA 6010B	0.27	0.19	NA	NA	0.1 J	0.22	0.24	0.19	0.33	0.11 J	0.12
CADMIUM	MG/KG	EPA 6010B	0.3 U	0.1 UJ	NA	NA	0.2 J	0.26 J	0.26 J	0.28 J	0.23 J	4.4	1.4
CHROMIUM	MG/KG	EPA 6010B	100	75	NA	NA	530	310	280	56	55	200	320
COBALT	MG/KG	EPA 6010B	30	14	NA	NA	79	56	38	9.7	8.8	5.4	7.7
COPPER	MG/KG	EPA 6010B	150	71	NA	NA	26	52	47	74	28	4700	1900
LEAD	MG/KG	EPA 6010B	27	19	NA	NA	5.6	42	27	38	36	1800	1300
MOLYBDENUM	MG/KG	EPA 6010B	0.96 J	0.43 UJ	NA	NA	0.34 UJ	0.52 UJ	0.53 UJ	0.55 UJ	0.45 UJ	2.7	4.5
NICKEL	MG/KG	EPA 6010B	160	83	NA	NA	2000	1100	710	57	58	100	120
SELENIUM	MG/KG	EPA 6010B	1.1	0.15 UJ	NA	NA	0.23 J	0.24 J	0.3 J	0.3 U	0.068 J	0.11 J	0.25 U
SILVER	MG/KG	EPA 6010B	0.14 J	0.26 J	NA	NA	0.27 U	0.28 U	0.31 U	0.3 U	0.26 U	0.3 U	0.25 U
THALLIUM	MG/KG	EPA 6010B	0.3 U	0.3 U	NA	NA	0.27 U	0.28 U	0.31 U	0.3 U	0.26 U	0.3 U	0.25 U
VANADIUM	MG/KG	EPA 6010B	57	42	NA	NA	32	54	53	50	38	33	410
ZINC	MG/KG	EPA 6010B	72	52	NA	NA	42	66	65	90	49	1400	1800

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1459	84-1460	84-1461	84-1462	84-1464	84-1465	84-1466	84-1467	84-1468	84-1469	84-1470
Location:			GRID 172 SIDEWALL	GRID 171 SIDEWALL	GRID 171 SIDEWALL	GRID 170 SIDEWALL	GRID 167 SIDEWALL	GRID 167 SIDEWALL	GRID 85 SIDEWALL	GRID 84 SIDEWALL	GRID 84 SIDEWALL	GRID 83 BOTTOM	GRID 82 BOTTOM
Sample Date:			8/29/2006	8/29/2006	8/29/2006	8/29/2006	8/29/2006	8/29/2006	8/30/2006	8/30/2006	8/30/2006	8/30/2006	8/30/2006
Start Depth:			3.6	3	4.3	3	2.9	4.6	2.9	2.8	5.6	9.9	9.9
End Depth:			4.1	3.5	4.8	3.5	3.4	5.1	3.4	3.3	6.1	10.4	10.4
Analyte	**Units**	**Method**											
TPH													
DIESEL C10-C24	MG/KG	EPA 8015B	NA	NA	NA	NA	140 HY	260 HY	5.3 HY	NA	NA	290 HLY	920 HY
GASOLINE C6-C10	MG/KG	EPA 8015B	NA	NA	NA	NA	0.22 U	0.13 J	0.21 U	NA	NA	0.42 HY	53 HYJ
MOTOR OIL C24-C36	MG/KG	EPA 8015B	NA	NA	NA	NA	790	1400 H	31 H	NA	NA	120 L	2000 L
Total TPH	MG/KG	EPA 8015B	NA	NA	NA	NA	930	1660	36	NA	NA	410	2973
Semivolatiles													
ACENAPHTHENE	UG/KG	EPA 8270C	140 U	140 U	1400 U	73 U	56 J	220 J	68 U	350 U	220 U	NA	NA
ACENAPHTHYLENE	UG/KG	EPA 8270C	140 U	140 U	1400 U	73 U	340 U	1700 U	27 J	350 U	220 U	NA	NA
ANTHRACENE	UG/KG	EPA 8270C	16 J	140 U	1400 U	73 U	130 J	270 J	71	350 U	21 J	NA	NA
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	39 J	140 U	240 J	7.5 J	680	1400 J	55 J	170 J	52 J	NA	NA
BENZO(A)PYRENE	UG/KG	EPA 8270C	65 J	8.8 J	330 J	13 J	1600 J	3000 J	61 J	160 J	66 J	NA	NA
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	130 J	13 J	580 J	20 J	2400 J	4700 J	30 J	280 J	120 J	NA	NA
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	69 J	140 U	1400 UJ	73 UJ	990 J	1900 J	25 J	81 J	54 J	NA	NA
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	51 J	140 U	300 J	14 J	1100 J	2000 J	51 J	250 J	70 J	NA	NA
CHRYSENE	UG/KG	EPA 8270C	39 J	10 J	420 J	9.3 J	1200	2300	71	300 J	100 J	NA	NA
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	140 UJ	140 U	1400 UJ	73 UJ	340 UJ	1700 UJ	68 U	350 U	220 UJ	NA	NA
FLUORANTHENE	UG/KG	EPA 8270C	67 J	15 J	290 J	12 J	980	2100	140	460	96 J	NA	NA
FLUORENE	UG/KG	EPA 8270C	12 J	140 U	1400 U	73 U	45 J	1700 U	33 J	350 U	21 J	NA	NA
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	49 J	140 U	1400 UJ	73 UJ	920 J	1900 J	22 J	73 J	47 J	NA	NA
NAPHTHALENE	UG/KG	EPA 8270C	190	140 U	1400 U	73 U	340 U	1700 U	68 U	350 U	250	NA	NA
PHENANTHRENE	UG/KG	EPA 8270C	78 J	14 J	170 J	7.1 J	480	1000 J	230	370	110 J	NA	NA
PYRENE	UG/KG	EPA 8270C	110 J	22 J	480 J	21 J	1500	3100	190	490	150 J	NA	NA
Pesticides													
4,4'-DDD	UG/KG	EPA 8081A	34 UJ	35 UJ	34 UJ	36 UJ	180 J	33 UJ	3.4 UJ	35 UJ	36 UJ	NA	NA
4,4'-DDE	UG/KG	EPA 8081A	17 J	15 J	34 U	32 J	20 J	25 J	0.7 J	24 J	69 J	NA	NA
4,4'-DDT	UG/KG	EPA 8081A	420 J	130 J	25 J	280 J	65 J	100 J	11 J	300 J	910 J	NA	NA
ALDRIN	UG/KG	EPA 8081A	12 J	18 U	17 U	8.6 J	14 J	3.2 J	1.8 U	3.5 J	190 U	NA	NA
	2 UG/KG	EPA 8081A	17 U	18 U	17 U	18 U	17 U	17 U	1.8 UJ	18 UJ	19 UJ	NA	NA
BETA-BHC	UG/KG	EPA 8081A	17 U	18 U	17 U	7.1 J	17 U	17 U	1.8 U	13 J	19 U	NA	NA
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	300 U	320 U	310 U	320 U	310 U	300 U	31 U	310 U	330 U	NA	NA
DELTA-BHC	UG/KG	EPA 8081A	17 U	18 U	17 U	18 U	17 U	3.9 J	1.8 UJ	18 UJ	190 U	NA	NA
DIELDRIN	UG/KG	EPA 8081A	620	150	28 J	240	51	59	6	220	440 J	NA	NA
ENDOSULFAN I	UG/KG	EPA 8081A	17 U	18 U	17 U	18 U	17 U	17 U	1.8 U	18 U	78 J	NA	NA
ENDOSULFAN II	UG/KG	EPA 8081A	410 J	95 J	16 J	150 J	26 J	41 J	5.2 J	120 J	160 J	NA	NA
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	780 J	170 J	25 J	310	51 J	74 J	7.6 J	250 J	180 J	NA	NA
ENDRIN	UG/KG	EPA 8081A	190	72 J	6.2 J	95	25 J	33 J	2.8 J	130	210	NA	NA
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	34 UJ	35 UJ	34 UJ	36 UJ	34 UJ	33 UJ	3.4 UJ	35 UJ	36 UJ	NA	NA
ENDRIN KETONE	UG/KG	EPA 8081A	53 J	35 UJ	34 UJ	36 UJ	4.3 J	33 UJ	3.4 UJ	35 UJ	36 UJ	NA	NA
GAMMA-BHC	UG/KG	EPA 8081A	5.3 J	18 U	17 U	8.9 J	5.1 J	3 J	0.46 J	24 J	270 J	NA	NA
HEPTACHLOR	UG/KG	EPA 8081A	6.6 J	18 U	17 U	18 U	2.8 J	17 U	1.4 J	3.3 J	19 UJ	NA	NA
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	270	78	10 J	87	28	39	4	140	590	NA	NA
METHOXYCHLOR	UG/KG	EPA 8081A	180 J	180 UJ	170 UJ	79 J	170 UJ	170 UJ	18 UJ	180 UJ	70 J	NA	NA
TOXAPHENE	UG/KG	EPA 8081A	610 U	640 U	620 U	650 U	610 U	610 U	62 U	630 U	660 U	NA	NA
PCBs													
AROCLOR-1016	UG/KG	EPA 8082	NA	NA	NA	NA	20 U	48 U	12 U	NA	NA	11 U	140 U
AROCLOR-1221	UG/KG	EPA 8082	NA	NA	NA	NA	39 U	97 U	25 U	NA	NA	22 U	290 U
AROCLOR-1232	UG/KG	EPA 8082	NA	NA	NA	NA	20 U	48 U	12 U	NA	NA	11 U	140 U
AROCLOR-1242	UG/KG	EPA 8082	NA	NA	NA	NA	20 U	48 U	12 U	NA	NA	11 U	140 U
AROCLOR-1248	UG/KG	EPA 8082	NA	NA	NA	NA	20 U	48 U	12 U	NA	NA	11 U	1000
AROCLOR-1254	UG/KG	EPA 8082	NA	NA	NA	NA	290	48 U	12 U	NA	NA	88	2200

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1459	84-1460	84-1461	84-1462	84-1464	84-1465	84-1466	84-1467	84-1468	84-1469	84-1470
Location:			GRID 172 SIDEWALL	GRID 171 SIDEWALL	GRID 171 SIDEWALL	GRID 170 SIDEWALL	GRID 167 SIDEWALL	GRID 167 SIDEWALL	GRID 85 SIDEWALL	GRID 84 SIDEWALL	GRID 84 SIDEWALL	GRID 83 BOTTOM	GRID 82 BOTTOM
Sample Date:			8/29/2006	8/29/2006	8/29/2006	8/29/2006	8/29/2006	8/29/2006	8/30/2006	8/30/2006	8/30/2006	8/30/2006	8/30/2006
Start Depth:			3.6	3	4.3	3	2.9	4.6	2.9	2.8	5.6	9.9	9.9
End Depth:			4.1	3.5	4.8	3.5	3.4	5.1	3.4	3.3	6.1	10.4	10.4
Analyte	**Units**	**Method**											
AROCLOR-1260	UG/KG	EPA 8082	NA	NA	NA	NA	1000	1900	30	NA	NA	110	6400
Total PCBs	UG/KG	EPA 8082	NA	NA	NA	NA	1290	1900	30	NA	NA	198	9600
Metals													
MERCURY	MG/KG	EPA 7471A	3.9	3.6	17	0.23	7.4	1.7	0.012 J	5.8	3.3	NA	NA
ANTIMONY	MG/KG	EPA 6010B	30	2.4 J	17	4.7	150	18	0.34 J	120	400	NA	NA
ARSENIC	MG/KG	EPA 6010B	3.4	3.9	4.6	5.5	5.5	6.8	8.9	3.3	9.6	NA	NA
BARIUM	MG/KG	EPA 6010B	53	83	40	98	1400	66	20	40	110	NA	NA
BERYLLIUM	MG/KG	EPA 6010B	0.13	0.31	0.18	0.32	0.15	0.2	0.16	0.14	0.29	NA	NA
CADMIUM	MG/KG	EPA 6010B	1.7	0.34	2.3	0.39	3.8	2.1	0.073 J	1.4	4.6	NA	NA
CHROMIUM	MG/KG	EPA 6010B	180	78	160	100	280	140	52	250	200	NA	NA
COBALT	MG/KG	EPA 6010B	6.5	12	4.5	13	12	12	7.3	7.6	15	NA	NA
COPPER	MG/KG	EPA 6010B	2400	210	3200	340	2300	3600	5.8	830	840	NA	NA
LEAD	MG/KG	EPA 6010B	1300	59	540	84	690	930	4.1	550	370	NA	NA
MOLYBDENUM	MG/KG	EPA 6010B	3.6	0.61 UJ	1.2	0.61 UJ	3.4	7.3	0.41 UJ	1.2	7	NA	NA
NICKEL	MG/KG	EPA 6010B	100	77	55	78	64	110	38	63	200	NA	NA
SELENIUM	MG/KG	EPA 6010B	0.26 U	0.27 U	0.19 J	0.15 J	0.25 U	0.26 U	0.47	0.59	0.27 U	NA	NA
SILVER	MG/KG	EPA 6010B	0.26 U	0.27 U	0.26 U	0.27 U	0.25 U	0.26 U	0.26 U	0.26 U	0.27 U	NA	NA
THALLIUM	MG/KG	EPA 6010B	0.26 U	0.27 U	0.26 U	0.27 U	0.25 U	0.26 U	0.26 U	0.26 U	0.27 U	NA	NA
VANADIUM	MG/KG	EPA 6010B	410	51	530	46	39	45	29	84	130	NA	NA
ZINC	MG/KG	EPA 6010B	1500	180	1500	250	4100	1300	22	1400	3800	NA	NA

Abbreviations and Acronyms:

ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1471	84-1472
Location:			GRID 71 SIDEWALL	GRID 71 SIDEWALL
Sample Date:			8/30/2006	8/30/2006
Start Depth:			0	0
End Depth:			1.6	2.6
Analyte	**Units**	**Method**		
TPH				
DIESEL C10-C24	MG/KG	EPA 8015B	NA	NA
GASOLINE C6-C10	MG/KG	EPA 8015B	NA	NA
MOTOR OIL C24-C36	MG/KG	EPA 8015B	NA	NA
Total TPH	MG/KG	EPA 8015B	NA	NA
Semivolatiles				
ACENAPHTHENE	UG/KG	EPA 8270C	170 J	400 J
ACENAPHTHYLENE	UG/KG	EPA 8270C	710 U	62 J
ANTHRACENE	UG/KG	EPA 8270C	120 J	510
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	490 J	1300
BENZO(A)PYRENE	UG/KG	EPA 8270C	740	1800
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	1200	2600
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	470 J	1000
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	420 J	1000
CHRYSENE	UG/KG	EPA 8270C	720	1600
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	120 J	260 J
FLUORANTHENE	UG/KG	EPA 8270C	1200	2900
FLUORENE	UG/KG	EPA 8270C	61 J	350 J
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	350 J	820
NAPHTHALENE	UG/KG	EPA 8270C	710 U	160 J
PHENANTHRENE	UG/KG	EPA 8270C	610 J	2300
PYRENE	UG/KG	EPA 8270C	1300	3100
Pesticides				
4,4'-DDD	UG/KG	EPA 8081A	36 UJ	72 UJ
4,4'-DDE	UG/KG	EPA 8081A	4.7 J	52 J
4,4'-DDT	UG/KG	EPA 8081A	57 J	290 J
ALDRIN	UG/KG	EPA 8081A	6.3 J	37 U
	2 UG/KG	EPA 8081A	18 UJ	37 UJ
BETA-BHC	UG/KG	EPA 8081A	18 U	37 U
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	320 U	660 U
DELTA-BHC	UG/KG	EPA 8081A	18 UJ	8.4 J
DIELDRIN	UG/KG	EPA 8081A	49	40 J
ENDOSULFAN I	UG/KG	EPA 8081A	18 U	37 U
ENDOSULFAN II	UG/KG	EPA 8081A	30 J	72 UJ
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	36 UJ	35 J
ENDRIN	UG/KG	EPA 8081A	26 J	56 J
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	36 UJ	72 UJ
ENDRIN KETONE	UG/KG	EPA 8081A	36 UJ	16 J
GAMMA-BHC	UG/KG	EPA 8081A	27 J	49 J
HEPTACHLOR	UG/KG	EPA 8081A	7.9 J	15 J
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	29	95
METHOXYCHLOR	UG/KG	EPA 8081A	180 UJ	370 UJ
TOXAPHENE	UG/KG	EPA 8081A	650 U	1300 U
PCBs				
AROCLOR-1016	UG/KG	EPA 8082	NA	NA
AROCLOR-1221	UG/KG	EPA 8082	NA	NA
AROCLOR-1232	UG/KG	EPA 8082	NA	NA
AROCLOR-1242	UG/KG	EPA 8082	NA	NA
AROCLOR-1248	UG/KG	EPA 8082	NA	NA
AROCLOR-1254	UG/KG	EPA 8082	NA	NA

APPENDIX D TABLE D-1

POST-EXCVATION CHEMICAL SAMPLING RESULTS

Sample Number:			84-1471	84-1472
Location:			GRID 71 SIDEWALL	GRID 71 SIDEWALL
Sample Date:			8/30/2006	8/30/2006
Start Depth:			0	0
End Depth:			1.6	2.6
Analyte	**Units**	**Method**		
AROCLOR-1260	UG/KG	EPA 8082	NA	NA
Total PCBs	UG/KG	EPA 8082	NA	NA
Metals				
MERCURY	MG/KG	EPA 7471A	2	2.8
ANTIMONY	MG/KG	EPA 6010B	1.9 J	3.9
ARSENIC	MG/KG	EPA 6010B	4.5	6.8
BARIUM	MG/KG	EPA 6010B	120	210
BERYLLIUM	MG/KG	EPA 6010B	0.47	0.17
CADMIUM	MG/KG	EPA 6010B	0.27 U	0.29
CHROMIUM	MG/KG	EPA 6010B	59	62
COBALT	MG/KG	EPA 6010B	13	8.3
COPPER	MG/KG	EPA 6010B	13	2100
LEAD	MG/KG	EPA 6010B	5.6	440
MOLYBDENUM	MG/KG	EPA 6010B	0.64 J	2.4
NICKEL	MG/KG	EPA 6010B	50	37
SELENIUM	MG/KG	EPA 6010B	0.27 U	0.27 U
SILVER	MG/KG	EPA 6010B	0.27 U	0.29
THALLIUM	MG/KG	EPA 6010B	0.27 U	0.27 U
VANADIUM	MG/KG	EPA 6010B	47	86
ZINC	MG/KG	EPA 6010B	22	800

Abbreviations and Acronyms:
ug/kg - micrograms per kilograms
EPA - U.S. Environmental Protection Agency
H - heavier hydrocarbons contributed to the quantitation
J - estimated value
L - lighter hydrocarbons contributed to the quantitation
mg/kg - milligrams per kilograms
NA - not analyzed
U - not detected at the stated reporting limit
Y - sample exhibits chromatographic pattern which does not resemble s

RADIOLOGICAL RANDOM POST-EXCAVATION BOTTOM GRID SAMPLE

ORTEC g v - i (3263) wan32 G53W2.06 31-JUL-2006 23:17:01 Page 1
New World Technology Spectrum name: 7N000308.An1

Sample description
PCB Hot Spot 84NPCBG37PE-001 395g
7/31/06 14:05

Acquisition information
Start time: 31-Jul-2006 22:31:50
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
AC-228	F	7.4169E-01	4.9058E-01	4.9232E-01	0.141E+00
AM-241	#B	-3.7654E-02	-6.8652E-01	-6.8652E-01	0.108E+00
BI-212	F	6.4251E-01	5.4515E-01	5.4632E-01	0.254E+00
BI-214	F	4.0872E-01	2.2168E-01	2.2284E-01	0.689E-01
CO-60	#B	0.0000E+00	0.0000E+00	0.0000E+00	0.112E-01
CS-137	#B	-1.9381E-02	-8.9378E-02	-8.9384E-02	0.304E-01
EU-152	B	-3.1999E-03	-7.9108E-03	-7.9128E-03	0.110E+00
EU-154	#B	-3.0991E-03	1.9368E+02	1.9368E+02	0.557E-01
K-40	#	6.7577E+00	3.1180E+00	3.1406E+00	0.184E+01
PA-234	F	3.5789E-01	2.9347E-01	2.9415E-01	0.125E+00
PB-210	#B	-1.6427E+00	-6.3634E+00	-6.3640E+00	0.152E+01
PB-212	F	2.8713E-01	1.6421E-01	1.6499E-01	0.826E-01
PB-214		3.6046E-01	2.2471E-01	2.2560E-01	0.969E-01
RA-226	#B	-2.0578E+00	-1.6459E+02	-1.6459E+02	0.122E+01
Th-230	#B	-9.5572E+00	-6.9630E+01	-6.9632E+01	0.115E+02
TH-234	#B	-6.6606E-01	-3.1675E+00	-3.1677E+00	0.119E+01
TL-208	#B	3.4613E-02	4.1216E-02	4.1261E-02	0.202E+00
U-235	F	1.3504E-01	1.1200E-01	1.1226E-01	0.563E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (42.1 to 2683.2 keV) 9.3332930E+00 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 20-JUL-2006 14:23:02 Page 1
New World Technology Spectrum name: 1N002751.An1

Sample description
PCB Hot Spot 84NPCBG54PE-001 378g
7/19/06 09:15

Acquisition information
Start time: 20-Jul-2006 13:37:52
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	C	4.2026E-01	3.3550E-01	3.3631E-01	0.109E+00
AM-241	#A	-1.8976E-01	-6.5181E+00	-6.5181E+00	0.221E+00
Bi-212		4.0086E-01	5.7527E-01	5.7570E-01	0.290E+00
BI-214	#F	1.7768E+00	1.6738E+00	1.6767E+00	0.416E+00
CO-60	#A	-3.4778E-02	-2.3238E-01	-2.3239E-01	0.428E-01
CS-137	A	9.2804E-03	6.5646E-02	6.5648E-02	0.393E-01
EU-152	C	1.3031E-01	1.8949E-01	1.8963E-01	0.773E-01
EU-154	A	8.3178E-03	8.9080E-02	8.9081E-02	0.555E-01
K-40		1.0514E+01	3.0264E+00	3.0824E+00	0.972E+00
Pa-234	#B	-2.3546E-01	-1.0438E+00	-1.0439E+00	0.134E+00
Pb-210	#A	7.6306E+00	1.7845E+01	1.7850E+01	0.854E+01
Pb-212		3.4214E-01	1.6267E-01	1.6378E-01	0.699E-01
Pb-214		4.7596E-01	2.0173E-01	2.0346E-01	0.709E-01
RA-226	#B	-1.1292E+00	-9.0283E+00	-9.0285E+00	0.107E+01
Th-230	#A	8.9835E+00	2.4918E+01	2.4922E+01	0.111E+02
Th-234	B	-1.8642E-02	-3.3740E-02	-3.3755E-02	0.162E+01
Tl-208	#B	8.8442E-04	4.1952E-03	4.1955E-03	0.457E-01
U-235	C	6.1844E-02	8.5915E-02	8.5984E-02	0.496E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.2 to 2605.8 keV) 1.3509362E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 26-JUL-2006 02:29:31 Page 1
New World Technology Spectrum name: 5N000360.An1

Sample description
PCB Hot Spot 84NPCBG55PE-001 339g
7/25/06 16:00

Acquisition information
Start time: 26-Jul-2006 01:44:23
Live time: 2700
Real time: 2702

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
Ac-228	#	2.9122E-01	4.1097E-01	4.1129E-01	0.198E+00
AM-241	#B	-7.0188E-02	-4.5039E-01	-4.5041E-01	0.115E+00
Bi-212	B	2.7138E-01	6.4060E-01	6.4078E-01	0.328E+00
BI-214	F	2.6191E-01	2.3299E-01	2.3344E-01	0.110E+00
CO-60	#B	1.0999E-02	8.8567E-02	8.8569E-02	0.383E-01
CS-137	#B	-5.6023E-02	-1.4869E+01	-1.4869E+01	0.445E-01
EU-152	F	2.3932E-01	1.9371E-01	1.9416E-01	0.984E-01
EU-154	F	7.9469E-02	1.2299E-01	1.2307E-01	0.663E-01
K-40		7.6041E+00	2.4965E+00	2.5320E+00	0.119E+01
Pa-234	B	-2.4215E-02	4.0474E+02	4.0474E+02	0.116E+00
Pb-210	#	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
Pb-212	F	1.7350E-01	1.8016E-01	1.8042E-01	0.103E+00
PB-214	F	3.7558E-01	2.2142E-01	2.2240E-01	0.821E-01
RA-226	#B	-4.5027E-01	-3.2420E+00	-3.2421E+00	0.111E+01
Th-230	#B	-2.1365E+01	-3.0397E+02	-3.0397E+02	0.743E+01
Th-234	B	3.1809E-01	4.9499E-01	4.9530E-01	0.111E+01
Tl-208	F	2.6331E-01	1.1651E-01	1.1742E-01	0.103E+00
U-235	#B	-9.4420E-01	-3.8726E+00	-3.8730E+00	0.122E+00

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< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

\----------------------------- S U M M A R Y ---------------------------
Total Activity (53.5 to 3408.3 keV) 8.7063694E+00 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 20-JUL-2006 14:33:41 Page 1
New World Technology Spectrum name: 2N003249.An1

Sample description
PCB Hot Spot 84NPCBG56PE-001 357g
7/19/06 09:20

Acquisition information
Start time: 20-Jul-2006 13:48:34
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	4.4103E-01	3.2711E-01	3.2803E-01	0.169E+00
AM-241 #B	-6.0113E-01	-2.0702E+01	-2.0702E+01	0.482E+00
Bi-212 F	3.6228E-01	6.1161E-01	6.1195E-01	0.305E+00
BI-214 F	2.5013E-01	1.9542E-01	1.9592E-01	0.920E-01
CO-60 #B	-2.5513E-02	-1.7988E-01	-1.7988E-01	0.295E-01
Cs-137 #B	-2.9694E-02	-1.2455E-01	-1.2456E-01	0.469E-01
EU-152 B	5.4463E-02	1.5312E-01	1.5315E-01	0.121E+00
EU-154 B	1.2763E-02	1.2376E-01	1.2376E-01	0.671E-01
K-40 #	8.7343E+00	2.1707E+00	2.2245E+00	0.626E+00
PA-234 #F	1.6550E-01	3.8678E-01	3.8689E-01	0.159E+00
Pb-210 #F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212 F	2.8431E-01	1.5955E-01	1.6033E-01	0.801E-01
PB-214	2.8360E-01	2.6640E-01	2.6687E-01	0.107E+00
RA-226 A	2.4915E-01	1.8142E+00	1.8143E+00	0.105E+01
Th-230 B	-2.1287E+01	-5.5851E+01	-5.5863E+01	0.320E+02
TH-234	3.1978E+00	5.2715E+00	5.2744E+00	0.235E+01
Tl-208 #	1.5925E-01	1.0960E-01	1.0996E-01	0.195E-01
U-235 #B	1.6572E-02	8.1030E-02	8.1035E-02	0.596E-01

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A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2673.8 keV) 1.3878242E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 21-JUL-2006 03:55:55 Page 1
New World Technology Spectrum name: 7N000207.An1

Sample description
PCB Hot Spot 84NPCBG57PE-001 517g
7/20/06 16:35

Acquisition information
Start time: 21-Jul-2006 02:25:40
Live time: 5400
Real time: 5408

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
AC-228	F	2.1852E-01	1.4467E-01	1.4518E-01	0.664E-01
AM-241	#B	-1.8646E-02	-2.1699E-01	-2.1699E-01	0.570E-01
BI-212	B	5.9215E-02	2.6555E-01	2.6557E-01	0.166E+00
BI-214	F	1.7337E-01	1.4816E-01	1.4848E-01	0.449E-01
CO-60	#B	1.4744E-02	4.0928E-02	4.0936E-02	0.155E-01
CS-137	#B	-3.1237E-02	-3.4323E-01	-3.4324E-01	0.256E-01
EU-152	B	-9.3471E-04	-1.6952E-03	-1.6960E-03	0.572E-01
EU-154	F	5.3477E-02	7.0981E-02	7.1044E-02	0.367E-01
K-40	#	3.6813E+00	1.4608E+00	1.4751E+00	0.768E+00
PA-234	F	1.1826E-01	1.4132E-01	1.4148E-01	0.822E-01
PB-210	#B	-1.3476E+00	-3.1419E+00	-3.1428E+00	0.747E+00
PB-212	F	4.6996E-02	7.1045E-02	7.1093E-02	0.397E-01
PB-214	F	8.2749E-02	7.8456E-02	7.8590E-02	0.474E-01
RA-226	#B	-6.8182E-01	-3.2058E+00	-3.2060E+00	0.506E+00
Th-230	#B	-1.0189E+01	-8.6645E+01	-8.6647E+01	0.573E+01
TH-234	#B	-6.5912E-01	-1.9173E+00	-1.9176E+00	0.629E+00
TL-208	#B	-5.5600E-02	-1.2319E+00	-1.2319E+00	0.785E-01
U-235	#B	-4.9072E-01	-1.2944E+00	-1.2947E+00	0.502E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (42.1 to 2683.2 keV) 4.1914530E+00 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 01-AUG-2006 07:17:59 Page 1
New World Technology Spectrum name: 3N003324.An1

Sample description
PCB Hot Spot 84NPCBG57-1PE-001 363g
7/31/06 14:10

Acquisition information
Start time: 31-Jul-2006 22:35:41
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Activity picoCi/g	Time of Count Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	A	1.1629E-01	1.4929E-01	1.4943E-01	0.170E+00
AM-241	#A	5.6691E-02	1.6122E-01	1.6125E-01	0.805E-01
Bi-212		3.9857E-01	4.2458E-01	4.2516E-01	0.173E+00
BI-214	F	1.7837E-01	2.4720E-01	2.4739E-01	0.112E+00
CO-60	#B	-2.5326E-02	1.0065E+02	1.0065E+02	0.254E-01
Cs-137	A	1.5293E-02	7.1806E-02	7.1811E-02	0.445E-01
EU-152	F	8.2120E-02	1.5316E-01	1.5323E-01	0.700E-01
EU-154	A	3.3785E-02	5.4886E-02	5.4918E-02	0.568E-01
K-40		1.9255E+00	1.7198E+00	1.7231E+00	0.114E+01
PA-234	B	3.2287E-02	2.0380E-01	2.0380E-01	0.115E+00
Pb-210	#A	2.2111E-01	2.1122E+00	2.1123E+00	0.106E+01
PB-212	F	1.3371E-01	1.4168E-01	1.4187E-01	0.690E-01
PB-214	C	1.4746E-01	1.6952E-01	1.6972E-01	0.111E+00
RA-226	#B	-1.2363E+00	-3.8508E+01	-3.8508E+01	0.804E+00
Th-230	#B	2.2977E+00	1.3673E+01	1.3674E+01	0.830E+01
TH-234	B	5.7371E-01	1.4054E+00	1.4058E+00	0.699E+00
Tl-208	B	-1.4388E-02	-1.0473E-02	-1.0504E-02	0.108E+00
U-235	#B	-1.4008E-02	-1.3353E-01	-1.3353E-01	0.468E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.7 to 2660.8 keV) 2.4577751E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 19-JUL-2006 11:59:37 Page 1
New World Technology Spectrum name: 2N003229.An1

Sample description
PCB Hot Spot 84NPCBG58PE-001 484g
7/18/06 15:00

Acquisition information
Start time: 19-Jul-2006 11:14:29
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		2.2990E-01	2.5257E-01	2.5289E-01	0.133E+00
AM-241	#B	-2.0312E-01	-1.8196E+00	-1.8196E+00	0.437E+00
Bi-212	F	4.8406E-01	4.2362E-01	4.2448E-01	0.174E+00
BI-214	F	3.8513E-01	2.2204E-01	2.2307E-01	0.796E-01
CO-60	#	2.2428E-02	2.6622E-02	2.6652E-02	0.208E-01
Cs-137	#B	-5.2662E-02	-6.6871E-01	-6.6872E-01	0.395E-01
EU-152	B	5.3093E-02	8.9625E-02	8.9674E-02	0.805E-01
EU-154	B	2.5605E-02	1.1874E-01	1.1875E-01	0.638E-01
K-40	#	1.4372E+01	2.2987E+00	2.4340E+00	0.462E+00
PA-234	#B	6.3812E-02	1.0852E-01	1.0858E-01	0.877E-01
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	2.2145E-01	1.3386E-01	1.3443E-01	0.681E-01
PB-214		2.6956E-01	2.0718E-01	2.0772E-01	0.767E-01
RA-226	A	6.4566E-04	1.2272E+00	1.2272E+00	0.729E+00
Th-230	#B	-9.4290E+00	-4.4167E+01	-4.4170E+01	0.228E+02
TH-234	#F	4.2332E+00	6.0053E+00	6.0099E+00	0.255E+01
Tl-208	#F	5.6351E-02	4.3196E-02	4.3310E-02	0.158E-01
U-235	#B	-9.2555E-03	-1.3634E-01	-1.3634E-01	0.488E-01

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H - Halflife limit exceeded

----------------------------- S U M M A R Y -----------------------------

Total Activity (41.8 to 2673.8 keV) 5.8457632E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 31-JUL-2006 23:52:43 Page 1
New World Technology Spectrum name: 1N002878.An1

Sample description
PCB Hot Spot 84NPCBG58-1PE-001 419g
7/31/06 14:00

Acquisition information
Start time: 31-Jul-2006 23:07:34
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty 2 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228 F	4.2148E-01	1.7207E-01	1.7278E-01	0.410E-01
AM-241 #A	-1.6609E-02	-2.3266E-01	-2.3266E-01	0.179E+00
Bi-212 #	5.9258E-01	3.1123E-01	3.1200E-01	0.143E+00
BI-214 #F	2.5621E-01	3.4780E-01	3.4793E-01	0.210E+00
CO-60 #A	-4.0644E-02	-1.3149E-01	-1.3150E-01	0.397E-01
CS-137 #A	-1.5495E-02	-5.6717E-02	-5.6720E-02	0.247E-01
EU-152 A	4.2576E-02	6.4885E-02	6.4904E-02	0.565E-01
EU-154 #A	-3.3551E-02	1.1248E+02	1.1248E+02	0.426E-01
K-40	4.6338E+00	1.3814E+00	1.3920E+00	0.877E+00
Pa-234 #B	-1.2047E-01	-4.2365E-01	-4.2368E-01	0.141E+00
Pb-210 #	1.2868E+01	1.3748E+01	1.3756E+01	0.816E+01
Pb-212	2.6769E-01	8.6926E-02	8.7491E-02	0.547E-01
Pb-214	3.2718E-01	1.2395E-01	1.2455E-01	0.555E-01
RA-226 #B	-7.7826E-01	-2.5295E+00	-2.5296E+00	0.956E+00
Th-230 #B	5.2190E+00	1.3003E+01	1.3005E+01	0.996E+01
Th-234 B	-8.2240E-02	-1.0394E-01	-1.0399E-01	0.139E+01
Tl-208 #	8.9570E-02	4.6960E-02	4.7077E-02	0.220E-01
U-235	7.3637E-02	6.9491E-02	6.9545E-02	0.412E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.2 to 2605.8 keV) 1.9273684E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 19-JUL-2006 12:46:31 Page 1
New World Technology Spectrum name: 1N002728.An1

Sample description
PCB Hot Spot 84NPCBG59PE-003 491g
7/18/06 15:15

Acquisition information
Start time: 19-Jul-2006 11:41:17
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	5.2685E-01	2.2103E-01	2.2297E-01	0.646E-01
AM-241 #A	-1.5456E-01	-1.1320E+01	-1.1320E+01	0.178E+00
Bi-212 F	2.4870E-01	4.3487E-01	4.3509E-01	0.210E+00
BI-214 B	2.9006E-01	1.5921E-01	1.6002E-01	0.335E+00
CO-60 #A	-2.6774E-02	-1.7890E-01	-1.7890E-01	0.329E-01
CS-137 #A	-6.2430E-03	-8.6705E-02	-8.6705E-02	0.309E-01
EU-152 C	2.0806E-01	1.5576E-01	1.5619E-01	0.605E-01
EU-154 A	1.9978E-02	3.1002E-02	3.1022E-02	0.420E-01
K-40	8.9590E+00	2.4310E+00	2.4815E+00	0.748E+00
Pa-234 #B	-4.1523E-02	-7.1920E-02	-7.1957E-02	0.980E-01
Pb-210 #	8.3147E+00	1.3626E+01	1.3633E+01	0.582E+01
Pb-212	3.6948E-01	1.4604E-01	1.4748E-01	0.598E-01
Pb-214	4.0769E-01	1.6844E-01	1.6996E-01	0.431E-01
RA-226 A	4.1118E-01	1.4425E+00	1.4427E+00	0.836E+00
Th-230 #B	7.6741E+00	2.4142E+01	2.4146E+01	0.114E+02
Th-234 #B	1.0688E-02	1.6676E-02	1.6686E-02	0.142E+01
Tl-208	1.7607E-01	8.0449E-02	8.1043E-02	0.167E-01
U-235	6.5310E-02	9.2937E-02	9.3008E-02	0.470E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2605.8 keV) 1.9067780E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 19-JUL-2006 12:43:50 Page 1
New World Technology Spectrum name: 3N003193.An1

Sample description
PCB Hot Spot 84NPCBG60PE-002 392g
7/18/06 15:10

Acquisition information
Start time: 19-Jul-2006 11:58:45
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		4.3579E-01	3.9561E-01	3.9635E-01	0.169E+00
AM-241	#B	-2.7787E-02	-5.2288E-01	-5.2289E-01	0.915E-01
Bi-212	A	2.8510E-01	5.2483E-01	5.2507E-01	0.295E+00
BI-214	F	2.1276E-01	1.7435E-01	1.7475E-01	0.105E+00
CO-60	#	6.3408E-02	5.8267E-02	5.8374E-02	0.235E-01
Cs-137	A	2.1101E-02	6.6324E-02	6.6334E-02	0.404E-01
EU-152	B	4.4777E-02	1.4592E-01	1.4594E-01	0.571E-01
EU-154	B	2.2423E-02	6.9801E-02	6.9812E-02	0.562E-01
K-40		9.7850E+00	2.3915E+00	2.4526E+00	0.940E+00
PA-234	B	9.1143E-02	2.2680E-01	2.2685E-01	0.109E+00
Pb-210	#B	-8.5004E-01	-3.7840E+00	-3.7843E+00	0.946E+00
PB-212	F	3.2146E-01	1.4016E-01	1.4129E-01	0.661E-01
PB-214		2.6653E-01	2.0763E-01	2.0815E-01	0.901E-01
RA-226	A	4.5089E-02	1.2249E+00	1.2249E+00	0.692E+00
Th-230	#B	-1.9283E+00	-7.5091E+00	-7.5099E+00	0.851E+01
TH-234	#B	-1.1114E-02	-1.2068E+00	-1.2068E+00	0.658E+00
Tl-208	B	2.0645E-02	2.4939E-02	2.4965E-02	0.107E+00
U-235	#B	-4.9340E-02	1.7993E+02	1.7993E+02	0.454E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.8 keV) 1.1084954E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 19-JUL-2006 12:49:55 Page 1
New World Technology Spectrum name: 2N003230.An1

Sample description
PCB Hot Spot 84NPCBG61PE-001 575g
7/18/06 15:05

Acquisition information
Start time: 19-Jul-2006 12:04:48
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	1.5370E-01	1.2422E-01	1.2451E-01	0.112E+00
AM-241	A	1.0315E-01	7.3575E-01	7.3577E-01	0.424E+00
Bi-212	F	1.9157E-01	2.7834E-01	2.7854E-01	0.131E+00
BI-214	F	2.0598E-01	1.6438E-01	1.6478E-01	0.576E-01
CO-60	#B	-1.7456E-02	6.9377E+01	6.9377E+01	0.175E-01
Cs-137	#B	-1.6612E-02	-8.5267E-02	-8.5272E-02	0.317E-01
EU-152	B	4.8034E-02	1.0133E-01	1.0137E-01	0.599E-01
EU-154	B	1.4432E-02	7.4075E-02	7.4079E-02	0.494E-01
K-40	#	3.9468E+00	1.1790E+00	1.1993E+00	0.388E+00
PA-234	#C	1.0507E-01	1.1888E-01	1.1902E-01	0.894E-01
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		8.5458E-02	1.0495E-01	1.0505E-01	0.517E-01
PB-214		1.3277E-01	1.3290E-01	1.3310E-01	0.610E-01
RA-226	#B	-1.6931E-01	-1.6068E+00	-1.6068E+00	0.632E+00
Th-230	#B	-2.4481E+01	6.7766E+04	6.7766E+04	0.171E+02
TH-234	B	0.0000E+00	6.1036E+03	6.1036E+03	0.176E+01
Tl-208	#	1.3530E-01	7.9605E-02	7.9960E-02	0.121E-01
U-235	#B	-1.2712E-02	-1.4337E-01	-1.4337E-01	0.376E-01

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------------------------------ S U M M A R Y ------------------------------

Total Activity (41.8 to 2673.8 keV) 4.697914E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 20-JUL-2006 14:43:14 Page 1
New World Technology Spectrum name: 3N003213.An1

Sample description
PCB Hot Spot 84NPCBG62PE-001 421g
7/19/06 09:05

Acquisition information
Start time: 20-Jul-2006 13:58:10
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	#F	3.2218E-01	2.9895E-01	2.9948E-01	0.171E+00
AM-241	#B	-2.3938E-02	-4.3645E-01	-4.3646E-01	0.850E-01
Bi-212	F	2.7696E-01	4.3706E-01	4.3734E-01	0.208E+00
BI-214	F	2.5615E-01	1.6384E-01	1.6445E-01	0.954E-01
CO-60	#B	-1.8602E-02	-1.8637E-01	-1.8637E-01	0.242E-01
Cs-137	A	6.9129E-03	5.3153E-02	5.3154E-02	0.349E-01
EU-152	B	4.7590E-02	1.2948E-01	1.2951E-01	0.735E-01
EU-154	F	5.6391E-02	8.2731E-02	8.2790E-02	0.563E-01
K-40	#	6.2765E+00	1.8662E+00	1.8986E+00	0.849E+00
PA-234	#B	-4.8743E-02	-7.1001E-01	-7.1002E-01	0.908E-01
Pb-210	#A	2.1087E-01	1.9839E+00	1.9840E+00	0.963E+00
PB-212		1.9899E-01	1.2557E-01	1.2606E-01	0.642E-01
PB-214		2.5673E-01	1.6006E-01	1.6070E-01	0.882E-01
RA-226	#B	-1.8187E-01	-1.6978E+00	-1.6978E+00	0.745E+00
Th-230	#B	1.1670E+00	2.1652E+01	2.1652E+01	0.935E+01
TH-234	B	2.0576E-02	1.1012E+00	1.1012E+00	0.645E+00
Tl-208	B	-8.2382E-02	-8.3182E-02	-8.3308E-02	0.949E-01
U-235	A	2.5113E-02	1.0587E-01	1.0588E-01	0.458E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.8 keV) 7.0091305E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 20-JUL-2006 15:14:53 Page 1
New World Technology Spectrum name: 1N002752.An1

Sample description
PCB Hot Spot 84NPCBG63PE-001 368g
7/19/06 09:00

Acquisition information
Start time: 20-Jul-2006 14:29:42
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228 #B	9.7492E-03	6.9367E-02	6.9369E-02	0.923E-01
AM-241 #A	-1.1254E-01	-9.8209E-01	-9.8211E-01	0.200E+00
Bi-212 #B	-3.4458E-02	-1.4161E-01	-1.4162E-01	0.177E+00
BI-214 #F	4.7771E-01	3.7296E-01	3.7391E-01	0.239E+00
CO-60 #A	-4.3842E-02	1.7424E+02	1.7424E+02	0.440E-01
CS-137 #A	-8.5060E-03	-1.0995E-01	-1.0995E-01	0.394E-01
EU-152 #A	8.4787E-03	2.2268E-02	2.2273E-02	0.528E-01
EU-154 #A	-3.8200E-02	1.7433E+02	1.7433E+02	0.409E-01
K-40 #	1.4839E+00	1.6590E+00	1.6611E+00	0.998E+00
Pa-234 #B	-3.0408E-01	-1.4603E+00	-1.4604E+00	0.120E+00
Pb-210 #	1.2420E+01	2.1423E+01	2.1434E+01	0.859E+01
Pb-212 F	1.0575E-01	1.2149E-01	1.2163E-01	0.613E-01
Pb-214 F	2.4335E-01	1.5832E-01	1.5889E-01	0.389E-01
RA-226 #B	-1.1685E+00	-7.9858E+00	-7.9861E+00	0.974E+00
Th-230 #B	-1.5005E+00	-2.6710E+01	-2.6710E+01	0.962E+01
Th-234 B	-1.4588E-01	-2.5203E-01	-2.5216E-01	0.158E+01
Tl-208 #B	-4.1333E-03	-1.3470E-02	-1.3472E-02	0.292E-01
U-235 A	4.2882E-02	6.7043E-02	6.7085E-02	0.465E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2605.8 keV) 1.4730903E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 20-JUL-2006 15:36:09 Page 1
New World Technology Spectrum name: 2N003250.An1

Sample description
PCB Hot Spot 84NPCBG64PE-001 408g
7/19/06 09:10

Acquisition information
Start time: 20-Jul-2006 14:42:26
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		4.2705E-01	2.3769E-01	2.3888E-01	0.148E+00
AM-241	#A	2.7328E-01	1.3427E+00	1.3428E+00	0.638E+00
Bi-212	F	3.3229E-01	5.3184E-01	5.3216E-01	0.262E+00
BI-214	F	3.4470E-01	1.9164E-01	1.9260E-01	0.771E-01
CO-60	#B	-1.5490E-02	-8.5047E-02	-8.5051E-02	0.247E-01
Cs-137	#B	-3.5299E-03	-5.8616E-02	-5.8616E-02	0.392E-01
EU-152	B	7.5098E-02	1.1805E-01	1.1812E-01	0.961E-01
EU-154	B	1.2539E-02	1.1069E-01	1.1069E-01	0.599E-01
K-40		9.8132E+00	2.1192E+00	2.1885E+00	0.548E+00
PA-234	#F	1.4924E-01	3.3118E-01	3.3129E-01	0.142E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	3.4138E-01	1.5389E-01	1.5506E-01	0.734E-01
PB-214		3.5508E-01	2.0522E-01	2.0617E-01	0.841E-01
RA-226	A	4.7750E-01	1.4422E+00	1.4424E+00	0.831E+00
Th-230	#B	4.9049E+00	6.1212E+00	6.1273E+00	0.293E+02
TH-234	#B	1.7672E+00	3.9019E+00	3.9031E+00	0.197E+01
Tl-208	#F	7.3418E-02	5.1686E-02	5.1848E-02	0.432E-01
U-235	B	9.9775E-03	1.0207E-01	1.0207E-01	0.579E-01

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H - Halflife limit exceeded

---------------------------- S U M M A R Y ----------------------------

Total Activity (41.8 to 2673.8 keV) 1.1762969E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 22-AUG-2006 11:36:47 Page 1
New World Technology Spectrum name: 2N003763.An1

Sample description
PCB Hot Spot 84NPCBG65PE-002 352g
8/21/06 14:10

Acquisition information
Start time: 22-Aug-2006 10:51:40
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 2 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	2.1583E-01	1.6830E-01	1.6849E-01	0.178E+00
AM-241	#B	-2.3501E-01	-1.5022E+00	-1.5022E+00	0.583E+00
Bi-212	#B	-1.1174E-02	-2.9908E-01	-2.9908E-01	0.213E+00
BI-214	#F	1.4127E-01	1.1460E-01	1.1472E-01	0.950E-01
CO-60	#B	-2.8515E-02	7.5553E+01	7.5553E+01	0.286E-01
Cs-137	#B	-3.6384E-02	-9.4787E-02	-9.4797E-02	0.455E-01
EU-152	F	9.2673E-02	6.8331E-02	6.8417E-02	0.710E-01
EU-154	#B	-7.6597E-04	1.6986E+02	1.6986E+02	0.619E-01
K-40		3.1974E+00	9.8342E-01	9.9056E-01	0.635E+00
PA-234	#B	-2.8285E-04	-9.1693E-04	-9.1699E-04	0.867E-01
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	2.2057E-01	9.8759E-02	9.9097E-02	0.775E-01
PB-214	F	1.2863E-01	1.0006E-01	1.0018E-01	0.811E-01
RA-226	#B	-7.7108E-01	-2.6579E+00	-2.6581E+00	0.951E+00
Th-230	#B	-4.8050E+00	-4.9264E+01	-4.9265E+01	0.313E+02
TH-234	#F	3.7553E+00	3.0876E+00	3.0908E+00	0.203E+01
Tl-208	#	1.4616E-01	7.3081E-02	7.3283E-02	0.198E-01
U-235	#B	-1.9494E-02	-1.1095E-01	-1.1095E-01	0.489E-01

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---------- S U M M A R Y ----------
Total Activity (41.8 to 2673.8 keV) 7.4480743E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 19-JUL-2006 13:36:21 Page 1
New World Technology Spectrum name: 1N002729.An1

Sample description
PCB Hot Spot 84NPCBG66PE-001 427g
7/18/06 15:20

Acquisition information
Start time: 19-Jul-2006 12:51:10
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228		4.5956E-01	3.3186E-01	3.3284E-01	0.901E-01
AM-241	A	8.4233E-03	4.1608E-01	4.1608E-01	0.239E+00
Bi-212		2.5874E-01	4.8996E-01	4.9017E-01	0.248E+00
BI-214	F	5.1904E-01	2.6719E-01	2.6875E-01	0.291E+00
CO-60	#A	-6.9003E-03	-2.5530E-02	-2.5533E-02	0.379E-01
CS-137	#A	-6.2608E-03	-5.5866E-02	-5.5867E-02	0.264E-01
EU-152	C	1.8314E-01	1.8822E-01	1.8849E-01	0.782E-01
EU-154	C	5.1000E-02	9.1456E-02	9.1500E-02	0.471E-01
K-40		1.0515E+01	2.8196E+00	2.8796E+00	0.860E+00
Pa-234	#B	-3.0022E-01	-5.1070E+00	-5.1070E+00	0.985E-01
Pb-210	#	2.6189E+01	1.8542E+01	1.8599E+01	0.636E+01
Pb-212		3.5454E-01	1.6348E-01	1.6467E-01	0.581E-01
Pb-214	F	6.3142E-01	2.1761E-01	2.2042E-01	0.441E-01
RA-226	#B	-5.5073E-01	-3.3189E+00	-3.3190E+00	0.931E+00
Th-230	#B	8.1630E+00	2.4245E+01	2.4249E+01	0.117E+02
Th-234	A	9.1360E-01	1.7987E+00	1.7995E+00	0.154E+01
Tl-208	#B	-4.1819E-02	-6.0540E-02	-6.0585E-02	0.547E-01
U-235	A	2.4034E-02	7.9710E-02	7.9721E-02	0.457E-01

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---------- S U M M A R Y ----------

Total Activity (41.2 to 2605.8 keV) 3.8926838E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 04-MAY-2006 18:35:36 Page 1
New World Technology Spectrum name: 2N002339.An1

Sample description
PCB Hot Spot 84NPCBG71PE-001 373g
5/04/06 11:45

Acquisition information
Start time: 04-May-2006 17:50:29
Live time: 2700
Real time: 2704

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	C	3.0371E-01	2.1964E-01	2.2029E-01	0.164E+00
AM-241	#B	-3.5666E-01	-4.0582E+00	-4.0583E+00	0.614E+00
Bi-212	#B	-1.0374E-01	1.2762E+03	1.2762E+03	0.247E+00
BI-214	F	2.9380E-01	2.1736E-01	2.1798E-01	0.929E-01
CO-60	#C	1.4380E-02	3.1915E-02	3.1925E-02	0.113E-01
Cs-137	A	2.5015E-03	6.8937E-02	6.8937E-02	0.464E-01
EU-152	F	1.0527E-01	1.7341E-01	1.7350E-01	0.906E-01
EU-154	F	1.1522E-01	9.2175E-02	9.2396E-02	0.646E-01
K-40		8.2217E+00	2.0945E+00	2.1438E+00	0.615E+00
PA-234	#B	4.9407E-02	1.9625E-01	1.9627E-01	0.107E+00
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	2.1925E-01	1.3716E-01	1.3770E-01	0.708E-01
PB-214		3.4934E-01	2.2789E-01	2.2872E-01	0.977E-01
RA-226	#B	-5.4467E-02	-1.8306E+00	-1.8306E+00	0.928E+00
Th-230	B	-2.9299E+01	-2.4430E+02	-2.4431E+02	0.273E+02
TH-234	#	3.3149E+00	4.1396E+00	4.1437E+00	0.328E+01
Tl-208	#	1.7573E-01	1.1505E-01	1.1546E-01	0.185E-01
U-235	#B	-4.6586E-02	-2.6878E+00	-2.6878E+00	0.513E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.8 to 2675.5 keV) 1.2574748E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 09-MAY-2006 09:38:05 Page 1
New World Technology Spectrum name: 3N002405.An1

Sample description
PCB Hot Spot 84NPCBG72PE-002 325g
5/08/06 09:00

Acquisition information
Start time: 09-May-2006 08:48:30
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	#B	1.9170E-01	2.9096E-01	2.9116E-01	0.206E+00
AM-241	#B	-3.9577E-02	-6.5201E-01	-6.5201E-01	0.876E-01
Bi-212	F	4.4470E-01	5.0132E-01	5.0193E-01	0.213E+00
BI-214		4.0574E-01	2.7773E-01	2.7865E-01	0.128E+00
CO-60	#B	0.0000E+00	0.0000E+00	0.0000E+00	0.123E-01
Cs-137	A	4.1698E-03	7.6822E-02	7.6822E-02	0.494E-01
EU-152	F	1.6182E-01	3.0420E-01	3.0433E-01	0.928E-01
EU-154	B	4.5648E-02	7.5814E-02	7.5856E-02	0.588E-01
K-40		5.7808E+00	2.1931E+00	2.2166E+00	0.111E+01
PA-234	#B	-1.1063E-03	-2.6520E-01	-2.6520E-01	0.128E+00
Pb-210	#B	-1.8253E-01	-1.9372E+00	-1.9372E+00	0.108E+01
PB-212	F	2.8863E-01	1.6486E-01	1.6564E-01	0.817E-01
PB-214	A	7.0050E-02	1.8233E-01	1.8237E-01	0.108E+00
RA-226	A	3.3955E-01	1.5337E+00	1.5338E+00	0.878E+00
Th-230	#B	-1.2077E+01	2.3455E+04	2.3455E+04	0.592E+01
TH-234	B	1.8717E-01	5.0503E-01	5.0514E-01	0.779E+00
Tl-208	B	-1.2865E-02	-1.3793E-02	-1.3812E-02	0.139E+00
U-235	B	1.6003E-02	9.9788E-02	9.9792E-02	0.570E-01

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---------- S U M M A R Y ----------

Total Activity (41.7 to 2659.7 keV) 6.9198933E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 10-MAY-2006 20:08:20 Page 1
New World Technology Spectrum name: 1N001888.An1

Sample description
PCB Hot Spot 84NPCBG73PE-001 330g
5/08/06 09:05

Acquisition information
Start time: 10-May-2006 19:20:05
Live time: 2700
Real time: 2703

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228 #F	3.3692E-01	2.6097E-01	2.6165E-01	0.523E-01
AM-241 #A	-9.8064E-02	-8.2297E-01	-8.2299E-01	0.218E+00
Bi-212 #B	-6.2883E-02	-1.2463E+00	-1.2463E+00	0.292E+00
BI-214 #F	2.7795E-01	1.6677E-01	1.6748E-01	0.267E+00
CO-60 #A	1.6785E-02	2.9072E-02	2.9087E-02	0.213E-01
CS-137 #	3.2329E-02	5.6381E-02	5.6410E-02	0.209E-01
EU-152 #A	1.8306E-02	4.1482E-02	4.1494E-02	0.729E-01
EU-154 A	9.9459E-03	5.7965E-02	5.7968E-02	0.499E-01
K-40 #	7.7025E+00	2.5364E+00	2.5723E+00	0.216E+00
Pa-234 #B	-2.6043E-01	-1.0600E+00	-1.0601E+00	0.147E+00
Pb-210 #	1.5746E+01	1.7415E+01	1.7437E+01	0.681E+01
Pb-212	2.2263E-01	1.4066E-01	1.4120E-01	0.625E-01
Pb-214	3.9093E-01	1.8755E-01	1.8880E-01	0.396E-01
RA-226 #B	-5.3120E-01	-3.9041E+00	-3.9042E+00	0.887E+00
Th-230 #B	-6.8728E+00	-1.1800E+02	-1.1800E+02	0.726E+01
Th-234 #B	5.4803E-01	5.9454E-01	5.9532E-01	0.163E+01
Tl-208 #	1.0128E-01	7.1255E-02	7.1477E-02	0.167E-01
U-235 #F	5.5357E-02	6.9934E-02	7.0002E-02	0.465E-01

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SUMMARY

Total Activity (41.2 to 2608.8 keV) 2.4532183E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 19-MAY-2006 08:37:17 Page 1
New World Technology Spectrum name: 1N002047.An1

Sample description
PCB Hot Spot 84NPCBG74PE-001 552g
05/18/06 10:50

Acquisition information
Start time: 19-May-2006 07:52:06
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228	#F	3.6613E-01	1.7543E-01	1.7661E-01	0.312E-01
AM-241	A	6.2700E-02	2.5383E-01	2.5385E-01	0.146E+00
Bi-212	F	2.3795E-01	4.1445E-01	4.1467E-01	0.201E+00
BI-214	F	3.7340E-01	1.9335E-01	1.9447E-01	0.174E+00
CO-60	#A	0.0000E+00	0.0000E+00	0.0000E+00	0.126E-01
CS-137	A	5.8865E-03	3.1968E-02	3.1969E-02	0.167E-01
EU-152	#A	2.1766E-02	4.6036E-02	4.6052E-02	0.514E-01
EU-154	A	2.2825E-02	6.8010E-02	6.8021E-02	0.387E-01
K-40		5.8304E+00	1.6989E+00	1.7296E+00	0.128E+00
Pa-234	#B	-1.1569E-01	-3.0058E-01	-3.0064E-01	0.790E-01
Pb-210	#A	1.2862E+00	4.7505E+00	4.7510E+00	0.278E+01
Pb-212		3.0511E-01	1.1975E-01	1.2094E-01	0.488E-01
Pb-214		4.5465E-01	1.6614E-01	1.6806E-01	0.337E-01
RA-226	A	2.4859E-01	1.0044E+00	1.0045E+00	0.585E+00
Th-230	#B	7.1330E+00	1.9867E+01	1.9871E+01	0.954E+01
Th-234	A	4.3094E-01	7.9660E-01	7.9696E-01	0.963E+00
Tl-208	#	1.3992E-01	7.4649E-02	7.5054E-02	0.172E-01
U-235	B	-1.0756E-02	-1.1531E-01	-1.1531E-01	0.401E-01

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H - Halflife limit exceeded

---------------------------- S U M M A R Y ----------------------------
Total Activity (41.2 to 2605.8 keV) 7.3341546E+00 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 27-JUN-2006 17:40:20 Page 1
New World Technology Spectrum name: 1N002504.An1

Sample description
PCB Hot Spot 84NPCBG75PE-002 332g
6/27/06 15:00

Acquisition information
Start time: 27-Jun-2006 16:55:10
Live time: 2700
Real time: 2703

- -

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228	5.4380E-01	2.4748E-01	2.4932E-01	0.803E-01
AM-241 #A	-1.1842E-01	-9.5557E-01	-9.5559E-01	0.212E+00
Bi-212 B	2.3450E-01	5.3506E-01	5.3522E-01	0.272E+00
BI-214 #F	1.2761E+00	1.1503E+00	1.1525E+00	0.265E+00
CO-60 #A	-4.8595E-02	1.9313E+02	1.9313E+02	0.487E-01
CS-137 A	1.6774E-03	5.6963E-02	5.6963E-02	0.320E-01
EU-152 C	9.8124E-02	1.2963E-01	1.2974E-01	0.815E-01
EU-154 A	2.0089E-02	4.8426E-02	4.8439E-02	0.646E-01
K-40 #	5.3030E+00	2.5289E+00	2.5460E+00	0.111E+01
Pa-234 #B	-6.2516E-02	-1.0484E-01	-1.0490E-01	0.151E+00
Pb-210 #	1.4034E+01	2.1686E+01	2.1700E+01	0.881E+01
Pb-212 F	3.0762E-01	1.5374E-01	1.5469E-01	0.638E-01
Pb-214	4.5854E-01	2.3588E-01	2.3726E-01	0.572E-01
RA-226 #B	-1.0375E+00	-5.9733E+00	-5.9736E+00	0.111E+01
Th-230 #B	2.8031E+00	1.4853E+01	1.4854E+01	0.117E+02
Th-234 B	1.8520E-02	3.3542E-02	3.3557E-02	0.175E+01
Tl-208 #	1.5341E-01	1.1092E-01	1.1125E-01	0.324E-01
U-235 C	8.7940E-02	9.9828E-02	9.9948E-02	0.589E-01

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H - Halflife limit exceeded

---------- SUMMARY ----------
Total Activity (41.2 to 2605.8 keV) 2.2076841E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 05-JUL-2006 13:02:31 Page 1
New World Technology Spectrum name: 5N000139.An1

Sample description
PCB Hot Spot 84NPCBG76PE-002 300g
7/05/06 11:00

Acquisition information
Start time: 05-Jul-2006 12:17:23
Live time: 2700
Real time: 2701

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
Ac-228	#B	1.0844E-01	4.0010E-01	4.0015E-01	0.225E+00
AM-241	#B	-7.7209E-02	-5.6153E-01	-5.6154E-01	0.133E+00
Bi-212	B	1.9100E-01	5.9881E-01	5.9890E-01	0.310E+00
BI-214	F	6.0902E-01	3.4483E-01	3.4648E-01	0.129E+00
CO-60	#F	8.9944E-02	6.9753E-02	6.9931E-02	0.199E-01
CS-137	#B	-6.0498E-02	-2.1230E+00	-2.1230E+00	0.524E-01
EU-152	B	3.2591E-02	2.1091E-01	2.1092E-01	0.830E-01
EU-154	F	1.0673E-01	1.5463E-01	1.5475E-01	0.610E-01
K-40		5.1885E+00	2.4678E+00	2.4846E+00	0.137E+01
Pa-234	F	1.2487E-01	2.2785E-01	2.2795E-01	0.116E+00
Pb-210	#	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
Pb-212	F	2.6982E-01	1.8662E-01	1.8722E-01	0.103E+00
PB-214	F	5.1433E-01	2.7551E-01	2.7699E-01	0.905E-01
RA-226	#B	-7.0502E-01	-4.3890E+00	-4.3892E+00	0.115E+01
Th-230	#B	-1.8915E+01	3.4913E+04	3.4913E+04	0.100E+02
Th-234	F	1.9589E+00	1.1295E+00	1.1347E+00	0.105E+01
Tl-208	#	2.7085E-01	1.4501E-01	1.4578E-01	0.196E-01
U-235	#B	-1.0257E+00	-5.8826E+00	-5.8829E+00	0.129E+00

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---------- S U M M A R Y ----------

Total Activity (52.4 to 3339.1 keV) 6.3334575E+00 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 05-JUL-2006 13:05:13 Page 1
New World Technology Spectrum name: 1N002559.An1

Sample description
PCB Hot Spot 84NPCBG77PE-002 332g
7/05/06 09:45

Acquisition information
Start time: 05-Jul-2006 12:20:01
Live time: 2700
Real time: 2703

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	3.2108E-01	2.5907E-01	2.5968E-01	0.106E+00
AM-241 #A	-1.4096E-01	-1.5113E+00	-1.5113E+00	0.247E+00
Bi-212 A	2.3024E-01	5.7147E-01	5.7161E-01	0.316E+00
BI-214 #F	6.8191E-01	8.3516E-01	8.3602E-01	0.265E+00
CO-60 #A	-4.8595E-02	1.9313E+02	1.9313E+02	0.487E-01
CS-137 A	6.8073E-03	4.2289E-02	4.2290E-02	0.225E-01
EU-152 C	7.6302E-02	1.1010E-01	1.1018E-01	0.749E-01
EU-154 A	1.0321E-03	5.3503E-03	5.3506E-03	0.475E-01
K-40	5.5774E+00	2.5732E+00	2.5918E+00	0.111E+01
Pa-234 #B	6.8973E-02	7.3156E-02	7.3256E-02	0.148E+00
Pb-210	2.5796E+01	3.2227E+01	3.2259E+01	0.120E+02
Pb-212 F	2.9351E-01	1.5655E-01	1.5740E-01	0.671E-01
Pb-214	4.4026E-01	2.1476E-01	2.1615E-01	0.572E-01
RA-226 A	5.4386E-02	1.6716E+00	1.6716E+00	0.103E+01
Th-230 #B	1.4071E+01	4.2508E+01	4.2515E+01	0.180E+02
Th-234 #B	1.9177E-01	5.3049E-01	5.3059E-01	0.188E+01
Tl-208 #	1.3133E-01	1.0827E-01	1.0852E-01	0.311E-01
U-235 C	1.3629E-01	9.5638E-02	9.5938E-02	0.595E-01

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---------- S U M M A R Y ----------
Total Activity (41.2 to 2605.8 keV) 3.3241890E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 02-JUN-2006 08:20:56 Page 1
New World Technology Spectrum name: 2N002743.An1

Sample description
PCB Hot Spot 84NPCBG78PE-001 470g
05/31/06 14:35

Acquisition information
Start time: 02-Jun-2006 07:35:50
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	#F	2.1685E-01	2.1463E-01	2.1497E-01	0.125E+00
AM-241	#B	-1.7658E-01	-1.5255E+00	-1.5256E+00	0.440E+00
Bi-212	F	4.2812E-01	4.3743E-01	4.3808E-01	0.156E+00
BI-214	F	2.9455E-01	2.3687E-01	2.3744E-01	0.821E-01
CO-60	#B	-1.5375E-03	2.2451E+01	2.2451E+01	0.896E-02
Cs-137	#B	-1.0324E-03	-6.2586E-02	-6.2587E-02	0.398E-01
EU-152	F	8.4590E-02	1.4587E-01	1.4595E-01	0.754E-01
EU-154	F	6.8957E-02	1.0626E-01	1.0633E-01	0.539E-01
K-40		9.1641E+00	1.7746E+00	1.8463E+00	0.890E-01
PA-234	#B	1.0231E-01	1.7707E-01	1.7716E-01	0.116E+00
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		1.5998E-01	1.1735E-01	1.1769E-01	0.620E-01
PB-214		3.2548E-01	1.9654E-01	1.9737E-01	0.775E-01
RA-226	A	2.7332E-01	1.1920E+00	1.1921E+00	0.687E+00
Th-230	#B	-2.6036E+01	-7.7974E+01	-7.7987E+01	0.176E+02
TH-234		3.4954E+00	4.2320E+00	4.2365E+00	0.194E+01
Tl-208	#F	4.4095E-02	5.0482E-02	5.0541E-02	0.311E-01
U-235	B	1.1529E-02	7.1605E-02	7.1608E-02	0.410E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2675.5 keV) 1.4238061E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 11-JUL-2006 19:47:59 Page 1
New World Technology Spectrum name: 5N000170.An1

Sample description
PCB Hot Spot 84NPCBG79PE-001 361g
7/11/06 08:30

Acquisition information
Start time: 11-Jul-2006 19:02:50
Live time: 2700
Real time: 2701

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
Ac-228	#F	2.6401E-01	4.0698E-01	4.0725E-01	0.189E+00
AM-241	#B	-1.5055E-01	4.0131E+02	4.0131E+02	0.115E+00
Bi-212	F	7.4022E-01	7.0890E-01	7.1010E-01	0.239E+00
BI-214	F	2.8536E-01	2.6052E-01	2.6100E-01	0.116E+00
CO-60	#B	-1.3751E-02	-1.5680E-01	-1.5681E-01	0.228E-01
CS-137	#B	-9.6210E-03	-1.1028E-01	-1.1028E-01	0.475E-01
EU-152	#B	3.1471E-02	9.0393E-02	9.0410E-02	0.630E-01
EU-154	#B	-1.2940E-02	2.1007E+02	2.1007E+02	0.493E-01
K-40		9.5490E+00	2.3868E+00	2.4451E+00	0.100E+01
Pa-234	F	1.4815E-01	1.9147E-01	1.9165E-01	0.106E+00
Pb-210	#	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
Pb-212	F	3.8095E-01	1.6637E-01	1.6771E-01	0.856E-01
PB-214		4.6336E-01	2.3198E-01	2.3341E-01	0.826E-01
RA-226	#B	-8.8286E-01	-7.2462E+00	-7.2464E+00	0.106E+01
Th-230	#B	-8.4963E+00	-6.2266E+01	-6.2268E+01	0.108E+02
Th-234	F	1.5084E+00	8.6670E-01	8.7073E-01	0.939E+00
Tl-208	F	2.8055E-01	1.0687E-01	1.0800E-01	0.764E-01
U-235	#B	-7.8116E-01	-1.8252E+00	-1.8257E+00	0.106E+00

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S U M M A R Y

Total Activity (52.4 to 3339.1 keV) 1.1418896E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 19-JUL-2006 13:39:56 Page 1
New World Technology Spectrum name: 2N003231.An1

Sample description
PCB Hot Spot 84NPCBG80PE-003 508g
7/18/06 15:30

Acquisition information
Start time: 19-Jul-2006 12:54:49
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	3.6010E-01	1.9657E-01	1.9759E-01	0.133E+00
AM-241 #A	5.4281E-02	1.1206E+00	1.1206E+00	0.560E+00
Bi-212 F	5.6421E-01	4.3445E-01	4.3559E-01	0.172E+00
BI-214 #F	4.1901E-01	2.3272E-01	2.3388E-01	0.812E-01
CO-60 #B	-1.6100E-02	-1.7009E-01	-1.7009E-01	0.216E-01
Cs-137 #B	-1.4825E-02	-1.1518E-01	-1.1518E-01	0.440E-01
EU-152 F	1.1422E-01	1.2327E-01	1.2343E-01	0.829E-01
EU-154 B	1.6123E-02	4.1889E-02	4.1898E-02	0.603E-01
K-40	9.8065E+00	1.8778E+00	1.9556E+00	0.440E+00
PA-234 #F	2.0417E-01	3.3614E-01	3.3633E-01	0.134E+00
Pb-210 #C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	4.3008E-01	1.4704E-01	1.4898E-01	0.666E-01
PB-214	3.8714E-01	1.7929E-01	1.8058E-01	0.744E-01
RA-226 A	6.6892E-01	1.3209E+00	1.3214E+00	0.738E+00
Th-230 #B	-3.1602E+00	-1.0641E+01	-1.0643E+01	0.257E+02
TH-234 A	1.1056E+00	2.6126E+00	2.6133E+00	0.250E+01
Tl-208	2.3351E-01	1.1364E-01	1.1438E-01	0.137E-01
U-235 B	-3.7347E-02	1.7804E+02	1.7804E+02	0.512E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2673.8 keV) 1.2404678E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 23-JUN-2006 22:06:25 Page 1
New World Technology Spectrum name: 1N002486.An1

Sample description
PCB Hot Spot 84NPCBG81PE-001 421g
6/23/06 08:30

Acquisition information
Start time: 23-Jun-2006 21:21:15
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
AC-228	7.3384E-01	4.2397E-01	4.2593E-01	0.847E-01
AM-241 #A	-8.2672E-02	-9.9939E-01	-9.9940E-01	0.233E+00
Bi-212	3.9121E-01	3.9753E-01	3.9812E-01	0.142E+00
BI-214 #F	1.6068E+00	1.4137E+00	1.4166E+00	0.379E+00
CO-60 #A	-3.5484E-02	-2.5822E-01	-2.5822E-01	0.405E-01
CS-137 #A	-3.6740E-03	1.5567E+02	1.5567E+02	0.393E-01
EU-152 A	4.8753E-02	1.0349E-01	1.0352E-01	0.623E-01
EU-154 A	2.9674E-02	4.7446E-02	4.7475E-02	0.504E-01
K-40	1.1316E+01	2.7114E+00	2.7835E+00	0.168E+00
Pa-234 #B	-2.9508E-01	-1.9910E+00	-1.9911E+00	0.986E-01
Pb-210 A	5.2237E+00	1.5975E+01	1.5977E+01	0.834E+01
Pb-212 F	4.1444E-01	1.4557E-01	1.4739E-01	0.543E-01
Pb-214	4.6297E-01	1.8727E-01	1.8903E-01	0.470E-01
RA-226 A	1.0847E-02	1.3041E+00	1.3041E+00	0.811E+00
Th-230 #B	-5.4029E+00	6.7968E+04	6.7968E+04	0.129E+02
Th-234 A	9.9564E-01	1.4742E+00	1.4752E+00	0.157E+01
Tl-208 #	2.3082E-01	9.2479E-02	9.3366E-02	0.131E-01
U-235 A	1.5562E-02	8.3027E-02	8.3031E-02	0.506E-01

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C - Area < Critical level.
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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.2 to 2605.8 keV) 1.5156496E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 14-DEC-2005 10:10:44 Page 1
New World Technology Spectrum name: 1N001444.An1

Sample description
PCB Hot Spot 84NPCBG82PE-001 437g
12/13/05 13:15

Acquisition information
Start time: 14-Dec-2005 09:25:36
Live time: 2700
Real time: 2701

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		5.2709E-01	3.1087E-01	3.1225E-01	0.755E-01
AM-241	A	7.2074E-03	2.7467E-01	2.7467E-01	0.155E+00
Bi-212	B	1.5753E-01	5.2311E-01	5.2319E-01	0.291E+00
BI-214	F	5.1342E-01	2.0768E-01	2.0964E-01	0.180E+00
CO-60	#	3.7192E-02	4.9214E-02	4.9257E-02	0.224E-01
CS-137	#A	-3.1480E-02	-1.9116E-01	-1.9117E-01	0.472E-01
EU-152	C	7.2346E-02	9.5880E-02	9.5964E-02	0.635E-01
EU-154	A	4.0919E-02	8.8301E-02	8.8330E-02	0.488E-01
K-40		1.9907E+01	3.2861E+00	3.4675E+00	0.163E+00
Pa-234	#A	9.4374E-02	2.5499E-01	2.5505E-01	0.113E+00
Pb-210	#	1.2604E+01	1.7217E+01	1.7231E+01	0.704E+01
Pb-212		2.9594E-01	1.2592E-01	1.2699E-01	0.517E-01
Pb-214		3.6092E-01	1.5847E-01	1.5973E-01	0.548E-01
RA-226	A	6.5117E-02	1.3873E+00	1.3873E+00	0.796E+00
Th-230	#B	8.3290E+00	9.8358E+00	9.8466E+00	0.114E+02
Th-234	A	5.0868E-01	2.1698E+00	2.1700E+00	0.145E+01
Tl-208	C	7.3749E-02	4.6323E-02	4.6504E-02	0.240E-01
U-235	C	8.1840E-02	8.4318E-02	8.4441E-02	0.439E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2654.1 keV) 3.3732948E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 14-DEC-2005 12:19:45 Page 1
New World Technology Spectrum name: 2N001860.An1

Sample description
PCB Hot Spot 84NPCBG83PE-002 396g
12/13/2005 13:20

Acquisition information
Start time: 14-Dec-2005 11:34:36
Live time: 2700
Real time: 2705

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		4.7719E-01	2.5931E-01	2.6067E-01	0.125E+00
AM-241	#A	6.3041E-02	5.8292E-01	5.8293E-01	0.360E+00
Bi-212		6.0276E-01	4.9639E-01	4.9752E-01	0.179E+00
BI-214	F	4.6865E-01	2.1346E-01	2.1505E-01	0.550E-01
CO-60	#B	7.3501E-03	3.6462E-02	3.6465E-02	0.249E-01
Cs-137	#B	-6.7058E-04	-8.3647E-02	-8.3647E-02	0.450E-01
EU-152	B	7.2615E-02	1.1266E-01	1.1274E-01	0.106E+00
EU-154	F	8.9006E-02	9.6648E-02	9.6774E-02	0.708E-01
K-40		2.5182E+01	3.2900E+00	3.5763E+00	0.551E+00
PA-234	#B	6.9539E-03	1.8355E-02	1.8359E-02	0.780E-01
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.7146E-01	1.5409E-01	1.5547E-01	0.635E-01
PB-214		4.7371E-01	2.1459E-01	2.1621E-01	0.820E-01
RA-226		1.1122E+00	1.5009E+00	1.5022E+00	0.803E+00
Th-230	#B	-4.4202E+00	6.0129E+04	6.0129E+04	0.141E+02
TH-234	C	3.2325E+00	2.2029E+00	2.2102E+00	0.305E+01
Tl-208	B	4.1001E-02	1.9099E-02	1.9235E-02	0.605E-01
U-235	C	6.1661E-02	1.6100E-01	1.6104E-01	0.568E-01

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H - Halflife limit exceeded

----------------------------- S U M M A R Y ----------------------------
Total Activity (41.8 to 2674.9 keV) 2.8687994E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 23-NOV-2005 06:31:41 Page 1
New World Technology Spectrum name: 2N001782.An1

Sample description
PCB Hot Spot 84NPCBG84PE-002 342g
11/22/2005 12:35

Acquisition information
Start time: 22-Nov-2005 22:43:56
Live time: 2700
Real time: 2704

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		7.2623E-01	2.7176E-01	2.7475E-01	0.122E+00
AM-241	#A	5.1096E-01	1.4339E+00	1.4342E+00	0.675E+00
Bi-212		7.3811E-01	5.2343E-01	5.2504E-01	0.150E+00
BI-214		7.3020E-01	2.9263E-01	2.9544E-01	0.742E-01
CO-60	#B	-2.3404E-02	-1.5638E-01	-1.5639E-01	0.288E-01
Cs-137	#B	-8.6963E-02	-2.0904E+00	-2.0904E+00	0.499E-01
EU-152	F	1.8488E-01	2.0428E-01	2.0453E-01	0.105E+00
EU-154	C	8.6169E-02	1.1678E-01	1.1688E-01	0.651E-01
K-40		1.6029E+01	2.8779E+00	3.0130E+00	0.638E+00
PA-234	#B	-5.6420E-02	8.2289E+02	8.2289E+02	0.156E+00
Pb-210	#	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		5.2993E-01	1.8235E-01	1.8472E-01	0.697E-01
PB-214		4.5466E-01	2.2390E-01	2.2532E-01	0.780E-01
RA-226	A	8.4345E-01	1.6767E+00	1.6774E+00	0.922E+00
Th-230	#A	2.8460E+01	5.9262E+01	5.9283E+01	0.342E+02
TH-234	A	2.5938E+00	3.7355E+00	3.7383E+00	0.300E+01
Tl-208		1.7991E-01	1.0088E-01	1.0137E-01	0.613E-01
U-235	A	3.0421E-02	1.5867E-01	1.5868E-01	0.491E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2674.9 keV) 2.1981928E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 14-NOV-2005 08:08:39 Page 1
New World Technology Spectrum name: 3N001766.An1

Sample description
PCB Hot Spot 84NPCBG85PE-001 298g
11/11/05 15:50

Acquisition information
Start time: 14-Nov-2005 07:23:34
Live time: 2700
Real time: 2702

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***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	2.9558E-01	3.9090E-01	3.9125E-01	0.240E+00
AM-241	#A	9.9447E-02	2.7771E-01	2.7776E-01	0.123E+00
Bi-212	B	-4.3102E-02	1.5214E+03	1.5214E+03	0.309E+00
BI-214	#	2.7587E-01	2.6815E-01	2.6859E-01	0.128E+00
CO-60	#B	-6.0359E-02	1.6962E+02	1.6962E+02	0.428E-01
Cs-137	#	8.3004E-02	1.2742E-01	1.2751E-01	0.593E-01
EU-152	B	5.9475E-02	1.5340E-01	1.5343E-01	0.831E-01
EU-154	#B	-6.7848E-03	-6.9771E-02	-6.9772E-02	0.580E-01
K-40		1.3177E+01	2.7165E+00	2.8135E+00	0.676E+00
PA-234	#	1.5531E-01	2.2805E-01	2.2821E-01	0.106E+00
Pb-210	#A	1.1389E+00	2.6525E+00	2.6533E+00	0.123E+01
PB-212	F	4.3765E-01	1.7258E-01	1.7429E-01	0.747E-01
PB-214		3.0088E-01	2.4515E-01	2.4572E-01	0.129E+00
RA-226	A	9.0382E-01	1.7465E+00	1.7472E+00	0.965E+00
Th-230	A	6.3517E+00	2.9086E+01	2.9088E+01	0.111E+02
TH-234	C	1.4723E+00	1.4054E+00	1.4078E+00	0.967E+00
Tl-208	#	3.2133E-01	1.6781E-01	1.6876E-01	0.227E-01
U-235	A	2.9079E-02	1.0923E-01	1.0924E-01	0.594E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.7 to 2660.6 keV) 1.4751420E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 28-MAR-2006 15:52:54 Page 1
New World Technology Spectrum name: 3N002116.An1

Sample description
PCB Hot Spot 84NPCBG86PE-001 548g
3/23/06 10:10

Acquisition information
Start time: 28-Mar-2006 15:07:48
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	3.8002E-01	3.2329E-01	3.2398E-01	0.131E+00
AM-241	A	6.5169E-02	1.4243E-01	1.4247E-01	0.684E-01
Bi-212	F	5.5600E-01	4.1022E-01	4.1139E-01	0.159E+00
BI-214	F	2.9215E-01	1.5113E-01	1.5201E-01	0.811E-01
CO-60	#	5.2574E-02	4.2024E-02	4.2126E-02	0.130E-01
Cs-137	A	8.3312E-03	5.8158E-02	5.8160E-02	0.352E-01
EU-152	F	1.3568E-01	1.5030E-01	1.5049E-01	0.493E-01
EU-154	B	1.3280E-02	7.9666E-02	7.9669E-02	0.440E-01
K-40		1.5192E+01	2.3746E+00	2.5204E+00	0.794E+00
PA-234	#B	-3.6236E-02	-4.3590E-01	-4.3591E-01	0.624E-01
Pb-210	#B	-8.9015E-02	-1.2823E+00	-1.2823E+00	0.698E+00
PB-212		2.1630E-01	1.0417E-01	1.0486E-01	0.506E-01
PB-214		1.8935E-01	1.8896E-01	1.8926E-01	0.766E-01
RA-226	A	1.6013E-01	9.4074E-01	9.4078E-01	0.539E+00
Th-230	B	-4.7462E+00	-5.6082E+01	-5.6082E+01	0.595E+01
TH-234	C	7.4393E-01	1.0528E+00	1.0536E+00	0.540E+00
Tl-208	C	6.7335E-02	6.6823E-02	6.6928E-02	0.613E-01
U-235	#B	-2.0072E-02	-2.1170E-01	-2.1170E-01	0.338E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2660.5 keV) 1.6878647E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 13-JUL-2006 13:49:34 Page 1
New World Technology Spectrum name: 1N002649.An1

Sample description
PCB Hot Spot 84NPCBG87PE-002 428g
7/12/06 14:10

Acquisition information
Start time: 13-Jul-2006 13:04:22
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228 #F	5.1738E-01	2.8338E-01	2.8484E-01	0.402E-01
AM-241 #A	-9.3495E-02	-1.0777E+00	-1.0777E+00	0.216E+00
Bi-212	3.3283E-01	5.1544E-01	5.1577E-01	0.268E+00
BI-214 #F	3.8049E-01	1.8363E-01	1.8484E-01	0.276E+00
CO-60 #A	-3.7696E-02	1.4981E+02	1.4981E+02	0.378E-01
CS-137 A	1.5036E-03	5.3977E-02	5.3977E-02	0.339E-01
EU-152 #C	7.4822E-02	8.4840E-02	8.4942E-02	0.646E-01
EU-154 #A	-2.7650E-02	-7.5880E-01	-7.5880E-01	0.412E-01
K-40	7.9436E+00	2.5086E+00	2.5472E+00	0.859E+00
Pa-234 #B	-2.2904E-01	-1.4230E+00	-1.4231E+00	0.128E+00
Pb-210	1.3064E+01	1.5558E+01	1.5575E+01	0.648E+01
Pb-212	2.8932E-01	1.4786E-01	1.4873E-01	0.643E-01
Pb-214	5.4563E-01	2.0552E-01	2.0774E-01	0.428E-01
RA-226 A	2.0006E-01	1.4537E+00	1.4538E+00	0.871E+00
Th-230 #B	-3.2034E+00	-5.5233E+01	-5.5233E+01	0.881E+01
Th-234 B	-7.4825E-02	-1.1064E-01	-1.1072E-01	0.158E+01
Tl-208 #	2.1829E-01	1.1109E-01	1.1175E-01	0.261E-01
U-235 A	3.4402E-02	9.9560E-02	9.9579E-02	0.499E-01

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S U M M A R Y

Total Activity (41.2 to 2605.8 keV) 2.2910730E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 27-JUN-2006 17:50:41 Page 1
New World Technology Spectrum name: 3N002991.An1

Sample description
PCB Hot Spot 84NPCBG88PE-002 415g
6/27/06 15:10

Acquisition information
Start time: 27-Jun-2006 17:05:36
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	5.2399E-01	3.8246E-01	3.8357E-01	0.178E+00
AM-241 #A	5.1809E-03	1.5579E-01	1.5579E-01	0.791E-01
Bi-212 F	3.9618E-01	6.0799E-01	6.0839E-01	0.299E+00
BI-214 F	2.5346E-01	2.3996E-01	2.4037E-01	0.108E+00
CO-60 #B	-2.0790E-02	-1.4092E-01	-1.4093E-01	0.237E-01
Cs-137 #B	-5.4045E-02	-2.4183E+00	-2.4183E+00	0.411E-01
EU-152 F	1.3190E-01	2.2648E-01	2.2660E-01	0.536E-01
EU-154 #B	1.5804E-03	2.8360E-02	2.8360E-02	0.502E-01
K-40	1.2619E+01	2.2448E+00	2.3519E+00	0.198E+00
PA-234 #F	1.2913E-01	2.4752E-01	2.4763E-01	0.102E+00
Pb-210 #B	-3.1356E-01	-2.0122E+00	-2.0123E+00	0.827E+00
PB-212	3.3253E-01	1.5563E-01	1.5673E-01	0.698E-01
PB-214	2.7250E-01	1.9464E-01	1.9523E-01	0.953E-01
RA-226 A	2.0522E-01	1.3302E+00	1.3302E+00	0.759E+00
Th-230 #B	-3.7413E+00	-3.0158E+01	-3.0159E+01	0.765E+01
TH-234 B	5.2554E-01	6.5589E-01	6.5654E-01	0.635E+00
Tl-208 #	1.7258E-01	8.7788E-02	8.8311E-02	0.818E-01
U-235 B	4.5351E-03	1.3238E-02	1.3240E-02	0.446E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.7 to 2660.0 keV) 1.4570701E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 27-JUN-2006 17:58:08 Page 1
New World Technology Spectrum name: 2N003025.An1

Sample description
PCB Hot Spot 84NPCBG89PE-002 328g
6/27/06 15:20

Acquisition information
Start time: 27-Jun-2006 17:09:28
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	5.2374E-01	3.0329E-01	3.0469E-01	0.184E+00
AM-241 #B	-3.5702E-02	-1.5413E+00	-1.5413E+00	0.808E+00
Bi-212	4.4519E-01	6.2568E-01	6.2617E-01	0.300E+00
BI-214 F	3.6408E-01	3.0584E-01	3.0651E-01	0.115E+00
CO-60 #B	3.4002E-03	7.2130E-02	7.2130E-02	0.383E-01
Cs-137 #B	-4.4429E-03	-8.5944E-02	-8.5944E-02	0.537E-01
EU-152 F	9.7087E-02	1.4811E-01	1.4821E-01	0.969E-01
EU-154 B	3.6622E-02	1.7534E-01	1.7535E-01	0.942E-01
K-40	8.7750E+00	2.2828E+00	2.3345E+00	0.681E+00
PA-234 B	5.6163E-02	1.9955E-01	1.9957E-01	0.145E+00
Pb-210 #F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	2.6511E-01	1.9157E-01	1.9213E-01	0.100E+00
PB-214	2.8399E-01	2.5892E-01	2.5941E-01	0.106E+00
RA-226 #B	-1.2279E-01	-2.4552E+00	-2.4552E+00	0.121E+01
Th-230 #B	-3.9257E+01	-7.3188E+02	-7.3188E+02	0.273E+02
TH-234 #B	3.6637E-01	2.6356E+00	2.6357E+00	0.160E+01
Tl-208 #F	2.8280E-01	1.5238E-01	1.5319E-01	0.213E-01
U-235 #B	-6.8768E-04	-2.1223E-02	-2.1224E-02	0.715E-01

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---------- S U M M A R Y ----------
Total Activity (41.8 to 2673.8 keV) 1.0939943E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 22-MAY-2006 15:35:32 Page 1
New World Technology Spectrum name: 2N002635.An1

Sample description
PCB Hot Spot 84NPCBG90PE-002 412g
5/22/06 11:15

Acquisition information
Start time: 22-May-2006 14:42:11
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Activity picoCi/g	Time of Count Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		5.8564E-01	2.5274E-01	2.5483E-01	0.163E+00
AM-241	#A	8.5909E-02	1.2050E+00	1.2050E+00	0.622E+00
Bi-212	F	4.5133E-01	4.2290E-01	4.2364E-01	0.173E+00
BI-214	F	2.8809E-01	1.7215E-01	1.7289E-01	0.768E-01
CO-60	#A	6.2726E-03	1.8703E-02	1.8706E-02	0.102E-01
Cs-137	A	1.8875E-03	5.6337E-02	5.6337E-02	0.394E-01
EU-152	B	5.4500E-02	8.1937E-02	8.1993E-02	0.700E-01
EU-154	C	1.3968E-01	9.1350E-02	9.1678E-02	0.629E-01
K-40		1.1545E+01	2.1277E+00	2.2224E+00	0.102E+00
PA-234	#B	-3.0613E-03	-7.5249E-02	-7.5249E-02	0.105E+00
Pb-210	C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	2.4831E-01	1.4630E-01	1.4695E-01	0.741E-01
PB-214		3.1069E-01	1.8107E-01	1.8189E-01	0.760E-01
RA-226	A	1.8242E-01	1.5317E+00	1.5317E+00	0.881E+00
Th-230	B	-2.5291E+01	-1.7866E+02	-1.7867E+02	0.232E+02
TH-234	#	4.7729E+00	7.1404E+00	7.1453E+00	0.310E+01
Tl-208	B	0.0000E+00	8.2553E+02	8.2553E+02	0.111E+00
U-235	A	2.6713E-02	1.2607E-01	1.2608E-01	0.531E-01

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S U M M A R Y

Total Activity (41.8 to 2675.5 keV) 1.8202377E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 19-MAY-2006 06:12:38 Page 1
New World Technology Spectrum name: 1N002045.An1

Sample description
PCB Hot Spot 84NPCBG91PE-002 387g
05/18/06 09:35

Acquisition information
Start time: 19-May-2006 05:27:28
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	F	3.5470E-01	2.9942E-01	3.0007E-01	0.153E+00
AM-241	#A	-5.0961E-02	-5.9441E-01	-5.9441E-01	0.217E+00
Bi-212	F	4.0416E-01	4.9703E-01	4.9754E-01	0.210E+00
BI-214	B	0.0000E+00	0.0000E+00	0.0000E+00	0.227E+00
CO-60	#A	8.0303E-03	1.3909E-02	1.3916E-02	0.180E-01
CS-137	A	1.5622E-02	5.9255E-02	5.9261E-02	0.301E-01
EU-152	C	1.9997E-01	1.9028E-01	1.9060E-01	0.786E-01
EU-154	A	2.3020E-02	5.3569E-02	5.3584E-02	0.524E-01
K-40		1.0435E+01	2.7144E+00	2.7757E+00	0.183E+00
Pa-234	B	1.1782E-01	2.4898E-01	2.4907E-01	0.149E+00
Pb-210	#B	-7.4532E-01	-1.1850E+01	-1.1850E+01	0.659E+01
Pb-212		3.8797E-01	1.6535E-01	1.6676E-01	0.690E-01
Pb-214		5.3337E-01	2.6861E-01	2.7024E-01	0.821E-01
RA-226		1.3518E+00	1.4655E+00	1.4674E+00	0.786E+00
Th-230	#B	-5.0020E+00	-1.4413E+02	-1.4413E+02	0.848E+01
Th-234	#B	7.4870E-02	2.6682E-01	2.6685E-01	0.171E+01
Tl-208		2.3638E-01	1.0987E-01	1.1065E-01	0.234E-01
U-235	B	6.0126E-02	5.9331E-02	5.9425E-02	0.619E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2605.8 keV) 1.3348153E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 22-MAY-2006 15:20:45 Page 1
New World Technology Spectrum name: 3N002618.An1

Sample description
PCB Hot Spot 84NPCBG92PE-001 438g
5/22/06 11:10

Acquisition information
Start time: 22-May-2006 14:35:39
Live time: 2700
Real time: 2702

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	4.3739E-01	3.9459E-01	3.9534E-01	0.162E+00
AM-241	#A	2.3374E-02	1.6717E-01	1.6718E-01	0.824E-01
Bi-212	F	3.8181E-01	4.8682E-01	4.8728E-01	0.227E+00
BI-214	F	3.5774E-01	2.1081E-01	2.1175E-01	0.936E-01
CO-60	#	4.2416E-02	3.8367E-02	3.8439E-02	0.898E-02
Cs-137	A	1.9519E-03	5.2209E-02	5.2209E-02	0.348E-01
EU-152	F	1.5469E-01	1.6881E-01	1.6903E-01	0.651E-01
EU-154	#F	7.5420E-02	1.0080E-01	1.0089E-01	0.572E-01
K-40		9.6700E+00	2.1007E+00	2.1685E+00	0.805E+00
PA-234	#B	2.0575E-02	1.7000E-01	1.7001E-01	0.910E-01
Pb-210	#B	-9.0215E-02	-1.5920E+00	-1.5920E+00	0.842E+00
PB-212	F	5.0048E-01	1.5062E-01	1.5317E-01	0.642E-01
PB-214		3.8336E-01	2.0937E-01	2.1045E-01	0.874E-01
RA-226	A	5.0983E-01	1.2904E+00	1.2907E+00	0.720E+00
Th-230	#B	-8.6662E+00	2.7488E+04	2.7488E+04	0.791E+01
TH-234		8.9601E-01	1.1123E+00	1.1134E+00	0.601E+00
Tl-208	B	1.1913E-02	9.4727E-03	9.4958E-03	0.863E-01
U-235	A	2.2333E-02	9.8264E-02	9.8272E-02	0.464E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2661.2 keV) 1.2669158E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 04-MAY-2006 18:42:34 Page 1
New World Technology Spectrum name: 1N001814.An1

Sample description
PCB Hot Spot 84NPCBG93PE-001 472g
5/04/06 14:30

Acquisition information
Start time: 04-May-2006 17:57:25
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228	6.1070E-01	2.5181E-01	2.5409E-01	0.368E-01
AM-241 #A	-8.3846E-02	-7.4606E-01	-7.4607E-01	0.156E+00
Bi-212 F	3.3795E-01	4.5192E-01	4.5231E-01	0.201E+00
BI-214 #F	6.3228E-01	3.5292E-01	3.5467E-01	0.266E+00
CO-60 #A	0.0000E+00	0.0000E+00	0.0000E+00	0.147E-01
CS-137 A	1.0858E-02	2.4868E-02	2.4876E-02	0.110E-01
EU-152 C	1.0941E-01	9.8363E-02	9.8549E-02	0.576E-01
EU-154 A	1.8507E-02	7.1567E-02	7.1574E-02	0.472E-01
K-40 #	6.8138E+00	1.9782E+00	2.0142E+00	0.149E+00
Pa-234 #B	-1.4720E-01	-7.0415E-01	-7.0419E-01	0.116E+00
Pb-210 #	9.6284E+00	1.3752E+01	1.3762E+01	0.587E+01
Pb-212	3.5722E-01	1.2194E-01	1.2354E-01	0.438E-01
Pb-214	3.6814E-01	1.6370E-01	1.6498E-01	0.422E-01
RA-226 A	1.8883E-01	1.1479E+00	1.1480E+00	0.662E+00
Th-230 #B	-3.3047E-02	-1.5558E+01	-1.5558E+01	0.888E+01
Th-234 B	-6.6724E-03	-8.0382E-03	-8.0467E-03	0.123E+01
Tl-208	1.5414E-01	8.1146E-02	8.1598E-02	0.182E-01
U-235 C	6.5877E-02	8.8003E-02	8.8079E-02	0.386E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2606.4 keV) 1.8902639E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 16-OCT-2005 17:32:50 Page 1
New World Technology Spectrum name: 2N001498.An1

Sample description
PCB Hot Spot 84NPCBG94PE-001 405g
10/12/2005 13:38

Acquisition information
Start time: 16-Oct-2005 16:28:08
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		2.6068E-01	2.1413E-01	2.1462E-01	0.103E+00
AM-241		8.1673E-01	1.3694E+00	1.3701E+00	0.586E+00
Bi-212	C	1.7834E-01	2.6751E-01	2.6769E-01	0.130E+00
BI-214		3.9067E-01	2.0283E-01	2.0399E-01	0.519E-01
CO-60	#B	-6.2884E-03	-4.5816E-02	-4.5817E-02	0.243E-01
Cs-137	#B	-4.6553E-02	-4.6983E-01	-4.6983E-01	0.447E-01
EU-152	#B	-4.2315E-02	2.6678E+02	2.6678E+02	0.767E-01
EU-154	A	4.4066E-02	7.2241E-02	7.2282E-02	0.642E-01
K-40		8.9139E+00	1.9742E+00	2.0356E+00	0.202E+00
PA-234	#B	1.0177E-01	1.0271E-01	1.0287E-01	0.135E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.8968E-01	1.4516E-01	1.4677E-01	0.570E-01
PB-214		3.1434E-01	1.9774E-01	1.9852E-01	0.745E-01
RA-226	A	4.6806E-01	1.4255E+00	1.4257E+00	0.787E+00
Th-230	#B	2.2732E+01	6.9107E+01	6.9118E+01	0.304E+02
TH-234	#	3.5021E+00	3.2913E+00	3.2971E+00	0.244E+01
Tl-208	B	5.3303E-02	3.2765E-02	3.2899E-02	0.548E-01
U-235	C	4.9063E-02	8.4257E-02	8.4301E-02	0.433E-01

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---------- S U M M A R Y ----------

Total Activity (41.8 to 2674.9 keV) 1.4588125E+01 picoCi/g

Laboratory: New World Technology

2N001499.rpt

ORTEC g v - i (3263) wan32 G53W2.03 16-OCT-2005 18:19:47 Page 1
New World Technology   Spectrum name: 2N001499.An1

Sample description
PCB Hot Spot 84NPCBG95PE-001 423g
10/12/2005 13:43

Acquisition information
Start time: 16-Oct-2005 17:34:38
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	3.3682E-01	2.0296E-01	2.0382E-01	0.113E+00
AM-241	A	1.7652E-02	6.6008E-01	6.6008E-01	0.361E+00
Bi-212	F	5.8725E-01	4.1442E-01	4.1570E-01	0.115E+00
BI-214	#	2.7239E-01	1.7651E-01	1.7716E-01	0.547E-01
CO-60	#B	-2.1073E-02	-1.4857E-01	-1.4858E-01	0.243E-01
Cs-137	#A	1.2869E-02	4.5161E-02	4.5166E-02	0.318E-01
EU-152	#B	2.5959E-02	4.4961E-02	4.4985E-02	0.967E-01
EU-154	A	3.4422E-02	7.3298E-02	7.3323E-02	0.635E-01
K-40		8.6966E+00	1.8267E+00	1.8897E+00	0.993E-01
PA-234	#B	1.1036E-01	2.5150E-01	2.5158E-01	0.117E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.9579E-01	1.3260E-01	1.3441E-01	0.467E-01
PB-214		4.0910E-01	1.8581E-01	1.8720E-01	0.587E-01
RA-226	A	6.0663E-01	1.4471E+00	1.4475E+00	0.790E+00
Th-230	#A	1.0175E+01	2.6606E+01	2.6612E+01	0.191E+02
TH-234	#B	0.0000E+00	1.0887E+04	1.0887E+04	0.221E+01
Tl-208	#B	1.4995E-03	1.5152E-03	1.5175E-03	0.628E-01
U-235	A	4.4463E-02	9.8090E-02	9.8121E-02	0.459E-01

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H - Halflife limit exceeded

---------------------------- S U M M A R Y ---------------------------

Total Activity (41.8 to 2674.9 keV) 1.0697969E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 16-OCT-2005 18:24:31 Page 1
New World Technology Spectrum name: 3N001562.An1

Sample description
PCB Hot Spot 84NPCBG102PE-001 401g
10/12/2005 13:46

Acquisition information
Start time: 16-Oct-2005 17:36:21
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228 #F	3.7509E-01	2.9233E-01	2.9307E-01	0.166E+00
AM-241 #B	-4.4586E-02	-5.7911E-01	-5.7912E-01	0.526E-01
Bi-212 F	7.3107E-01	6.2038E-01	6.2171E-01	0.247E+00
BI-214	2.4982E-01	1.9852E-01	1.9901E-01	0.882E-01
CO-60 #B	-4.7348E-02	-3.2494E-01	-3.2495E-01	0.327E-01
Cs-137 #B	-4.9466E-02	-5.7184E-01	-5.7184E-01	0.453E-01
EU-152 F	7.5366E-02	7.6838E-02	7.6952E-02	0.639E-01
EU-154 A	3.9162E-02	6.7010E-02	6.7045E-02	0.502E-01
K-40	1.0125E+01	1.9445E+00	2.0243E+00	0.967E-01
PA-234 #B	-9.3352E-03	2.7324E+02	2.7324E+02	0.786E-01
Pb-210 #A	6.2736E-01	1.9737E+00	1.9740E+00	0.952E+00
PB-212 F	2.6309E-01	1.4857E-01	1.4929E-01	0.663E-01
PB-214	1.8211E-01	2.0398E-01	2.0423E-01	0.886E-01
RA-226	9.4281E-01	1.3065E+00	1.3075E+00	0.691E+00
Th-230 #B	-2.9444E+00	-5.9644E+01	-5.9644E+01	0.526E+01
TH-234 #F	1.1816E+00	8.0825E-01	8.1090E-01	0.755E+00
Tl-208	1.9952E-01	7.9170E-02	7.9943E-02	0.169E-01
U-235 #B	2.1987E-02	3.8651E-02	3.8670E-02	0.518E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.6 keV) 1.2693041E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 16-OCT-2005 17:34:44 Page 1
New World Technology Spectrum name: 3N001561.An1

Sample description
PCB Hot Spot 84NPCBG103PE-001 398g
10/12/2005 13:49

Acquisition information
Start time: 16-Oct-2005 16:30:27
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		4.1465E-01	2.9021E-01	2.9112E-01	0.185E+00
AM-241	#B	-5.5384E-02	-2.2904E+00	-2.2904E+00	0.512E-01
Bi-212	F	6.1296E-01	4.7272E-01	4.7394E-01	0.176E+00
BI-214	#F	4.1424E-01	2.7810E-01	2.7905E-01	0.105E+00
CO-60	#B	-6.8764E-03	-1.9381E-02	-1.9385E-02	0.343E-01
Cs-137	#	4.6236E-02	9.7426E-02	9.7460E-02	0.429E-01
EU-152	F	8.6074E-02	7.4542E-02	7.4695E-02	0.589E-01
EU-154	F	8.8944E-02	1.0855E-01	1.0866E-01	0.569E-01
K-40		1.4507E+01	2.3363E+00	2.4716E+00	0.974E-01
PA-234	F	2.7078E-01	2.6106E-01	2.6149E-01	0.101E+00
Pb-210		1.0793E+00	1.9157E+00	1.9166E+00	0.908E+00
PB-212		4.3774E-01	1.6343E-01	1.6523E-01	0.725E-01
PB-214		3.7237E-01	2.1649E-01	2.1748E-01	0.947E-01
RA-226		1.0391E+00	1.4440E+00	1.4451E+00	0.764E+00
Th-230	#B	-2.1595E+00	-7.6497E+02	-7.6497E+02	0.909E+01
TH-234	C	1.8254E+00	1.0965E+00	1.1012E+00	0.777E+00
Tl-208		3.1685E-01	1.4667E-01	1.4773E-01	0.170E-01
U-235	C	7.4557E-02	1.1549E-01	1.1556E-01	0.528E-01

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H - Halflife limit exceeded

---------------------------- S U M M A R Y ----------------------------

Total Activity (41.7 to 2660.6 keV) 1.9240562E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 03-MAY-2006 17:57:17 Page 1
New World Technology Spectrum name: 1N001791.An1

Sample description
PCB Hot Spot 84NPCBG104PE-001 424g
5/1/06 16:10

Acquisition information
Start time: 03-May-2006 17:12:08
Live time: 2700
Real time: 2703

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228	6.9114E-01	2.6916E-01	2.7190E-01	0.409E-01
AM-241 #A	-1.4428E-01	-2.3933E+00	-2.3933E+00	0.187E+00
Bi-212 F	9.7523E-01	7.2273E-01	7.2476E-01	0.210E+00
BI-214 B	4.1909E-01	1.9964E-01	2.0100E-01	0.444E+00
CO-60 #A	0.0000E+00	0.0000E+00	0.0000E+00	0.164E-01
CS-137	1.9122E-02	3.4921E-02	3.4937E-02	0.141E-01
EU-152	1.2434E-01	2.4813E-01	2.4822E-01	0.745E-01
EU-154 #A	-3.2392E-02	1.8336E+02	1.8336E+02	0.463E-01
K-40	7.8690E+00	2.2429E+00	2.2852E+00	0.165E+00
Pa-234 #B	-5.6290E-02	-1.6887E-01	-1.6890E-01	0.139E+00
Pb-210 #A	1.2557E+00	9.5780E+00	9.5782E+00	0.525E+01
Pb-212	3.5390E-01	1.3157E-01	1.3303E-01	0.476E-01
Pb-214	3.9156E-01	1.4877E-01	1.5036E-01	0.392E-01
RA-226 #B	-7.2720E-01	-9.1697E+00	-9.1697E+00	0.940E+00
Th-230 #B	4.5967E+00	2.3479E+01	2.3481E+01	0.115E+02
Th-234 C	1.6007E+00	1.4923E+00	1.4949E+00	0.152E+01
Tl-208	1.5862E-01	8.7421E-02	8.7865E-02	0.207E-01
U-235	5.6976E-02	8.8928E-02	8.8984E-02	0.416E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.2 to 2606.4 keV) 1.0639892E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 15-MAY-2006 19:57:48 Page 1
New World Technology Spectrum name: 3N002507.An1

Sample description
PCB Hot Spot 84NPCBG105PE-001 488g
5/15/06 08:05

Acquisition information
Start time: 15-May-2006 19:12:42
Live time: 2700
Real time: 2703

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
AC-228	3.8804E-01	3.0619E-01	3.0695E-01	0.140E+00
AM-241 #A	3.1469E-02	1.7109E-01	1.7109E-01	0.795E-01
Bi-212 #F	4.1077E-01	4.6425E-01	4.6481E-01	0.168E+00
BI-214 F	2.8235E-01	1.7104E-01	1.7176E-01	0.932E-01
CO-60 #	4.6587E-02	3.7289E-02	3.7379E-02	0.919E-02
Cs-137 #B	-2.2052E-02	-1.6219E-01	-1.6219E-01	0.391E-01
EU-152 #B	-3.3316E-03	2.2156E+02	2.2156E+02	0.637E-01
EU-154 #B	-2.0826E-02	1.6549E+02	1.6549E+02	0.476E-01
K-40	1.0949E+01	2.0632E+00	2.1512E+00	0.722E+00
PA-234 #B	-1.8467E-02	-2.7138E-01	-2.7138E-01	0.834E-01
Pb-210 A	2.1508E-01	1.5844E+00	1.5845E+00	0.818E+00
PB-212 F	3.1444E-01	1.2428E-01	1.2551E-01	0.575E-01
PB-214	1.9204E-01	1.5658E-01	1.5694E-01	0.847E-01
RA-226	8.2469E-01	1.2393E+00	1.2402E+00	0.672E+00
Th-230 #B	-4.5435E+00	-1.4594E+01	-1.4597E+01	0.405E+01
TH-234 A	4.1988E-01	1.1135E+00	1.1137E+00	0.632E+00
Tl-208 #F	1.5822E-01	9.3944E-02	9.4355E-02	0.677E-01
U-235 #B	-1.3192E-02	-1.6096E-01	-1.6096E-01	0.467E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

SUMMARY

Total Activity (41.7 to 2661.2 keV) 1.3566056E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 13-MAY-2006 16:41:34 Page 1
New World Technology Spectrum name: 2N002489.An1

Sample description
PCB Hot Spot 84NPCBG106PE-002 489g
5/11/06 08:20

Acquisition information
Start time: 13-May-2006 15:56:27
Live time: 2700
Real time: 2704

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		5.1042E-01	3.2245E-01	3.2370E-01	0.129E+00
AM-241	#B	-5.4411E-01	-4.0957E+00	-4.0959E+00	0.317E+00
Bi-212		4.5323E-01	4.4607E-01	4.4678E-01	0.177E+00
BI-214	F	4.1464E-01	1.8704E-01	1.8845E-01	0.693E-01
CO-60	#B	-1.4777E-03	2.1579E+01	2.1579E+01	0.861E-02
Cs-137	A	9.3294E-03	4.8858E-02	4.8861E-02	0.329E-01
EU-152	B	4.3935E-02	8.0930E-02	8.0967E-02	0.637E-01
EU-154	B	4.3874E-02	1.0733E-01	1.0736E-01	0.563E-01
K-40		8.6603E+00	1.7853E+00	1.8491E+00	0.444E+00
PA-234	#F	1.9038E-01	1.6474E-01	1.6508E-01	0.107E+00
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	3.3778E-01	1.4143E-01	1.4267E-01	0.666E-01
PB-214		3.3828E-01	1.8510E-01	1.8605E-01	0.841E-01
RA-226	A	2.6642E-01	1.3576E+00	1.3577E+00	0.772E+00
Th-230	B	-3.0805E+01	-7.8808E+02	-7.8808E+02	0.170E+02
TH-234	A	1.8987E+00	3.0082E+00	3.0101E+00	0.258E+01
Tl-208		1.6300E-01	7.9399E-02	7.9914E-02	0.141E-01
U-235	#B	-1.1788E-03	-8.0752E-02	-8.0752E-02	0.438E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2675.5 keV) 1.1068046E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 22-MAY-2006 10:28:53 Page 1
New World Technology Spectrum name: 1N002077.An1

Sample description
PCB Hot Spot 84NPCBG107PE-003 430g
05/22/06 08:40

Acquisition information
Start time: 22-May-2006 09:43:42
Live time: 2700
Real time: 2703

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Activity picoCi/ g	Time of Count Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228		5.4435E-01	2.8992E-01	2.9149E-01	0.400E-01
AM-241	#A	-1.8543E-01	7.8356E+02	7.8356E+02	0.173E+00
Bi-212	#B	-1.0288E-01	1.5914E+03	1.5914E+03	0.324E+00
BI-214	#F	3.1625E-01	1.5247E-01	1.5348E-01	0.224E+00
CO-60	#A	9.6848E-03	1.7792E-02	1.7800E-02	0.162E-01
CS-137		4.8187E-02	5.0448E-02	5.0519E-02	0.152E-01
EU-152	C	1.7347E-01	1.7548E-01	1.7574E-01	0.562E-01
EU-154	C	5.2136E-02	7.0917E-02	7.0976E-02	0.410E-01
K-40	#	7.9083E+00	2.2418E+00	2.2845E+00	0.165E+00
Pa-234	#B	6.3583E-02	5.4901E-02	5.5014E-02	0.108E+00
Pb-210	#	1.2074E+01	1.6291E+01	1.6305E+01	0.697E+01
Pb-212	F	5.2018E-01	1.4991E-01	1.5267E-01	0.492E-01
Pb-214		4.0781E-01	1.8949E-01	1.9084E-01	0.506E-01
RA-226		8.6399E-01	1.3941E+00	1.3949E+00	0.772E+00
Th-230	#B	6.3988E+00	2.0837E+01	2.0840E+01	0.105E+02
Th-234		2.0095E+00	2.2577E+00	2.2604E+00	0.158E+01
Tl-208		1.6365E-01	9.1668E-02	9.2119E-02	0.240E-01
U-235	C	8.4982E-02	9.4058E-02	9.4177E-02	0.444E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.2 to 2605.8 keV) 2.4540134E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 15-JUN-2006 23:57:54 Page 1
New World Technology Spectrum name: 3N002898.An1

Sample description
PCB Hot Spot 84NPCBG108PE-003 390g
6/15/06 10:30

Acquisition information
Start time: 15-Jun-2006 23:12:49
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228 #F	4.2792E-01	3.7513E-01	3.7588E-01	0.187E+00
AM-241 #A	5.6968E-02	1.7315E-01	1.7318E-01	0.843E-01
Bi-212 F	1.1106E+00	5.0532E-01	5.0907E-01	0.768E-01
BI-214 F	4.5298E-01	2.2313E-01	2.2454E-01	0.100E+00
CO-60 #B	-2.5220E-02	-1.2239E-01	-1.2240E-01	0.246E-01
Cs-137 #B	-1.2699E-03	-6.7427E-02	-6.7427E-02	0.394E-01
EU-152 F	1.1349E-01	2.3194E-01	2.3202E-01	0.705E-01
EU-154 #B	1.3148E-02	3.3221E-02	3.3229E-02	0.506E-01
K-40	1.2602E+01	2.2355E+00	2.3427E+00	0.103E+00
PA-234 #B	6.4197E-02	1.6817E-01	1.6820E-01	0.956E-01
Pb-210 #B	-9.0335E-02	-1.5773E+00	-1.5773E+00	0.889E+00
PB-212 F	2.9436E-01	1.3894E-01	1.3990E-01	0.669E-01
PB-214	3.0144E-01	2.1736E-01	2.1800E-01	0.105E+00
RA-226 A	3.8470E-01	1.2808E+00	1.2810E+00	0.727E+00
Th-230 #C	1.4811E+01	2.0657E+01	2.0674E+01	0.858E+01
TH-234 C	1.0437E+00	1.4784E+00	1.4796E+00	0.788E+00
Tl-208 #B	-1.7886E-01	-4.9410E+00	-4.9410E+00	0.110E+00
U-235 #B	-3.3025E-02	-4.7310E-01	-4.7310E-01	0.540E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.7 to 2660.0 keV) 1.5189295E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 25-MAY-2006 23:03:44 Page 1
New World Technology Spectrum name: 2N002684.An1

Sample description
PCB Hot Spot 84NPCBG109PE-002 442g
05/25/06 10:00

Acquisition information
Start time: 25-May-2006 22:09:56
Live time: 2700
Real time: 2704

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		3.5035E-01	2.8981E-01	2.9046E-01	0.142E+00
AM-241	A	3.1203E-01	1.3460E+00	1.3461E+00	0.633E+00
Bi-212	F	4.3537E-01	4.8938E-01	4.8998E-01	0.224E+00
BI-214	F	3.9489E-01	1.7066E-01	1.7206E-01	0.664E-01
CO-60	#B	-1.6349E-03	2.3873E+01	2.3873E+01	0.952E-02
Cs-137	#B	-5.7555E-03	-7.3391E-02	-7.3392E-02	0.414E-01
EU-152	F	1.3854E-01	1.3657E-01	1.3679E-01	0.754E-01
EU-154	B	5.1631E-02	6.2587E-02	6.2652E-02	0.645E-01
K-40		1.0719E+01	1.9792E+00	2.0670E+00	0.946E-01
PA-234	#F	1.3344E-01	1.6954E-01	1.6970E-01	0.896E-01
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	3.2247E-01	1.5057E-01	1.5163E-01	0.727E-01
PB-214		3.7194E-01	1.6332E-01	1.6462E-01	0.657E-01
RA-226	#B	-1.7794E-02	-1.4882E+00	-1.4882E+00	0.830E+00
Th-230	#B	-1.8407E+01	-5.9859E+01	-5.9868E+01	0.229E+02
TH-234	A	2.3675E+00	4.9470E+00	4.9487E+00	0.254E+01
Tl-208	#	2.7799E-01	1.2868E-01	1.2961E-01	0.156E-01
U-235	B	2.3087E-02	8.5403E-02	8.5412E-02	0.479E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.8 to 2675.5 keV) 1.2872150E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 28-JUN-2006 17:22:31 Page 1
New World Technology Spectrum name: 2N003032.An1

Sample description
PCB Hot Spot 84NPCBG110PE-001 456g
6/28/06 10:30

Acquisition information
Start time: 28-Jun-2006 16:37:23
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	5.1492E-01	3.0818E-01	3.0951E-01	0.144E+00
AM-241 #B	-1.0780E-01	-1.2261E+00	-1.2261E+00	0.463E+00
Bi-212 #F	8.8594E-01	6.2028E-01	6.2223E-01	0.183E+00
BI-214 F	4.2048E-01	1.8722E-01	1.8868E-01	0.735E-01
CO-60 #B	-6.9297E-03	-6.0695E-02	-6.0697E-02	0.246E-01
Cs-137 #B	-1.3161E-02	-7.9975E-02	-7.9978E-02	0.384E-01
EU-152 B	3.7374E-02	7.4748E-02	7.4776E-02	0.993E-01
EU-154 B	7.6194E-03	1.0396E-01	1.0396E-01	0.566E-01
K-40	8.2135E+00	1.8408E+00	1.8968E+00	0.490E+00
PA-234 #F	2.1889E-01	2.5224E-01	2.5253E-01	0.115E+00
Pb-210 #C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	4.4494E-01	1.5265E-01	1.5465E-01	0.674E-01
PB-214	3.4656E-01	1.8491E-01	1.8592E-01	0.743E-01
RA-226 A	2.1527E-01	1.4921E+00	1.4922E+00	0.861E+00
Th-230 B	-1.3844E+01	-2.3092E+01	-2.3105E+01	0.253E+02
TH-234 #A	1.8141E+00	3.3346E+00	3.3361E+00	0.266E+01
Tl-208	2.3623E-01	1.1812E-01	1.1885E-01	0.153E-01
U-235 #B	-4.1184E-03	-3.0450E-02	-3.0451E-02	0.502E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------------------------- S U M M A R Y ----------------------------

Total Activity (41.8 to 2673.8 keV) 1.1062584E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 18-MAY-2006 12:14:49 Page 1
New World Technology Spectrum name: 1N002028.An1

Sample description
PCB Hot Spot 84NPCBG111PE-001 489g
05/16/06 10:35

Acquisition information
Start time: 18-May-2006 11:29:39
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	6.1175E-01	2.6430E-01	2.6648E-01	0.352E-01
AM-241 #A	-1.2587E-01	-2.3207E+00	-2.3207E+00	0.185E+00
Bi-212	3.2634E-01	3.9109E-01	3.9151E-01	0.163E+00
BI-214 #F	1.4661E+00	1.0090E+00	1.0123E+00	0.180E+00
CO-60 #A	1.2831E-02	5.0564E-02	5.0569E-02	0.196E-01
CS-137	2.0675E-02	4.4273E-02	4.4288E-02	0.201E-01
EU-152 C	1.0658E-01	1.1649E-01	1.1664E-01	0.625E-01
EU-154 A	1.1441E-02	8.0129E-02	8.0131E-02	0.452E-01
K-40 #	7.1404E+00	1.9975E+00	2.0366E+00	0.145E+00
Pa-234 #B	4.0123E-02	4.5138E-02	4.5193E-02	0.117E+00
Pb-210 #	2.7995E+01	2.1693E+01	2.1748E+01	0.742E+01
Pb-212 F	3.7286E-01	1.4072E-01	1.4224E-01	0.572E-01
Pb-214	5.2754E-01	2.1146E-01	2.1349E-01	0.445E-01
RA-226 A	5.3603E-01	1.0936E+00	1.0940E+00	0.622E+00
Th-230 #F	1.2671E+01	2.6837E+01	2.6846E+01	0.119E+02
Th-234 B	-1.9164E-01	-3.1460E-01	-3.1478E-01	0.147E+01
Tl-208 #	1.9187E-01	1.0175E-01	1.0231E-01	0.252E-01
U-235 #B	-1.7452E-02	-6.8139E-02	-6.8146E-02	0.423E-01

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---------- S U M M A R Y ----------
Total Activity (41.2 to 2605.8 keV) 5.1324226E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 15-MAY-2006 22:59:38 Page 1
New World Technology Spectrum name: 3N002510.An1

Sample description
PCB Hot Spot 84NPCBG112PE-001 489g
5/15/06 10:45

Acquisition information
Start time: 15-May-2006 22:14:31
Live time: 2700
Real time: 2702

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	3.7754E-01	2.5821E-01	2.5906E-01	0.142E+00
AM-241	#B	-5.7192E-02	-2.9766E-01	-2.9767E-01	0.383E-01
Bi-212		5.8769E-01	4.2547E-01	4.2672E-01	0.160E+00
BI-214	F	2.5619E-01	2.0400E-01	2.0450E-01	0.934E-01
CO-60	#	6.9077E-02	4.6338E-02	4.6497E-02	0.805E-02
Cs-137		4.4860E-02	6.6803E-02	6.6849E-02	0.369E-01
EU-152	F	6.3181E-02	1.2112E-01	1.2117E-01	0.513E-01
EU-154	F	7.0875E-02	9.7925E-02	9.8004E-02	0.439E-01
K-40		9.9782E+00	2.0830E+00	2.1557E+00	0.745E+00
PA-234	#B	-5.1602E-02	-5.7998E-01	-5.7999E-01	0.522E-01
Pb-210		1.0959E+00	1.5145E+00	1.5157E+00	0.771E+00
PB-212		4.2646E-01	1.3415E-01	1.3623E-01	0.581E-01
PB-214		4.0322E-01	1.8412E-01	1.8548E-01	0.874E-01
RA-226	A	3.9085E-01	1.1437E+00	1.1439E+00	0.642E+00
Th-230	#B	2.1660E+00	4.6680E+00	4.6695E+00	0.603E+01
TH-234		1.2319E+00	1.2300E+00	1.2319E+00	0.645E+00
Tl-208	B	1.7574E-02	1.1227E-02	1.1269E-02	0.785E-01
U-235	#B	-1.8940E-02	-1.8288E-01	-1.8288E-01	0.387E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.7 to 2661.2 keV) 1.4471090E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 12-MAY-2006 14:47:14 Page 1
New World Technology Spectrum name: 1N001922.An1

Sample description
PCB HOT SPOT 84NPCBG113PE-001 495g
5/10/06 09:25

Acquisition information
Start time: 12-May-2006 14:02:05
Live time: 2700
Real time: 2703

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
AC-228 #F	2.8557E-01	2.1481E-01	2.1540E-01	0.154E+00
AM-241 A	1.5143E-03	3.4937E-01	3.4937E-01	0.202E+00
Bi-212 B	9.4777E-02	3.3668E-01	3.3672E-01	0.184E+00
BI-214 F	1.8347E+00	1.1734E+00	1.1779E+00	0.178E+00
CO-60 #A	0.0000E+00	0.0000E+00	0.0000E+00	0.142E-01
CS-137	3.5591E-02	5.4202E-02	5.4238E-02	0.234E-01
EU-152 #C	1.0160E-01	1.3249E-01	1.3261E-01	0.581E-01
EU-154 A	3.2135E-02	6.5648E-02	6.5672E-02	0.462E-01
K-40	9.0271E+00	2.2430E+00	2.2985E+00	0.144E+00
Pa-234 #B	6.0121E-02	5.6800E-02	5.6898E-02	0.121E+00
Pb-210 #	1.2299E+01	1.6774E+01	1.6788E+01	0.694E+01
Pb-212 F	4.6127E-01	1.3859E-01	1.4095E-01	0.497E-01
Pb-214	4.5461E-01	1.9390E-01	1.9555E-01	0.458E-01
RA-226 A	4.3138E-01	1.2838E+00	1.2840E+00	0.728E+00
Th-230 #B	1.1814E+01	2.9245E+01	2.9253E+01	0.128E+02
Th-234 #B	2.6187E-02	4.4236E-02	4.4260E-02	0.140E+01
Tl-208	1.7150E-01	8.9032E-02	8.9542E-02	0.239E-01
U-235 B	1.6703E-02	7.3055E-02	7.3061E-02	0.419E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.2 to 2608.8 keV) 2.4283875E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 15-MAY-2006 19:05:11 Page 1
New World Technology Spectrum name: 3N002506.An1

Sample description
PCB Hot Spot 84NPCBG114PE-001 497g
5/15/06 08:00

Acquisition information
Start time: 15-May-2006 18:20:06
Live time: 2700
Real time: 2702

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***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228 #F	1.8154E-01	1.7043E-01	1.7073E-01	0.168E+00
AM-241 #B	-3.4919E-02	-6.0001E-01	-6.0002E-01	0.383E-01
Bi-212 B	1.1457E-02	2.0545E-01	2.0545E-01	0.128E+00
BI-214 F	3.7100E-01	2.5821E-01	2.5903E-01	0.946E-01
CO-60 #	1.0535E-02	2.2359E-02	2.2367E-02	0.792E-02
Cs-137 A	2.7061E-02	6.8546E-02	6.8562E-02	0.393E-01
EU-152 B	1.9160E-02	7.5295E-02	7.5303E-02	0.619E-01
EU-154 #B	1.4822E-02	4.6414E-02	4.6422E-02	0.436E-01
K-40	1.0311E+01	1.9926E+00	2.0735E+00	0.709E+00
PA-234 #B	1.9443E-03	3.3891E-02	3.3891E-02	0.845E-01
Pb-210	1.0684E+00	1.6317E+00	1.6327E+00	0.770E+00
PB-212	3.7991E-01	1.2751E-01	1.2925E-01	0.562E-01
PB-214	4.1155E-01	1.7966E-01	1.8111E-01	0.805E-01
RA-226	1.1625E+00	1.1550E+00	1.1568E+00	0.607E+00
Th-230 B	-6.1798E+00	-8.5408E+01	-8.5409E+01	0.578E+01
TH-234 C	7.0427E-01	1.0343E+00	1.0350E+00	0.613E+00
Tl-208 #B	1.4487E-02	7.5152E-03	7.5583E-03	0.804E-01
U-235 B	1.3686E-02	7.4556E-02	7.4560E-02	0.421E-01

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---------- SUMMARY ----------
Total Activity (41.7 to 2661.2 keV) 1.3715004E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 28-APR-2006 12:38:06 Page 1
New World Technology Spectrum name: 1N001741.An1

Sample description
PCB Hot Spot 84NPCBG115PE-001 387g
4/27/06 09:45

Acquisition information
Start time: 28-Apr-2006 11:52:57
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228	F	2.9473E-01	2.2543E-01	2.2602E-01	0.715E-01
AM-241	#A	-2.0720E-01	-4.2939E+00	-4.2939E+00	0.145E+00
Bi-212	#B	-1.1472E-01	2.2741E+03	2.2741E+03	0.431E+00
BI-214	F	3.8195E-01	1.9657E-01	1.9771E-01	0.376E+00
CO-60	#A	0.0000E+00	0.0000E+00	0.0000E+00	0.181E-01
CS-137		4.1227E-02	7.3464E-02	7.3500E-02	0.340E-01
EU-152	#A	1.9561E-02	5.3367E-02	5.3378E-02	0.553E-01
EU-154	#A	-2.5810E-02	-4.7690E-01	-4.7690E-01	0.494E-01
K-40		8.5945E+00	2.4584E+00	2.5043E+00	0.182E+00
Pa-234	#B	-9.0128E-03	-1.3246E-02	-1.3256E-02	0.125E+00
Pb-210	#A	3.6523E+00	1.7651E+01	1.7653E+01	0.902E+01
Pb-212		3.5948E-01	1.3282E-01	1.3431E-01	0.505E-01
Pb-214		4.4472E-01	1.8600E-01	1.8763E-01	0.425E-01
RA-226		1.1691E+00	1.2123E+00	1.2141E+00	0.658E+00
Th-230	#B	4.0503E+00	2.0235E+01	2.0237E+01	0.104E+02
Th-234	#A	9.5542E-01	1.2589E+00	1.2600E+00	0.152E+01
Tl-208	#	1.9322E-01	1.0450E-01	1.0505E-01	0.269E-01
U-235	#B	-2.1510E-02	-1.3329E-01	-1.3330E-01	0.540E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2608.7 keV) 1.0802264E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 16-OCT-2005 18:55:09 Page 1
New World Technology Spectrum name: 1N001055.An1

Sample description
PCB Hot Spot 84NPCBG116PE-001 393g
10/12/2005 13:57

Acquisition information
Start time: 16-Oct-2005 18:09:59
Live time: 2700
Real time: 2701

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228 #F	6.1669E-01	2.7583E-01	2.7795E-01	0.391E-01
AM-241 #A	-3.6533E-03	-2.8122E-01	-2.8122E-01	0.144E+00
Bi-212 #B	-2.0155E-02	-5.8822E-02	-5.8827E-02	0.209E+00
BI-214	3.1088E-01	1.9392E-01	1.9469E-01	0.633E-01
CO-60 #A	1.1681E-02	1.7522E-02	1.7534E-02	0.162E-01
CS-137 #A	-4.9753E-03	-5.2048E-02	-5.2048E-02	0.351E-01
EU-152 #C	8.1597E-02	9.5353E-02	9.5460E-02	0.505E-01
EU-154 #A	0.0000E+00	1.3468E+02	1.3468E+02	0.340E-01
K-40	8.4785E+00	2.2570E+00	2.3057E+00	0.156E+00
Pa-234 #B	2.2712E-02	4.5134E-02	4.5152E-02	0.598E-01
Pb-210 #A	2.6460E+00	1.2129E+01	1.2130E+01	0.636E+01
Pb-212	2.7795E-01	1.3313E-01	1.3402E-01	0.591E-01
Pb-214	4.5536E-01	1.8646E-01	1.8817E-01	0.404E-01
RA-226 #B	-1.8817E-01	-2.7116E+00	-2.7117E+00	0.799E+00
Th-230 #B	7.4439E-02	1.0456E-01	1.0464E-01	0.129E+00
Th-234 A	1.1727E+00	1.4431E+00	1.4446E+00	0.133E+01
Tl-208 #C	8.7809E-02	3.7254E-02	3.7573E-02	0.266E-01
U-235 #C	6.3887E-02	8.0450E-02	8.0528E-02	0.474E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.8 to 2654.1 keV) 1.0139394E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 28-FEB-2006 16:08:31 Page 1
New World Technology Spectrum name: 2N002040.An1

Sample description
PCB Hot Spot 84NPCBG117PE-003 540g
2/28/06 9:36

Acquisition information
Start time: 28-Feb-2006 15:23:23
Live time: 2700
Real time: 2705

- -

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		3.7812E-01	1.9959E-01	2.0069E-01	0.111E+00
AM-241	#B	-4.6671E-01	-3.6802E+00	-3.6803E+00	0.414E+00
Bi-212	F	4.5594E-01	3.9974E-01	4.0054E-01	0.166E+00
BI-214	F	2.3413E-01	2.0658E-01	2.0699E-01	0.756E-01
CO-60	#C	2.7178E-02	2.1791E-02	2.1843E-02	0.906E-02
Cs-137	#B	-1.1780E-02	-6.7680E-02	-6.7683E-02	0.335E-01
EU-152	B	-3.3439E-02	-2.8988E-01	-2.8989E-01	0.682E-01
EU-154	B	6.1332E-03	1.8400E-02	1.8403E-02	0.535E-01
K-40		8.3229E+00	1.9777E+00	2.0311E+00	0.705E+00
PA-234	#B	1.7021E-02	4.1219E-02	4.1229E-02	0.102E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	3.6274E-01	1.2386E-01	1.2549E-01	0.516E-01
PB-214		3.5734E-01	1.7235E-01	1.7349E-01	0.640E-01
RA-226	A	3.5365E-01	1.2853E+00	1.2854E+00	0.738E+00
Th-230	#C	2.4156E+01	3.2642E+01	3.2670E+01	0.195E+02
TH-234	A	1.3594E+00	5.0168E+00	5.0174E+00	0.258E+01
Tl-208	#F	3.4165E-01	2.0499E-01	2.0587E-01	0.318E-01
U-235	B	4.1080E-02	8.1537E-02	8.1569E-02	0.427E-01

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H - Halflife limit exceeded

---------- SUMMARY ----------

Total Activity (41.9 to 2675.9 keV) 1.0452783E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 08-DEC-2005 16:56:01 Page 1
New World Technology Spectrum name: 3N001859.An1

Sample description
PCB Hot Spot 84NPCBG123PE-001 289g
12/8/2005 9:15 AM

Acquisition information
Start time: 08-Dec-2005 16:10:56
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	4.3520E-01	4.4062E-01	4.4128E-01	0.234E+00
AM-241	#A	1.1737E-01	2.5993E-01	2.6001E-01	0.123E+00
Bi-212	#B	-4.4444E-02	2.4912E+03	2.4912E+03	0.428E+00
BI-214	F	6.1849E-01	3.2364E-01	3.2546E-01	0.141E+00
CO-60	#A	1.6351E-02	4.9537E-02	4.9545E-02	0.441E-01
Cs-137	#B	-7.5665E-02	-5.0130E-01	-5.0132E-01	0.580E-01
EU-152	#B	1.1529E-02	6.4188E-02	6.4191E-02	0.841E-01
EU-154	A	6.3991E-02	9.7030E-02	9.7095E-02	0.791E-01
K-40		1.5488E+01	2.9717E+00	3.0939E+00	0.697E+00
PA-234	#B	4.3285E-02	1.5527E-01	1.5529E-01	0.784E-01
Pb-210		1.2154E+00	2.1193E+00	2.1204E+00	0.113E+01
PB-212		6.9718E-01	2.0962E-01	2.1317E-01	0.845E-01
PB-214		4.0423E-01	2.3735E-01	2.3841E-01	0.113E+00
RA-226		1.3939E+00	1.7862E+00	1.7879E+00	0.962E+00
Th-230	A	5.8852E+00	2.6319E+01	2.6321E+01	0.121E+02
TH-234		2.1284E+00	1.4831E+00	1.4878E+00	0.104E+01
Tl-208		3.8028E-01	1.2062E-01	1.2246E-01	0.234E-01
U-235	F	7.9776E-02	1.2320E-01	1.2328E-01	0.637E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.7 to 2660.6 keV) 2.2840609E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 09-DEC-2005 11:11:21 Page 1
New World Technology Spectrum name: 3N001868.An1

Sample description
PCB Hot Spot 84NPCBG124PE-001 291g
12/8/2005 8:30 AM

Acquisition information
Start time: 09-Dec-2005 10:07:58
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	7.2291E-01	3.7647E-01	3.7861E-01	0.242E+00
AM-241 #B	-8.0377E-02	-2.5960E+00	-2.5960E+00	0.629E-01
Bi-212 #B	-4.4138E-02	1.9580E+03	1.9580E+03	0.364E+00
BI-214	3.4745E-01	2.7119E-01	2.7187E-01	0.145E+00
CO-60 #B	-6.5245E-02	-4.4777E-01	-4.4779E-01	0.450E-01
Cs-137 #A	1.1498E-02	7.0347E-02	7.0350E-02	0.490E-01
EU-152 F	1.4505E-01	2.9381E-01	2.9392E-01	0.951E-01
EU-154 #F	6.3949E-02	8.1985E-02	8.2062E-02	0.615E-01
K-40	1.7634E+01	3.3101E+00	3.4522E+00	0.761E+00
PA-234 #B	8.1872E-02	1.9281E-01	1.9286E-01	0.128E+00
Pb-210 #A	7.5848E-01	2.0346E+00	2.0350E+00	0.113E+01
PB-212	6.4448E-01	2.1545E-01	2.1841E-01	0.919E-01
PB-214	5.3857E-01	3.1196E-01	3.1340E-01	0.124E+00
RA-226	1.0676E+00	1.9416E+00	1.9425E+00	0.107E+01
Th-230 B	5.2699E+00	2.1300E+01	2.1302E+01	0.116E+02
TH-234 C	1.9158E+00	1.3033E+00	1.3076E+00	0.108E+01
Tl-208	4.4184E-01	1.3106E-01	1.3334E-01	0.232E-01
U-235	1.3975E-01	1.5597E-01	1.5617E-01	0.641E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.7 to 2660.6 keV) 2.1536791E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 28-APR-2006 13:01:15 Page 1
New World Technology Spectrum name: 2N002275.An1

Sample description
PCB Hot Spot 84NPCBG125PE-001 446g
4/27/2006 09:30

Acquisition information
Start time: 28-Apr-2006 12:16:07
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228 F	2.2513E-01	1.7891E-01	1.7935E-01	0.134E+00
AM-241 #B	-4.9036E-01	-1.0674E+01	-1.0674E+01	0.332E+00
Bi-212	3.4361E-01	4.5536E-01	4.5576E-01	0.189E+00
BI-214 F	5.0193E-01	2.0158E-01	2.0350E-01	0.727E-01
CO-60 #F	2.6925E-02	3.2381E-02	3.2415E-02	0.951E-02
Cs-137 #B	-5.1677E-02	-5.1958E-01	-5.1958E-01	0.466E-01
EU-152 B	6.0300E-02	1.4371E-01	1.4375E-01	0.862E-01
EU-154 B	5.1971E-02	8.1724E-02	8.1775E-02	0.574E-01
K-40	9.8088E+00	1.8877E+00	1.9650E+00	0.941E-01
PA-234 #F	1.2548E-01	8.8695E-02	8.8968E-02	0.552E-01
Pb-210 #F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212 F	3.4559E-01	1.4385E-01	1.4513E-01	0.671E-01
PB-214	3.9987E-01	2.1031E-01	2.1149E-01	0.822E-01
RA-226	8.9818E-01	1.4580E+00	1.4588E+00	0.789E+00
Th-230 #B	-3.9769E+00	-8.6084E+00	-8.6113E+00	0.267E+02
TH-234	4.3909E+00	8.2783E+00	8.2819E+00	0.321E+01
Tl-208 #F	6.6480E-02	4.8094E-02	4.8236E-02	0.661E-01
U-235 #B	-4.2646E-03	-1.0176E-01	-1.0176E-01	0.481E-01

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---------- S U M M A R Y ----------

Total Activity (41.9 to 2675.6 keV) 1.6940956E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 12-MAY-2006 14:04:11 Page 1
New World Technology Spectrum name: 3N002469.An1

Sample description
PCB Hot Spot 84NPCBG126PE-001 449g
5/10/06 9:20

Acquisition information
Start time: 12-May-2006 13:19:05
Live time: 2700
Real time: 2703

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	4.3679E-01	3.0005E-01	3.0104E-01	0.161E+00
AM-241 #A	7.6014E-02	1.8962E-01	1.8967E-01	0.882E-01
Bi-212 F	1.0765E+00	6.7143E-01	6.7409E-01	0.181E+00
BI-214 F	3.3102E-01	1.8837E-01	1.8927E-01	0.853E-01
CO-60 #A	9.3039E-03	2.5509E-02	2.5514E-02	0.169E-01
Cs-137 A	1.1101E-02	6.3699E-02	6.3702E-02	0.389E-01
EU-152 B	4.7806E-02	1.7007E-01	1.7009E-01	0.712E-01
EU-154 #B	-6.8003E-03	-1.6429E-01	-1.6429E-01	0.502E-01
K-40 #	1.0211E+01	2.1453E+00	2.2192E+00	0.805E+00
PA-234 #B	1.7216E-02	1.9001E-01	1.9001E-01	0.973E-01
Pb-210 #B	-1.6715E-01	-1.9504E+00	-1.9504E+00	0.890E+00
PB-212 F	4.0346E-01	1.4052E-01	1.4230E-01	0.630E-01
PB-214	3.0191E-01	1.8523E-01	1.8599E-01	0.847E-01
RA-226	8.0906E-01	1.3407E+00	1.3415E+00	0.731E+00
Th-230 #B	-8.5065E+00	-4.4662E+02	-4.4662E+02	0.508E+01
TH-234 #B	1.1600E-01	1.2829E+00	1.2829E+00	0.668E+00
Tl-208	1.3236E-01	8.4894E-02	8.5212E-02	0.808E-01
U-235 A	9.1147E-03	6.9967E-02	6.9969E-02	0.487E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.7 to 2659.7 keV) 1.3702466E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 10-MAY-2006 21:26:55 Page 1
New World Technology Spectrum name: 3N002432.An1

Sample description
PCB Hot Spot 84NPCBG127PE-002 510g
5/09/06 13:20

Acquisition information
Start time: 10-May-2006 20:41:49
Live time: 2700
Real time: 2702

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	4.2880E-01	2.3965E-01	2.4083E-01	0.130E+00
AM-241	#A	4.1951E-02	1.5132E-01	1.5133E-01	0.750E-01
Bi-212	F	3.0133E-01	4.3617E-01	4.3649E-01	0.210E+00
BI-214	F	3.3966E-01	2.1287E-01	2.1371E-01	0.879E-01
CO-60	#	4.1141E-02	4.8348E-02	4.8403E-02	0.131E-01
Cs-137	#B	-1.8748E-02	-9.9742E-02	-9.9748E-02	0.300E-01
EU-152	C	9.4342E-02	1.0019E-01	1.0032E-01	0.617E-01
EU-154	F	4.7848E-02	9.5755E-02	9.5792E-02	0.462E-01
K-40		1.0071E+01	1.9739E+00	2.0518E+00	0.709E+00
PA-234	#B	4.1821E-02	1.7324E-01	1.7326E-01	0.101E+00
Pb-210	A	3.6543E-01	1.7909E+00	1.7910E+00	0.854E+00
PB-212		3.8124E-01	1.2729E-01	1.2904E-01	0.565E-01
PB-214		3.7709E-01	1.8319E-01	1.8438E-01	0.804E-01
RA-226	A	5.3217E-01	1.0554E+00	1.0558E+00	0.584E+00
Th-230	#B	1.6580E-02	5.4207E-02	5.4215E-02	0.613E+01
TH-234	#	1.2136E+00	1.1979E+00	1.1998E+00	0.679E+00
Tl-208	#C	8.8871E-02	8.1794E-02	8.1943E-02	0.712E-01
U-235	#B	-3.0799E-02	-7.0857E-01	-7.0857E-01	0.405E-01

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S U M M A R Y

Total Activity (41.7 to 2659.7 keV) 1.3154285E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 06-JUL-2006 14:57:45 Page 1
New World Technology Spectrum name: 3N003048.An1

Sample description
PCB Hot Spot 84NPCBG127-1PE-002 339g
7/06/06 08:45

Acquisition information
Start time: 06-Jul-2006 14:00:16
Live time: 2700
Real time: 2702

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
AC-228	#F	4.1118E-01	3.2620E-01	3.2700E-01	0.184E+00
AM-241	#A	7.2622E-02	2.2298E-01	2.2302E-01	0.106E+00
Bi-212		8.4788E-01	7.1444E-01	7.1600E-01	0.284E+00
BI-214	F	4.6190E-01	3.5462E-01	3.5555E-01	0.119E+00
CO-60	#B	-3.8812E-03	-4.3115E-02	-4.3115E-02	0.370E-01
Cs-137	#B	-1.3618E-02	-1.3703E-01	-1.3703E-01	0.570E-01
EU-152	#B	-4.9015E-03	3.2916E+02	3.2916E+02	0.947E-01
EU-154	B	-6.4772E-03	-4.8014E-02	-4.8015E-02	0.552E-01
K-40	#	9.4031E+00	2.4696E+00	2.5243E+00	0.105E+01
PA-234	#B	-7.5484E-02	-2.0777E+00	-2.0777E+00	0.128E+00
Pb-210	#B	-6.6725E-01	-4.0984E+00	-4.0986E+00	0.120E+01
PB-212	F	5.1054E-01	1.8562E-01	1.8777E-01	0.842E-01
PB-214	F	3.4672E-01	2.1699E-01	2.1785E-01	0.118E+00
RA-226	#B	-7.7265E-02	-1.7252E+00	-1.7252E+00	0.928E+00
Th-230	#B	2.2081E+00	3.6189E+00	3.6210E+00	0.767E+01
TH-234	#B	3.5729E-01	1.9174E+00	1.9175E+00	0.899E+00
Tl-208	B	-2.8986E-02	-2.6256E-02	-2.6305E-02	0.124E+00
U-235	#B	2.9201E-02	4.8507E-02	4.8534E-02	0.566E-01

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H - Halflife limit exceeded

---------------------------- S U M M A R Y ----------------------------

Total Activity (41.7 to 2660.8 keV) 1.1981364E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 30-MAR-2006 15:54:10 Page 1
New World Technology Spectrum name: 1N001588.An1

Sample description
PCB Hotspot 84NPCBG128PE-003 445g
3/30/06 10:10

Acquisition information
Start time: 30-Mar-2006 15:09:01
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		6.3798E-01	3.0262E-01	3.0469E-01	0.382E-01
AM-241	#A	-1.6685E-01	-4.3952E+00	-4.3952E+00	0.146E+00
Bi-212	F	6.9615E-01	6.3219E-01	6.3337E-01	0.196E+00
BI-214	F	4.5014E-01	1.6690E-01	1.6877E-01	0.212E+00
CO-60	#	3.2827E-02	4.4042E-02	4.4080E-02	0.153E-01
CS-137	A	1.0528E-02	5.0343E-02	5.0347E-02	0.265E-01
EU-152	A	4.1959E-02	7.1387E-02	7.1425E-02	0.453E-01
EU-154	#A	-3.0694E-02	1.3840E+02	1.3840E+02	0.349E-01
K-40		8.3056E+00	2.2217E+00	2.2692E+00	0.154E+00
Pa-234	#B	-2.7063E-01	-2.2891E+00	-2.2892E+00	0.898E-01
Pb-210		8.5380E+01	6.2857E+01	6.3036E+01	0.253E+02
Pb-212		3.1487E-01	1.2397E-01	1.2520E-01	0.503E-01
Pb-214		3.5929E-01	1.5614E-01	1.5741E-01	0.361E-01
RA-226	A	5.7731E-01	1.0937E+00	1.0942E+00	0.623E+00
Th-230	#F	1.3497E+01	1.9899E+01	1.9914E+01	0.935E+01
Th-234	#A	8.4713E-01	1.6537E+00	1.6543E+00	0.129E+01
Tl-208	#	9.7742E-02	8.5409E-02	8.5581E-02	0.273E-01
U-235	B	7.6920E-03	7.2814E-02	7.2815E-02	0.423E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2608.7 keV) 1.0932111E+02 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 02-MAR-2006 19:32:58 Page 1
New World Technology Spectrum name: 2N002048.An1

Sample description
PCB Hot Spot 84NPCBG129PE-002 487g
3/2/06 14:40

Acquisition information
Start time: 02-Mar-2006 18:40:44
Live time: 2700
Real time: 2705

- -

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	2.2290E-01	2.1792E-01	2.1827E-01	0.125E+00
AM-241	#B	-7.2883E-01	-1.4976E+01	-1.4976E+01	0.351E+00
Bi-212	C	2.2343E-01	3.6216E-01	3.6237E-01	0.213E+00
BI-214	F	3.4392E-01	2.2124E-01	2.2206E-01	0.917E-01
CO-60	#C	9.4130E-03	2.1148E-02	2.1154E-02	0.871E-02
Cs-137	A	1.0022E-02	6.2408E-02	6.2411E-02	0.409E-01
EU-152	B	6.9396E-02	5.7038E-02	5.7168E-02	0.903E-01
EU-154	B	2.0137E-02	6.0410E-02	6.0421E-02	0.610E-01
K-40		1.0387E+01	2.0297E+00	2.1104E+00	0.633E+00
PA-234	#B	-2.7286E-02	-3.6766E-01	-3.6767E-01	0.119E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		2.4442E-01	1.2289E-01	1.2364E-01	0.580E-01
PB-214		3.7581E-01	2.1704E-01	2.1804E-01	0.720E-01
RA-226	#B	-2.3386E-01	-1.9364E+00	-1.9364E+00	0.743E+00
Th-230	#B	2.2178E+00	3.2253E+01	3.2253E+01	0.175E+02
TH-234	B	-1.7582E-01	-1.9210E+00	-1.9210E+00	0.236E+01
Tl-208	C	5.9580E-02	3.7287E-02	3.7434E-02	0.211E-01
U-235	F	4.4648E-02	7.9558E-02	7.9597E-02	0.412E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.9 to 2675.6 keV) 1.1618818E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 09-DEC-2005 10:28:51 Page 1
New World Technology Spectrum name: 1N001419.An1

Sample description
PCB Hot Spot 84NPCBG130PE-001 275g
12/08/2005 08:50

Acquisition information
Start time: 09-Dec-2005 08:58:42
Live time: 5400
Real time: 5402

- -

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	7.9910E-01	2.4754E-01	2.5149E-01	0.306E-01
AM-241	A	8.8701E-02	4.0206E-01	4.0209E-01	0.221E+00
Bi-212	B	2.6985E-01	5.1728E-01	5.1749E-01	0.286E+00
BI-214		7.7228E-01	2.7531E-01	2.7864E-01	0.598E+00
CO-60	#A	-4.7477E-03	8.7694E+01	8.7694E+01	0.111E-01
CS-137	#A	-4.4667E-02	-1.4268E-01	-1.4270E-01	0.460E-01
EU-152	A	1.2241E-02	3.1236E-02	3.1243E-02	0.658E-01
EU-154	C	1.0615E-01	1.2270E-01	1.2284E-01	0.513E-01
K-40		1.7422E+01	2.7447E+00	2.9106E+00	0.183E+00
Pa-234	#B	8.2775E-02	8.7600E-02	8.7720E-02	0.118E+00
Pb-210		1.3885E+01	2.1322E+01	2.1336E+01	0.871E+01
Pb-212		6.3709E-01	1.5151E-01	1.5559E-01	0.596E-01
Pb-214		4.2811E-01	1.6048E-01	1.6224E-01	0.592E-01
RA-226	A	7.0454E-01	1.3759E+00	1.3765E+00	0.773E+00
Th-230	C	1.9373E+01	2.9821E+01	2.9840E+01	0.151E+02
Th-234	C	2.1291E+00	1.6645E+00	1.6687E+00	0.147E+01
Tl-208	B	0.0000E+00	0.0000E+00	0.0000E+00	0.190E-01
U-235	B	-5.0475E-02	-4.5080E-01	-4.5080E-01	0.544E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- SUMMARY ----------

Total Activity (41.8 to 2654.1 keV) 3.3943577E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 09-DEC-2005 08:56:53 Page 1
New World Technology Spectrum name: 3N001866.An1

Sample description
PCB Hot Spot 84NPCBG131PE-001 305g
12/8/2005 08:00 AM

Acquisition information
Start time: 09-Dec-2005 08:11:48
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	#	4.9894E-01	5.3205E-01	5.3277E-01	0.239E+00
AM-241	#B	-6.4066E-02	-2.4154E+00	-2.4154E+00	0.109E+00
Bi-212	#A	3.7900E-01	5.0848E-01	5.0892E-01	0.382E+00
BI-214	F	4.2676E-01	3.2725E-01	3.2811E-01	0.138E+00
CO-60	#B	-4.2592E-02	-2.2711E-01	-2.2712E-01	0.437E-01
Cs-137	#A	5.0932E-03	1.3863E-01	1.3863E-01	0.650E-01
EU-152	B	8.4855E-02	2.2451E-01	2.2456E-01	0.969E-01
EU-154	F	2.0974E-01	1.1891E-01	1.1948E-01	0.583E-01
K-40	#	1.6148E+01	2.9414E+00	3.0753E+00	0.660E+00
PA-234	#B	2.5482E-02	1.2924E-01	1.2925E-01	0.822E-01
Pb-210		1.4045E+00	2.9615E+00	2.9625E+00	0.133E+01
PB-212	F	8.2159E-01	2.1323E-01	2.1806E-01	0.817E-01
PB-214		3.8145E-01	2.6612E-01	2.6696E-01	0.109E+00
RA-226	#	1.0713E+00	2.2109E+00	2.2117E+00	0.102E+01
Th-230	#B	1.7876E+00	1.4134E+01	1.4134E+01	0.822E+01
TH-234		1.7585E+00	1.4569E+00	1.4601E+00	0.991E+00
Tl-208		2.3790E-01	9.7630E-02	9.8521E-02	0.619E-01
U-235	#B	0.0000E+00	3.6978E+02	3.6978E+02	0.660E-01

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S U M M A R Y

Total Activity (41.7 to 2660.6 keV) 2.2749226E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 08-DEC-2005 14:44:41 Page 1
New World Technology Spectrum name: 3N001858.An1

Sample description
PCB Hot Spot 84NPCBG132PE-001 402g
12/8/2005 8:10 AM

Acquisition information
Start time: 08-Dec-2005 13:51:27
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	B	1.5439E-01	1.8560E-01	1.8580E-01	0.199E+00
AM-241	#A	3.1072E-02	1.2236E-01	1.2238E-01	0.702E-01
Bi-212	#	4.7557E-01	5.3708E-01	5.3773E-01	0.193E+00
BI-214	F	4.2319E-01	2.3280E-01	2.3399E-01	0.971E-01
CO-60	#B	-4.4744E-02	1.2574E+02	1.2574E+02	0.317E-01
Cs-137	A	4.1032E-02	8.9128E-02	8.9157E-02	0.515E-01
EU-152	F	7.7478E-02	1.4331E-01	1.4338E-01	0.643E-01
EU-154	#B	-1.8080E-02	2.0244E+02	2.0244E+02	0.582E-01
K-40		2.4506E+01	3.1003E+00	3.3863E+00	0.218E+00
PA-234	A	7.8734E-02	1.7763E-01	1.7768E-01	0.116E+00
Pb-210	#A	7.2026E-01	1.8864E+00	1.8868E+00	0.947E+00
PB-212		2.6655E-01	1.4746E-01	1.4820E-01	0.715E-01
PB-214		2.3445E-01	1.9381E-01	1.9425E-01	0.890E-01
RA-226		9.2653E-01	1.2805E+00	1.2816E+00	0.694E+00
Th-230	#B	3.0410E+00	1.5295E+01	1.5296E+01	0.767E+01
TH-234	B	4.5431E-01	4.2448E-01	4.2523E-01	0.753E+00
Tl-208	#	2.1875E-01	7.9071E-02	8.0000E-02	0.168E-01
U-235	B	2.6414E-02	8.2753E-02	8.2766E-02	0.441E-01

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---------------------------- S U M M A R Y ----------------------------
Total Activity (41.7 to 2660.6 keV) 2.7051483E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 08-DEC-2005 12:55:49 Page 1
New World Technology Spectrum name: 1N001410.An1

Sample description
PCB Hot Spot 84PCBG139PE-001 383g
12/08/2005 08:20 AM

Acquisition information
Start time: 08-Dec-2005 12:10:41
Live time: 2700
Real time: 2701

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	6.3156E-01	3.0029E-01	3.0234E-01	0.401E-01
AM-241	A	1.2215E-01	4.2013E-01	4.2018E-01	0.227E+00
Bi-212	A	1.2191E-01	3.6573E-01	3.6580E-01	0.299E+00
BI-214	F	1.4219E+00	1.1794E+00	1.1820E+00	0.205E+00
CO-60	#A	-3.4089E-03	4.4523E+01	4.4523E+01	0.159E-01
CS-137	#A	-2.4381E-02	-1.1669E-01	-1.1670E-01	0.465E-01
EU-152	A	6.2052E-02	8.3252E-02	8.3323E-02	0.850E-01
EU-154	A	3.5036E-02	7.8342E-02	7.8366E-02	0.431E-01
K-40		9.7014E+00	2.4570E+00	2.5155E+00	0.185E+00
Pa-234	#B	7.0805E-03	2.3749E-02	2.3752E-02	0.989E-01
Pb-210	#	1.2430E+01	1.5610E+01	1.5625E+01	0.653E+01
Pb-212		3.2372E-01	1.5104E-01	1.5211E-01	0.592E-01
Pb-214	#B	-8.1222E-03	6.5562E+02	6.5562E+02	0.104E+00
RA-226		1.1496E+00	1.3421E+00	1.3436E+00	0.712E+00
Th-230	#A	5.3117E+00	1.3065E+01	1.3068E+01	0.135E+02
Th-234	A	8.4568E-01	1.0282E+00	1.0293E+00	0.144E+01
Tl-208	#	1.0856E-01	5.7572E-02	5.7888E-02	0.273E-01
U-235	#F	5.2462E-02	5.7678E-02	5.7752E-02	0.507E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2654.1 keV) 2.5766800E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 03-JUL-2006 20:57:23 Page 1
New World Technology Spectrum name: 7N000026.An1

Sample description
PCB Hot Spot 84NPCBG156PE-002 527g
6/30/06 14:00

Acquisition information
Start time: 03-Jul-2006 20:12:14
Live time: 2700
Real time: 2703

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
AC-228	F	6.1931E-01	3.2411E-01	3.2593E-01	0.879E-01
AM-241	B	7.2207E-03	1.8742E-01	1.8742E-01	0.104E+00
BI-212	B	6.2270E-02	5.0528E-01	5.0529E-01	0.282E+00
BI-214	F	3.2321E-01	1.5906E-01	1.6007E-01	0.699E-01
CO-60	#B	5.5758E-03	1.8702E-02	1.8704E-02	0.919E-02
CS-137	#B	-3.0614E-02	-3.6938E-01	-3.6939E-01	0.295E-01
EU-152	B	-3.4961E-02	-2.8015E-01	-2.8016E-01	0.867E-01
EU-154	F	8.5263E-02	1.1535E-01	1.1545E-01	0.560E-01
K-40		2.1837E+01	2.5262E+00	2.8033E+00	0.276E+00
PA-234	F	2.4195E-01	2.3252E-01	2.3291E-01	0.830E-01
PB-210	#B	-3.5479E-01	-2.1484E+00	-2.1485E+00	0.102E+01
PB-212	F	3.1041E-01	1.2939E-01	1.3054E-01	0.625E-01
PB-214		2.7583E-01	1.3679E-01	1.3765E-01	0.759E-01
RA-226	B	3.0875E-01	1.4650E+00	1.4651E+00	0.828E+00
Th-230	#B	-6.5627E+00	-7.9650E+01	-7.9651E+01	0.913E+01
TH-234	#B	-2.7065E-01	-2.0271E+00	-2.0271E+00	0.858E+00
TL-208	F	5.9860E-02	1.0926E-01	1.0931E-01	0.279E-01
U-235	B	4.4086E-02	1.0522E-01	1.0525E-01	0.484E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (42.0 to 2681.2 keV) 2.3365480E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 03-JUL-2006 21:28:22 Page 1
New World Technology Spectrum name: 1N002554.An1

Sample description
PCB Hot Spot 84NPCBG159PE-001 403g
6/30/06 14:05

Acquisition information
Start time: 03-Jul-2006 20:43:12
Live time: 2700
Real time: 2703

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	6.1631E-01	3.2185E-01	3.2368E-01	0.427E-01
AM-241 #A	-8.5472E-02	-1.0732E+00	-1.0733E+00	0.252E+00
Bi-212 #F	5.4813E-01	7.2099E-01	7.2163E-01	0.275E+00
BI-214 #F	5.3411E-01	2.2321E-01	2.2518E-01	0.365E+00
CO-60 #C	4.8601E-02	3.7195E-02	3.7293E-02	0.401E-01
CS-137	6.2161E-02	6.3685E-02	6.3778E-02	0.218E-01
EU-152 C	1.3698E-01	1.5198E-01	1.5217E-01	0.862E-01
EU-154 #A	-2.0786E-02	-4.0082E-01	-4.0082E-01	0.593E-01
K-40	1.5818E+01	3.4788E+00	3.5883E+00	0.912E+00
Pa-234 #B	-3.2465E-01	5.1944E+02	5.1944E+02	0.126E+00
Pb-210 #A	1.6517E+00	2.2344E+01	2.2344E+01	0.994E+01
Pb-212 F	3.6964E-01	1.5190E-01	1.5329E-01	0.614E-01
Pb-214	7.1893E-01	2.3172E-01	2.3515E-01	0.480E-01
RA-226 #B	-5.3986E-01	-3.0893E+00	-3.0895E+00	0.937E+00
Th-230 #B	2.1331E+00	1.8575E+01	1.8575E+01	0.103E+02
Th-234 A	1.2852E+00	1.9589E+00	1.9602E+00	0.171E+01
Tl-208 #	2.2533E-01	1.3318E-01	1.3377E-01	0.333E-01
U-235 C	7.8409E-02	1.2024E-01	1.2032E-01	0.523E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.2 to 2605.8 keV) 1.8892746E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 06-JUL-2006 14:51:02 Page 1
New World Technology Spectrum name: 7N000032.An1

Sample description
PCB Hot Spot 84NPCBG165PE-001 382g
7/06/06 08:35

Acquisition information
Start time: 06-Jul-2006 14:05:52
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
AC-228	F	7.8646E-01	4.0835E-01	4.1068E-01	0.116E+00
AM-241	#B	-1.9934E-02	-3.9026E-01	-3.9026E-01	0.121E+00
BI-212	F	4.1562E-01	6.9115E-01	6.9154E-01	0.362E+00
BI-214	F	5.5195E-01	2.2521E-01	2.2729E-01	0.678E-01
CO-60	#B	1.1972E-02	4.5491E-02	4.5496E-02	0.221E-01
CS-137	#B	1.0170E-02	1.1373E-01	1.1374E-01	0.481E-01
EU-152	B	8.9414E-02	1.8823E-01	1.8829E-01	0.114E+00
EU-154	F	1.4116E-01	1.3811E-01	1.3833E-01	0.761E-01
K-40		1.3899E+01	5.3859E+00	5.4411E+00	0.259E+01
PA-234	F	1.0203E-01	1.5113E-01	1.5123E-01	0.950E-01
PB-210	#B	-3.4286E+00	-1.2287E+01	-1.2289E+01	0.144E+01
PB-212	F	5.9584E-01	1.9010E-01	1.9296E-01	0.864E-01
PB-214		6.2132E-01	3.1705E-01	3.1893E-01	0.116E+00
RA-226	B	4.7864E-01	1.7795E+00	1.7797E+00	0.102E+01
Th-230	#B	-4.7499E+00	-4.2040E+01	-4.2041E+01	0.138E+02
TH-234	#B	-2.1619E-01	-2.5242E+00	-2.5242E+00	0.128E+01
TL-208	B	1.3113E-01	9.0045E-02	9.0340E-02	0.208E+00
U-235	F	1.4680E-01	2.1860E-01	2.1876E-01	0.602E-01

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H - Halflife limit exceeded

------------------------------ S U M M A R Y ------------------------------
Total Activity (42.1 to 2683.2 keV) 1.6454220E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 13-DEC-2005 20:32:13 Page 1
New World Technology Spectrum name: 1N001441.An1

Sample description
PCB Hot Spot 84NPCBG167PE-001 320g
12/13/05 13:05

Acquisition information
Start time: 13-Dec-2005 19:47:04
Live time: 2700
Real time: 2701

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228 #F	2.2659E-01	2.3548E-01	2.3582E-01	0.138E+00
AM-241 #A	-3.0653E-02	-1.2573E+00	-1.2573E+00	0.301E+00
Bi-212 B	1.1275E-01	5.7529E-01	5.7533E-01	0.339E+00
BI-214 F	4.5445E-01	2.4096E-01	2.4228E-01	0.356E+00
CO-60 #A	-8.1601E-04	-1.5955E-02	-1.5955E-02	0.199E-01
CS-137 #A	-6.4320E-02	-3.0982E-01	-3.0984E-01	0.527E-01
EU-152 #C	1.0397E-01	1.2979E-01	1.2992E-01	0.712E-01
EU-154 C	5.7340E-02	9.1499E-02	9.1554E-02	0.484E-01
K-40	2.6530E+01	4.4333E+00	4.6723E+00	0.222E+00
Pa-234 #C	2.7454E-01	2.5489E-01	2.5535E-01	0.137E+00
Pb-210 #B	-2.3565E+00	-5.4440E+01	-5.4440E+01	0.929E+01
Pb-212 F	2.8564E-01	1.6280E-01	1.6358E-01	0.662E-01
Pb-214 #F	4.5690E-01	2.2939E-01	2.3079E-01	0.632E-01
RA-226 A	2.8062E-01	1.5919E+00	1.5920E+00	0.917E+00
Th-230	2.9670E+01	2.8059E+01	2.8107E+01	0.150E+02
Th-234 A	1.1837E+00	1.9871E+00	1.9882E+00	0.185E+01
Tl-208 C	1.0024E-01	5.2833E-02	5.3126E-02	0.537E-01
U-235 #B	3.9414E-02	7.8129E-02	7.8160E-02	0.602E-01

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---------- S U M M A R Y ----------

Total Activity (41.8 to 2654.1 keV) 5.6943192E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 13-DEC-2005 20:39:52 Page 1
New World Technology Spectrum name: 2N001857.An1

Sample description
PCB Hot Spot 84NPCBG169PE-002 345g
12/13/2005 13:10

Acquisition information
Start time: 13-Dec-2005 19:54:44
Live time: 2700
Real time: 2705

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	#F	5.9853E-01	2.8699E-01	2.8892E-01	0.164E+00
AM-241	#A	4.5225E-01	1.3162E+00	1.3164E+00	0.645E+00
Bi-212	F	2.7968E-01	4.3049E-01	4.3077E-01	0.178E+00
BI-214	F	5.2196E-01	2.5196E-01	2.5363E-01	0.626E-01
CO-60	#B	1.3746E-03	1.7312E-02	1.7312E-02	0.285E-01
Cs-137	#A	3.1558E-02	9.9774E-02	9.9790E-02	0.506E-01
EU-152	#B	-4.9674E-02	3.5862E+02	3.5862E+02	0.905E-01
EU-154	#F	5.8664E-02	8.7996E-02	8.8056E-02	0.578E-01
K-40		2.4619E+01	3.4993E+00	3.7581E+00	0.633E+00
PA-234	#C	2.1701E-01	2.6544E-01	2.6571E-01	0.170E+00
Pb-210	#	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.8009E-01	1.6726E-01	1.6859E-01	0.690E-01
PB-214		2.6349E-01	1.9095E-01	1.9151E-01	0.878E-01
RA-226	A	3.9175E-01	1.7249E+00	1.7251E+00	0.973E+00
Th-230	#B	3.6427E+00	4.5740E+00	4.5784E+00	0.135E+02
TH-234	#	4.7447E+00	4.4675E+00	4.4752E+00	0.360E+01
Tl-208		2.0855E-01	8.7893E-02	8.8657E-02	0.608E-01
U-235		6.8208E-02	1.0901E-01	1.0907E-01	0.509E-01

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- H - Halflife limit exceeded

---------------------------- S U M M A R Y ----------------------------

Total Activity (41.8 to 2674.9 keV) 3.1683790E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 22-NOV-2005 23:31:02 Page 1
New World Technology Spectrum name: 3N001824.An1

Sample description
PCB Hot Spot 84NPCBG170PE-002 399g
11/22/05 12:30

Acquisition information
Start time: 22-Nov-2005 22:45:57
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	C	3.2496E-01	3.5295E-01	3.5341E-01	0.183E+00
AM-241	#B	-1.8415E-03	-1.3609E-01	-1.3609E-01	0.735E-01
Bi-212		5.3293E-01	5.4449E-01	5.4529E-01	0.241E+00
BI-214	F	3.1442E-01	2.1299E-01	2.1370E-01	0.988E-01
CO-60	#B	-4.1741E-02	-4.1018E-01	-4.1019E-01	0.337E-01
Cs-137	#B	-4.4911E-02	-2.6481E-01	-2.6482E-01	0.463E-01
EU-152	F	2.1664E-01	2.3995E-01	2.4025E-01	0.809E-01
EU-154	C	6.7873E-02	8.5135E-02	8.5219E-02	0.510E-01
K-40		2.5063E+01	3.1352E+00	3.4307E+00	0.505E+00
PA-234	#F	1.9617E-01	2.9980E-01	3.0000E-01	0.123E+00
Pb-210	#B	-9.9463E-02	-1.8055E+00	-1.8055E+00	0.959E+00
PB-212		3.2536E-01	1.4746E-01	1.4856E-01	0.684E-01
PB-214		2.7414E-01	1.8736E-01	1.8798E-01	0.960E-01
RA-226	A	3.1493E-01	1.3656E+00	1.3657E+00	0.772E+00
Th-230	#B	8.2655E+00	1.7982E+01	1.7988E+01	0.851E+01
TH-234	C	9.1620E-01	1.0674E+00	1.0686E+00	0.722E+00
Tl-208	C	9.4202E-02	4.6787E-02	4.7079E-02	0.508E-01
U-235	C	5.2439E-02	1.0736E-01	1.0740E-01	0.394E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.7 to 2660.6 keV) 2.6706108E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 23-NOV-2005 09:39:21 Page 1
New World Technology Spectrum name: 1N001365.An1

Sample description
PCB Hot Spot 84NPCBG171PE-002 426g
11/22/05 12:25

Acquisition information
Start time: 23-Nov-2005 08:54:12
Live time: 2700
Real time: 2701

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	6.7546E-01	3.0971E-01	3.1198E-01	0.363E-01
AM-241	#A	-1.3155E-02	-6.8112E-01	-6.8112E-01	0.239E+00
Bi-212	B	1.6754E-01	5.6978E-01	5.6985E-01	0.316E+00
BI-214	F	5.3848E-01	3.4780E-01	3.4909E-01	0.249E+00
CO-60	#A	8.3918E-03	1.6086E-02	1.6093E-02	0.143E-01
CS-137	A	1.7014E-02	6.5404E-02	6.5411E-02	0.426E-01
EU-152	A	1.9531E-02	4.8805E-02	4.8817E-02	0.566E-01
EU-154	A	2.9966E-02	7.9446E-02	7.9464E-02	0.488E-01
K-40		2.1879E+01	3.4969E+00	3.7024E+00	0.167E+00
Pa-234	#B	-2.5705E-02	-8.6216E-02	-8.6228E-02	0.120E+00
Pb-210	#	7.0894E+00	1.2112E+01	1.2119E+01	0.589E+01
Pb-212		2.1208E-01	1.2387E-01	1.2443E-01	0.583E-01
Pb-214		3.5476E-01	1.9165E-01	1.9266E-01	0.569E-01
RA-226		1.0363E+00	1.3118E+00	1.3130E+00	0.700E+00
Th-230	#C	2.9740E+01	2.5609E+01	2.5662E+01	0.136E+02
Th-234	A	1.2406E+00	1.7737E+00	1.7750E+00	0.145E+01
Tl-208	#	1.2888E-01	7.2954E-02	7.3305E-02	0.247E-01
U-235	B	6.6405E-03	2.1481E-02	2.1484E-02	0.512E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2654.1 keV) 3.1914116E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 23-NOV-2005 09:50:19 Page 1
New World Technology Spectrum name: 2N001783.An1

Sample description
PCB Hot Spot 84NPCBG172PE-002 387g
11/22/05 12:00

Acquisition information
Start time: 23-Nov-2005 09:03:10
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	4.8934E-01	2.8780E-01	2.8908E-01	0.131E+00
AM-241	#A	6.4507E-03	8.2423E-02	8.2423E-02	0.279E+00
Bi-212		5.7231E-01	5.1828E-01	5.1926E-01	0.200E+00
BI-214	F	4.5734E-01	2.0545E-01	2.0702E-01	0.526E-01
CO-60	#C	3.8743E-02	5.6319E-02	5.6360E-02	0.300E-01
Cs-137		7.5479E-02	8.6409E-02	8.6511E-02	0.423E-01
EU-152	#B	-4.4283E-02	3.3821E+02	3.3821E+02	0.973E-01
EU-154	C	1.2155E-01	1.4714E-01	1.4729E-01	0.705E-01
K-40		2.4277E+01	3.2724E+00	3.5405E+00	0.564E+00
PA-234	#	1.7946E-01	2.8375E-01	2.8392E-01	0.162E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		4.4219E-01	1.7289E-01	1.7463E-01	0.668E-01
PB-214		3.8014E-01	2.0408E-01	2.0517E-01	0.889E-01
RA-226	A	6.5996E-01	1.7305E+00	1.7309E+00	0.955E+00
Th-230	B	7.1006E+00	1.1261E+01	1.1268E+01	0.196E+02
TH-234	B	0.0000E+00	7.5371E+03	7.5371E+03	0.177E+01
Tl-208	#	1.7166E-01	7.8122E-02	7.8704E-02	0.542E-01
U-235	C	8.6533E-02	1.4205E-01	1.4213E-01	0.547E-01

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A - Activity printed, but activity < MDA.
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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2674.9 keV) 2.7044487E+01 picoCi/g

.Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 23-NOV-2005 10:12:09 Page 1
New World Technology Spectrum name: 3N001825.An1

Sample description
PCB Hot Spot 84NPCBG173PE-002 422g
11/22/05 12:15

Acquisition information
Start time: 23-Nov-2005 09:07:38
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		2.7983E-01	2.7271E-01	2.7316E-01	0.158E+00
AM-241	#B	-5.1774E-03	-2.1347E-01	-2.1347E-01	0.991E-01
Bi-212	F	3.9484E-01	5.5886E-01	5.5929E-01	0.269E+00
BI-214	F	4.2505E-01	2.1460E-01	2.1590E-01	0.106E+00
CO-60	#B	-4.4991E-02	-3.0877E-01	-3.0878E-01	0.310E-01
Cs-137	#A	3.2563E-02	6.9096E-02	6.9119E-02	0.382E-01
EU-152	F	1.6704E-01	1.9018E-01	1.9041E-01	0.696E-01
EU-154	#B	-4.5401E-03	-1.3929E-01	-1.3929E-01	0.459E-01
K-40		2.1331E+01	2.8926E+00	3.1262E+00	0.520E+00
PA-234	C	1.6597E-01	1.7822E-01	1.7845E-01	0.615E-01
Pb-210	#B	-2.5356E-01	-2.0789E+00	-2.0790E+00	0.908E+00
PB-212		3.7062E-01	1.5112E-01	1.5251E-01	0.690E-01
PB-214		4.3509E-01	2.2180E-01	2.2311E-01	0.871E-01
RA-226	A	1.4768E-01	1.2701E+00	1.2702E+00	0.727E+00
Th-230	#B	-2.1249E+00	2.7069E+04	2.7069E+04	0.683E+01
TH-234	C	1.3011E+00	1.1649E+00	1.1672E+00	0.780E+00
Tl-208	#C	1.1453E-01	8.6945E-02	8.7178E-02	0.248E-01
U-235	B	7.5989E-03	8.2784E-02	8.2785E-02	0.451E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.6 keV) 2.3236742E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 22-NOV-2005 21:29:15 Page 1
New World Technology Spectrum name: 2N001781.An1

Sample description
PCB Hot Spot 84NPCBG174PE-002 272g
11/22/2005 12:10

Acquisition information
Start time: 22-Nov-2005 20:25:26
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	4.8929E-01	2.9095E-01	2.9222E-01	0.170E+00
AM-241	#B	-9.1780E-03	-1.0102E-01	-1.0102E-01	0.341E+00
Bi-212		5.8674E-01	6.8355E-01	6.8433E-01	0.284E+00
BI-214	F	6.0618E-01	3.5600E-01	3.5759E-01	0.106E+00
CO-60	#A	3.1726E-02	5.0447E-02	5.0478E-02	0.362E-01
Cs-137		6.5411E-02	1.0661E-01	1.0667E-01	0.598E-01
EU-152	F	1.8636E-01	1.6751E-01	1.6783E-01	0.130E+00
EU-154	F	1.2397E-01	1.2558E-01	1.2576E-01	0.701E-01
K-40		1.4168E+01	3.1753E+00	3.2718E+00	0.850E+00
PA-234	#C	3.8000E-01	2.4877E-01	2.4966E-01	0.184E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.1133E-01	1.9978E-01	2.0053E-01	0.907E-01
PB-214		4.1701E-01	2.4393E-01	2.4504E-01	0.783E-01
RA-226		1.0855E+00	1.9742E+00	1.9752E+00	0.108E+01
Th-230	A	1.3967E+01	6.3491E+01	6.3496E+01	0.320E+02
TH-234	A	1.6982E+00	2.8698E+00	2.8713E+00	0.366E+01
Tl-208	B	8.2595E-02	4.8717E-02	4.8934E-02	0.940E-01
U-235	C	7.7137E-02	1.0392E-01	1.0400E-01	0.563E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2674.9 keV) 1.7729029E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 22-NOV-2005 21:05:38 Page 1
New World Technology Spectrum name: 1N001363.An1

Sample description
PCB Hot Spot 84NPCBG177PE-002 318g
11/22/05 12:05

Acquisition information
Start time: 22-Nov-2005 20:20:30
Live time: 2700
Real time: 2701

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	3 Sigma Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	3.8032E-01	3.1009E-01	3.1081E-01	0.484E-01
AM-241	A	2.5070E-02	3.7502E-01	3.7502E-01	0.210E+00
Bi-212	#B	-2.2974E-01	-1.0705E+01	-1.0705E+01	0.349E+00
BI-214	F	1.1646E+00	1.3115E+00	1.3131E+00	0.375E+00
CO-60	#A	-4.1057E-03	5.3624E+01	5.3624E+01	0.191E-01
CS-137	#A	-3.6554E-03	-7.8994E-02	-7.8994E-02	0.538E-01
EU-152	A	1.2353E-02	4.9413E-02	4.9418E-02	0.942E-01
EU-154	C	1.3308E-01	1.1073E-01	1.1097E-01	0.526E-01
K-40		2.0346E+01	3.8970E+00	4.0579E+00	0.223E+00
Pa-234	#F	1.8213E-01	2.0651E-01	2.0676E-01	0.141E+00
Pb-210	#	1.3642E+01	2.3375E+01	2.3387E+01	0.984E+01
Pb-212	F	3.5108E-01	1.5257E-01	1.5382E-01	0.651E-01
Pb-214		4.6078E-01	1.9591E-01	1.9758E-01	0.448E-01
RA-226		9.3282E-01	1.6601E+00	1.6609E+00	0.912E+00
Th-230	#B	4.9886E+00	3.5751E+01	3.5752E+01	0.160E+02
Th-234	A	1.3252E+00	2.4295E+00	2.4306E+00	0.159E+01
Tl-208	#	1.4611E-01	1.1252E-01	1.1282E-01	0.329E-01
U-235	B	3.1724E-02	1.0610E-01	1.0611E-01	0.603E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2654.1 keV) 3.7423561E+01 picoCi/g

Laboratory: New World Technology

RADIOLOGICAL RANDOM POST-EXCAVATION SIDEWALL GRID SAMPLE

ORTEC g v - i (3263) wan32 G53W2.03 31-JUL-2006 23:16:18 Page 1
New World Technology Spectrum name: 2N003367.An1

Sample description
PCB Hot Spot 84NPCBG37SWPE-001 426g
7/31/06 14:15

Acquisition information
Start time: 31-Jul-2006 22:31:11
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 2 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	B	7.3624E-02	1.0587E-01	1.0590E-01	0.142E+00
AM-241	#A	5.6005E-01	8.9132E-01	8.9156E-01	0.591E+00
Bi-212	B	1.6767E-01	2.2851E-01	2.2859E-01	0.174E+00
BI-214	F	1.8575E-01	1.1028E-01	1.1049E-01	0.767E-01
CO-60	#B	-2.1817E-02	-9.8588E-02	-9.8591E-02	0.249E-01
Cs-137	#B	-3.4966E-02	-1.1263E-01	-1.1264E-01	0.428E-01
EU-152	F	1.4817E-01	9.3990E-02	9.4150E-02	0.807E-01
EU-154	B	2.9463E-02	8.1858E-02	8.1865E-02	0.656E-01
K-40		6.3668E+00	1.1426E+00	1.1668E+00	0.524E+00
PA-234	#B	-3.5127E-02	-5.6320E-01	-5.6320E-01	0.578E-01
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		2.1388E-01	8.7388E-02	8.7748E-02	0.667E-01
PB-214		1.8098E-01	1.0272E-01	1.0294E-01	0.715E-01
RA-226	#B	-1.3533E-01	-1.1804E+00	-1.1805E+00	0.879E+00
Th-230	#A	2.4759E+01	3.0593E+01	3.0607E+01	0.261E+02
TH-234		7.1368E+00	4.0436E+00	4.0522E+00	0.229E+01
Tl-208	#F	1.5453E-01	6.5892E-02	6.6141E-02	0.164E-01
U-235	B	1.0938E-02	3.1263E-02	3.1265E-02	0.438E-01

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C - Area < Critical level.
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H - Halflife limit exceeded

---------------------------- S U M M A R Y ----------------------------

Total Activity (41.8 to 2673.8 keV) 1.4238738E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 19-JUL-2006 23:37:54 Page 1
New World Technology Spectrum name: 1N002738.An1

Sample description
PCB Hot Spot 84NPCBG54SWPE-001 424g
7/19/06 15:20

Acquisition information
Start time: 19-Jul-2006 22:52:44
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228 F	1.8202E-01	2.2261E-01	2.2284E-01	0.667E-01
AM-241 #A	-7.1027E-02	-5.5324E-01	-5.5326E-01	0.162E+00
Bi-212 #B	1.8873E-02	7.7559E-02	7.7566E-02	0.243E+00
BI-214 #F	1.7798E+00	1.1939E+00	1.1980E+00	0.207E+00
CO-60 #A	-3.1005E-02	-2.0717E-01	-2.0717E-01	0.382E-01
CS-137 A	6.4879E-03	5.5968E-02	5.5969E-02	0.341E-01
EU-152 C	1.2989E-01	1.7862E-01	1.7876E-01	0.614E-01
EU-154 A	2.0976E-02	6.8241E-02	6.8251E-02	0.456E-01
K-40	7.7989E+00	2.5032E+00	2.5405E+00	0.866E+00
Pa-234 #B	-3.0442E-01	-6.0658E+00	-6.0658E+00	0.988E-01
Pb-210 #	2.0618E+01	2.3300E+01	2.3328E+01	0.841E+01
Pb-212	2.9010E-01	1.4123E-01	1.4215E-01	0.531E-01
Pb-214 F	3.9103E-01	1.9126E-01	1.9249E-01	0.492E-01
RA-226 #B	-8.9411E-01	-5.3259E+00	-5.3261E+00	0.852E+00
Th-230 #B	-4.2991E+00	-1.2297E+02	-1.2297E+02	0.870E+01
Th-234 A	3.7965E-01	1.7318E+00	1.7319E+00	0.138E+01
Tl-208 #	1.4700E-01	9.3207E-02	9.3565E-02	0.257E-01
U-235 A	2.8276E-02	9.6581E-02	9.6594E-02	0.444E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.2 to 2605.8 keV) 3.1024536E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 20-JUL-2006 00:27:56 Page 1
New World Technology Spectrum name: 1N002739.An1

Sample description
PCB Hot Spot 84NPCBG55SWPE-001 381g
7/19/06 15:05

Acquisition information
Start time: 19-Jul-2006 23:42:47
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	A	2.2489E-01	2.7790E-01	2.7818E-01	0.228E+00
AM-241	#A	-7.6605E-02	-6.0800E-01	-6.0802E-01	0.182E+00
Bi-212	F	2.6006E-01	4.4472E-01	4.4496E-01	0.211E+00
BI-214	#B	3.1398E-01	1.9632E-01	1.9709E-01	0.326E+00
CO-60	#A	-1.0979E-02	-7.9986E-02	-7.9989E-02	0.425E-01
CS-137	#A	-2.0122E-02	-2.6282E-01	-2.6282E-01	0.331E-01
EU-152	C	9.6043E-02	1.3951E-01	1.3961E-01	0.574E-01
EU-154	C	6.2625E-02	6.8866E-02	6.8954E-02	0.400E-01
K-40	#	5.1756E+00	2.2912E+00	2.3092E+00	0.964E+00
Pa-234	#B	-2.9139E-01	-1.5721E+00	-1.5722E+00	0.121E+00
Pb-210	#A	5.0082E+00	1.3796E+01	1.3799E+01	0.642E+01
Pb-212	F	3.0998E-01	1.4676E-01	1.4777E-01	0.612E-01
Pb-214		3.7687E-01	1.8758E-01	1.8875E-01	0.497E-01
RA-226	#B	-1.6758E-01	-1.7875E+00	-1.7875E+00	0.912E+00
Th-230	#B	-6.7112E+00	-1.7844E+02	-1.7844E+02	0.811E+01
Th-234	B	1.7932E-01	3.9583E-01	3.9596E-01	0.158E+01
Tl-208	#	1.5143E-01	7.8953E-02	7.9401E-02	0.145E-01
U-235	A	4.3816E-02	1.0125E-01	1.0127E-01	0.467E-01

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A - Activity printed, but activity < MDA.
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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2605.8 keV) 6.2739458E+00 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 20-JUL-2006 07:17:52 Page 1
New World Technology Spectrum name: 1N002743.An1

Sample description
PCB Hot Spot 84NPCBG56SWPE-001 356g
7/19/06 15:25

Acquisition information
Start time: 20-Jul-2006 06:32:43
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	#F	3.0823E-01	2.5974E-01	2.6031E-01	0.990E-01
AM-241	#A	-9.8383E-02	-9.5871E-01	-9.5873E-01	0.231E+00
Bi-212	B	1.7385E-01	5.4533E-01	5.4542E-01	0.290E+00
BI-214	#B	0.0000E+00	0.0000E+00	0.0000E+00	0.247E+00
CO-60	#A	-4.1123E-02	-2.8994E-01	-2.8995E-01	0.475E-01
CS-137	A	3.5701E-03	4.5327E-02	4.5328E-02	0.315E-01
EU-152	#A	-2.7235E-02	-1.4152E-01	-1.4152E-01	0.648E-01
EU-154	A	2.0208E-02	4.7919E-02	4.7932E-02	0.419E-01
K-40	#	4.6017E+00	2.3008E+00	2.3150E+00	0.103E+01
Pa-234	#B	-3.6133E-01	-6.7037E+00	-6.7038E+00	0.117E+00
Pb-210	#	2.0193E+01	2.6909E+01	2.6932E+01	0.937E+01
Pb-212	F	2.6921E-01	1.4849E-01	1.4924E-01	0.647E-01
Pb-214		3.6320E-01	1.8658E-01	1.8767E-01	0.415E-01
RA-226	#B	-7.5701E-01	-3.7204E+00	-3.7206E+00	0.969E+00
Th-230	#B	-5.2789E+00	-2.0494E+02	-2.0494E+02	0.112E+02
Th-234	#B	-1.7145E-01	-3.7291E-01	-3.7304E-01	0.158E+01
Tl-208	#F	1.5531E-01	8.3528E-02	8.3974E-02	0.155E-01
U-235	B	3.6810E-02	8.0009E-02	8.0036E-02	0.460E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.2 to 2605.8 keV) 2.5582584E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 21-JUL-2006 03:57:21 Page 1
New World Technology Spectrum name: 1N002765.An1

Sample description
PCB Hot Spot 84NPCBG57ASWPE-001 416g
7/20/06 16:10

Acquisition information
Start time: 21-Jul-2006 02:27:07
Live time: 5400
Real time: 5406

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	F	5.8210E-01	1.8048E-01	1.8336E-01	0.588E-01
AM-241	#A	-1.0794E-01	-9.3441E-01	-9.3443E-01	0.158E+00
Bi-212	F	4.2193E-01	4.3132E-01	4.3196E-01	0.202E+00
BI-214	#F	5.9225E-01	4.1980E-01	4.2109E-01	0.451E+00
CO-60	#A	-1.0055E-02	-5.1800E-02	-5.1803E-02	0.275E-01
CS-137	#A	1.3082E-02	4.8222E-02	4.8228E-02	0.247E-01
EU-152	C	1.1556E-01	1.1478E-01	1.1496E-01	0.550E-01
EU-154	A	2.4908E-02	3.5696E-02	3.5722E-02	0.336E-01
K-40		7.0373E+00	1.7192E+00	1.7632E+00	0.624E+00
Pa-234	#B	3.8166E-02	3.7424E-02	3.7483E-02	0.727E-01
Pb-210	#	9.3337E+00	1.6259E+01	1.6267E+01	0.697E+01
Pb-212		4.7309E-01	1.2788E-01	1.3056E-01	0.429E-01
Pb-214	F	5.5113E-01	1.7857E-01	1.8118E-01	0.486E-01
RA-226	#B	-6.3889E-01	-2.8416E+00	-2.8418E+00	0.703E+00
Th-230	#B	4.2385E+00	2.2822E+01	2.2823E+01	0.106E+02
Th-234	B	-3.8590E-01	-1.1087E+00	-1.1089E+00	0.112E+01
Tl-208		2.4044E-01	7.7299E-02	7.8448E-02	0.173E-01
U-235	C	3.9941E-02	5.5054E-02	5.5099E-02	0.343E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.2 to 2605.8 keV) 1.9231960E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 21-JUL-2006 04:04:30 Page 1
New World Technology Spectrum name: 2N003263.An1

Sample description
Parcel B 84NPCBG57BSWPE-001 421g
7/20/06 16:15

Acquisition information
Start time: 21-Jul-2006 02:34:20
Live time: 5400
Real time: 5408

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	A	1.1203E-01	1.6355E-01	1.6367E-01	0.112E+00
AM-241	#B	-4.4302E-01	-7.5894E+00	-7.5894E+00	0.429E+00
Bi-212	F	3.3822E-01	2.8371E-01	2.8434E-01	0.127E+00
BI-214	F	1.6842E-01	1.2624E-01	1.2659E-01	0.626E-01
CO-60	#F	2.4725E-02	3.1063E-02	3.1094E-02	0.169E-01
Cs-137	#B	-2.4708E-02	-1.0853E-01	-1.0854E-01	0.350E-01
EU-152	B	4.0759E-02	7.2365E-02	7.2401E-02	0.519E-01
EU-154	B	1.4939E-02	6.9150E-02	6.9155E-02	0.490E-01
K-40		6.5958E+00	1.3065E+00	1.3572E+00	0.402E+00
PA-234	B	7.3260E-02	1.2459E-01	1.2465E-01	0.934E-01
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	1.5024E-01	9.5375E-02	9.5741E-02	0.517E-01
PB-214		1.9893E-01	1.4652E-01	1.4694E-01	0.602E-01
RA-226	#B	-5.8728E-02	-1.0638E+00	-1.0638E+00	0.574E+00
Th-230	B	-1.1563E+01	-2.1227E+01	-2.1237E+01	0.178E+02
TH-234	A	1.0256E+00	2.1019E+00	2.1027E+00	0.160E+01
Tl-208	F	1.8835E-01	7.7615E-02	7.8320E-02	0.828E-02
U-235	#B	-2.8562E-02	-2.8415E-01	-2.8415E-01	0.378E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2673.8 keV) 7.6646633E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 01-AUG-2006 00:43:15 Page 1
New World Technology Spectrum name: 4N000197.An1

Sample description
PCB Hot Spot 84NPCBG57-1SWPE-001 415g
7/31/06 14:20

Acquisition information
Start time: 31-Jul-2006 22:51:32
Live time: 2700

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	2 Sigma Total pCi/g	MDA pCi/g
Ac-228	F	1.9811E-01	1.5273E-01	1.5290E-01	0.162E+00
AM-241	#A	-1.6079E-02	-1.4187E-01	-1.4187E-01	0.968E-01
Bi-212	B	-7.0703E-03	-9.9989E-03	-1.0002E-02	0.344E+00
BI-214		3.9417E-01	1.8533E-01	1.8590E-01	0.102E+00
CO-60	#B	7.4868E-04	1.4974E-02	1.4974E-02	0.170E-01
CS-137	B	1.1656E-04	3.7956E-02	3.7956E-02	0.355E-01
EU-152	F	9.0998E-02	6.6082E-02	6.6167E-02	0.813E-01
EU-154	B	4.0429E-02	6.8122E-02	6.8138E-02	0.608E-01
K-40		5.0447E+00	1.1210E+00	1.1366E+00	0.826E+00
Pa-234	#F	6.0284E-02	4.8335E-02	4.8386E-02	0.497E-01
Pb-210	#B	-1.1140E+00	-2.3151E+00	-2.3154E+00	0.974E+00
Pb-212		1.3348E-01	8.9765E-02	8.9902E-02	0.637E-01
PB-214	#F	2.1396E-01	1.2438E-01	1.2464E-01	0.740E-01
RA-226	#B	-2.9127E-01	-1.3136E+00	-1.3137E+00	0.896E+00
Th-230	#B	-3.1912E+00	-2.1453E+01	-2.1453E+01	0.844E+01
Th-234	F	1.0425E+00	8.4031E-01	8.4119E-01	0.871E+00
Tl-208	#F	1.1405E-01	4.8316E-02	4.8502E-02	0.614E-01
U-235	B	1.1071E-02	1.6612E-02	1.6617E-02	0.567E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.7 to 2663.5 keV) 5.9004049E+00 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 25-JUL-2006 10:49:52 Page 1
New World Technology Spectrum name: 1N002766.An1

Sample description
PCB Hot Spot 84NPCBG58SWPE-001 413g
7/20/06 16:00

Acquisition information
Start time: 21-Jul-2006 07:09:13
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228	8.4749E-01	3.4292E-01	3.4614E-01	0.416E-01
AM-241 #A	-1.1612E-01	-1.2165E+00	-1.2165E+00	0.192E+00
Bi-212 B	2.0958E-01	5.4335E-01	5.4348E-01	0.281E+00
BI-214 #F	1.4881E+00	1.0397E+00	1.0430E+00	0.301E+00
CO-60 #A	-3.1830E-02	-2.1269E-01	-2.1269E-01	0.392E-01
CS-137 #A	-2.4968E-02	2.2093E+02	2.2093E+02	0.449E-01
EU-152 A	7.7459E-03	3.5483E-02	3.5486E-02	0.776E-01
EU-154 C	6.7032E-02	9.1051E-02	9.1127E-02	0.496E-01
K-40	1.1753E+01	3.0135E+00	3.0835E+00	0.889E+00
Pa-234 #B	7.5595E-02	1.1110E-01	1.1118E-01	0.137E+00
Pb-210 #A	1.0745E-01	1.8200E+00	1.8200E+00	0.557E+01
Pb-212	3.9912E-01	1.6480E-01	1.6629E-01	0.693E-01
Pb-214	5.3497E-01	2.3242E-01	2.3432E-01	0.581E-01
RA-226 A	2.2387E-01	1.1833E+00	1.1834E+00	0.742E+00
Th-230 #B	-5.7810E+00	-1.3212E+02	-1.3212E+02	0.703E+01
Th-234 #B	5.3372E-01	7.8248E-01	7.8304E-01	0.154E+01
Tl-208 #	2.2718E-01	9.2686E-02	9.3543E-02	0.134E-01
U-235 #B	-3.6872E-02	-4.8170E-01	-4.8171E-01	0.570E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2605.8 keV) 1.5249714E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 01-AUG-2006 00:06:44 Page 1
New World Technology Spectrum name: 2N003368.An1

Sample description
PCB Hot Spot 84NPCBG58-1SWPE-001 398g
7/31/06 14:25

Acquisition information
Start time: 31-Jul-2006 23:21:36
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 2 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	2.5010E-01	1.6959E-01	1.6985E-01	0.177E+00
AM-241	#A	1.8978E-01	6.5277E-01	6.5281E-01	0.547E+00
Bi-212	#B	-1.2875E-01	-8.1288E-01	-8.1290E-01	0.149E+00
BI-214	F	3.2677E-01	1.4047E-01	1.4100E-01	0.857E-01
CO-60	#B	-2.5220E-02	6.6820E+01	6.6820E+01	0.253E-01
Cs-137	A	4.3340E-04	4.3450E-02	4.3450E-02	0.443E-01
EU-152	F	1.1562E-01	8.9178E-02	8.9280E-02	0.106E+00
EU-154	B	2.0014E-02	6.2846E-02	6.2850E-02	0.780E-01
K-40	#	1.9980E+01	1.9842E+00	2.1183E+00	0.561E+00
PA-234	#F	2.1915E-01	1.5833E-01	1.5854E-01	0.146E+00
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	2.7534E-01	1.1356E-01	1.1402E-01	0.778E-01
PB-214		1.2192E-01	1.1885E-01	1.1894E-01	0.907E-01
RA-226	#B	-8.9423E-02	-1.0388E+00	-1.0388E+00	0.852E+00
Th-230	#B	-3.5368E+01	7.4924E+04	7.4924E+04	0.284E+02
TH-234	A	3.2671E-01	1.1761E+00	1.1762E+00	0.116E+01
Tl-208	F	2.1051E-01	7.9565E-02	7.9948E-02	0.175E-01
U-235	#B	-2.5374E-02	-1.1857E-01	-1.1858E-01	0.591E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2673.8 keV) 9.3453836E-01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 21-JUL-2006 08:08:37 Page 1
New World Technology Spectrum name: 2N003264.An1

Sample description
Parcel B 84NPCBG59SWPE-002 438g
7/20/06 16:05

Acquisition information
Start time: 21-Jul-2006 07:23:29
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Activity picoCi/g	Time of Count Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		6.9382E-01	2.5682E-01	2.5971E-01	0.156E+00
AM-241	#A	1.3139E-01	1.2034E+00	1.2034E+00	0.622E+00
Bi-212	F	8.1674E-01	6.0643E-01	6.0813E-01	0.185E+00
BI-214	F	4.7571E-01	2.1459E-01	2.1621E-01	0.791E-01
CO-60	#B	-2.2917E-02	9.1077E+01	9.1077E+01	0.230E-01
Cs-137	A	8.4816E-03	6.9631E-02	6.9632E-02	0.442E-01
EU-152	#F	1.4105E-01	1.7781E-01	1.7798E-01	0.755E-01
EU-154	#B	-6.1558E-04	2.3592E+02	2.3592E+02	0.554E-01
K-40		1.3417E+01	2.4019E+00	2.5154E+00	0.542E+00
PA-234	#A	3.6490E-02	1.5921E-01	1.5923E-01	0.150E+00
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		5.5310E-01	1.7529E-01	1.7797E-01	0.765E-01
PB-214		5.7957E-01	1.9904E-01	2.0164E-01	0.797E-01
RA-226	A	6.3400E-01	1.6430E+00	1.6434E+00	0.923E+00
Th-230	B	-2.3696E+01	-2.8151E+02	-2.8152E+02	0.254E+02
TH-234	B	2.4895E+00	5.3950E+00	5.3967E+00	0.280E+01
Tl-208		3.6208E-01	1.4920E-01	1.5056E-01	0.159E-01
U-235	#B	3.2090E-02	6.5847E-02	6.5871E-02	0.615E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.8 to 2673.8 keV) 1.6897762E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 06-JUL-2006 14:41:11 Page 1
New World Technology Spectrum name: 2N003087.An1

Sample description
PCB Hot Spot 84NPCBG59-1SWPE-001 437g
7/06/06 10:20

Acquisition information
Start time: 06-Jul-2006 13:56:04
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		4.2049E-01	2.3949E-01	2.4063E-01	0.160E+00
AM-241	A	1.6052E-01	9.8576E-01	9.8580E-01	0.565E+00
Bi-212	B	1.6677E-02	3.7871E-01	3.7871E-01	0.219E+00
BI-214	F	3.4658E-01	1.9829E-01	1.9922E-01	0.755E-01
CO-60	#B	-1.0208E-02	-5.7465E-02	-5.7468E-02	0.230E-01
Cs-137	A	2.0148E-02	6.3205E-02	6.3215E-02	0.401E-01
EU-152	F	1.5964E-01	2.0288E-01	2.0307E-01	0.966E-01
EU-154	B	3.0256E-02	8.1703E-02	8.1720E-02	0.754E-01
K-40		2.0349E+01	2.8575E+00	3.0739E+00	0.511E+00
PA-234	#B	8.9349E-02	1.9582E-01	1.9588E-01	0.111E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	3.2529E-01	1.4802E-01	1.4912E-01	0.708E-01
PB-214		2.6521E-01	1.7296E-01	1.7359E-01	0.916E-01
RA-226	A	3.3816E-02	1.5996E+00	1.5996E+00	0.929E+00
Th-230	B	-2.6985E+01	-1.5293E+02	-1.5294E+02	0.175E+02
TH-234	F	6.6822E+00	6.0470E+00	6.0584E+00	0.247E+01
Tl-208	#F	5.6366E-02	5.0401E-02	5.0499E-02	0.276E-01
U-235	A	4.1854E-02	1.1670E-01	1.1672E-01	0.553E-01

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< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2673.8 keV) 2.8389002E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 21-JUL-2006 08:41:24 Page 1
New World Technology Spectrum name: 3N003225.An1

Sample description
PCB Hot Spot 84NPCBG60SWPE-001 378g
7/20/06 16:20

Acquisition information
Start time: 21-Jul-2006 02:39:28
Live time: 5400
Real time: 5404

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	3.5142E-01	2.9300E-01	2.9365E-01	0.132E+00
AM-241	#B	-5.4107E-02	4.3320E+02	4.3320E+02	0.623E-01
Bi-212	F	3.3415E-01	3.9542E-01	3.9586E-01	0.194E+00
BI-214	F	2.2379E-01	2.5287E-01	2.5318E-01	0.846E-01
CO-60	#	4.4588E-02	5.8225E-02	5.8278E-02	0.230E-01
Cs-137	A	2.4018E-03	5.8427E-02	5.8428E-02	0.357E-01
EU-152	#B	-4.3958E-03	3.9242E+02	3.9242E+02	0.477E-01
EU-154	C	6.5276E-02	9.1624E-02	9.1695E-02	0.369E-01
K-40	#	1.5142E+01	2.1275E+00	2.2881E+00	0.719E+00
PA-234	#B	-1.7655E-03	-5.4158E-03	-5.4167E-03	0.622E-01
Pb-210	#B	-3.4128E-01	-1.5391E+00	-1.5392E+00	0.704E+00
PB-212		4.2381E-01	1.1421E-01	1.1661E-01	0.518E-01
PB-214		3.0195E-01	1.5742E-01	1.5832E-01	0.786E-01
RA-226	A	3.0034E-01	1.1023E+00	1.1024E+00	0.638E+00
Th-230	B	-6.0588E+00	-3.1409E+01	-3.1411E+01	0.592E+01
TH-234		5.8596E-01	9.9268E-01	9.9321E-01	0.558E+00
Tl-208	B	6.2759E-02	6.2368E-02	6.2466E-02	0.790E-01
U-235	#B	-3.2846E-02	-2.7455E-01	-2.7456E-01	0.360E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.8 keV) 1.7407873E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 26-JUL-2006 09:53:37 Page 1
New World Technology Spectrum name: 1N002738.An1

Sample description
PCB Hot Spot 84NPCBG64SWPE-001 424g
7/19/06 15:20

Acquisition information
Start time: 19-Jul-2006 22:52:44
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228	F	1.8202E-01	2.2261E-01	2.2284E-01	0.667E-01
AM-241	#A	-7.1027E-02	-5.5324E-01	-5.5326E-01	0.162E+00
Bi-212	#B	1.8873E-02	7.7559E-02	7.7566E-02	0.243E+00
BI-214	#F	1.7798E+00	1.1939E+00	1.1980E+00	0.207E+00
CO-60	#A	-3.1005E-02	-2.0717E-01	-2.0717E-01	0.382E-01
CS-137	A	6.4879E-03	5.5968E-02	5.5969E-02	0.341E-01
EU-152	C	1.2989E-01	1.7862E-01	1.7876E-01	0.614E-01
EU-154	A	2.0976E-02	6.8241E-02	6.8251E-02	0.456E-01
K-40		7.7989E+00	2.5032E+00	2.5405E+00	0.866E+00
Pa-234	#B	-3.0442E-01	-6.0658E+00	-6.0658E+00	0.988E-01
Pb-210	#	2.0618E+01	2.3300E+01	2.3328E+01	0.841E+01
Pb-212		2.9010E-01	1.4123E-01	1.4215E-01	0.531E-01
Pb-214	F	3.9103E-01	1.9126E-01	1.9249E-01	0.492E-01
RA-226	#B	-1.1863E+00	-6.6474E+00	-6.6477E+00	0.885E+00
Th-230	#B	-4.2991E+00	-1.2297E+02	-1.2297E+02	0.870E+01
Th-234	A	3.7965E-01	1.7318E+00	1.7319E+00	0.138E+01
Tl-208	#	1.4700E-01	9.3207E-02	9.3565E-02	0.257E-01
U-235	A	2.8276E-02	9.6581E-02	9.6594E-02	0.444E-01

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H - Halflife limit exceeded

---------------------------- S U M M A R Y ---------------------------

Total Activity (41.2 to 2605.8 keV) 3.1024536E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 30-AUG-2006 13:22:32 Page 1
New World Technology Spectrum name: 7N000865.An1

Sample description
PCB Hot Spot 84NPCBG65SWPE-002 419g
8/30/06 08:30

Acquisition information
Start time: 30-Aug-2006 12:37:22
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 2 Sigma Counting pCi/g	Uncertainty 2 Sigma Total pCi/g	MDA pCi/g
AC-228	F	6.6876E-01	2.2716E-01	2.2851E-01	0.898E-01
AM-241	#B	-3.5086E-02	-5.6983E-01	-5.6983E-01	0.115E+00
BI-212	#B	-1.3010E-01	-2.0543E+00	-2.0543E+00	0.191E+00
BI-214	F	3.2733E-01	1.1406E-01	1.1471E-01	0.755E-01
CO-60	#B	-2.6563E-02	-6.9886E-02	-6.9893E-02	0.383E-01
CS-137	#B	-8.1275E-03	-5.0029E-02	-5.0030E-02	0.359E-01
EU-152	B	3.6135E-02	2.4212E-02	2.4249E-02	0.928E-01
EU-154	#B	-2.7496E-03	1.0990E+02	1.0990E+02	0.474E-01
K-40		3.4627E+00	1.5970E+00	1.6022E+00	0.136E+01
PA-234	#F	1.0557E-01	1.1489E-01	1.1496E-01	0.978E-01
PB-210	#B	-1.9826E+00	-3.8807E+00	-3.8814E+00	0.127E+01
PB-212	F	2.5852E-01	8.9144E-02	8.9657E-02	0.707E-01
PB-214	F	3.2713E-01	1.3302E-01	1.3357E-01	0.798E-01
RA-226	B	1.6158E-01	1.0066E+00	1.0067E+00	0.870E+00
Th-230	#B	-1.1281E+01	-9.3728E+01	-9.3729E+01	0.654E+01
TH-234	#B	-1.3538E+00	-4.3354E+00	-4.3357E+00	0.100E+01
TL-208	#B	5.5608E-02	4.2746E-02	4.2796E-02	0.642E-01
U-235	B	-5.2453E-01	-1.3251E+00	-1.3253E+00	0.849E-01

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S U M M A R Y

Total Activity (42.1 to 2685.0 keV) 5.0444369E+00 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 20-JUL-2006 08:13:03 Page 1
New World Technology Spectrum name: 1N002744.An1

Sample description
PCB Hot Spot 84NPCB66SWPE-001 421g
7/19/06 15:15

Acquisition information
Start time: 20-Jul-2006 07:27:54
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	F	6.5509E-01	3.5302E-01	3.5489E-01	0.696E-01
AM-241	#A	-1.6608E-02	-4.3442E-01	-4.3442E-01	0.215E+00
Bi-212	B	2.1481E-01	4.8592E-01	4.8607E-01	0.246E+00
BI-214	F	5.3084E-01	2.1369E-01	2.1572E-01	0.264E+00
CO-60	#A	-3.8322E-02	1.5230E+02	1.5230E+02	0.384E-01
CS-137	#A	-2.3867E-02	-2.0670E+00	-2.0670E+00	0.285E-01
EU-152	C	1.2777E-01	1.6145E-01	1.6160E-01	0.712E-01
EU-154	A	1.1711E-02	4.7131E-02	4.7135E-02	0.414E-01
K-40		7.0618E+00	2.4169E+00	2.4487E+00	0.872E+00
Pa-234	#B	-1.1375E-01	-1.6718E-01	-1.6730E-01	0.988E-01
Pb-210		2.0448E+01	2.1544E+01	2.1574E+01	0.807E+01
Pb-212		3.2086E-01	1.5086E-01	1.5191E-01	0.652E-01
Pb-214		4.8998E-01	1.9420E-01	1.9611E-01	0.436E-01
RA-226	#B	-5.4082E-01	-3.0582E+00	-3.0583E+00	0.895E+00
Th-230	#B	5.5966E+00	2.2700E+01	2.2702E+01	0.108E+02
Th-234	A	1.2022E+00	8.9465E-01	8.9713E-01	0.143E+01
Tl-208	#F	1.2735E-01	6.9616E-02	6.9975E-02	0.131E-01
U-235	A	3.2589E-02	6.0503E-02	6.0530E-02	0.443E-01

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---------- S U M M A R Y ----------

Total Activity (41.2 to 2605.8 keV) 2.9103502E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 03-MAY-2006 18:56:13 Page 1
New World Technology Spectrum name: 1N001792.An1

Sample description
PCB Hot Spot 84NPCBG71ASWPE-002 480g
5/3/06 11:15

Acquisition information
Start time: 03-May-2006 18:11:01
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Activity picoCi/ g	Time of Count Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228		5.4735E-01	2.3604E-01	2.3799E-01	0.361E-01
AM-241	#A	-5.5075E-02	-6.3444E-01	-6.3445E-01	0.187E+00
Bi-212	B	-7.9189E-02	-6.0161E+00	-6.0161E+00	0.290E+00
BI-214	F	8.8692E-01	5.2248E-01	5.2480E-01	0.360E+00
CO-60	#A	0.0000E+00	0.0000E+00	0.0000E+00	0.145E-01
CS-137	A	1.9314E-02	4.8041E-02	4.8053E-02	0.232E-01
EU-152	C	1.4760E-01	1.4334E-01	1.4357E-01	0.587E-01
EU-154	A	3.4801E-02	8.8204E-02	8.8225E-02	0.394E-01
K-40		1.1652E+01	2.5647E+00	2.6453E+00	0.146E+00
Pa-234	#B	-6.8112E-02	-1.1797E-01	-1.1803E-01	0.100E+00
Pb-210	#	6.9326E+00	1.1659E+01	1.1666E+01	0.518E+01
Pb-212		2.8380E-01	1.1322E-01	1.1432E-01	0.435E-01
Pb-214		5.9191E-01	1.9723E-01	1.9996E-01	0.389E-01
RA-226	A	3.3069E-01	1.3078E+00	1.3079E+00	0.751E+00
Th-230	#F	1.4585E+01	2.5383E+01	2.5396E+01	0.115E+02
Th-234	#B	1.0046E+00	8.0401E-01	8.0594E-01	0.133E+01
Tl-208	#	1.4011E-01	1.2128E-01	1.2153E-01	0.374E-01
U-235	B	-1.8616E-03	-7.6242E-03	-7.6249E-03	0.478E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.2 to 2606.4 keV) 3.5619961E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 03-MAY-2006 19:45:43 Page 1
New World Technology Spectrum name: 1N001793.An1

Sample description
PCB Hot Spot 84NPCBG71BSWPE-002 355g
5/3/06 11:20

Acquisition information
Start time: 03-May-2006 19:00:34
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228 #	7.1911E-01	3.7554E-01	3.7767E-01	0.489E-01
AM-241 #A	-4.3547E-02	-6.6106E-01	-6.6106E-01	0.261E+00
Bi-212 #B	-1.1220E-01	-1.0914E+01	-1.0914E+01	0.377E+00
BI-214 #F	4.0002E-01	2.0948E-01	2.1066E-01	0.250E+00
CO-60 #A	8.3896E-03	2.5169E-02	2.5173E-02	0.195E-01
CS-137 A	2.3424E-02	6.1827E-02	6.1841E-02	0.301E-01
EU-152 #A	-5.5659E-02	2.6684E+02	2.6684E+02	0.627E-01
EU-154 A	2.9111E-02	1.0461E-01	1.0463E-01	0.482E-01
K-40	1.8891E+01	3.7970E+00	3.9397E+00	0.197E+00
Pa-234 #B	-3.4902E-01	-3.8958E+00	-3.8959E+00	0.113E+00
Pb-210 #	1.0606E+01	1.5288E+01	1.5300E+01	0.651E+01
Pb-212	3.4702E-01	1.3794E-01	1.3928E-01	0.510E-01
Pb-214	5.3284E-01	2.6243E-01	2.6410E-01	0.655E-01
RA-226 A	3.4409E-01	1.4743E+00	1.4745E+00	0.868E+00
Th-230 #B	5.4901E+00	2.7557E+01	2.7559E+01	0.138E+02
Th-234 A	3.8669E-01	2.2852E+00	2.2853E+00	0.176E+01
Tl-208	1.8333E-01	9.2828E-02	9.3386E-02	0.156E-01
U-235 A	2.3034E-02	7.6181E-02	7.6191E-02	0.602E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.2 to 2606.4 keV) 3.1679014E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 04-MAY-2006 17:35:30 Page 1
New World Technology Spectrum name: 3N002343.An1

Sample description
PCB Hot Spot 84NPCBG71CSWPE-001 412g
5/04/06 11:30

Acquisition information
Start time: 04-May-2006 16:50:23
Live time: 2700
Real time: 2702

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	3.4343E-01	2.7250E-01	2.7317E-01	0.160E+00
AM-241	#B	-3.7711E-02	-4.7478E-01	-4.7478E-01	0.500E-01
Bi-212	B	2.1665E-01	5.5349E-01	5.5362E-01	0.286E+00
BI-214	F	4.6323E-01	2.5765E-01	2.5894E-01	0.102E+00
CO-60	#	3.9495E-02	3.3244E-02	3.3316E-02	0.973E-02
Cs-137	#	6.5037E-02	8.5261E-02	8.5337E-02	0.383E-01
EU-152	F	1.8093E-01	1.9251E-01	1.9277E-01	0.551E-01
EU-154	B	8.7422E-03	9.2176E-02	9.2177E-02	0.515E-01
K-40		8.5471E+00	2.2172E+00	2.2676E+00	0.902E+00
PA-234	#B	-6.1960E-02	-9.0364E-01	-9.0365E-01	0.676E-01
Pb-210	#B	-4.2503E-02	-1.8614E+00	-1.8614E+00	0.955E+00
PB-212	F	2.5128E-01	1.3547E-01	1.3619E-01	0.673E-01
PB-214		3.0075E-01	2.0564E-01	2.0632E-01	0.920E-01
RA-226		7.3649E-01	1.3367E+00	1.3374E+00	0.735E+00
Th-230	#A	6.4854E+00	1.8809E+01	1.8812E+01	0.804E+01
TH-234	A	4.1849E-01	8.6349E-01	8.6380E-01	0.705E+00
Tl-208	#B	2.4226E-03	1.9453E-03	1.9499E-03	0.989E-01
U-235	#B	-3.7214E-02	-8.0191E-01	-8.0192E-01	0.513E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2659.7 keV) 1.0746784E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 06-JUL-2006 16:23:14 Page 1
New World Technology Spectrum name: 5N000143.An1

Sample description
PCB Hot Spot 84NPCBG81CSWPE-001 445g
7/06/06 10:15

Acquisition information
Start time: 06-Jul-2006 15:38:07
Live time: 2700
Real time: 2701

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting 3 Sigma pCi/g	Total pCi/g	MDA pCi/g
Ac-228	#	2.2285E-01	3.1301E-01	3.1325E-01	0.153E+00
AM-241	#B	-9.5719E-02	-1.2923E+00	-1.2923E+00	0.935E-01
Bi-212	F	5.5045E-01	4.0484E-01	4.0599E-01	0.147E+00
BI-214	F	2.4948E-01	1.7481E-01	1.7536E-01	0.833E-01
CO-60	#B	-9.4635E-03	5.3189E+01	5.3189E+01	0.134E-01
CS-137	#B	-4.0540E-02	-4.7577E-01	-4.7577E-01	0.263E-01
EU-152	F	1.7785E-01	1.3339E-01	1.3375E-01	0.590E-01
EU-154	B	4.5282E-02	7.1908E-02	7.1952E-02	0.519E-01
K-40		3.7907E+00	1.6710E+00	1.6842E+00	0.916E+00
Pa-234	B	5.1625E-02	1.0836E-01	1.0840E-01	0.677E-01
Pb-210	#	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
Pb-212	F	1.5081E-01	1.1761E-01	1.1790E-01	0.659E-01
PB-214	F	3.4237E-01	1.9572E-01	1.9664E-01	0.684E-01
RA-226	#B	-4.0363E-01	-2.7548E+00	-2.7549E+00	0.817E+00
Th-230	#B	-1.3905E+01	-3.1779E+02	-3.1779E+02	0.765E+01
Th-234	B	5.0349E-01	9.6655E-01	9.6695E-01	0.737E+00
Tl-208		2.0854E-01	6.7878E-02	6.8859E-02	0.132E-01
U-235	#B	-6.6510E-01	-2.0782E+00	-2.0785E+00	0.872E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (52.4 to 3339.1 keV) 5.5151711E+00 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 23-JUN-2006 23:49:54 Page 1
New World Technology Spectrum name: 6N000086.An1

Sample description
PCB Hot Spot 84NPCBG81ASWPE-001 401g
6/23/06 08:35

Acquisition information
Start time: 23-Jun-2006 23:04:42
Live time: 2700
Real time: 2705

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
Ac-228	F	4.6083E-01	3.3243E-01	3.3342E-01	0.216E+00
AM-241	#A	-6.7331E-02	-1.8408E+00	-1.8409E+00	0.118E+00
Bi-212	#B	-1.7461E-01	-5.2695E-01	-5.2704E-01	0.366E+00
BI-214	F	4.6344E-01	3.0317E-01	3.0427E-01	0.131E+00
CO-60	#B	-8.5844E-02	1.7058E+02	1.7058E+02	0.430E-01
CS-137	#B	-1.4136E-02	-1.1914E-01	-1.1914E-01	0.474E-01
EU-152	#B	-4.7396E-04	-1.6472E-01	-1.6472E-01	0.884E-01
EU-154	#A	1.2435E-02	3.9141E-02	3.9147E-02	0.727E-01
K-40		1.6395E+01	3.2450E+00	3.3712E+00	0.143E+01
Pa-234	#B	-7.8298E-02	-2.6135E+00	-2.6135E+00	0.499E-01
Pb-210	#	2.1444E+00	1.9649E+00	1.9685E+00	0.842E+00
Pb-212	F	2.3105E-01	1.4593E-01	1.4649E-01	0.781E-01
PB-214	C	1.5147E-01	2.0544E-01	2.0562E-01	0.118E+00
RA-226	B	2.6649E-01	1.6649E+00	1.6650E+00	0.960E+00
Th-230	#B	-2.3748E+00	-2.3921E+01	-2.3921E+01	0.993E+01
Th-234	B	1.6400E-01	1.3236E+00	1.3236E+00	0.978E+00
Tl-208	F	1.4956E-01	1.3278E-01	1.3304E-01	0.507E-01
U-235	F	7.2597E-02	8.8456E-02	8.8549E-02	0.468E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.1 to 2612.1 keV) 1.9916681E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 06-JUL-2006 16:23:14 Page 1
New World Technology Spectrum name: 5N000143.An1

Sample description
PCB Hot Spot 84NPCBG81CSWPE-001 445g
7/06/06 10:15

Acquisition information
Start time: 06-Jul-2006 15:38:07
Live time: 2700
Real time: 2701

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
Ac-228	#	2.2285E-01	3.1301E-01	3.1325E-01	0.153E+00
AM-241	#B	-9.5719E-02	-1.2923E+00	-1.2923E+00	0.935E-01
Bi-212	F	5.5045E-01	4.0484E-01	4.0599E-01	0.147E+00
BI-214	F	2.4948E-01	1.7481E-01	1.7536E-01	0.833E-01
CO-60	#B	-9.4635E-03	5.3189E+01	5.3189E+01	0.134E-01
CS-137	#B	-4.0540E-02	-4.7577E-01	-4.7577E-01	0.263E-01
EU-152	F	1.7785E-01	1.3339E-01	1.3375E-01	0.590E-01
EU-154	B	4.5282E-02	7.1908E-02	7.1952E-02	0.519E-01
K-40		3.7907E+00	1.6710E+00	1.6842E+00	0.916E+00
Pa-234	B	5.1625E-02	1.0836E-01	1.0840E-01	0.677E-01
Pb-210	#	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
Pb-212	F	1.5081E-01	1.1761E-01	1.1790E-01	0.659E-01
PB-214	F	3.4237E-01	1.9572E-01	1.9664E-01	0.684E-01
RA-226	#B	-4.0363E-01	-2.7548E+00	-2.7549E+00	0.817E+00
Th-230	#B	-1.3905E+01	-3.1779E+02	-3.1779E+02	0.765E+01
Th-234	B	5.0349E-01	9.6655E-01	9.6695E-01	0.737E+00
Tl-208		2.0854E-01	6.7878E-02	6.8859E-02	0.132E-01
U-235	#B	-6.6510E-01	-2.0782E+00	-2.0785E+00	0.872E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (52.4 to 3339.1 keV) 5.5151711E+00 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 11-JUL-2006 18:34:55 Page 1
New World Technology Spectrum name: 6N000192.An1

Sample description
PCB Hot Spot 84NPCBG82SWPE-001 434g
7/11/06 08:40

Acquisition information
Start time: 11-Jul-2006 17:49:42
Live time: 2700
Real time: 2705

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
Ac-228	F	4.8748E-01	3.0314E-01	3.0435E-01	0.199E+00
AM-241	#A	-6.4549E-02	-1.6260E+00	-1.6260E+00	0.851E-01
Bi-212	F	4.4713E-01	6.0757E-01	6.0808E-01	0.289E+00
BI-214	F	2.9231E-01	2.3914E-01	2.3969E-01	0.103E+00
CO-60	#B	6.0790E-03	6.2847E-03	6.2937E-03	0.387E-01
CS-137	#B	-3.1103E-02	-2.0760E-01	-2.0761E-01	0.397E-01
EU-152	#F	1.6549E-01	1.8128E-01	1.8151E-01	0.733E-01
EU-154	F	9.2739E-02	1.8713E-01	1.8720E-01	0.506E-01
K-40	#	2.0760E+01	2.8198E+00	3.0467E+00	0.789E+00
Pa-234	F	1.4829E-01	1.7482E-01	1.7502E-01	0.974E-01
Pb-210	#	1.5634E+00	1.8074E+00	1.8095E+00	0.784E+00
Pb-212	F	1.7902E-01	1.3570E-01	1.3607E-01	0.742E-01
PB-214		2.6687E-01	1.9971E-01	2.0026E-01	0.114E+00
RA-226	#B	-5.7393E-01	-3.1099E+00	-3.1101E+00	0.934E+00
Th-230	#B	-7.2236E+00	-3.9964E+01	-3.9966E+01	0.738E+01
Th-234	#B	-6.8712E-02	-1.6038E+00	-1.6038E+00	0.901E+00
Tl-208	#F	9.8046E-02	1.0652E-01	1.0666E-01	0.461E-01
U-235	#B	-3.7169E-01	-6.9876E-01	-6.9907E-01	0.777E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.1 to 2611.8 keV) 2.4094162E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 07-JUL-2006 00:17:56 Page 1
New World Technology Spectrum name: 5N000151.An1

Sample description
PCB Hot Spot 84NPCBG83SWPE-001 359g
7/06/06 14:00

Acquisition information
Start time: 06-Jul-2006 23:32:48
Live time: 2700
Real time: 2701

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
AC-228	B	1.4942E-01	3.2082E-01	3.2093E-01	0.182E+00
AM-241	#B	-1.3913E-01	-3.3735E+00	-3.3735E+00	0.911E-01
Bi-212	F	4.2078E-01	6.0240E-01	6.0286E-01	0.310E+00
BI-214	F	3.4626E-01	2.4913E-01	2.4987E-01	0.112E+00
CO-60	#B	1.8609E-03	6.4354E-03	6.4363E-03	0.200E-01
CS-137	#B	-3.6530E-02	-3.0873E-01	-3.0874E-01	0.429E-01
EU-152	B	8.7381E-02	1.5285E-01	1.5293E-01	0.921E-01
EU-154	F	1.4180E-01	1.3471E-01	1.3494E-01	0.706E-01
K-40		1.0463E+01	2.3830E+00	2.4528E+00	0.986E+00
Pa-234	F	1.6045E-01	2.1989E-01	2.2007E-01	0.107E+00
Pb-210	#	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
Pb-212	F	4.2135E-01	1.7813E-01	1.7966E-01	0.909E-01
PB-214		4.5285E-01	1.8057E-01	1.8231E-01	0.874E-01
RA-226	#B	-8.8111E-01	-6.9088E+00	-6.9089E+00	0.106E+01
Th-230	#B	-9.8465E+00	-1.0371E+02	-1.0371E+02	0.116E+02
Th-234	F	1.2295E+00	8.3977E-01	8.4254E-01	0.898E+00
Tl-208		2.5242E-01	1.0529E-01	1.0622E-01	0.565E-01
U-235	#B	-7.8743E-01	-1.4821E+00	-1.4827E+00	0.105E+00

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

SUMMARY

Total Activity (52.4 to 3339.1 keV) 1.1935403E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 18-JAN-2006 13:26:18 Page 1
New World Technology Spectrum name: 2N001928.An1

Sample description
PCB Hot Spot 84NPCBG84SW-001 464g
1/18/06 10:15

Acquisition information
Start time: 18-Jan-2006 12:07:32
Live time: 2700
Real time: 2705

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	5.1385E-01	2.7783E-01	2.7930E-01	0.117E+00
AM-241 #B	-5.9182E-02	-3.1732E-01	-3.1734E-01	0.200E+00
Bi-212	5.6473E-01	4.1063E-01	4.1183E-01	0.130E+00
BI-214	5.2596E-01	1.9279E-01	1.9500E-01	0.540E-01
CO-60 #B	-1.6467E-02	-1.5289E-01	-1.5289E-01	0.227E-01
Cs-137 A	1.1072E-02	5.7286E-02	5.7289E-02	0.372E-01
EU-152 F	1.6779E-01	1.7417E-01	1.7442E-01	0.886E-01
EU-154 F	6.2248E-02	9.2645E-02	9.2709E-02	0.573E-01
K-40	1.0765E+01	2.0328E+00	2.1193E+00	0.471E+00
PA-234 A	1.3360E-02	4.3538E-02	4.3545E-02	0.118E+00
Pb-210 #	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	3.8926E-01	1.3199E-01	1.3376E-01	0.496E-01
PB-214	3.4745E-01	1.6821E-01	1.6932E-01	0.551E-01
RA-226	1.0146E+00	1.3445E+00	1.3457E+00	0.717E+00
Th-230 A	2.2506E+00	1.9714E+01	1.9714E+01	0.111E+02
TH-234 A	2.1182E+00	2.2180E+00	2.2211E+00	0.238E+01
Tl-208	1.4947E-01	6.0477E-02	6.1047E-02	0.452E-01
U-235	6.8541E-02	1.0541E-01	1.0548E-01	0.411E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

SUMMARY

Total Activity (41.8 to 2674.9 keV) 1.4339108E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 18-JAN-2006 13:25:04 Page 1
New World Technology Spectrum name: 3N001965.An1

Sample description
PCB Hot Spot 84NPCBG85SW-001 515g
1/18/06 10:10

Acquisition information
Start time: 18-Jan-2006 12:10:38
Live time: 2700
Real time: 2702

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		3.1693E-01	2.5696E-01	2.5757E-01	0.136E+00
AM-241	#B	-2.8894E-02	-4.5903E-01	-4.5903E-01	0.599E-01
Bi-212		4.4550E-01	4.4550E-01	4.4618E-01	0.228E+00
BI-214		3.0924E-01	2.2244E-01	2.2310E-01	0.874E-01
CO-60	#B	1.3734E-03	2.1322E-03	2.1336E-03	0.269E-01
Cs-137	#B	-3.3208E-02	-2.0324E-01	-2.0325E-01	0.400E-01
EU-152	#B	-9.4895E-03	-8.4451E-02	-8.4453E-02	0.514E-01
EU-154	B	8.9672E-03	6.3204E-02	6.3206E-02	0.426E-01
K-40		1.0624E+01	1.8841E+00	1.9745E+00	0.414E+00
PA-234	F	1.8380E-01	2.0029E-01	2.0055E-01	0.804E-01
Pb-210	#B	-3.4609E-01	-1.8789E+00	-1.8790E+00	0.665E+00
PB-212		3.2981E-01	1.1682E-01	1.1825E-01	0.503E-01
PB-214		3.0257E-01	1.5361E-01	1.5453E-01	0.753E-01
RA-226	A	5.5799E-01	1.0596E+00	1.0601E+00	0.584E+00
Th-230	#B	3.1350E+00	1.1716E+01	1.1717E+01	0.596E+01
TH-234		1.3333E+00	9.7751E-01	9.8031E-01	0.528E+00
Tl-208		2.5249E-01	1.1168E-01	1.1256E-01	0.128E-01
U-235	B	1.5377E-02	5.7862E-02	5.7868E-02	0.309E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2660.5 keV) 1.3913637E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 28-JUN-2006 17:44:17 Page 1
New World Technology Spectrum name: 3N002995.An1

Sample description
PCB Hot Spot 84NPCBG86SWPE-001 338g
6/28/06 10:35

Acquisition information
Start time: 28-Jun-2006 16:40:57
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	3.5893E-01	4.0430E-01	4.0479E-01	0.201E+00
AM-241	#A	8.1635E-02	2.3627E-01	2.3631E-01	0.109E+00
Bi-212	B	7.3218E-02	5.3533E-01	5.3534E-01	0.291E+00
BI-214	F	3.2231E-01	3.9629E-01	3.9669E-01	0.127E+00
CO-60	#B	-2.0421E-03	-3.9727E-02	-3.9727E-02	0.276E-01
Cs-137	#B	-5.5009E-02	-5.6059E-01	-5.6060E-01	0.498E-01
EU-152	F	1.1367E-01	2.3004E-01	2.3013E-01	0.920E-01
EU-154	#B	-1.8724E-02	-5.3849E-01	-5.3849E-01	0.697E-01
K-40		2.1757E+01	3.1550E+00	3.3789E+00	0.118E+00
PA-234	#B	-2.9450E-02	-3.9155E-01	-3.9156E-01	0.115E+00
Pb-210	#A	1.9417E-01	1.9375E+00	1.9375E+00	0.103E+01
PB-212	F	3.3117E-01	1.7590E-01	1.7686E-01	0.873E-01
PB-214		4.9660E-01	2.5873E-01	2.6020E-01	0.119E+00
RA-226		9.8557E-01	1.6546E+00	1.6555E+00	0.906E+00
Th-230	B	-5.3273E+00	-4.6264E+01	-4.6265E+01	0.990E+01
TH-234	C	8.9440E-01	1.3301E+00	1.3310E+00	0.765E+00
Tl-208	#B	-1.4867E-02	-1.4395E-02	-1.4418E-02	0.111E+00
U-235	#F	8.5666E-02	1.2202E-01	1.2211E-01	0.601E-01

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---------------------------- S U M M A R Y ----------------------------

Total Activity (41.7 to 2660.0 keV) 2.4251699E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 18-NOV-2005 10:34:54 Page 1
New World Technology Spectrum name: 3N001803.An1

Sample description
PCB Hot Spot 84NPCBSWG95PE-001 299g
11/17/05 13:10

Acquisition information
Start time: 18-Nov-2005 09:49:50
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	7.8679E-01	3.9316E-01	3.9559E-01	0.249E+00
AM-241	#A	6.5121E-02	2.4750E-01	2.4752E-01	0.123E+00
Bi-212		8.3802E-01	8.3576E-01	8.3705E-01	0.380E+00
BI-214	F	7.3755E-01	3.0205E-01	3.0482E-01	0.135E+00
CO-60	#B	1.7824E-02	6.2525E-02	6.2532E-02	0.427E-01
Cs-137	#A	5.1554E-02	1.1435E-01	1.1438E-01	0.567E-01
EU-152	F	1.2442E-01	2.6488E-01	2.6497E-01	0.107E+00
EU-154	B	5.3306E-02	1.1634E-01	1.1638E-01	0.809E-01
K-40		1.3578E+01	2.7483E+00	2.8501E+00	0.674E+00
PA-234	#C	2.4939E-01	2.8386E-01	2.8419E-01	0.160E+00
Pb-210	#	1.2779E+00	2.3728E+00	2.3739E+00	0.118E+01
PB-212		6.9120E-01	2.0925E-01	2.1275E-01	0.856E-01
PB-214		6.4476E-01	3.1023E-01	3.1230E-01	0.137E+00
RA-226	A	1.0063E+00	2.0669E+00	2.0677E+00	0.114E+01
Th-230	#C	1.3039E+01	3.6111E+01	3.6118E+01	0.123E+02
TH-234	C	2.6484E+00	1.3573E+00	1.3652E+00	0.100E+01
Tl-208	#F	4.2701E-01	1.9312E-01	1.9458E-01	0.226E-01
U-235	A	6.0745E-02	1.5480E-01	1.5484E-01	0.705E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
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< - MDA value printed.
A - Activity printed, but activity < MDA.
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F - Failed fraction or key line test.
H - Halflife limit exceeded

---------------------------- S U M M A R Y ----------------------------

Total Activity (41.7 to 2660.6 keV) 1.8981762E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 23-FEB-2006 18:02:37 Page 1
New World Technology Spectrum name: 2N002032.An1

Sample description
PCB Hot Spot 84NPCBSWG102-002 389g
2/23/2006 11:40

Acquisition information
Start time: 23-Feb-2006 17:17:29
Live time: 2700
Real time: 2705

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	5.4141E-01	3.2328E-01	3.2468E-01	0.140E+00
AM-241 #B	-4.1649E-01	-3.3739E+00	-3.3740E+00	0.695E+00
Bi-212 #F	6.2520E-01	4.6859E-01	4.6988E-01	0.130E+00
BI-214 F	3.6901E-01	2.5530E-01	2.5612E-01	0.104E+00
CO-60 #B	5.3975E-03	3.6208E-02	3.6209E-02	0.178E-01
Cs-137 #B	-3.7977E-02	-1.4061E-01	-1.4063E-01	0.450E-01
EU-152 B	4.2542E-02	1.1434E-01	1.1436E-01	0.102E+00
EU-154 B	2.7723E-02	1.2626E-01	1.2627E-01	0.688E-01
K-40	1.4179E+01	2.7011E+00	2.8138E+00	0.133E+00
PA-234 #B	-1.0636E-01	-4.4095E+00	-4.4095E+00	0.121E+00
Pb-210 #F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	4.7837E-01	1.7892E-01	1.8089E-01	0.782E-01
PB-214 F	4.5905E-01	2.4046E-01	2.4181E-01	0.862E-01
RA-226 A	5.3968E-01	1.7791E+00	1.7794E+00	0.102E+01
Th-230 #C	3.1397E+01	4.5681E+01	4.5714E+01	0.246E+02
TH-234 A	2.4874E+00	7.4171E+00	7.4184E+00	0.359E+01
Tl-208 #B	1.1356E-01	4.2656E-02	4.3121E-02	0.185E+00
U-235 F	7.0769E-02	1.1654E-01	1.1660E-01	0.604E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.9 to 2675.9 keV) 1.6722685E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 06-JUL-2006 16:31:49 Page 1
New World Technology Spectrum name: 1N002568.An1

Sample description
PCB Hot Spot 84NPCBG109SWPE-002 401g
7/06/06 10:00

Acquisition information
Start time: 06-Jul-2006 15:43:29
Live time: 2700
Real time: 2703

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***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228	#	4.3763E-01	2.3630E-01	2.3755E-01	0.138E+00
AM-241	#A	-1.3160E-02	-4.9386E-01	-4.9386E-01	0.251E+00
Bi-212	F	3.7770E-01	5.0898E-01	5.0941E-01	0.226E+00
BI-214	F	1.5489E+00	9.9522E-01	9.9894E-01	0.219E+00
CO-60	#A	-2.5332E-02	-1.3909E-01	-1.3909E-01	0.403E-01
CS-137	#A	-3.8572E-03	1.8433E+02	1.8433E+02	0.395E-01
EU-152	#A	-6.6518E-02	2.5132E+02	2.5132E+02	0.634E-01
EU-154	C	5.1044E-02	1.1241E-01	1.1245E-01	0.462E-01
K-40		1.2491E+01	3.1468E+00	3.2226E+00	0.917E+00
Pa-234	#B	-1.1643E-02	-1.3998E-02	-1.4013E-02	0.118E+00
Pb-210	#	1.2449E+01	1.9553E+01	1.9565E+01	0.879E+01
Pb-212		3.2900E-01	1.5775E-01	1.5880E-01	0.685E-01
Pb-214		5.2576E-01	1.8990E-01	1.9214E-01	0.422E-01
RA-226	#B	-1.7321E-01	-2.0169E+00	-2.0169E+00	0.980E+00
Th-230	#B	1.1086E+01	2.5416E+01	2.5424E+01	0.117E+02
Th-234	A	5.8218E-01	1.0690E+00	1.0695E+00	0.170E+01
Tl-208	#	2.5904E-01	1.0028E-01	1.0131E-01	0.138E-01
U-235	C	9.0080E-02	1.1741E-01	1.1752E-01	0.550E-01

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C ~ Area < Critical level.
F ~ Failed fraction or key line test.
H ~ Halflife limit exceeded

---------- SUMMARY ----------
Total Activity (41.2 to 2605.8 keV) 2.8417971E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 28-JUN-2006 18:16:12 Page 1
New World Technology Spectrum name: 6N000104.An1

Sample description
PCB Hot Spot 84NPCBG110SWPE-001 402g
6/28/06 10:50

Acquisition information
Start time: 28-Jun-2006 17:31:02
Live time: 2700
Real time: 2704

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
Ac-228	F	6.2240E-01	3.2873E-01	3.3054E-01	0.181E+00
AM-241	#A	-1.4415E-02	-2.5001E-01	-2.5001E-01	0.101E+00
Bi-212	#B	1.5658E-01	2.1007E-01	2.1025E-01	0.394E+00
BI-214	F	7.5339E-01	2.6786E-01	2.7111E-01	0.101E+00
CO-60	#B	-1.6264E-02	-4.1778E-02	-4.1788E-02	0.474E-01
CS-137	#B	-4.7336E-02	-6.9249E-01	-6.9249E-01	0.386E-01
EU-152	B	5.4656E-02	1.4477E-01	1.4480E-01	0.782E-01
EU-154	F	8.6216E-02	1.1663E-01	1.1673E-01	0.616E-01
K-40	#	1.5952E+01	3.3194E+00	3.4355E+00	0.131E+01
Pa-234	F	1.1796E-01	1.3712E-01	1.3728E-01	0.106E+00
Pb-210		3.0136E+00	2.5420E+00	2.5475E+00	0.998E+00
Pb-212	F	5.9484E-01	1.7748E-01	1.8052E-01	0.821E-01
PB-214		5.8030E-01	2.1859E-01	2.2095E-01	0.115E+00
RA-226		1.4667E+00	1.6885E+00	1.6904E+00	0.927E+00
Th-230	#B	-5.3047E+00	-4.4882E+01	-4.4883E+01	0.106E+02
Th-234	F	1.4389E+00	1.6931E+00	1.6950E+00	0.966E+00
Tl-208	F	2.4063E-01	1.3678E-01	1.3743E-01	0.490E-01
U-235	F	9.1232E-02	1.6775E-01	1.6782E-01	0.631E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.1 to 2611.9 keV) 2.4662828E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 03-JUL-2006 21:53:16 Page 1
New World Technology Spectrum name: 7N000027.An1

Sample description
PCB Hot Spot 84NPCBG111SWPE-001 475g
6/30/06 14:20

Acquisition information
Start time: 03-Jul-2006 21:08:08
Live time: 2700
Real time: 2703

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
AC-228	F	7.3352E-01	3.7233E-01	3.7456E-01	0.105E+00
AM-241	B	7.9231E-02	2.0449E-01	2.0454E-01	0.112E+00
BI-212	B	1.8747E-01	4.6748E-01	4.6759E-01	0.270E+00
BI-214	F	5.1483E-01	2.3671E-01	2.3844E-01	0.686E-01
CO-60	#B	1.1046E-02	2.0733E-02	2.0742E-02	0.112E-01
CS-137	#B	-4.4428E-02	-1.7697E+01	-1.7697E+01	0.370E-01
EU-152	B	1.5137E-02	3.1012E-02	3.1023E-02	0.847E-01
EU-154	B	5.9699E-02	1.1873E-01	1.1878E-01	0.614E-01
K-40		1.5200E+01	2.0600E+00	2.2269E+00	0.723E-01
PA-234	F	1.4782E-01	1.3634E-01	1.3659E-01	0.115E+00
PB-210	#B	-6.1915E-01	-2.7367E+00	-2.7369E+00	0.114E+01
PB-212	F	4.3574E-01	1.4634E-01	1.4834E-01	0.678E-01
PB-214		4.2580E-01	1.8955E-01	1.9102E-01	0.741E-01
RA-226	B	3.7301E-01	1.5367E+00	1.5368E+00	0.870E+00
Th-230	#B	-1.2387E+00	-2.2184E+01	-2.2184E+01	0.998E+01
TH-234	B	1.2879E-01	1.5881E+00	1.5881E+00	0.913E+00
TL-208	F	7.8873E-02	5.6278E-02	5.6449E-02	0.418E-01
U-235	F	5.5912E-02	9.5688E-02	9.5739E-02	0.507E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (42.0 to 2681.2 keV) 1.7310097E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 27-FEB-2006 17:06:11 Page 1
New World Technology Spectrum name: 3N002055.An1

Sample description
PCB Hot Spot 84NPCBG117SWPE-003 480g
2/27/06 11:35

Acquisition information
Start time: 27-Feb-2006 16:14:35
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Activity picoCi/g	Time of Count Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	4.3069E-01	3.0735E-01	3.0829E-01	0.112E+00
AM-241	#A	1.7311E-02	1.5147E-01	1.5148E-01	0.760E-01
Bi-212	#B	-3.2820E-01	1.6437E+03	1.6437E+03	0.269E+00
BI-214	F	2.3836E-01	1.9251E-01	1.9297E-01	0.844E-01
CO-60	#B	1.8436E-03	9.1718E-03	9.1724E-03	0.105E-01
Cs-137		4.7728E-02	7.2557E-02	7.2606E-02	0.381E-01
EU-152	#B	-3.2740E-02	2.7036E+02	2.7036E+02	0.596E-01
EU-154	#B	3.7088E-02	8.8444E-02	8.8467E-02	0.444E-01
K-40		1.7296E+01	2.6475E+00	2.8168E+00	0.887E+00
PA-234	#B	3.9959E-04	1.1460E-01	1.1460E-01	0.672E-01
Pb-210	#A	5.1434E-01	1.7747E+00	1.7749E+00	0.854E+00
PB-212		3.2773E-01	1.3243E-01	1.3368E-01	0.585E-01
PB-214	#F	3.8741E-01	1.8512E-01	1.8637E-01	0.715E-01
RA-226	A	1.0287E-02	1.2130E+00	1.2130E+00	0.699E+00
Th-230	#B	-4.1486E+00	-3.9994E+01	-3.9995E+01	0.619E+01
TH-234	A	8.9994E-02	9.9458E-01	9.9459E-01	0.553E+00
Tl-208		1.2769E-01	7.4308E-02	7.4647E-02	0.598E-01
U-235	B	2.3198E-02	7.1448E-02	7.1459E-02	0.389E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2660.5 keV) 1.8855583E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 27-FEB-2006 16:56:36 Page 1
New World Technology Spectrum name: 2N002037.An1

Sample description
PCB Hot Spot 84NPCBG123SWPE-003 449g
2/27/06 11:45

Acquisition information
Start time: 27-Feb-2006 16:11:29
Live time: 2700
Real time: 2705

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	3.8739E-01	2.1773E-01	2.1880E-01	0.132E+00
AM-241 #B	-7.6978E-01	-1.4903E+01	-1.4903E+01	0.378E+00
Bi-212 F	4.0007E-01	3.8751E-01	3.8815E-01	0.156E+00
BI-214 #F	3.2296E-01	1.6833E-01	1.6929E-01	0.778E-01
CO-60 #A	3.1703E-03	7.1331E-03	7.1353E-03	0.109E-01
Cs-137 #B	-1.6459E-02	-7.7122E-02	-7.7128E-02	0.380E-01
EU-152 B	-8.4302E-03	-4.0373E-02	-4.0376E-02	0.839E-01
EU-154 B	2.3767E-02	1.0820E-01	1.0821E-01	0.590E-01
K-40	1.0798E+01	2.1940E+00	2.2747E+00	0.115E+00
PA-234 #B	-4.0289E-02	-4.4696E-01	-4.4696E-01	0.110E+00
Pb-210 #C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	3.4007E-01	1.4124E-01	1.4250E-01	0.630E-01
PB-214	3.7257E-01	1.8997E-01	1.9109E-01	0.762E-01
RA-226 A	1.7865E-01	1.3287E+00	1.3287E+00	0.788E+00
Th-230 #C	2.0527E+01	3.4796E+01	3.4814E+01	0.200E+02
TH-234 B	-2.8575E-01	-1.4920E+00	-1.4921E+00	0.260E+01
Tl-208 #F	5.4239E-01	2.8325E-01	2.8485E-01	0.383E-01
U-235 B	7.0558E-03	7.5982E-02	7.5983E-02	0.413E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.9 to 2675.9 keV) 1.3163605E+01 picoCi/g

Laboratory: New World Technology

5N000096.rpt

ORTEC g v - i (3263) wan32 G53W2.06 28-JUN-2006 17:29:24 Page 1
New World Technology Spectrum name: 5N000096.An1

Sample description
PCB Hot Spot 84NPCBG127-1SWPE-001 381g
6/28/06 10:40

Acquisition information
Start time: 28-Jun-2006 16:44:15
Live time: 2700
Real time: 2701

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
Ac-228	#F	2.2485E-01	4.2116E-01	4.2135E-01	0.192E+00
AM-241	#B	-5.9519E-02	-4.4219E-01	-4.4221E-01	0.107E+00
Bi-212	F	7.1183E-01	7.7604E-01	7.7705E-01	0.329E+00
BI-214	F	6.8833E-01	2.8658E-01	2.8913E-01	0.110E+00
CO-60	#B	-7.2937E-04	-6.1995E-03	-6.1996E-03	0.192E-01
CS-137	B	3.3908E-03	6.4639E-02	6.4639E-02	0.403E-01
EU-152	F	2.5173E-01	2.5268E-01	2.5307E-01	0.807E-01
EU-154	B	-1.2668E-02	2.2505E+02	2.2505E+02	0.647E-01
K-40		1.0205E+01	2.4161E+00	2.4819E+00	0.107E+01
Pa-234	B	3.9944E-02	1.1035E-01	1.1037E-01	0.936E-01
Pb-210		2.1556E+00	1.5511E+00	1.5557E+00	0.758E+00
Pb-212	F	1.3686E-01	1.5595E-01	1.5614E-01	0.901E-01
PB-214		8.5571E-01	2.8456E-01	2.8851E-01	0.931E-01
RA-226	B	3.7906E-01	1.6364E+00	1.6365E+00	0.941E+00
Th-230	#B	-8.4841E+00	-6.0533E+01	-6.0535E+01	0.883E+01
Th-234	F	1.0406E+00	1.2165E+00	1.2179E+00	0.825E+00
Tl-208	#	2.1765E-01	8.4700E-02	8.5561E-02	0.156E-01
U-235	B	4.3203E-02	1.3301E-01	1.3304E-01	0.573E-01

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A - Activity printed, but activity < MDA.
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H - Halflife limit exceeded

---------------------------- S U M M A R Y ----------------------------

Total Activity (42.0 to 3339.1 keV) 1.4258655E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 28-MAR-2006 23:00:06 Page 1
New World Technology Spectrum name: 3N002117.An1

Sample description
PCB Hot Spot 84NPCBG128SWPE-002 457g
3/23/06 10:15

Acquisition information
Start time: 28-Mar-2006 15:56:20
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228 F	3.3659E-01	3.4092E-01	3.4143E-01	0.159E+00
AM-241 #A	6.2408E-03	1.6677E-01	1.6677E-01	0.840E-01
Bi-212	4.2722E-01	5.4509E-01	5.4561E-01	0.276E+00
BI-214 #F	3.4835E-01	2.4357E-01	2.4434E-01	0.100E+00
CO-60 #B	3.8728E-03	1.1618E-02	1.1620E-02	0.902E-02
Cs-137 #B	-4.3786E-02	-6.1559E-01	-6.1560E-01	0.394E-01
EU-152 B	4.7757E-02	1.0676E-01	1.0679E-01	0.528E-01
EU-154 B	8.7328E-03	8.9686E-02	8.9687E-02	0.500E-01
K-40	8.5063E+00	2.0944E+00	2.1472E+00	0.932E+00
PA-234 #B	2.2121E-02	2.0578E-01	2.0578E-01	0.103E+00
Pb-210 #B	-7.2469E-01	-3.9202E+00	-3.9204E+00	0.893E+00
PB-212	3.3868E-01	1.3490E-01	1.3621E-01	0.628E-01
PB-214	3.6723E-01	2.3748E-01	2.3836E-01	0.998E-01
RA-226	8.0454E-01	1.2299E+00	1.2307E+00	0.669E+00
Th-230 B	-2.2654E+00	-5.4929E+00	-5.4943E+00	0.419E+01
TH-234 #C	1.2438E+00	1.1287E+00	1.1308E+00	0.671E+00
Tl-208	1.3732E-01	8.7602E-02	8.7934E-02	0.735E-01
U-235 B	1.3691E-02	4.0863E-02	4.0870E-02	0.451E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.5 keV) 1.1266268E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 02-MAR-2006 19:21:40 Page 1
New World Technology Spectrum name: 3N002066.An1

Sample description
PCB Hot Spot 84NPCBG129SWPE-002 440g
3/2/06 14:35

Acquisition information
Start time: 02-Mar-2006 18:36:35
Live time: 2700
Real time: 2703

- -

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228 #F	3.9236E-01	2.8505E-01	2.8589E-01	0.147E+00
AM-241 #B	-3.8607E-02	-1.0501E+00	-1.0501E+00	0.454E-01
Bi-212 B	2.3634E-01	5.0315E-01	5.0332E-01	0.289E+00
BI-214 F	6.8213E-01	2.8709E-01	2.8959E-01	0.101E+00
CO-60 #F	3.2179E-02	3.4131E-02	3.4178E-02	0.937E-02
Cs-137 #	6.7689E-02	7.8739E-02	7.8829E-02	0.328E-01
EU-152 #B	-3.5716E-02	3.0244E+02	3.0244E+02	0.600E-01
EU-154 F	3.6362E-02	5.6397E-02	5.6433E-02	0.218E-01
K-40	4.5065E+00	2.1056E+00	2.1205E+00	0.121E+01
PA-234 B	5.4702E-02	1.3337E-01	1.3340E-01	0.987E-01
Pb-210 A	1.1132E-01	1.3353E+00	1.3354E+00	0.807E+00
PB-212	1.8596E-01	1.2160E-01	1.2204E-01	0.582E-01
PB-214	6.0599E-01	1.9907E-01	2.0190E-01	0.847E-01
RA-226 A	5.0221E-01	1.1937E+00	1.1941E+00	0.670E+00
Th-230 #B	1.3772E-01	1.7390E+00	1.7390E+00	0.784E+01
TH-234 #C	6.6085E-01	1.1041E+00	1.1047E+00	0.620E+00
Tl-208 #B	3.3380E-02	2.8669E-02	2.8729E-02	0.794E-01
U-235 B	-9.4867E-03	-1.2436E-01	-1.2436E-01	0.471E-01

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H - Halflife limit exceeded

---------- SUMMARY ----------
Total Activity (41.7 to 2660.5 keV) 6.4727931E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 01-MAR-2006 18:34:24 Page 1
New World Technology Spectrum name: 3N002061.An1

Sample description
PCB Hot Spot 84NPCBG131SWPE-002 508g
3/1/06 13:05

Acquisition information
Start time: 01-Mar-2006 17:41:18
Live time: 2700
Real time: 2703

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	3.7067E-01	2.7141E-01	2.7219E-01	0.122E+00
AM-241	#B	-3.7345E-02	2.6883E+02	2.6883E+02	0.561E-01
Bi-212		3.7252E-01	5.1343E-01	5.1385E-01	0.277E+00
BI-214		4.0744E-01	1.9914E-01	2.0042E-01	0.822E-01
CO-60	#B	1.7420E-03	5.8428E-03	5.8436E-03	0.812E-02
Cs-137	A	2.3355E-02	5.9258E-02	5.9272E-02	0.329E-01
EU-152	B	1.1826E-02	7.0067E-02	7.0070E-02	0.568E-01
EU-154	B	2.5237E-02	7.9048E-02	7.9061E-02	0.425E-01
K-40		7.3147E+00	2.1312E+00	2.1697E+00	0.105E+01
PA-234	B	6.8573E-02	1.4214E-01	1.4219E-01	0.778E-01
Pb-210	A	2.2522E-01	1.4899E+00	1.4900E+00	0.756E+00
PB-212		2.8282E-01	1.2499E-01	1.2598E-01	0.583E-01
PB-214		2.4638E-01	1.3845E-01	1.3913E-01	0.690E-01
RA-226	A	3.2971E-02	1.0987E+00	1.0987E+00	0.635E+00
Th-230	#B	1.8405E+00	3.0929E+00	3.0946E+00	0.599E+01
TH-234	C	6.6088E-01	8.5515E-01	8.5594E-01	0.598E+00
Tl-208		1.0498E-01	6.5390E-02	6.5650E-02	0.565E-01
U-235	B	2.1082E-02	6.5770E-02	6.5780E-02	0.358E-01

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H - Halflife limit exceeded

---------------------------- S U M M A R Y ---------------------------

Total Activity (41.7 to 2660.5 keV) 9.0995073E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 13-DEC-2005 09:10:47 Page 1
New World Technology Spectrum name: 2N001847.An1

Sample description
PCB Hot Spot 84NPCBG132SWPE-001 223g
12/12/2005 14:40

Acquisition information
Start time: 13-Dec-2005 08:25:31
Live time: 2700
Real time: 2705

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		8.9259E-01	4.7730E-01	4.7988E-01	0.187E+00
AM-241	#A	3.6943E-01	1.1144E+00	1.1146E+00	0.631E+00
Bi-212		9.6106E-01	8.3092E-01	8.3264E-01	0.291E+00
BI-214		9.2676E-01	3.6028E-01	3.6396E-01	0.800E-01
CO-60	#B	-4.4051E-02	1.7507E+02	1.7507E+02	0.442E-01
Cs-137	#A	5.9540E-03	1.1656E-01	1.1656E-01	0.721E-01
EU-152	B	7.5750E-02	3.2138E-01	3.2141E-01	0.167E+00
EU-154	F	9.0622E-02	1.1942E-01	1.1953E-01	0.824E-01
K-40		1.3504E+01	3.3789E+00	3.4616E+00	0.979E+00
PA-234	#B	3.5034E-02	1.2604E-01	1.2605E-01	0.209E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	9.3290E-01	2.7183E-01	2.7674E-01	0.913E-01
PB-214		6.6585E-01	3.6441E-01	3.6629E-01	0.123E+00
RA-226	A	8.2523E-01	2.8514E+00	2.8518E+00	0.159E+01
Th-230	#A	2.7671E+01	4.6409E+01	4.6435E+01	0.363E+02
TH-234	A	3.2299E+00	4.4417E+00	4.4453E+00	0.519E+01
Tl-208		2.7740E-01	1.2545E-01	1.2639E-01	0.940E-01
U-235		1.4624E-01	2.2923E-01	2.2937E-01	0.838E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------------------------- S U M M A R Y ----------------------------

Total Activity (41.8 to 2674.9 keV) 1.8307104E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 01-MAR-2006 19:40:15 Page 1
New World Technology Spectrum name: 3N002062.An1

Sample description
PCB Hot Spot 84NPCBG138SWPE-001 512g
3/1/06 13:10

Acquisition information
Start time: 01-Mar-2006 18:43:07
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	5.4559E-01	3.1186E-01	3.1333E-01	0.113E+00
AM-241 A	5.3456E-05	1.0695E-01	1.0695E-01	0.608E-01
Bi-212 #B	3.9231E-02	3.7064E-02	3.7128E-02	0.337E+00
BI-214 F	3.4689E-01	2.2300E-01	2.2383E-01	0.839E-01
CO-60 #B	2.0740E-03	1.0741E-02	1.0742E-02	0.953E-02
Cs-137 #B	-2.4790E-02	-3.4377E-01	-3.4377E-01	0.215E-01
EU-152 F	6.2650E-02	9.9411E-02	9.9472E-02	0.571E-01
EU-154 #B	-8.9820E-03	1.6144E+02	1.6144E+02	0.379E-01
K-40	5.1545E+00	1.8209E+00	1.8434E+00	0.102E+01
PA-234 #B	-7.0297E-03	-3.5241E-01	-3.5241E-01	0.609E-01
Pb-210 A	7.0565E-01	1.6289E+00	1.6294E+00	0.781E+00
PB-212	3.2962E-01	1.1846E-01	1.1987E-01	0.515E-01
PB-214	3.5442E-01	1.7699E-01	1.7808E-01	0.771E-01
RA-226	8.3309E-01	1.0700E+00	1.0710E+00	0.578E+00
Th-230 #B	2.8984E+00	7.5130E+00	7.5147E+00	0.573E+01
TH-234 B	1.0309E-01	3.1138E-01	3.1143E-01	0.550E+00
Tl-208 F	1.2607E-01	7.4318E-02	7.4648E-02	0.561E-01
U-235 #B	-1.0662E-02	-3.7582E-01	-3.7582E-01	0.365E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.5 keV) 7.6902065E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 01-MAR-2006 20:31:03 Page 1
New World Technology Spectrum name: 3N002063.An1

Sample description
PCB Hot Spot 84NPCBG139SWPE-004 471g
3/1/06 13:10

Acquisition information
Start time: 01-Mar-2006 19:45:58
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	3.3418E-01	2.0847E-01	2.0930E-01	0.121E+00
AM-241	#B	-4.0279E-02	3.1563E+02	3.1563E+02	0.659E-01
Bi-212	#B	-2.6062E-01	-3.5567E+00	-3.5567E+00	0.304E+00
BI-214	F	2.3206E-01	1.6378E-01	1.6428E-01	0.777E-01
CO-60	#B	2.2546E-03	1.1676E-02	1.1677E-02	0.104E-01
Cs-137	#B	-2.3216E-02	-4.6327E-01	-4.6327E-01	0.336E-01
EU-152	B	4.4233E-02	1.2857E-01	1.2859E-01	0.701E-01
EU-154	B	3.4533E-02	7.2411E-02	7.2436E-02	0.407E-01
K-40		1.9693E+01	3.0008E+00	3.1944E+00	0.112E+01
PA-234	#F	1.0464E-01	1.7197E-01	1.7207E-01	0.724E-01
Pb-210	#B	-1.0043E-01	-1.3924E+00	-1.3924E+00	0.751E+00
PB-212		2.6229E-01	1.1823E-01	1.1913E-01	0.543E-01
PB-214	F	2.5918E-01	1.6843E-01	1.6905E-01	0.749E-01
RA-226	A	4.4553E-01	1.1462E+00	1.1465E+00	0.644E+00
Th-230	#F	6.4051E+00	7.5417E+00	7.5501E+00	0.595E+01
TH-234	A	2.6924E-01	1.0089E+00	1.0091E+00	0.617E+00
Tl-208	#	1.1145E-01	7.9227E-02	7.9470E-02	0.610E-01
U-235	A	9.2093E-03	8.6735E-02	8.6737E-02	0.360E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.7 to 2660.5 keV) 2.0892557E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 28-MAR-2006 21:04:08 Page 1
New World Technology Spectrum name: 2N002116.An1

Sample description
PCB Hot Spot 84NPCBG153SWPE-002 497g
3/23/06 10:00

Acquisition information
Start time: 28-Mar-2006 20:19:00
Live time: 2700
Real time: 2705

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	B	4.2419E-02	4.0036E-02	4.0105E-02	0.171E+00
AM-241	#A	4.0638E-01	9.7448E-01	9.7474E-01	0.479E+00
Bi-212	#B	-7.9604E-02	1.0026E+03	1.0026E+03	0.204E+00
BI-214	#F	2.2594E-01	2.1505E-01	2.1541E-01	0.731E-01
CO-60	#F	2.0501E-02	2.6902E-02	2.6927E-02	0.853E-02
Cs-137	#A	2.3012E-02	6.6767E-02	6.6779E-02	0.353E-01
EU-152	F	8.3850E-02	1.4285E-01	1.4292E-01	0.573E-01
EU-154	B	3.1929E-02	8.4394E-02	8.4413E-02	0.440E-01
K-40		1.3508E+01	2.2449E+00	2.3674E+00	0.620E+00
PA-234	#F	2.2343E-01	1.6250E-01	1.6297E-01	0.104E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	1.4040E-01	1.1931E-01	1.1957E-01	0.640E-01
PB-214		1.7509E-01	1.7165E-01	1.7193E-01	0.709E-01
RA-226	A	1.1684E-01	1.2868E+00	1.2868E+00	0.733E+00
Th-230	#B	-6.1085E+00	-9.4767E+00	-9.4827E+00	0.205E+02
TH-234	F	3.0727E+00	4.9321E+00	4.9351E+00	0.217E+01
Tl-208		2.2703E-01	1.1049E-01	1.1121E-01	0.133E-01
U-235	B	9.1792E-03	7.7321E-02	7.7323E-02	0.440E-01

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H - Halflife limit exceeded

---------------------------- S U M M A R Y ----------------------------

Total Activity (41.9 to 2675.6 keV) 1.7369267E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 03-JUL-2006 21:35:32 Page 1
New World Technology Spectrum name: 2N003074.An1

Sample description
PCB Hot Spot 84NPCBG156SWPE-001 471g
06/30/06 14:30

Acquisition information
Start time: 03-Jul-2006 20:50:25
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		3.5058E-01	2.6036E-01	2.6109E-01	0.138E+00
AM-241	#B	-2.5200E-01	-2.1317E+00	-2.1318E+00	0.431E+00
Bi-212	F	3.8258E-01	4.0234E-01	4.0290E-01	0.175E+00
BI-214	F	2.7630E-01	2.2928E-01	2.2979E-01	0.813E-01
CO-60	#B	1.7759E-02	4.7961E-02	4.7971E-02	0.252E-01
Cs-137	#B	-5.7855E-02	-5.0251E-01	-5.0252E-01	0.330E-01
EU-152	F	1.4465E-01	1.2210E-01	1.2236E-01	0.665E-01
EU-154	B	-5.7245E-04	2.3843E+02	2.3843E+02	0.686E-01
K-40		1.8959E+01	2.6565E+00	2.8586E+00	0.474E+00
PA-234	B	1.3145E-01	1.8152E-01	1.8167E-01	0.132E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		2.5075E-01	1.3443E-01	1.3516E-01	0.668E-01
PB-214		3.1457E-01	1.9376E-01	1.9455E-01	0.786E-01
RA-226	A	3.4542E-01	1.3899E+00	1.3900E+00	0.797E+00
Th-230	C	2.5312E+01	4.4714E+01	4.4736E+01	0.251E+02
TH-234	#F	3.7505E+00	4.8160E+00	4.8205E+00	0.209E+01
Tl-208	F	6.3534E-02	6.2271E-02	6.2371E-02	0.334E-01
U-235	B	-2.1542E-02	-1.9554E-01	-1.9554E-01	0.510E-01

\# - All peaks for activity calculation had bad shape.
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& - Activity omitted from total and all peaks had bad shape.
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---------------------------- S U M M A R Y ----------------------------

Total Activity (41.8 to 2673.8 keV) 2.4284599E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 03-JUL-2006 21:45:45 Page 1
New World Technology Spectrum name: 3N003039.An1

Sample description
PCB Hot Spot 84NPCBG159SWPE-001 438g
6/30/06 14:25

Acquisition information
Start time: 03-Jul-2006 20:46:32
Live time: 2700
Real time: 2702

- -

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
AC-228	C	2.5140E-01	3.1435E-01	3.1466E-01	0.179E+00
AM-241	#A	5.5361E-02	1.5582E-01	1.5585E-01	0.770E-01
Bi-212	B	-3.9329E-02	1.5464E+03	1.5464E+03	0.276E+00
BI-214	F	4.4333E-01	2.6065E-01	2.6181E-01	0.102E+00
CO-60	#B	-1.9305E-02	-1.3611E-01	-1.3611E-01	0.223E-01
Cs-137	A	6.3152E-04	7.1397E-02	7.1397E-02	0.441E-01
EU-152	B	4.0968E-02	1.6102E-01	1.6104E-01	0.549E-01
EU-154	A	2.5235E-02	8.3166E-02	8.3177E-02	0.524E-01
K-40		1.8147E+01	2.6240E+00	2.8113E+00	0.212E+00
PA-234	#F	1.2638E-01	1.0648E-01	1.0671E-01	0.769E-01
Pb-210	#B	-1.1320E+00	-5.9215E+00	-5.9219E+00	0.855E+00
PB-212		4.5727E-01	1.4664E-01	1.4882E-01	0.631E-01
PB-214		3.6429E-01	2.4051E-01	2.4137E-01	0.996E-01
RA-226	#B	-1.5279E-02	-1.2981E+00	-1.2981E+00	0.747E+00
Th-230	#B	1.7706E+00	2.8207E+00	2.8224E+00	0.798E+01
TH-234	#B	3.6746E-01	7.5044E-01	7.5072E-01	0.710E+00
Tl-208	#B	2.3368E-02	1.6943E-02	1.6993E-02	0.923E-01
U-235	#B	8.5381E-03	2.3843E-02	2.3847E-02	0.466E-01

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C - Area < Critical level.
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H - Halflife limit exceeded

---------- SUMMARY ----------
Total Activity (41.7 to 2660.0 keV) 1.9411924E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 06-JUL-2006 16:38:59 Page 1
New World Technology Spectrum name: 3N003050.An1

Sample description
PCB Hot Spot 84NPCBG165SWPE-001 397g
7/06/06 10:05

Acquisition information
Start time: 06-Jul-2006 15:53:55
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	#	4.8311E-01	3.3397E-01	3.3505E-01	0.176E+00
AM-241	#A	3.1165E-02	1.4656E-01	1.4657E-01	0.816E-01
Bi-212	#	5.5606E-01	6.9561E-01	6.9630E-01	0.272E+00
BI-214	F	3.6121E-01	3.0311E-01	3.0378E-01	0.108E+00
CO-60	#B	-6.0036E-03	-4.3741E-02	-4.3742E-02	0.232E-01
Cs-137	A	2.7852E-02	8.3997E-02	8.4011E-02	0.487E-01
EU-152	#B	-4.1854E-03	2.1851E+02	2.1851E+02	0.551E-01
EU-154	#B	-6.9946E-03	-7.9969E-02	-7.9969E-02	0.320E-01
K-40		1.7338E+01	2.8994E+00	3.0555E+00	0.923E+00
PA-234	#B	-1.5691E-02	-2.8341E-01	-2.8341E-01	0.106E+00
Pb-210	A	4.3498E-01	2.1074E+00	2.1075E+00	0.104E+01
PB-212		5.1554E-01	1.5690E-01	1.5950E-01	0.664E-01
PB-214		3.6141E-01	2.3883E-01	2.3967E-01	0.105E+00
RA-226	#B	-1.7453E-01	-2.0222E+00	-2.0223E+00	0.893E+00
Th-230	B	-7.0664E+00	-5.9085E+01	-5.9086E+01	0.810E+01
TH-234	#F	1.1194E+00	1.8379E+00	1.8389E+00	0.833E+00
Tl-208	B	-2.7434E-02	-2.5336E-02	-2.5382E-02	0.112E+00
U-235	#B	-1.3747E-02	-1.6194E-01	-1.6194E-01	0.528E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.7 to 2660.8 keV) 2.0735039E+01 picoCi/g

Laboratory: New World Technology

7N000034.rpt

ORTEC g v - i (3263) wan32 G53W2.06 06-JUL-2006 16:51:29 Page 1
New World Technology Spectrum name: 7N000034.An1

Sample description
PCB Hot Spot 84NPCBG167SWPE-001 394g
7/06/06 10:10

Acquisition information
Start time: 06-Jul-2006 15:59:55
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
AC-228	F	8.3725E-01	3.1783E-01	3.2123E-01	0.692E-01
AM-241	#B	-4.2500E-03	-2.7616E-01	-2.7616E-01	0.135E+00
BI-212	B	2.2045E-01	6.2684E-01	6.2696E-01	0.340E+00
BI-214	F	4.4291E-01	2.6596E-01	2.6710E-01	0.857E-01
CO-60	#B	-3.8692E-03	-2.0569E-02	-2.0570E-02	0.151E-01
CS-137	#B	-9.6312E-03	-1.1337E-01	-1.1337E-01	0.473E-01
EU-152	B	-1.0623E-02	-4.2716E-02	-4.2720E-02	0.825E-01
EU-154	F	8.6204E-02	1.7444E-01	1.7450E-01	0.501E-01
K-40	#	2.5250E+01	4.4465E+00	4.6631E+00	0.174E+01
PA-234	B	-2.5188E-02	5.3836E+02	5.3836E+02	0.925E-01
PB-210	#B	-1.3616E+00	-5.3375E+00	-5.3380E+00	0.149E+01
PB-212	F	3.9874E-01	1.7178E-01	1.7321E-01	0.828E-01
PB-214		4.9007E-01	2.3745E-01	2.3901E-01	0.104E+00
RA-226	B	6.0477E-01	1.9090E+00	1.9093E+00	0.108E+01
Th-230	#B	-1.0230E+00	-2.6363E+01	-2.6363E+01	0.133E+02
TH-234	#B	-2.4384E-01	-2.5394E+00	-2.5394E+00	0.126E+01
TL-208	B	1.0547E-01	7.3548E-02	7.3781E-02	0.162E+00
U-235	F	6.5763E-02	1.5180E-01	1.5184E-01	0.616E-01

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---------------------------- S U M M A R Y ----------------------------

Total Activity (42.1 to 2683.2 keV) 2.7418669E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 26-JAN-2006 11:51:35 Page 1
New World Technology Spectrum name: 2N001952.An1

Sample description
PCB Hot Spot 84NPCBG169SWPE-001 389g
1/26/06 08:50

Acquisition information
Start time: 26-Jan-2006 11:06:28
Live time: 2700
Real time: 2705

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	4.1872E-01	2.2779E-01	2.2898E-01	0.138E+00
AM-241	#	8.4391E-01	1.2499E+00	1.2508E+00	0.543E+00
Bi-212	B	1.2379E-01	4.5688E-01	4.5693E-01	0.233E+00
BI-214	F	3.6625E-01	2.1491E-01	2.1588E-01	0.649E-01
CO-60	#B	-2.5253E-02	1.0036E+02	1.0036E+02	0.253E-01
Cs-137	A	1.7291E-02	7.3365E-02	7.3371E-02	0.463E-01
EU-152	F	1.3761E-01	2.0388E-01	2.0402E-01	0.974E-01
EU-154	C	9.5536E-02	1.0545E-01	1.0559E-01	0.572E-01
K-40		2.3086E+01	3.1865E+00	3.4359E+00	0.561E+00
PA-234	#F	2.5044E-01	2.0469E-01	2.0516E-01	0.633E-01
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		4.2640E-01	1.5990E-01	1.6165E-01	0.637E-01
PB-214		4.4429E-01	2.2463E-01	2.2599E-01	0.720E-01
RA-226	A	6.2271E-01	1.5230E+00	1.5234E+00	0.844E+00
Th-230	#B	-4.4997E+00	8.5515E+04	8.5515E+04	0.246E+02
TH-234	A	1.3287E+00	1.8502E+00	1.8516E+00	0.299E+01
Tl-208		1.6406E-01	7.9976E-02	8.0496E-02	0.539E-01
U-235	C	7.3547E-02	1.2176E-01	1.2183E-01	0.451E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.8 to 2674.9 keV) 2.5886799E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 26-JAN-2006 11:54:34 Page 1
New World Technology Spectrum name: 3N001982.An1

Sample description
PCB Hot Spot 84NPCBG170SWPE-001 358g
1/26/2006 08:45

Acquisition information
Start time: 26-Jan-2006 11:09:28
Live time: 2700
Real time: 2703

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	3.1375E-01	3.1782E-01	3.1830E-01	0.236E+00
AM-241	#B	-6.4426E-02	2.0879E+02	2.0879E+02	0.527E-01
Bi-212		4.3168E-01	5.2569E-01	5.2624E-01	0.328E+00
BI-214		5.1042E-01	3.4240E-01	3.4358E-01	0.124E+00
CO-60	#B	-5.1415E-02	-3.4155E-01	-3.4156E-01	0.389E-01
Cs-137	A	2.0089E-02	8.6853E-02	8.6860E-02	0.538E-01
EU-152	B	5.2536E-02	1.7116E-01	1.7119E-01	0.792E-01
EU-154	F	5.9312E-02	1.0273E-01	1.0278E-01	0.495E-01
K-40		2.2551E+01	3.3521E+00	3.5790E+00	0.649E+00
PA-234	#B	-1.1094E-02	3.7604E+02	3.7604E+02	0.949E-01
Pb-210	#A	8.0399E-01	1.9156E+00	1.9161E+00	0.992E+00
PB-212		4.3524E-01	1.6294E-01	1.6473E-01	0.705E-01
PB-214		4.4545E-01	2.6504E-01	2.6619E-01	0.107E+00
RA-226	A	5.9830E-01	1.5915E+00	1.5918E+00	0.888E+00
Th-230	#B	2.7787E+00	1.4044E+01	1.4045E+01	0.752E+01
TH-234	#F	1.6612E+00	9.8286E-01	9.8717E-01	0.815E+00
Tl-208	F	2.5475E-01	1.5666E-01	1.5730E-01	0.441E-01
U-235	C	9.6811E-02	1.4160E-01	1.4171E-01	0.527E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.7 to 2660.5 keV) 2.4628302E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 26-JAN-2006 13:04:26 Page 1
New World Technology Spectrum name: 2N001953.An1

Sample description
PCB Hot Spot 84NPCBG171SWPE-001 356g
1/26/06 08:40

Acquisition information
Start time: 26-Jan-2006 11:58:14
Live time: 2700
Real time: 2705

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	4.7881E-01	2.9303E-01	2.9424E-01	0.117E+00
AM-241 #	1.1641E+00	2.0743E+00	2.0753E+00	0.812E+00
Bi-212	6.3900E-01	4.8809E-01	4.8938E-01	0.148E+00
BI-214	3.7237E-01	1.8276E-01	1.8394E-01	0.497E-01
CO-60 #B	-2.7177E-03	-7.0895E-03	-7.0912E-03	0.299E-01
Cs-137 A	1.4079E-02	6.9612E-02	6.9617E-02	0.462E-01
EU-152 #B	-4.8139E-02	3.4000E+02	3.4000E+02	0.858E-01
EU-154 F	1.2219E-01	1.3863E-01	1.3879E-01	0.750E-01
K-40	2.0971E+01	3.1912E+00	3.3980E+00	0.613E+00
PA-234 #F	1.4701E-01	1.4971E-01	1.4993E-01	0.102E+00
Pb-210 C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	4.9188E-01	1.6215E-01	1.6445E-01	0.577E-01
PB-214	2.2895E-01	1.8367E-01	1.8411E-01	0.863E-01
RA-226 A	3.4188E-01	1.7664E+00	1.7665E+00	0.995E+00
Th-230 #A	1.7807E+01	4.6020E+01	4.6030E+01	0.266E+02
TH-234 #F	2.9621E+00	5.9663E+00	5.9686E+00	0.292E+01
Tl-208 F	9.7370E-02	4.7766E-02	4.8073E-02	0.747E-01
U-235	1.1984E-01	1.4791E-01	1.4806E-01	0.548E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.8 to 2674.9 keV) 2.7549809E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 26-JAN-2006 12:45:06 Page 1
New World Technology Spectrum name: 3N001983.An1

Sample description
PCB Hot Spot 84NPCBG172SWPE-001 392g
1/26/2006 08:35

Acquisition information
Start time: 26-Jan-2006 12:00:01
Live time: 2700
Real time: 2702

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		3.6481E-01	3.3801E-01	3.3862E-01	0.193E+00
AM-241	#A	3.9225E-02	1.6432E-01	1.6433E-01	0.842E-01
Bi-212	F	7.0269E-01	5.8978E-01	5.9108E-01	0.244E+00
BI-214	F	5.6255E-01	2.2558E-01	2.2774E-01	0.972E-01
CO-60	#B	-2.6187E-02	-1.0055E-01	-1.0056E-01	0.346E-01
Cs-137	#B	-8.8159E-02	-1.8838E+00	-1.8838E+00	0.627E-01
EU-152	F	1.3202E-01	2.4377E-01	2.4388E-01	0.798E-01
EU-154	A	5.9937E-02	7.5454E-02	7.5527E-02	0.612E-01
K-40		1.4379E+01	2.6008E+00	2.7210E+00	0.588E+00
PA-234	#B	1.0719E-02	3.4933E-02	3.4938E-02	0.854E-01
Pb-210	A	3.8710E-01	1.5161E+00	1.5163E+00	0.848E+00
PB-212		4.8953E-01	1.6726E-01	1.6946E-01	0.727E-01
PB-214		3.8456E-01	2.4357E-01	2.4451E-01	0.941E-01
RA-226	A	3.3072E-02	1.3105E+00	1.3105E+00	0.761E+00
Th-230	#B	-2.1276E+00	2.5581E+04	2.5581E+04	0.645E+01
TH-234	C	1.8197E+00	1.1994E+00	1.2036E+00	0.785E+00
Tl-208		3.1996E-01	9.2658E-02	9.4351E-02	0.168E-01
U-235	A	2.3787E-02	1.0265E-01	1.0266E-01	0.478E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------------------------- S U M M A R Y ----------------------------

Total Activity (41.7 to 2660.5 keV) 1.7203220E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 26-JAN-2006 13:54:45 Page 1
New World Technology Spectrum name: 2N001954.An1

Sample description
PCB Hot Spot 84NPCBG173ASWPE-001 412g
1/26/06 08:30

Acquisition information
Start time: 26-Jan-2006 13:09:38
Live time: 2700
Real time: 2705

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	4.2655E-01	2.1316E-01	2.1448E-01	0.118E+00
AM-241	#A	3.9385E-01	1.0387E+00	1.0389E+00	0.494E+00
Bi-212	#	5.6211E-01	4.3998E-01	4.4109E-01	0.135E+00
BI-214	F	3.2752E-01	1.8434E-01	1.8524E-01	0.488E-01
CO-60	#F	4.3880E-02	5.7679E-02	5.7731E-02	0.239E-01
Cs-137	#B	-6.5608E-03	-6.4438E-02	-6.4439E-02	0.390E-01
EU-152	#B	-4.1596E-02	4.0651E+02	4.0651E+02	0.103E+00
EU-154	#B	-4.5043E-03	3.5104E+02	3.5104E+02	0.652E-01
K-40		1.9827E+01	2.8768E+00	3.0813E+00	0.530E+00
PA-234	#F	1.5856E-01	2.0721E-01	2.0740E-01	0.119E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		4.3912E-01	1.4931E-01	1.5130E-01	0.563E-01
PB-214		2.2670E-01	1.6427E-01	1.6475E-01	0.758E-01
RA-226	#B	-1.0053E-01	-1.5379E+00	-1.5379E+00	0.690E+00
Th-230	#B	1.5964E+00	3.0807E+00	3.0820E+00	0.121E+02
TH-234		4.1916E+00	3.5283E+00	3.5359E+00	0.271E+01
Tl-208	#	1.8889E-01	1.0233E-01	1.0287E-01	0.509E-01
U-235	B	2.2624E-02	8.1013E-02	8.1023E-02	0.431E-01

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C - Area < Critical level.
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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.8 to 2674.9 keV) 2.6348240E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 18-JAN-2006 14:01:26 Page 1
New World Technology Spectrum name: 2N001929.An1

Sample description
PCB Hot Spot 84NPCBG173BSW-001 489g
1/18/06 10:05

Acquisition information
Start time: 18-Jan-2006 13:16:19
Live time: 2700
Real time: 2705

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	4.4217E-01	2.2616E-01	2.2749E-01	0.852E-01
AM-241	#A	3.3439E-01	9.1146E-01	9.1165E-01	0.445E+00
Bi-212		4.4141E-01	3.9375E-01	3.9452E-01	0.187E+00
BI-214	F	3.1676E-01	1.4083E-01	1.4193E-01	0.336E-01
CO-60	#B	-1.5253E-02	-1.2870E-01	-1.2870E-01	0.214E-01
Cs-137	A	1.6056E-03	5.3915E-02	5.3915E-02	0.360E-01
EU-152	#B	4.6616E-02	1.2761E-01	1.2763E-01	0.749E-01
EU-154	F	6.1519E-02	8.7021E-02	8.7088E-02	0.510E-01
K-40		1.1063E+01	2.0005E+00	2.0932E+00	0.446E+00
PA-234	#A	5.6844E-02	8.6664E-02	8.6721E-02	0.871E-01
Pb-210	C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.0027E-01	1.2020E-01	1.2136E-01	0.481E-01
PB-214		2.7451E-01	1.8422E-01	1.8485E-01	0.662E-01
RA-226	A	3.8187E-01	1.1653E+00	1.1655E+00	0.653E+00
Th-230	#C	2.7139E+01	3.5668E+01	3.5700E+01	0.212E+02
TH-234	A	1.5488E+00	1.4799E+00	1.4824E+00	0.160E+01
Tl-208		1.3611E-01	6.5242E-02	6.5681E-02	0.429E-01
U-235	C	6.2773E-02	8.7374E-02	8.7443E-02	0.394E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

SUMMARY

Total Activity (41.8 to 2674.9 keV) 1.2974236E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 18-JAN-2006 14:17:37 Page 1
New World Technology Spectrum name: 3N001966.An1

Sample description
PCB Hot Spot 84NPCBG177SW-001 524g
1/18/06 10:00

Acquisition information
Start time: 18-Jan-2006 13:18:39
Live time: 2700
Real time: 2703

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	C	3.1328E-01	2.6116E-01	2.6174E-01	0.145E+00
AM-241	#	9.2528E-02	1.7276E-01	1.7284E-01	0.785E-01
Bi-212		5.3271E-01	4.3449E-01	4.3550E-01	0.189E+00
BI-214	F	2.6256E-01	1.9039E-01	1.9095E-01	0.816E-01
CO-60	#B	-3.4789E-02	-2.3904E-01	-2.3904E-01	0.265E-01
Cs-137	#B	-2.7261E-02	-1.5506E-01	-1.5506E-01	0.389E-01
EU-152	F	1.3198E-01	1.1778E-01	1.1801E-01	0.466E-01
EU-154	C	6.5604E-02	5.4586E-02	5.4707E-02	0.381E-01
K-40		1.0878E+01	1.8870E+00	1.9816E+00	0.406E+00
PA-234	B	3.2168E-02	1.1192E-01	1.1194E-01	0.884E-01
Pb-210	A	1.9536E-01	1.0577E+00	1.0578E+00	0.612E+00
PB-212		3.9193E-01	1.2507E-01	1.2695E-01	0.530E-01
PB-214		2.6506E-01	1.4996E-01	1.5068E-01	0.675E-01
RA-226	A	5.4971E-01	1.1260E+00	1.1264E+00	0.621E+00
Th-230	#A	4.4759E+00	1.4004E+01	1.4006E+01	0.623E+01
TH-234		1.3384E+00	8.7183E-01	8.7499E-01	0.528E+00
Tl-208		1.8892E-01	6.1969E-02	6.2853E-02	0.126E-01
U-235	B	2.0797E-02	7.2217E-02	7.2226E-02	0.387E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2660.5 keV) 1.3949898E+01 picoCi/g

Laboratory: New World Technology

RADIOLOGICAL SYSTEMATIC POST-EXCAVATION SAMPLES

ORTEC g v - i (3263) npp32 G53W3.04 03-MAY-2005 09:11:07 Page 1
New World Technology Spectrum name: 3N000013.An1

Sample description
IRO2 PCB Bkg 72-N-IRO2-PCB-Bkg-001 322g
5/2/05 13:15

Acquisition information
Start time: 03-May-2005 07:41:04
Live time: 5398
Real time: 5400

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
AM-241 #B	-5.1836E-02	-4.5303E-01	-4.5303E-01	0.885E-01
Th-230 B	5.6326E+00	1.6616E+01	1.6619E+01	0.649E+01
TH-234 #F	1.4831E+00	1.2356E+00	1.2383E+00	0.645E+00
EU-152 F	6.6836E-02	1.4734E-01	1.4739E-01	0.568E-01
EU-154 F	1.1337E-01	9.4756E-02	9.4965E-02	0.506E-01
U-235 #B	0.0000E+00	-3.1691E-01	0.0000E+00	0.373E-01
RA-226	1.2626E+00	9.9486E-01	9.9733E-01	0.518E+00
Pb-210 #	1.2019E+00	1.6691E+00	1.6705E+00	0.811E+00
PB-212 F	3.6822E-01	1.0587E-01	1.0783E-01	0.503E-01
PB-214	3.8656E-01	1.6359E-01	1.6499E-01	0.642E-01
BI-212 #B	1.1086E-01	5.7986E-01	5.7989E-01	0.270E+00
BI-214 #F	2.8505E-01	1.6611E-01	1.6687E-01	0.772E-01
Cs-137 B	2.2874E-02	6.0357E-02	6.0370E-02	0.367E-01
CO-60 #B	3.2560E-03	2.3022E-02	2.3023E-02	0.123E-01
AC-228 F	4.8346E-01	3.0090E-01	3.0210E-01	0.149E+00
PA-234 #B	-6.2452E-02	-1.5978E-01	-1.5982E-01	0.101E+00
K-40	1.4743E+01	2.3232E+00	2.4638E+00	0.101E+01
Tl-208 #B	-4.0757E-03	-1.3552E-01	-1.3552E-01	0.831E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

SUMMARY

Total Activity (41.7 to 2664.4 keV) 1.8730885E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) npp32 G53W3.04 03-MAY-2005 10:50:46 Page 1
New World Technology Spectrum name: 3N000014.An1

Sample description
IRO2 PCB Bkg 72-N-IRO2-PCB-Bkg-002 370g
5/2/05 13:25

Acquisition information
Start time: 03-May-2005 09:20:43
Live time: 5396
Real time: 5400

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
AM-241	#B	-4.1677E-02	-3.6543E-01	-3.6543E-01	0.771E-01
Th-230	#B	0.0000E+00	-2.2045E+00	0.0000E+00	0.401E+01
TH-234	F	1.1895E+00	9.6717E-01	9.6942E-01	0.491E+00
EU-152	F	4.9404E-02	1.0360E-01	1.0364E-01	0.488E-01
EU-154	B	-1.0006E-02	-1.2517E-01	-1.2518E-01	0.361E-01
U-235	#B	0.0000E+00	-2.4208E-01	0.0000E+00	0.325E-01
RA-226		9.3369E-01	9.0834E-01	9.0982E-01	0.481E+00
Pb-210	F	7.9425E-01	1.2308E+00	1.2315E+00	0.649E+00
PB-212	F	3.9082E-01	9.7180E-02	9.9584E-02	0.445E-01
PB-214		3.2800E-01	1.5649E-01	1.5755E-01	0.580E-01
BI-212	F	3.3103E-01	5.1402E-01	5.1435E-01	0.244E+00
BI-214	F	4.0185E-01	2.1058E-01	2.1176E-01	0.772E-01
Cs-137	#B	-1.7043E-02	-1.1661E-01	-1.1661E-01	0.343E-01
CO-60	#B	-2.3612E-03	-1.6915E-02	-1.6915E-02	0.778E-02
AC-228	F	4.5634E-01	3.1085E-01	3.1189E-01	0.132E+00
PA-234	#B	-7.7194E-02	-2.5918E-01	-2.5921E-01	0.664E-01
K-40		1.3009E+01	2.1531E+00	2.2715E+00	0.900E+00
Tl-208	#	1.0697E-01	1.2095E-01	1.2109E-01	0.699E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2664.4 keV) 1.6816534E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) npp32 G53W3.04 03-MAY-2005 11:54:50 Page 1
New World Technology Spectrum name: 3N000015.An1

Sample description
IRO2 PCB Bkg 72-N-IRO2-PCB-Bkg-003 339g
5/2/05 13:35

Acquisition information
Start time: 03-May-2005 10:56:24
Live time: 3502
Real time: 3503

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
AM-241	#B	1.0128E-02	2.4141E-01	2.4141E-01	0.110E+00
Th-230	#B	7.6157E+00	1.7331E+01	1.7336E+01	0.833E+01
TH-234	F	9.2090E-01	1.2693E+00	1.2703E+00	0.741E+00
EU-152	#B	1.1594E-02	6.6667E-02	6.6670E-02	0.665E-01
EU-154	F	6.6106E-02	5.1241E-02	5.1372E-02	0.533E-01
U-235	#B	1.0217E-03	6.7922E-03	6.7924E-03	0.482E-01
RA-226	F	6.9243E-01	1.1791E+00	1.1798E+00	0.638E+00
Pb-210		1.6263E+00	1.8796E+00	1.8818E+00	0.927E+00
PB-212	F	4.2263E-01	1.2985E-01	1.3197E-01	0.593E-01
PB-214		4.4591E-01	2.1548E-01	2.1691E-01	0.759E-01
BI-212	B	2.9893E-01	5.8963E-01	5.8987E-01	0.328E+00
BI-214		4.4343E-01	2.5652E-01	2.5770E-01	0.104E+00
Cs-137	#B	-6.6536E-02	-2.2666E+00	-2.2666E+00	0.470E-01
CO-60	#B	-2.4588E-03	-2.5979E-02	-2.5980E-02	0.150E-01
AC-228	F	6.2706E-01	3.1310E-01	3.1503E-01	0.146E+00
PA-234	#B	-1.9359E-01	-1.3168E+00	-1.3169E+00	0.897E-01
K-40		1.2867E+01	2.7120E+00	2.8049E+00	0.120E+01
Tl-208	#B	-1.0859E-01	-5.2160E-01	-5.2164E-01	0.117E+00

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A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2664.4 keV) 1.6432617E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) npp32 G53W3.04 03-MAY-2005 12:44:26 Page 1
New World Technology Spectrum name: 3N000016.An1

Sample description
IRO2 PCB Bkg 72-N-IRO2-PCB-Bkg-004 327g
5/2/05 13:45

Acquisition information
Start time: 03-May-2005 11:59:23
Live time: 2699
Real time: 2700

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Activity picoCi/g	Time of Count Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
AM-241	#B	-1.1525E-01	-3.1987E+00	-3.1987E+00	0.691E-01
Th-230	#B	-3.8681E+00	-2.9079E+01	-2.9080E+01	0.539E+01
TH-234	F	1.7912E+00	1.6610E+00	1.6640E+00	0.755E+00
EU-152	F	1.0143E-01	1.7207E-01	1.7216E-01	0.794E-01
EU-154	F	1.0933E-01	7.0336E-02	7.0597E-02	0.648E-01
U-235	#B	-3.5632E-02	Infinity	Infinity	0.187E-01
RA-226	#	1.1976E+00	1.2426E+00	1.2444E+00	0.596E+00
Pb-210	B	7.6802E-01	2.1694E+00	2.1698E+00	0.109E+01
PB-212	F	3.3370E-01	1.4427E-01	1.4546E-01	0.698E-01
PB-214	F	3.6919E-01	2.2807E-01	2.2899E-01	0.891E-01
BI-212	F	5.7299E-01	6.9974E-01	7.0046E-01	0.348E+00
BI-214	#	3.7656E-01	3.0006E-01	3.0079E-01	0.114E+00
Cs-137	#B	2.2754E-02	8.9434E-02	8.9443E-02	0.471E-01
CO-60	#B	-5.3420E-04	-9.7826E-03	-9.7826E-03	0.131E-01
AC-228	F	8.3938E-01	4.2724E-01	4.2978E-01	0.172E+00
PA-234	#B	-3.6145E-03	-1.3366E-02	-1.3367E-02	0.136E+00
K-40		1.1670E+01	3.0795E+00	3.1472E+00	0.142E+01
Tl-208	#B	1.2914E-02	1.7537E-01	1.7537E-01	0.113E+00

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2664.4 keV) 1.7151043E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) npp32 G53W3.04 03-MAY-2005 13:34:06 Page 1
New World Technology Spectrum name: 3N000017.An1

Sample description
IRO2 PCB Bkg 72-N-IRO2-PCB-Bkg-005 285g
5/2/05 13:50

Acquisition information
Start time: 03-May-2005 12:49:02
Live time: 2699
Real time: 2700

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
AM-241	#B	2.7519E-02	2.6634E-01	2.6634E-01	0.131E+00
Th-230	#F	2.1215E+01	2.4401E+01	2.4430E+01	0.899E+01
TH-234		1.7140E+00	1.7537E+00	1.7563E+00	0.888E+00
EU-152	F	2.3058E-01	2.1993E-01	2.2030E-01	0.886E-01
EU-154	F	9.3649E-02	7.4527E-02	7.4708E-02	0.721E-01
U-235	B	1.5025E-02	8.5771E-02	8.5775E-02	0.486E-01
RA-226	B	1.2042E-02	1.4868E+00	1.4868E+00	0.848E+00
Pb-210	#B	6.0452E-01	3.0545E+00	3.0547E+00	0.141E+01
PB-212	F	2.7798E-01	1.5951E-01	1.6026E-01	0.814E-01
PB-214		4.8935E-01	2.0976E-01	2.1152E-01	0.781E-01
BI-212	B	3.8118E-01	9.0106E-01	9.0131E-01	0.485E+00
BI-214	#F	4.3216E-01	2.6563E-01	2.6672E-01	0.115E+00
Cs-137	#B	3.1643E-02	1.5196E-01	1.5197E-01	0.664E-01
CO-60	#B	-2.4522E-03	Infinity	Infinity	0.143E-01
AC-228	F	6.3980E-01	4.7449E-01	4.7583E-01	0.195E+00
PA-234	#B	-3.7916E-02	-7.3994E-02	-7.4024E-02	0.138E+00
K-40		1.3372E+01	3.4022E+00	3.4826E+00	0.160E+01
Tl-208	#B	2.4989E-02	2.3518E-01	2.3519E-01	0.137E+00

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2664.4 keV) 1.6925079E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) npp32 G53W3.04 03-MAY-2005 14:23:22 Page 1
New World Technology Spectrum name: 3N000018.An1

Sample description
IRO2 PCB Bkg 72-N-IRO2-PCB-Bkg-006 275g
5/2/05 14:05

Acquisition information
Start time: 03-May-2005 13:38:18
Live time: 2699
Real time: 2700

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
AM-241	#B	-6.5295E-02	-5.4471E-01	-5.4472E-01	0.115E+00
Th-230	B	0.0000E+00	-1.7444E+01	0.0000E+00	0.892E+01
TH-234	F	1.1218E+00	1.6372E+00	1.6384E+00	0.881E+00
EU-152	F	3.6950E-01	2.2622E-01	2.2715E-01	0.118E+00
EU-154	B	4.8705E-02	1.3557E-01	1.3560E-01	0.851E-01
U-235	B	9.1029E-03	1.0505E-01	1.0505E-01	0.594E-01
RA-226	B	7.9146E-01	1.7509E+00	1.7515E+00	0.952E+00
Pb-210	#B	-3.4391E-01	-4.1707E+00	-4.1707E+00	0.150E+01
PB-212	F	3.2374E-01	1.7123E-01	1.7218E-01	0.862E-01
PB-214		4.1283E-01	2.3973E-01	2.4082E-01	0.898E-01
BI-212	#B	-2.3386E-01	-2.3319E+00	-2.3320E+00	0.455E+00
BI-214	F	4.3000E-01	3.2927E-01	3.3014E-01	0.131E+00
Cs-137	#	9.8374E-02	1.1384E-01	1.1397E-01	0.532E-01
CO-60	#F	2.9227E-02	4.2622E-02	4.2653E-02	0.148E-01
AC-228	F	8.3852E-01	4.7147E-01	4.7378E-01	0.230E+00
PA-234	#B	1.1872E-01	1.8574E-01	1.8586E-01	0.121E+00
K-40		1.3093E+01	3.6218E+00	3.6943E+00	0.169E+01
Tl-208	#B	-2.9907E-01	-2.3729E+00	-2.3730E+00	0.127E+00

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& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2664.4 keV) 1.6346996E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) npp32 G53W3.04 03-MAY-2005 15:12:44 Page 1
New World Technology Spectrum name: 3N000019.An1

Sample description
IRO2 PCB Bkg 72-N-IRO2-PCB-Bkg-007 303g
5/2/05 14:15

Acquisition information
Start time: 03-May-2005 14:27:40
Live time: 2699
Real time: 2700

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
AM-241 #B	7.4304E-02	2.6768E-01	2.6772E-01	0.126E+00
Th-230 #F	1.3600E+01	2.8034E+01	2.8044E+01	0.987E+01
TH-234 F	1.5111E+00	1.9047E+00	1.9065E+00	0.914E+00
EU-152 F	1.6132E-01	2.4502E-01	2.4519E-01	0.768E-01
EU-154 B	7.8867E-03	4.6452E-02	4.6454E-02	0.745E-01
U-235 #B	-3.8455E-02	Infinity	Infinity	0.202E-01
RA-226 #	1.1837E+00	1.4648E+00	1.4662E+00	0.691E+00
Pb-210 #B	2.2836E-01	2.4408E+00	2.4409E+00	0.124E+01
PB-212 F	4.6979E-01	1.6757E-01	1.6959E-01	0.771E-01
PB-214	4.5866E-01	2.5635E-01	2.5761E-01	0.944E-01
BI-212 #B	1.0917E-01	3.1400E-01	3.1406E-01	0.420E+00
BI-214 #F	6.4557E-01	2.3910E-01	2.4178E-01	0.922E-01
Cs-137 #B	1.5629E-02	1.0368E-01	1.0369E-01	0.547E-01
CO-60 #B	5.1901E-03	2.7299E-02	2.7300E-02	0.141E-01
AC-228 F	6.5184E-01	3.9369E-01	3.9535E-01	0.178E+00
PA-234 #B	5.7304E-02	2.4605E-01	2.4607E-01	0.168E+00
K-40	1.3520E+01	3.3901E+00	3.4725E+00	0.153E+01
Tl-208 #B	-1.0439E-01	-4.9944E-01	-4.9948E-01	0.137E+00

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2664.4 keV) 1.6929127E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) npp32 G53W3.04 03-MAY-2005 15:59:21 Page 1
New World Technology Spectrum name: 3N000020.An1

Sample description
IRO2 PCB Bkg 72-N-IRO2-PCB-Bkg-008 309g
5/2/05 14:20

Acquisition information
Start time: 03-May-2005 15:14:19
Live time: 2699
Real time: 2700

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
AM-241 #B	-1.3260E-01	-4.2212E+00	-4.2212E+00	0.741E-01
Th-230 #F	1.5257E+01	2.1850E+01	2.1866E+01	0.967E+01
TH-234 #F	1.6467E+00	1.5774E+00	1.5800E+00	0.903E+00
EU-152 F	1.5138E-01	1.8485E-01	1.8504E-01	0.107E+00
EU-154 #F	1.6153E-01	1.0283E-01	1.0322E-01	0.817E-01
U-235 #B	0.0000E+00	-3.8279E-01	0.0000E+00	0.568E-01
RA-226	1.2479E+00	1.5374E+00	1.5389E+00	0.808E+00
Pb-210 B	5.8514E-01	2.1136E+00	2.1138E+00	0.112E+01
PB-212 F	4.0173E-01	1.5983E-01	1.6138E-01	0.756E-01
PB-214	5.0917E-01	2.4535E-01	2.4698E-01	0.851E-01
BI-212 #F	4.7935E-01	8.7486E-01	8.7526E-01	0.377E+00
BI-214 #F	5.5064E-01	2.6805E-01	2.6980E-01	0.107E+00
Cs-137 #F	6.7855E-02	1.4099E-01	1.4105E-01	0.597E-01
CO-60 #B	-5.6528E-04	-1.0352E-02	-1.0352E-02	0.138E-01
AC-228 F	7.5666E-01	4.9002E-01	4.9182E-01	0.198E+00
PA-234 #B	-7.9696E-03	-3.3386E-01	-3.3386E-01	0.161E+00
K-40	1.5825E+01	3.4084E+00	3.5203E+00	0.147E+01
Tl-208 #B	-2.2265E-01	-1.6419E+00	-1.6419E+00	0.131E+00

- All peaks for activity calculation had bad shape.
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& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

SUMMARY

Total Activity (41.7 to 2664.4 keV) 1.9291470E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) npp32 G53W3.04 03-MAY-2005 16:48:16 Page 1
New World Technology Spectrum name: 3N000021.An1

Sample description
IRO2 PCB Bkg 72-N-IRO2-PCB-Bkg-009 337g
5/2/05 14:25

Acquisition information
Start time: 03-May-2005 16:03:12
Live time: 2699
Real time: 2700

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
AM-241	#B	1.0891E-02	2.6365E-01	2.6365E-01	0.123E+00
Th-230	#B	0.0000E+00	-4.6056E+00	0.0000E+00	0.716E+01
TH-234		1.4034E+00	1.4270E+00	1.4291E+00	0.720E+00
EU-152	F	3.4497E-01	2.9708E-01	2.9770E-01	0.831E-01
EU-154	F	8.5802E-02	1.0435E-01	1.0446E-01	0.667E-01
U-235	#B	0.0000E+00	-2.9053E+00	0.0000E+00	0.573E-01
RA-226		1.3165E+00	1.4254E+00	1.4273E+00	0.741E+00
Pb-210		2.0051E+00	2.1839E+00	2.1867E+00	0.105E+01
PB-212	F	3.7251E-01	1.4945E-01	1.5088E-01	0.710E-01
PB-214	F	3.3101E-01	1.8226E-01	1.8318E-01	0.766E-01
BI-212	F	6.4686E-01	6.2929E-01	6.3032E-01	0.314E+00
BI-214	#F	3.7184E-01	2.2832E-01	2.2926E-01	0.102E+00
CS-137	#B	-2.1401E-02	-1.6735E-01	-1.6735E-01	0.513E-01
CO-60	#B	-3.6292E-03	-1.4212E-02	-1.4213E-02	0.121E-01
AC-228	F	7.9572E-01	4.2010E-01	4.2243E-01	0.169E+00
PA-234	#B	3.0010E-02	7.3583E-02	7.3601E-02	0.132E+00
K-40		1.4438E+01	3.3586E+00	3.4534E+00	0.141E+01
Tl-208	#B	8.3718E-02	1.7544E-01	1.7551E-01	0.107E+00

- All peaks for activity calculation had bad shape.
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& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2664.4 keV) 2.1680847E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) npp32 G53W3.04 03-MAY-2005 17:34:37 Page 1
New World Technology Spectrum name: 3N000022.An1

Sample description
IRO2 PCB Bkg 72-N-IRO2-PCB-Bkg-010 369g
5/2/05 14:30.

Acquisition information
Start time: 03-May-2005 16:49:34
Live time: 2699
Real time: 2700

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
AM-241 #B	-5.8186E-03	-2.2166E-01	-2.2166E-01	0.101E+00
Th-230 #B	1.6283E+00	3.8000E+00	3.8011E+00	0.412E+01
TH-234 #B	7.4577E-01	1.4829E+00	1.4835E+00	0.767E+00
EU-152 #B	-2.0620E-02	Infinity	Infinity	0.193E-01
EU-154 B	4.1458E-02	7.1306E-02	7.1343E-02	0.490E-01
U-235 B	1.7329E-02	8.5845E-02	8.5851E-02	0.478E-01
RA-226 B	7.0246E-01	1.3184E+00	1.3190E+00	0.712E+00
Pb-210 B	9.1077E-01	2.0991E+00	2.0997E+00	0.103E+01
PB-212 F	3.7489E-01	1.3452E-01	1.3613E-01	0.618E-01
PB-214	4.9300E-01	2.2104E-01	2.2273E-01	0.720E-01
BI-212 B	1.9602E-01	6.9763E-01	6.9771E-01	0.394E+00
BI-214 F	3.9798E-01	2.7324E-01	2.7413E-01	0.102E+00
Cs-137 #B	3.1030E-04	6.4180E-02	6.4180E-02	0.396E-01
CO-60 #F	2.6517E-02	3.4796E-02	3.4828E-02	0.110E-01
AC-228 F	7.5777E-01	4.3357E-01	4.3561E-01	0.162E+00
PA-234 #B	-2.1217E-01	-4.3862E+00	-4.3862E+00	0.865E-01
K-40	1.4667E+01	2.9575E+00	3.0680E+00	0.123E+01
Tl-208 #B	2.5736E-02	1.9811E-01	1.9812E-01	0.110E+00

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& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2664.4 keV) 1.6716915E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) npp32 G53W3.04 09-MAY-2005 09:20:28 Page 1
New World Technology Spectrum name: 3N000023.An1

Sample description
IR02 PCB Bkg 72-N-IR02-PCB-BKG-011 315g
5/02/05 14:35

Acquisition information
Start time: 04-May-2005 07:16:44
Live time: 2699
Real time: 2700

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
AM-241	#B	-5.1383E-02	-4.5558E-01	-4.5559E-01	0.106E+00
Th-230	B	3.2562E+00	5.9246E+00	5.9273E+00	0.763E+01
TH-234	F	2.0445E+00	1.6181E+00	1.6220E+00	0.849E+00
EU-152	F	1.2047E-01	2.4885E-01	2.4894E-01	0.104E+00
EU-154	#B	-4.0453E-03	-3.7285E-02	-3.7286E-02	0.722E-01
U-235	B	7.7762E-03	8.7095E-02	8.7097E-02	0.494E-01
RA-226		1.0382E+00	1.4681E+00	1.4692E+00	0.779E+00
Pb-210	#B	7.8372E-03	3.0908E+00	3.0908E+00	0.141E+01
PB-212	F	3.5175E-01	1.5012E-01	1.5139E-01	0.717E-01
PB-214		4.6228E-01	2.3297E-01	2.3439E-01	0.930E-01
BI-212	#F	5.0419E-01	7.8322E-01	7.8372E-01	0.338E+00
BI-214	#F	3.0391E-01	2.7593E-01	2.7645E-01	0.114E+00
Cs-137	#B	-8.9410E-03	-1.1233E-01	-1.1233E-01	0.517E-01
CO-60	#B	-2.2186E-03	Infinity	Infinity	0.129E-01
AC-228	F	3.3783E-01	3.7074E-01	3.7122E-01	0.180E+00
PA-234	#B	-5.0368E-02	-3.6906E-01	-3.6907E-01	0.138E+00
K-40		1.5214E+01	3.5038E+00	3.6046E+00	0.149E+01
Tl-208	#B	9.0399E-02	1.9532E-01	1.9538E-01	0.117E+00

- All peaks for activity calculation had bad shape.
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& - Activity omitted from total and all peaks had bad shape.
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A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2664.4 keV) 1.7708031E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) npp32 G53W3.04 09-MAY-2005 09:05:15 Page 1
New World Technology Spectrum name: 3N000029.An1

Sample description
IRO2 PCB Bkg 72-N-IRO2-PCB-Bkg-012 (Recount) 325g
5/02/05 14:40

Acquisition information
Start time: 09-May-2005 07:35:12
Live time: 5397
Real time: 5400

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
AM-241	#B	-2.3136E-02	-2.5026E-01	-2.5026E-01	0.833E-01
Th-230	B	0.0000E+00	-8.5553E+00	0.0000E+00	0.321E+01
TH-234	F	1.0054E+00	1.1049E+00	1.1063E+00	0.593E+00
EU-152	B	4.9919E-02	1.4671E-01	1.4674E-01	0.688E-01
EU-154	B	4.3582E-02	5.8565E-02	5.8615E-02	0.456E-01
U-235	B	1.2257E-02	6.4880E-02	6.4883E-02	0.367E-01
RA-226	B	5.5066E-01	1.0381E+00	1.0386E+00	0.569E+00
Pb-210	#B	-3.6920E-01	-2.0405E+00	-2.0406E+00	0.793E+00
PB-212	F	3.0937E-01	1.0603E-01	1.0742E-01	0.528E-01
PB-214		4.1570E-01	1.5675E-01	1.5845E-01	0.578E-01
BI-212	F	2.9494E-01	4.7623E-01	4.7651E-01	0.267E+00
BI-214		2.8489E-01	1.7845E-01	1.7915E-01	0.792E-01
Cs-137	#B	1.2498E-02	6.5065E-02	6.5069E-02	0.340E-01
CO-60	#B	-2.1503E-03	Infinity	Infinity	0.626E-02
AC-228	F	5.2727E-01	3.2890E-01	3.3020E-01	0.138E+00
PA-234	#B	-2.8863E-02	-8.1278E-02	-8.1294E-02	0.923E-01
K-40		1.0049E+01	2.1463E+00	2.2179E+00	0.102E+01
Tl-208	#B	8.5130E-04	1.4770E-01	1.4770E-01	0.855E-01

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< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2664.4 keV) 1.2591942E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) npp32 G53W3.04 09-MAY-2005 09:43:19 Page 1
New World Technology Spectrum name: 3N000025.An1

Sample description
IR02 PCB Bkg 72-N-IR02-PCB-BKG-013 359g
5/02/05 14:45

Acquisition information
Start time: 04-May-2005 09:14:20
Live time: 2699
Real time: 2700

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
AM-241 #B	-1.0427E-01	-1.9763E+00	-1.9763E+00	0.572E-01
Th-230 #B	0.0000E+00	-2.3513E+01	0.0000E+00	0.398E+01
TH-234 #F	7.6448E-01	1.0944E+00	1.0952E+00	0.676E+00
EU-152 F	8.7332E-02	1.7444E-01	1.7450E-01	0.852E-01
EU-154 B	3.1718E-02	1.0910E-01	1.0912E-01	0.617E-01
U-235 B	5.1364E-03	1.0757E-01	1.0757E-01	0.491E-01
RA-226 B	7.6939E-01	1.4806E+00	1.4812E+00	0.799E+00
Pb-210 #B	-1.0003E-02	-2.1628E+00	-2.1628E+00	0.106E+01
PB-212 F	3.4712E-01	1.5403E-01	1.5524E-01	0.714E-01
PB-214	3.5862E-01	1.7853E-01	1.7965E-01	0.716E-01
BI-212 #B	1.2976E-01	5.0392E-01	5.0397E-01	0.373E+00
BI-214	4.5162E-01	2.4402E-01	2.4531E-01	0.100E+00
Cs-137 #	6.1542E-02	8.2652E-02	8.2723E-02	0.403E-01
CO-60 #B	7.7874E-03	2.0649E-02	2.0654E-02	0.113E-01
AC-228 F	3.5917E-01	2.9473E-01	2.9541E-01	0.186E+00
PA-234 #B	-1.6208E-01	-1.3345E+00	-1.3345E+00	0.116E+00
K-40	1.1154E+01	2.8533E+00	2.9200E+00	0.129E+01
Tl-208 #B	-2.0706E-01	-2.6280E+00	-2.6280E+00	0.114E+00

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2664.4 keV) 1.2372683E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) npp32 G53W3.04 04-MAY-2005 10:49:07 Page 1
New World Technology Spectrum name: 3N000026.An1

Sample description
IR02 PCB Bkg 72-N-IR02-PCB-BKG-014 5-2-05 @ 1450 331g

Acquisition information
Start time: 04-May-2005 10:04:04
Live time: 2699
Real time: 2700

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
AM-241 #B	-6.2647E-02	-4.4871E-01	-4.4872E-01	0.897E-01
Th-230 #B	2.1397E+00	4.1018E+00	4.1035E+00	0.518E+01
TH-234 #F	1.7563E+00	1.3801E+00	1.3835E+00	0.656E+00
EU-152 F	1.1055E-01	1.4541E-01	1.4554E-01	0.818E-01
EU-154 #B	-2.2968E-02	-5.1363E-01	-5.1363E-01	0.622E-01
U-235 #B	0.0000E+00	-1.1723E-01	0.0000E+00	0.514E-01
RA-226	1.1817E+00	1.3845E+00	1.3861E+00	0.724E+00
Pb-210 #B	-3.0383E-01	-2.8215E+00	-2.8215E+00	0.110E+01
PB-212 F	3.3059E-01	1.4932E-01	1.5045E-01	0.734E-01
PB-214	4.2043E-01	2.2522E-01	2.2643E-01	0.811E-01
BI-212 #F	7.1984E-01	8.4229E-01	8.4325E-01	0.322E+00
BI-214 #F	4.4612E-01	3.0363E-01	3.0464E-01	0.110E+00
CS-137 #F	5.6547E-02	1.3084E-01	1.3088E-01	0.558E-01
CO-60 #F	6.6520E-02	5.7105E-02	5.7225E-02	0.123E-01
AC-228 F	5.2339E-01	3.0560E-01	3.0698E-01	0.170E+00
PA-234 #B	3.7424E-02	8.9778E-02	8.9802E-02	0.140E+00
K-40	1.0254E+01	2.9127E+00	2.9681E+00	0.140E+01
Tl-208 #B	-3.9783E-02	-2.4752E-01	-2.4753E-01	0.119E+00

- All peaks for activity calculation had bad shape.
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& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

SUMMARY

Total Activity (41.7 to 2664.4 keV) 1.3942509E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) npp32 G53W3.04 04-MAY-2005 11:35:36 Page 1
New World Technology Spectrum name: 3N000027.An1

Sample description
IR02 PCB Bkg 72-N-IR02-PCB-BKG-015 5-2-05 @ 1455 325g

Acquisition information
Start time: 04-May-2005 10:50:32
Live time: 2699
Real time: 2700

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
AM-241	#B	4.9839E-02	2.6573E-01	2.6575E-01	0.125E+00
Th-230	#B	3.0785E+00	5.0982E+00	5.1010E+00	0.805E+01
TH-234	B	7.2678E-01	1.7539E+00	1.7543E+00	0.773E+00
EU-152	#B	7.4313E-02	1.0666E-01	1.0674E-01	0.785E-01
EU-154	#B	4.4028E-02	6.1668E-02	6.1716E-02	0.589E-01
U-235	#B	0.0000E+00	-2.3580E-01	0.0000E+00	0.530E-01
RA-226	B	7.5405E-01	1.4632E+00	1.4638E+00	0.791E+00
Pb-210	#B	-1.9742E-01	-2.6448E+00	-2.6448E+00	0.114E+01
PB-212	F	3.4285E-01	1.4578E-01	1.4702E-01	0.700E-01
PB-214		5.4047E-01	2.3677E-01	2.3867E-01	0.787E-01
BI-212	#F	6.4254E-01	8.6294E-01	8.6368E-01	0.342E+00
BI-214	F	4.1428E-01	2.8260E-01	2.8354E-01	0.112E+00
Cs-137	#	7.0773E-02	9.6880E-02	9.6960E-02	0.454E-01
CO-60	#B	9.6788E-03	6.1804E-02	6.1806E-02	0.286E-01
AC-228		4.7033E-01	3.2036E-01	3.2143E-01	0.196E+00
PA-234	#B	2.4687E-02	6.4365E-02	6.4379E-02	0.135E+00
K-40		1.2853E+01	3.0734E+00	3.1555E+00	0.140E+01
Tl-208	#B	-2.0682E-01	-1.5660E+00	-1.5660E+00	0.126E+00

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2664.4 keV) 1.5334420E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) npp32 G53W3.04 04-MAY-2005 12:22:32 Page 1
New World Technology Spectrum name: 3N000028.An1

Sample description
IR02 PCB Bkg 72-N-IR02-PCB-BKG-016 5-2-05 @ 1500 328g

Acquisition information
Start time: 04-May-2005 11:37:29
Live time: 2699
Real time: 2700

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
AM-241	#B	-6.0908E-02	-5.5503E-01	-5.5504E-01	0.102E+00
Th-230	#F	7.7124E+00	1.5507E+01	1.5512E+01	0.702E+01
TH-234	B	1.4762E-01	6.2093E-01	6.2098E-01	0.788E+00
EU-152	#B	-2.3197E-02	Infinity	Infinity	0.218E-01
EU-154	B	1.6772E-02	7.2780E-02	7.2786E-02	0.538E-01
U-235	#B	0.0000E+00	-1.1724E-01	0.0000E+00	0.520E-01
RA-226	B	4.9891E-01	1.4988E+00	1.4991E+00	0.824E+00
Pb-210	B	9.1391E-01	2.4612E+00	2.4617E+00	0.115E+01
PB-212	F	3.6193E-01	1.5694E-01	1.5823E-01	0.720E-01
PB-214		3.9534E-01	2.3199E-01	2.3303E-01	0.889E-01
BI-212	F	4.2421E-01	6.9733E-01	6.9773E-01	0.377E+00
BI-214	F	4.7246E-01	2.5636E-01	2.5770E-01	0.106E+00
Cs-137	#B	2.9567E-02	1.0413E-01	1.0414E-01	0.503E-01
CO-60	#F	7.2455E-02	5.9801E-02	5.9937E-02	0.124E-01
AC-228	#F	4.0011E-01	4.4151E-01	4.4207E-01	0.188E+00
PA-234	#F	1.7086E-01	2.1274E-01	2.1295E-01	0.159E+00
K-40		1.2958E+01	3.1371E+00	3.2189E+00	0.141E+01
Tl-208	#B	-6.5873E-02	-3.0221E-01	-3.0223E-01	0.119E+00

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2664.4 keV) 1.4660030E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 02-MAR-2006 20:26:14 Page 1
New World Technology Spectrum name: 2N002049.An1

Sample description
PCB Hot Spot 84NPCBSU1A0PE-002 400g
3/2/06 15:05

Acquisition information
Start time: 02-Mar-2006 19:41:07
Live time: 2700
Real time: 2705

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		4.6887E-01	2.6938E-01	2.7064E-01	0.141E+00
AM-241	#B	-8.6644E-01	1.9956E+03	1.9956E+03	0.574E+00
Bi-212		4.3924E-01	5.2625E-01	5.2682E-01	0.232E+00
BI-214	F	4.4276E-01	2.3196E-01	2.3327E-01	0.988E-01
CO-60	#A	8.1644E-03	2.2735E-02	2.2740E-02	0.106E-01
Cs-137	#B	-1.5095E-02	-7.7067E-02	-7.7071E-02	0.438E-01
EU-152	B	-1.5139E-02	-4.0473E-02	-4.0482E-02	0.912E-01
EU-154	B	1.0026E-02	3.3627E-02	3.3632E-02	0.683E-01
K-40		7.4708E+00	2.0026E+00	2.0453E+00	0.771E+00
PA-234	#B	-5.9941E-02	-6.0535E-01	-6.0536E-01	0.118E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	3.6574E-01	1.6027E-01	1.6156E-01	0.734E-01
PB-214		5.0096E-01	2.4360E-01	2.4518E-01	0.882E-01
RA-226	#B	-1.3349E-01	-1.9405E+00	-1.9405E+00	0.936E+00
Th-230	A	1.1017E+01	1.6648E+01	1.6659E+01	0.199E+02
TH-234	B	9.4426E-02	5.7491E+00	5.7491E+00	0.329E+01
Tl-208		2.1690E-01	1.0790E-01	1.0857E-01	0.166E-01
U-235	B	3.1008E-02	9.8326E-02	9.8341E-02	0.523E-01

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----------------------------- S U M M A R Y -----------------------------

Total Activity (41.9 to 2675.6 keV) 9.9052544E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 12-MAY-2006 12:15:07 Page 1
New World Technology Spectrum name: 1N001919.An1

Sample description
PCB HOT SPOT 84NPCBSU1A1PE-001 454g
5/10/06 09:00

Acquisition information
Start time: 12-May-2006 11:29:57
Live time: 2700
Real time: 2703

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228	5.7630E-01	2.8046E-01	2.8229E-01	0.380E-01
AM-241 #A	-3.6266E-02	-5.8673E-01	-5.8673E-01	0.223E+00
Bi-212 A	4.1611E-02	1.7100E-01	1.7102E-01	0.186E+00
BI-214 F	4.4072E-01	2.0580E-01	2.0725E-01	0.301E+00
CO-60 #A	0.0000E+00	0.0000E+00	0.0000E+00	0.155E-01
CS-137 A	2.4237E-03	5.1403E-02	5.1403E-02	0.284E-01
EU-152 C	1.5214E-01	1.2358E-01	1.2387E-01	0.648E-01
EU-154 A	1.2733E-02	4.0465E-02	4.0471E-02	0.446E-01
K-40 #B	-2.2675E+00	-3.1565E+00	-3.1590E+00	0.138E+01
Pa-234 #B	-8.6455E-02	-1.8131E-01	-1.8137E-01	0.989E-01
Pb-210 #	1.4785E+01	1.7794E+01	1.7813E+01	0.723E+01
Pb-212	3.7518E-01	1.4231E-01	1.4384E-01	0.548E-01
Pb-214	4.2311E-01	1.5844E-01	1.6018E-01	0.533E-01
RA-226	6.2742E-01	1.0808E+00	1.0814E+00	0.614E+00
Th-230 #B	4.1519E+00	2.2510E+01	2.2511E+01	0.112E+02
Th-234 B	3.6098E-01	4.1656E-01	4.1704E-01	0.147E+01
Tl-208 #	1.8404E-01	8.8339E-02	8.8930E-02	0.192E-01
U-235 #B	-7.6750E-03	-3.2118E-02	-3.2121E-02	0.439E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.2 to 2608.8 keV) 1.6971308E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 12-MAY-2006 13:05:44 Page 1
New World Technology Spectrum name: 1N001920.An1

Sample description
PCB HOT SPOT 84NPCBSU1A2PE-001 447g
5/10/06 09:05

Acquisition information
Start time: 12-May-2006 12:20:34
Live time: 2700
Real time: 2703

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228	F	6.1094E-01	2.8583E-01	2.8785E-01	0.386E-01
AM-241	#A	-6.3578E-02	-7.7246E-01	-7.7247E-01	0.214E+00
Bi-212		4.5345E-01	5.6101E-01	5.6158E-01	0.251E+00
BI-214	F	1.4714E+00	1.4784E+00	1.4806E+00	0.374E+00
CO-60	#A	0.0000E+00	0.0000E+00	0.0000E+00	0.157E-01
CS-137		2.7135E-02	4.9334E-02	4.9357E-02	0.214E-01
EU-152	A	4.1759E-02	9.9025E-02	9.9052E-02	0.669E-01
EU-154	A	1.6018E-02	6.2704E-02	6.2710E-02	0.485E-01
K-40	#B	-6.2427E-01	-2.2070E+00	-2.2073E+00	0.104E+01
Pa-234	#B	3.0590E-02	3.1342E-02	3.1388E-02	0.107E+00
Pb-210	#A	7.5832E+00	1.8099E+01	1.8104E+01	0.795E+01
Pb-212		4.1428E-01	1.3391E-01	1.3588E-01	0.464E-01
Pb-214	F	4.5200E-01	1.9430E-01	1.9592E-01	0.507E-01
RA-226		1.2212E+00	1.4651E+00	1.4666E+00	0.787E+00
Th-230	#B	1.0532E+01	2.7175E+01	2.7181E+01	0.118E+02
Th-234	A	8.7389E-01	8.1793E-01	8.1936E-01	0.136E+01
Tl-208	#	1.2262E-01	7.2545E-02	7.2865E-02	0.179E-01
U-235	#B	-7.5766E-03	-1.2687E-01	-1.2687E-01	0.545E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2608.8 keV) 4.7730002E+00 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 09-DEC-2005 06:46:33 Page 1
New World Technology Spectrum name: 2N001835.An1

Sample description
PCB Hot Spot 84NPCBSU1B0PE-001 378g
12/08/2005 13:00 PM

Acquisition information
Start time: 08-Dec-2005 22:41:23
Live time: 2700
Real time: 2705

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	5.7660E-01	2.7424E-01	2.7611E-01	0.157E+00
AM-241	#A	5.7787E-01	1.3245E+00	1.3249E+00	0.618E+00
Bi-212		3.3709E-01	4.8406E-01	4.8443E-01	0.240E+00
BI-214		3.7084E-01	2.0431E-01	2.0535E-01	0.497E-01
CO-60	#F	6.9782E-02	5.2538E-02	5.2681E-02	0.305E-01
Cs-137	#B	-4.6366E-02	-2.0597E-01	-2.0599E-01	0.435E-01
EU-152	B	3.3048E-02	1.0171E-01	1.0173E-01	0.103E+00
EU-154	F	7.5651E-02	1.0712E-01	1.0720E-01	0.558E-01
K-40		2.7717E+01	3.5289E+00	3.8516E+00	0.578E+00
PA-234	#F	2.0304E-01	2.0334E-01	2.0366E-01	0.810E-01
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.3299E-01	1.5582E-01	1.5692E-01	0.662E-01
PB-214		2.3590E-01	1.9697E-01	1.9741E-01	0.855E-01
RA-226	A	4.1411E-01	1.6049E+00	1.6051E+00	0.901E+00
Th-230	#A	3.1180E+00	1.5202E+01	1.5203E+01	0.227E+02
TH-234	#	5.0050E+00	4.4237E+00	4.4324E+00	0.346E+01
Tl-208		1.3908E-01	8.0102E-02	8.0475E-02	0.555E-01
U-235	C	1.1344E-01	1.4013E-01	1.4028E-01	0.480E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.8 to 2674.9 keV) 3.4714417E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 28-APR-2006 11:00:02 Page 1
New World Technology Spectrum name: 1N001739.An1

Sample description
PCB Hot Spot 84NPCBSU1B1PE-001 468g
4/27/06 08:00

Acquisition information
Start time: 28-Apr-2006 10:13:03
Live time: 2700
Real time: 2703

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	F	3.6279E-01	1.5583E-01	1.5713E-01	0.149E+00
AM-241		3.3189E-01	6.2112E-01	6.2140E-01	0.239E+00
Bi-212	A	4.1313E-02	1.6978E-01	1.6980E-01	0.203E+00
BI-214	#F	3.5352E-01	1.7086E-01	1.7198E-01	0.329E+00
CO-60	#A	0.0000E+00	0.0000E+00	0.0000E+00	0.145E-01
CS-137		2.0364E-02	4.3656E-02	4.3671E-02	0.202E-01
EU-152	#A	3.8911E-02	5.0028E-02	5.0074E-02	0.559E-01
EU-154	A	1.5530E-02	7.6716E-02	7.6721E-02	0.431E-01
K-40		7.2126E+00	2.1946E+00	2.2309E+00	0.296E+00
Pa-234	#B	-8.6003E-02	-1.2640E-01	-1.2649E-01	0.897E-01
Pb-210	#	1.6768E+01	3.4959E+01	3.4972E+01	0.128E+02
Pb-212	F	2.6101E-01	1.0584E-01	1.0683E-01	0.413E-01
Pb-214		3.3282E-01	1.8201E-01	1.8295E-01	0.535E-01
RA-226	A	4.0380E-01	1.1005E+00	1.1007E+00	0.633E+00
Th-230	#B	-3.8076E+00	-1.6485E+02	-1.6485E+02	0.765E+01
Th-234	A	8.3784E-01	1.9427E+00	1.9432E+00	0.133E+01
Tl-208	#F	6.5151E-02	5.0465E-02	5.0595E-02	0.365E-01
U-235	B	-8.1585E-03	-1.5195E-02	-1.5202E-02	0.397E-01

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C - Area < Critical level.
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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2608.7 keV) 2.4926311E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 28-APR-2006 11:23:25 Page 1
New World Technology Spectrum name: 2N002273.An1

Sample description
PCB Hot Spot 84NPCBSU1B2PE-001 380g
4/27/2006 08:15

Acquisition information
Start time: 28-Apr-2006 10:38:18
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	#	3.6279E-01	2.6058E-01	2.6136E-01	0.168E+00
AM-241	#B	-4.5602E-01	-4.1202E+00	-4.1203E+00	0.449E+00
Bi-212	B	3.1172E-02	3.2422E-01	3.2423E-01	0.193E+00
BI-214	F	4.6134E-01	2.3627E-01	2.3766E-01	0.845E-01
CO-60	#B	2.8729E-03	1.4364E-02	1.4365E-02	0.112E-01
Cs-137	#B	-2.8306E-02	-1.6739E-01	-1.6740E-01	0.534E-01
EU-152	B	3.4036E-02	1.6623E-01	1.6624E-01	0.901E-01
EU-154	B	7.0633E-02	1.4221E-01	1.4226E-01	0.740E-01
K-40		9.4042E+00	2.0804E+00	2.1452E+00	0.207E+00
PA-234	#F	1.2704E-01	1.6945E-01	1.6959E-01	0.745E-01
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.0619E-01	1.8763E-01	1.8840E-01	0.864E-01
PB-214		3.2135E-01	1.8689E-01	1.8774E-01	0.848E-01
RA-226	A	3.0862E-01	1.7259E+00	1.7260E+00	0.974E+00
Th-230	B	-5.3225E+00	-1.6754E+01	-1.6757E+01	0.307E+02
TH-234	#	3.3955E+00	3.6457E+00	3.6505E+00	0.286E+01
Tl-208	#C	8.2598E-02	6.3443E-02	6.3609E-02	0.302E-01
U-235	C	6.0633E-02	1.0859E-01	1.0864E-01	0.506E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.9 to 2675.6 keV) 1.4251387E+01 picoCi/g

Laboratory: New World Technology

1N001418.rpt

ORTEC g v - i (3263) wan32 G53W2.06 09-DEC-2005 07:33:10 Page 1
New World Technology Spectrum name: 1N001418.An1

Sample description
PCB Hot Spot 84NPCBSU1C0PE-001 361g
12/08/2005 13:10

Acquisition information
Start time: 09-Dec-2005 06:48:01
Live time: 2700
Real time: 2701

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	7.3112E-01	3.3212E-01	3.3459E-01	0.426E-01
AM-241	A	1.0487E-01	4.1047E-01	4.1051E-01	0.223E+00
Bi-212	A	2.4306E-01	5.0109E-01	5.0127E-01	0.317E+00
BI-214	F	1.4297E+00	1.1075E+00	1.1103E+00	0.218E+00
CO-60	#A	-3.6167E-03	4.7237E+01	4.7237E+01	0.169E-01
CS-137	#A	-4.6562E-02	-1.6184E-01	-1.6186E-01	0.451E-01
EU-152	#A	-5.0441E-02	2.7419E+02	2.7419E+02	0.667E-01
EU-154	C	3.5766E-02	6.8663E-02	6.8692E-02	0.319E-01
K-40		9.9293E+00	2.5608E+00	2.6196E+00	0.197E+00
Pa-234	#B	1.9218E-02	4.7698E-02	4.7710E-02	0.842E-01
Pb-210	#B	-1.5753E+00	-2.6127E+01	-2.6127E+01	0.651E+01
Pb-212	F	3.6119E-01	1.4676E-01	1.4812E-01	0.612E-01
Pb-214		5.5265E-01	2.0086E-01	2.0320E-01	0.440E-01
RA-226		8.0935E-01	1.3701E+00	1.3708E+00	0.754E+00
Th-230	#B	4.2526E+00	2.1757E+01	2.1758E+01	0.114E+02
Th-234	A	9.8710E-01	2.3480E+00	2.3486E+00	0.167E+01
Tl-208	B	0.0000E+00	0.0000E+00	0.0000E+00	0.290E-01
U-235	#B	1.6475E-02	3.4897E-02	3.4909E-02	0.579E-01

\# - All peaks for activity calculation had bad shape.
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A - Activity printed, but activity < MDA.
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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.8 to 2654.1 keV) 1.3813299E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 28-APR-2006 11:48:05 Page 1
New World Technology Spectrum name: 1N001740.An1

Sample description
PCB Hot Spot 84NPCBSU1C1PE-001 387g
4/27/06 08:30

Acquisition information
Start time: 28-Apr-2006 11:02:55
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Activity picoCi/ g	Time of Count Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	F	2.9562E-01	2.1580E-01	2.1643E-01	0.879E-01
AM-241	#	3.0564E-01	6.0708E-01	6.0732E-01	0.254E+00
Bi-212	B	1.9230E-01	5.0231E-01	5.0242E-01	0.261E+00
BI-214	#B	1.6256E-01	2.0244E-01	2.0264E-01	0.244E+00
CO-60	#A	0.0000E+00	0.0000E+00	0.0000E+00	0.176E-01
CS-137	#	5.0546E-02	7.1216E-02	7.1271E-02	0.258E-01
EU-152	A	3.4728E-02	1.0936E-01	1.0938E-01	0.747E-01
EU-154	A	8.2570E-03	2.6527E-02	2.6531E-02	0.466E-01
K-40	#	9.2611E+00	2.5154E+00	2.5675E+00	0.177E+00
Pa-234	#B	-7.7498E-02	-1.1390E-01	-1.1398E-01	0.123E+00
Pb-210	#A	4.4779E+00	2.0850E+01	2.0852E+01	0.107E+02
Pb-212	F	2.9209E-01	1.2414E-01	1.2519E-01	0.490E-01
Pb-214		5.0459E-01	2.5509E-01	2.5662E-01	0.650E-01
RA-226	A	5.7164E-01	1.2425E+00	1.2429E+00	0.714E+00
Th-230	#B	1.0290E+01	2.9588E+01	2.9593E+01	0.135E+02
Th-234	A	1.2180E+00	1.4105E+00	1.4121E+00	0.149E+01
Tl-208	F	1.7250E-01	1.0615E-01	1.0658E-01	0.305E-01
U-235	#B	-3.4642E-03	-8.3646E-02	-8.3646E-02	0.440E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2608.7 keV) 1.0586484E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 28-APR-2006 11:26:14 Page 1
New World Technology Spectrum name: 3N002271.An1

Sample description
PCB Hot Spot 84NPCBSU1C2PE-001 491g
4/27/2006 08:45

Acquisition information
Start time: 28-Apr-2006 10:41:06
Live time: 2700
Real time: 2702

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	4.3387E-01	2.7361E-01	2.7468E-01	0.150E+00
AM-241	#B	-2.5760E-02	-4.7847E-01	-4.7847E-01	0.634E-01
Bi-212	F	8.9830E-01	5.5608E-01	5.5832E-01	0.145E+00
BI-214	F	2.9741E-01	1.8157E-01	1.8232E-01	0.849E-01
CO-60	#F	3.5023E-02	3.4027E-02	3.4083E-02	0.840E-02
Cs-137	#B	-4.8373E-02	2.1246E+02	2.1246E+02	0.372E-01
EU-152	F	1.3372E-01	1.5888E-01	1.5906E-01	0.524E-01
EU-154	B	1.1274E-02	8.4899E-02	8.4901E-02	0.471E-01
K-40		9.7074E+00	2.0316E+00	2.1021E+00	0.548E+00
PA-234	#B	7.3533E-04	1.5322E-01	1.5322E-01	0.860E-01
Pb-210	#A	6.5979E-01	1.5098E+00	1.5102E+00	0.769E+00
PB-212		3.3720E-01	1.2288E-01	1.2430E-01	0.563E-01
PB-214		3.0686E-01	1.7254E-01	1.7338E-01	0.761E-01
RA-226		6.6469E-01	1.1568E+00	1.1574E+00	0.634E+00
Th-230	#B	-8.0977E-01	-2.3367E+00	-2.3372E+00	0.623E+01
TH-234	A	3.8978E-01	1.0142E+00	1.0144E+00	0.606E+00
Tl-208	B	-3.8400E-04	-3.0644E-04	-3.0718E-04	0.871E-01
U-235	#B	6.1942E-03	2.1446E-02	2.1448E-02	0.424E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2660.5 keV) 1.2779495E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 08-DEC-2005 16:41:42 Page 1
New World Technology Spectrum name: 2N001828.An1

Sample description
PCB Hot Spot 84NPCBSU1D0PE-001 368g
12/08/2005 12:00 PM

Acquisition information
Start time: 08-Dec-2005 15:56:35
Live time: 2700
Real time: 2705

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	4.8844E-01	3.6855E-01	3.6956E-01	0.137E+00
AM-241 #A	3.5954E-01	1.3726E+00	1.3728E+00	0.668E+00
Bi-212 #	7.7621E-01	6.8768E-01	6.8904E-01	0.211E+00
BI-214 #	4.2005E-01	2.2880E-01	2.3000E-01	0.669E-01
CO-60 #B	-2.3728E-02	-2.6113E-01	-2.6113E-01	0.300E-01
Cs-137 #A	1.8762E-02	9.0145E-02	9.0151E-02	0.481E-01
EU-152 B	8.2954E-02	1.4683E-01	1.4691E-01	0.126E+00
EU-154 B	4.0199E-02	1.5392E-01	1.5394E-01	0.826E-01
K-40	2.5354E+01	3.4818E+00	3.7570E+00	0.632E+00
PA-234 #B	9.8712E-02	1.4574E-01	1.4584E-01	0.132E+00
Pb-210 #	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	5.1037E-01	1.6909E-01	1.7146E-01	0.599E-01
PB-214	3.0110E-01	2.0796E-01	2.0864E-01	0.821E-01
RA-226 A	2.1438E-01	1.5718E+00	1.5718E+00	0.896E+00
Th-230 #F	3.7374E+01	6.5713E+01	6.5745E+01	0.296E+02
TH-234 A	2.1966E+00	2.4119E+00	2.4150E+00	0.257E+01
Tl-208 #	1.2106E-01	7.2213E-02	7.2527E-02	0.570E-01
U-235 C	6.6317E-02	1.2240E-01	1.2245E-01	0.528E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2674.9 keV) 6.5344658E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 14-DEC-2005 23:29:08 Page 1
New World Technology Spectrum name: 3N001898.An1

Sample description
PCB Hot Spot 84NPCBSU1D1PE-002 316g
12/14/2005 14:00

Acquisition information
Start time: 14-Dec-2005 21:59:00
Live time: 5400
Real time: 5405

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		4.5402E-01	2.5871E-01	2.5994E-01	0.161E+00
AM-241	A	4.4566E-02	1.5795E-01	1.5796E-01	0.779E-01
Bi-212		7.1891E-01	5.2567E-01	5.2719E-01	0.243E+00
BI-214		3.5845E-01	1.9171E-01	1.9275E-01	0.888E-01
CO-60	#B	-5.1914E-02	-4.0191E-01	-4.0192E-01	0.299E-01
Cs-137	#A	4.5377E-03	8.2315E-02	8.2315E-02	0.419E-01
EU-152	F	1.6856E-01	2.4897E-01	2.4914E-01	0.678E-01
EU-154	A	2.1713E-02	5.0162E-02	5.0176E-02	0.515E-01
K-40		1.8559E+01	2.2882E+00	2.5099E+00	0.506E+00
PA-234	#C	2.0307E-01	3.1142E-01	3.1162E-01	0.938E-01
Pb-210	#A	3.9055E-01	1.6220E+00	1.6221E+00	0.831E+00
PB-212		6.1448E-01	1.4496E-01	1.4893E-01	0.624E-01
PB-214		4.1777E-01	2.0307E-01	2.0439E-01	0.994E-01
RA-226	A	5.9535E-01	1.2686E+00	1.2690E+00	0.709E+00
Th-230	#B	-1.3858E+00	-2.0624E+01	-2.0625E+01	0.456E+01
TH-234		1.7569E+00	9.5589E-01	9.6084E-01	0.701E+00
Tl-208	#F	1.4456E-01	6.1170E-02	6.1695E-02	0.866E-01
U-235		7.5228E-02	1.1923E-01	1.1931E-01	0.397E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.6 keV) 2.2954323E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 08-DEC-2005 21:29:24 Page 1
New World Technology Spectrum name: 3N001862.An1

Sample description
PCB Hot Spot 84NPCBSU1D2PE-001 323g
12/8/2005 12:40 PM

Acquisition information
Start time: 08-Dec-2005 20:44:19
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		3.3351E-01	3.7534E-01	3.7579E-01	0.198E+00
AM-241	#	1.4180E-01	3.3033E-01	3.3043E-01	0.138E+00
Bi-212		8.1334E-01	6.1898E-01	6.2063E-01	0.236E+00
BI-214	#F	2.9324E-01	1.7253E-01	1.7330E-01	0.184E+00
CO-60	#B	1.9641E-02	3.5727E-02	3.5744E-02	0.430E-01
Cs-137	#B	-4.4394E-03	-1.1209E-01	-1.1209E-01	0.580E-01
EU-152	B	5.3543E-02	1.6964E-01	1.6967E-01	0.100E+00
EU-154	C	8.0640E-02	1.1752E-01	1.1760E-01	0.681E-01
K-40		1.2930E+01	2.5768E+00	2.6751E+00	0.624E+00
PA-234	A	9.8418E-02	1.6432E-01	1.6441E-01	0.127E+00
Pb-210	A	3.0401E-01	1.9002E+00	1.9003E+00	0.112E+01
PB-212		5.4890E-01	1.8494E-01	1.8744E-01	0.781E-01
PB-214		4.7503E-01	2.9956E-01	3.0073E-01	0.108E+00
RA-226	A	6.1990E-01	1.5981E+00	1.5985E+00	0.895E+00
Th-230	#B	1.6203E+00	1.4807E+01	1.4807E+01	0.820E+01
TH-234	C	1.3600E+00	9.8747E-01	9.9034E-01	0.889E+00
Tl-208	#F	1.3355E-01	1.0747E-01	1.0773E-01	0.645E-01
U-235	C	1.0691E-01	1.5433E-01	1.5445E-01	0.544E-01

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---------- S U M M A R Y ----------
Total Activity (41.7 to 2660.6 keV) 1.5242746E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 07-DEC-2005 16:32:45 Page 1
New World Technology Spectrum name: 1N001404.An1

Sample description
PCB HOT SPOT 84NPCBSU1E0PE-001 270g
12/07/2005 12:30 PM

Acquisition information
Start time: 07-Dec-2005 15:47:37
Live time: 2700
Real time: 2701

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228 #F	5.2163E-01	3.6143E-01	3.6259E-01	0.569E-01
AM-241	3.3983E-01	5.5979E-01	5.6011E-01	0.289E+00
Bi-212	4.7012E-01	6.4454E-01	6.4507E-01	0.328E+00
BI-214	4.8077E-01	3.1760E-01	3.1872E-01	0.344E+00
CO-60 #	3.8793E-02	4.2223E-02	4.2278E-02	0.225E-01
CS-137 #A	-8.3837E-02	-5.8306E-01	-5.8308E-01	0.645E-01
EU-152 #A	9.4264E-03	2.7834E-02	2.7839E-02	0.868E-01
EU-154	1.3466E-01	1.1677E-01	1.1701E-01	0.510E-01
K-40	2.6683E+01	4.8420E+00	5.0642E+00	0.263E+00
Pa-234 #F	1.9427E-01	2.1147E-01	2.1174E-01	0.151E+00
Pb-210 #B	-5.1152E+00	3.8705E+04	3.8705E+04	0.976E+01
Pb-212 F	3.0461E-01	1.7822E-01	1.7903E-01	0.830E-01
Pb-214	3.8056E-01	2.3535E-01	2.3629E-01	0.677E-01
RA-226 A	6.0892E-01	1.6918E+00	1.6921E+00	0.966E+00
Th-230 #	2.0149E+01	4.1770E+01	4.1785E+01	0.175E+02
Th-234 A	1.1985E+00	2.3182E+00	2.3192E+00	0.170E+01
Tl-208 #B	0.0000E+00	0.0000E+00	0.0000E+00	0.388E-01
U-235 #B	-7.5645E-03	-2.3589E-02	-2.3593E-02	0.616E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2654.1 keV) 4.9022060E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 09-DEC-2005 07:43:23 Page 1
New World Technology Spectrum name: 3N001865.An1

Sample description
PCB Hot Spot 84NPCBSU1E1PE-001 290g
12/8/2005 12:50 PM

Acquisition information
Start time: 09-Dec-2005 06:58:18
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		6.6117E-01	4.7313E-01	4.7456E-01	0.233E+00
AM-241	#B	-4.6872E-02	-4.2345E-01	-4.2346E-01	0.769E-01
Bi-212		1.0123E+00	7.9151E-01	7.9351E-01	0.320E+00
BI-214	#F	4.2759E-01	3.2765E-01	3.2851E-01	0.131E+00
CO-60	#B	-5.9153E-02	-4.0644E-01	-4.0645E-01	0.450E-01
Cs-137	#B	-5.8923E-02	-2.7202E-01	-2.7204E-01	0.554E-01
EU-152	F	1.5133E-01	2.7177E-01	2.7190E-01	0.107E+00
EU-154	A	7.0023E-02	1.0503E-01	1.0511E-01	0.801E-01
K-40		1.4918E+01	2.9161E+00	3.0317E+00	0.695E+00
PA-234	#C	2.4234E-01	3.5395E-01	3.5420E-01	0.109E+00
Pb-210		2.2792E+00	2.7841E+00	2.7870E+00	0.127E+01
PB-212		6.0517E-01	1.9980E-01	2.0261E-01	0.829E-01
PB-214		4.1840E-01	2.9574E-01	2.9665E-01	0.127E+00
RA-226	A	9.0782E-01	2.0641E+00	2.0648E+00	0.114E+01
Th-230	#B	-4.7118E+00	-3.0794E+01	-3.0795E+01	0.477E+01
TH-234	C	2.0735E+00	1.2773E+00	1.2824E+00	0.891E+00
Tl-208		5.3350E-01	2.1984E-01	2.2184E-01	0.233E-01
U-235		1.3401E-01	1.5358E-01	1.5376E-01	0.674E-01

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---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.6 keV) 2.0989244E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 09-DEC-2005 10:03:35 Page 1
New World Technology Spectrum name: 2N001836.An1

Sample description
PCB Hot Spot 84NPCBSU1E2PE-001 288g
12/08/2005 12:10 PM

Acquisition information
Start time: 09-Dec-2005 08:08:52
Live time: 5400
Real time: 5409

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		5.1579E-01	2.7568E-01	2.7717E-01	0.143E+00
AM-241	#	6.0677E-01	1.1615E+00	1.1620E+00	0.534E+00
Bi-212		3.8686E-01	4.1494E-01	4.1550E-01	0.269E+00
BI-214		6.2919E-01	2.0355E-01	2.0654E-01	0.508E-01
CO-60	#B	-3.2846E-02	-2.1820E-01	-2.1820E-01	0.248E-01
Cs-137	#A	1.6827E-02	8.7678E-02	8.7683E-02	0.442E-01
EU-152	B	1.6307E-02	9.8217E-02	9.8221E-02	0.827E-01
EU-154	B	3.4120E-02	1.0245E-01	1.0247E-01	0.645E-01
K-40		1.4777E+01	2.1540E+00	2.3058E+00	0.536E+00
PA-234	#B	1.1578E-02	2.0054E-02	2.0064E-02	0.115E+00
Pb-210	#	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		6.9909E-01	1.5776E-01	1.6249E-01	0.588E-01
PB-214		5.1476E-01	1.8913E-01	1.9129E-01	0.743E-01
RA-226		8.5915E-01	1.4498E+00	1.4506E+00	0.803E+00
Th-230	B	3.5766E+00	7.6521E+00	7.6546E+00	0.207E+02
TH-234		6.6464E+00	3.9553E+00	3.9725E+00	0.306E+01
Tl-208	#	1.9395E-01	8.5233E-02	8.5914E-02	0.515E-01
U-235	#B	0.0000E+00	3.5376E+02	3.5376E+02	0.509E-01

- All peaks for activity calculation had bad shape.
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< - MDA value printed.
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F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2674.9 keV) 2.5828785E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 07-DEC-2005 19:42:58 Page 1
New World Technology Spectrum name: 3N001853.An1

Sample description
PCB HOT SPOT 84NPCBSU1F0PE-001 238g
12/07/2005 12:40 PM

Acquisition information
Start time: 07-Dec-2005 18:12:50
Live time: 5400
Real time: 5405

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		5.0048E-01	3.9548E-01	3.9646E-01	0.232E+00
AM-241	#B	-3.8033E-02	-4.6105E-01	-4.6105E-01	0.113E+00
Bi-212		8.4238E-01	5.8122E-01	5.8310E-01	0.289E+00
BI-214		5.9222E-01	3.2859E-01	3.3023E-01	0.134E+00
CO-60	#B	-5.6682E-02	-6.7870E-01	-6.7870E-01	0.536E-01
Cs-137	#B	-4.7195E-02	-1.9869E-01	-1.9870E-01	0.526E-01
EU-152	F	1.0316E-01	1.7644E-01	1.7653E-01	0.928E-01
EU-154	F	1.0972E-01	1.4031E-01	1.4044E-01	0.589E-01
K-40		1.6879E+01	2.4789E+00	2.6505E+00	0.621E+00
PA-234	#A	3.5026E-02	1.2620E-01	1.2621E-01	0.875E-01
Pb-210	#A	5.0358E-01	2.0997E+00	2.0999E+00	0.108E+01
PB-212		4.7966E-01	1.7171E-01	1.7377E-01	0.815E-01
PB-214		5.5273E-01	2.1557E-01	2.1775E-01	0.106E+00
RA-226		9.5549E-01	1.5454E+00	1.5463E+00	0.861E+00
Th-230	A	2.3333E+00	2.3668E+01	2.3668E+01	0.988E+01
TH-234	C	1.8663E+00	1.0381E+00	1.0432E+00	0.858E+00
Tl-208		4.8701E-01	1.6438E-01	1.6659E-01	0.142E-01
U-235	A	1.7429E-02	1.2314E-01	1.2315E-01	0.574E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2660.6 keV) 2.1288595E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 07-DEC-2005 19:46:33 Page 1
New World Technology Spectrum name: 2N001820.An1

Sample description
PCB HOT SPOT 84NPCBSU1F1PE-001 254g
12/07/2005 12:15 PM

Acquisition information
Start time: 07-Dec-2005 18:14:27
Live time: 5400
Real time: 5409

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Activity picoCi/g	Time of Count Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
AC-228	F	4.6670E-01	2.5077E-01	2.5211E-01	0.151E+00
AM-241	#A	1.4497E-01	9.6085E-01	9.6088E-01	0.506E+00
Bi-212		6.9980E-01	5.9816E-01	5.9942E-01	0.264E+00
BI-214	F	8.1559E-01	2.3365E-01	2.3802E-01	0.583E-01
CO-60	#B	-3.6884E-02	-2.5343E-01	-2.5344E-01	0.280E-01
Cs-137	#B	-1.4724E-02	-1.0614E-01	-1.0614E-01	0.540E-01
EU-152	B	3.6423E-02	9.8144E-02	9.8165E-02	0.109E+00
EU-154	B	6.4011E-02	1.3525E-01	1.3530E-01	0.755E-01
K-40		1.6206E+01	2.4640E+00	2.6240E+00	0.633E+00
PA-234	#B	3.0240E-03	1.3577E-02	1.3578E-02	0.157E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		5.1942E-01	1.5944E-01	1.6204E-01	0.653E-01
PB-214		6.6203E-01	2.3190E-01	2.3481E-01	0.790E-01
RA-226		1.3495E+00	1.5883E+00	1.5901E+00	0.864E+00
Th-230		3.6684E+01	6.0349E+01	6.0383E+01	0.312E+02
TH-234	#A	2.1795E+00	2.1725E+00	2.1759E+00	0.295E+01
Tl-208	#	2.2332E-01	8.4167E-02	8.5080E-02	0.584E-01
U-235	C	6.7997E-02	1.2205E-01	1.2211E-01	0.574E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2674.9 keV) 5.7626629E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 07-DEC-2005 17:01:02 Page 1
New World Technology Spectrum name: 3N001852.An1

Sample description
PCB HOT SPOT 84NPCBSU1F2PE-001 235g
12/07/2005 12:00 PM

Acquisition information
Start time: 07-Dec-2005 16:03:32
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		6.6535E-01	5.0289E-01	5.0425E-01	0.283E+00
AM-241	#	2.7097E-01	4.0242E-01	4.0270E-01	0.171E+00
Bi-212		9.8973E-01	8.4475E-01	8.4653E-01	0.340E+00
BI-214		5.6994E-01	3.7433E-01	3.7567E-01	0.159E+00
CO-60	#B	-7.0871E-02	-6.9643E-01	-6.9644E-01	0.572E-01
Cs-137	#A	3.6611E-02	1.1592E-01	1.1594E-01	0.668E-01
EU-152	#B	-4.0792E-02	4.5780E+02	4.5780E+02	0.132E+00
EU-154	C	2.1488E-01	1.4067E-01	1.4118E-01	0.791E-01
K-40		1.5720E+01	3.3522E+00	3.4642E+00	0.857E+00
PA-234	#C	1.6164E-01	1.9797E-01	1.9817E-01	0.145E+00
Pb-210	#A	1.1917E+00	3.0449E+00	3.0456E+00	0.151E+01
PB-212		7.3903E-01	2.5694E-01	2.6020E-01	0.110E+00
PB-214		6.3080E-01	3.5357E-01	3.5530E-01	0.156E+00
RA-226	A	4.4958E-01	2.2078E+00	2.2080E+00	0.126E+01
Th-230	#B	-3.8157E+00	3.8123E+04	3.8123E+04	0.110E+02
TH-234	C	2.1707E+00	1.5168E+00	1.5216E+00	0.111E+01
Tl-208	#	2.7911E-01	1.5950E-01	1.6026E-01	0.687E-01
U-235	F	6.9343E-02	1.2957E-01	1.2963E-01	0.672E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.7 to 2660.6 keV) 1.9934633E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 15-MAY-2006 16:31:30 Page 1
New World Technology Spectrum name: 3N002503.An1

Sample description
PCB Hot Spot 84NPCBSU2A0PE-001 406g
5/15/06 07:35

Acquisition information
Start time: 15-May-2006 15:46:24
Live time: 2700
Real time: 2702

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		3.6657E-01	2.8563E-01	2.8636E-01	0.165E+00
AM-241	#A	9.4408E-02	2.1384E-01	2.1391E-01	0.975E-01
Bi-212		6.2105E-01	5.6554E-01	5.6660E-01	0.245E+00
BI-214	F	1.6296E-01	2.0148E-01	2.0168E-01	0.117E+00
CO-60	#B	-2.0800E-03	-1.0348E-02	-1.0348E-02	0.119E-01
Cs-137	A	1.3571E-02	5.0672E-02	5.0678E-02	0.336E-01
EU-152	B	5.9709E-02	1.1913E-01	1.1918E-01	0.640E-01
EU-154	F	1.0330E-01	7.7859E-02	7.8069E-02	0.563E-01
K-40		9.1874E+00	2.1611E+00	2.2207E+00	0.868E+00
PA-234	#B	8.4138E-02	1.7860E-01	1.7866E-01	0.111E+00
Pb-210	A	5.6398E-01	1.4950E+00	1.4953E+00	0.895E+00
PB-212		4.6059E-01	1.5535E-01	1.5744E-01	0.686E-01
PB-214		3.6556E-01	2.3334E-01	2.3423E-01	0.966E-01
RA-226		1.3041E+00	1.3025E+00	1.3045E+00	0.686E+00
Th-230	B	-3.9254E+00	-3.4544E+01	-3.4544E+01	0.831E+01
TH-234		7.5240E-01	1.0884E+00	1.0892E+00	0.658E+00
Tl-208		1.2041E-01	8.4661E-02	8.4925E-02	0.814E-01
U-235	#B	-4.4530E-03	-1.4346E-02	-1.4348E-02	0.559E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.7 to 2661.2 keV) 1.3340974E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 15-MAY-2006 16:10:19 Page 1
New World Technology Spectrum name: 1N001957.An1

Sample description
PCB Hot Spot 84NPCBSU2A1PE-001 480g
5/15/06 07:30

Acquisition information
Start time: 15-May-2006 15:25:06
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Activity picoCi/ g	Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228		6.0148E-01	3.1722E-01	3.1898E-01	0.111E+00
AM-241	A	1.7461E-02	3.7733E-01	3.7733E-01	0.216E+00
Bi-212	F	3.5738E-01	4.6848E-01	4.6890E-01	0.209E+00
BI-214	#F	2.8864E-01	1.8056E-01	1.8127E-01	0.246E+00
CO-60	#A	0.0000E+00	0.0000E+00	0.0000E+00	0.146E-01
CS-137	A	7.4308E-03	4.0134E-02	4.0137E-02	0.210E-01
EU-152	C	1.5585E-01	1.1616E-01	1.1648E-01	0.614E-01
EU-154	C	7.8997E-02	1.0157E-01	1.0166E-01	0.483E-01
K-40		9.1816E+00	2.2972E+00	2.3533E+00	0.149E+00
Pa-234	#B	-2.2012E-01	-1.2330E+00	-1.2330E+00	0.103E+00
Pb-210	#	1.1197E+01	1.9459E+01	1.9469E+01	0.831E+01
Pb-212		3.9631E-01	1.2727E-01	1.2917E-01	0.445E-01
Pb-214		4.0241E-01	1.7911E-01	1.8050E-01	0.601E-01
RA-226	A	7.0174E-01	1.3302E+00	1.3308E+00	0.739E+00
Th-230	#B	5.1146E+00	2.7927E+01	2.7929E+01	0.125E+02
Th-234	A	1.1724E+00	9.6807E-01	9.7025E-01	0.122E+01
Tl-208	F	2.4231E-01	1.0626E-01	1.0712E-01	0.262E-01
U-235	A	2.2165E-02	8.1992E-02	8.2002E-02	0.429E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2608.8 keV) 2.2378248E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 15-MAY-2006 18:14:25 Page 1
New World Technology Spectrum name: 3N002505.An1

Sample description
PCB Hot Spot 84NPCBSU2A2PE-001 478g
5/15/06 07:50

Acquisition information
Start time: 15-May-2006 17:29:19
Live time: 2700
Real time: 2703

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	5.7254E-01	3.3163E-01	3.3316E-01	0.134E+00
AM-241	#A	7.0001E-02	2.2191E-01	2.2195E-01	0.955E-01
Bi-212	#B	-3.5558E-02	1.0978E+03	1.0978E+03	0.258E+00
BI-214	F	2.9342E-01	1.8504E-01	1.8576E-01	0.874E-01
CO-60	#A	1.6949E-03	5.6848E-03	5.6856E-03	0.823E-02
Cs-137	#B	-3.7488E-03	-7.5354E-02	-7.5354E-02	0.402E-01
EU-152	B	6.3130E-02	2.1056E-01	2.1059E-01	0.632E-01
EU-154	A	1.2238E-02	4.5192E-02	4.5197E-02	0.518E-01
K-40	#B	-1.8325E+00	-1.2199E+01	-1.2199E+01	0.160E+01
PA-234	#B	3.2159E-03	8.5871E-03	8.5890E-03	0.800E-01
Pb-210	A	5.0116E-01	1.3893E+00	1.3896E+00	0.758E+00
PB-212	F	3.3848E-01	1.3573E-01	1.3703E-01	0.635E-01
PB-214		3.3664E-01	1.8668E-01	1.8762E-01	0.847E-01
RA-226	A	4.2183E-01	1.3059E+00	1.3061E+00	0.729E+00
Th-230	#B	-1.4939E+00	-5.2973E+00	-5.2979E+00	0.551E+01
TH-234	C	8.1989E-01	9.9418E-01	9.9522E-01	0.697E+00
Tl-208		1.1775E-01	7.1037E-02	7.1338E-02	0.691E-01
U-235	#B	1.6682E-02	5.9019E-02	5.9027E-02	0.487E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

SUMMARY

Total Activity (41.7 to 2661.2 keV) 1.6588247E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 15-MAY-2006 17:24:07 Page 1
New World Technology Spectrum name: 3N002504.An1

Sample description
PCB Hot Spot 84NPCBSU2B0PE-001 536g
5/15/06 07:45

Acquisition information
Start time: 15-May-2006 16:36:06
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	4.1453E-01	3.6134E-01	3.6208E-01	0.152E+00
AM-241 #B	-1.6305E-02	-3.3178E-01	-3.3178E-01	0.662E-01
Bi-212 F	3.0501E-01	3.8492E-01	3.8529E-01	0.178E+00
BI-214 F	2.2743E-01	1.7075E-01	1.7122E-01	0.794E-01
CO-60 #A	1.5245E-03	8.0914E-03	8.0918E-03	0.114E-01
Cs-137 #B	-1.2135E-02	-1.0673E-01	-1.0673E-01	0.377E-01
EU-152 F	6.1979E-02	1.7205E-01	1.7209E-01	0.435E-01
EU-154 C	7.2135E-02	7.8720E-02	7.8821E-02	0.433E-01
K-40	1.5020E+01	2.1472E+00	2.3039E+00	0.179E+00
PA-234 #B	-3.0937E-02	-4.1312E-01	-4.1313E-01	0.744E-01
Pb-210 #A	2.9949E-01	1.4823E+00	1.4824E+00	0.750E+00
PB-212	2.9802E-01	1.2069E-01	1.2182E-01	0.566E-01
PB-214	2.7614E-01	1.6216E-01	1.6289E-01	0.774E-01
RA-226 A	4.6620E-01	1.0622E+00	1.0625E+00	0.590E+00
Th-230 #B	1.2272E+00	3.7823E+00	3.7830E+00	0.638E+01
TH-234 C	6.5423E-01	8.0556E-01	8.0638E-01	0.500E+00
Tl-208 #C	6.6987E-02	6.4100E-02	6.4208E-02	0.617E-01
U-235 C	5.8516E-02	8.9166E-02	8.9225E-02	0.418E-01

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B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.7 to 2661.2 keV) 1.6541098E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 15-MAY-2006 16:36:16 Page 1
New World Technology Spectrum name: 2N002503.An1

Sample description
PCB Hot Spot 84NPCBSU2B1PE-001 472g
5/15/06 07:40

Acquisition information
Start time: 15-May-2006 15:50:41
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	3.1929E-01	2.1029E-01	2.1104E-01	0.124E+00
AM-241 #A	4.1631E-01	1.1138E+00	1.1141E+00	0.539E+00
Bi-212 B	2.1274E-01	5.2307E-01	5.2321E-01	0.274E+00
BI-214 F	4.3511E-01	1.9761E-01	1.9909E-01	0.748E-01
CO-60	2.5261E-02	3.0379E-02	3.0412E-02	0.892E-02
Cs-137 #B	-1.7964E-02	-8.5691E-02	-8.5696E-02	0.355E-01
EU-152 B	4.6675E-02	9.3605E-02	9.3641E-02	0.615E-01
EU-154 B	2.6532E-02	5.8213E-02	5.8231E-02	0.480E-01
K-40	7.6796E+00	1.7259E+00	1.7780E+00	0.460E+00
PA-234 #B	8.3260E-02	1.8305E-01	1.8310E-01	0.906E-01
Pb-210 #F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	4.5477E-01	1.5783E-01	1.5985E-01	0.672E-01
PB-214	3.2665E-01	1.6424E-01	1.6524E-01	0.716E-01
RA-226 A	3.5913E-01	1.3757E+00	1.3759E+00	0.779E+00
Th-230 B	-2.2532E+01	-3.8826E+01	-3.8846E+01	0.201E+02
TH-234 #B	1.9776E+00	4.3435E+00	4.3449E+00	0.213E+01
Tl-208	1.8080E-01	8.5031E-02	8.5623E-02	0.146E-01
U-235 #B	-1.2315E-02	-1.6461E-01	-1.6461E-01	0.497E-01

- All peaks for activity calculation had bad shape.
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S U M M A R Y

Total Activity (41.8 to 2675.5 keV) 9.4214945E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 15-MAY-2006 18:20:14 Page 1
New World Technology Spectrum name: 2N002505.An1

Sample description
PCB Hot Spots 84NPCBSU2B2PE-001 459g
5/15/06 07:55

Acquisition information
Start time: 15-May-2006 17:34:38
Live time: 2700
Real time: 2704

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	2.9558E-01	2.3488E-01	2.3545E-01	0.136E+00
AM-241	#B	-5.5840E-01	-5.2232E+00	-5.2233E+00	0.328E+00
Bi-212	F	4.0638E-01	4.8337E-01	4.8390E-01	0.226E+00
BI-214	F	2.2111E-01	1.5283E-01	1.5332E-01	0.693E-01
CO-60	#B	-1.5743E-03	2.2989E+01	2.2989E+01	0.917E-02
Cs-137	#B	-1.3909E-03	-5.0519E-02	-5.0519E-02	0.348E-01
EU-152	F	1.2970E-01	1.2894E-01	1.2914E-01	0.855E-01
EU-154	B	1.9555E-02	3.9111E-02	3.9126E-02	0.614E-01
K-40		8.8354E+00	1.8655E+00	1.9291E+00	0.473E+00
PA-234	#C	1.5686E-01	1.8367E-01	1.8388E-01	0.836E-01
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.4951E-01	1.5869E-01	1.5988E-01	0.766E-01
PB-214		2.9771E-01	1.8679E-01	1.8753E-01	0.779E-01
RA-226		1.0474E+00	1.1674E+00	1.1688E+00	0.626E+00
Th-230	#B	-1.8539E+01	-3.4334E+01	-3.4350E+01	0.228E+02
TH-234	B	4.2707E-03	7.7425E-02	7.7425E-02	0.185E+01
Tl-208	F	3.3464E-01	1.3922E-01	1.4046E-01	0.150E-01
U-235	B	4.0807E-02	6.8130E-02	6.8168E-02	0.510E-01

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S U M M A R Y

Total Activity (41.8 to 2675.5 keV) 1.1787757E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 28-APR-2006 12:13:15 Page 1
New World Technology Spectrum name: 2N002274.An1

Sample description
PCB Hot Spot 84NPCBSU2C0PE-001 427g
4/27/2006 09:15

Acquisition information
Start time: 28-Apr-2006 11:28:08
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228 F	4.8644E-01	2.2995E-01	2.3154E-01	0.149E+00
AM-241 #B	-4.9539E-01	-1.0892E+01	-1.0892E+01	0.343E+00
Bi-212 B	2.1449E-01	5.3864E-01	5.3877E-01	0.282E+00
BI-214 F	4.4092E-01	1.8553E-01	1.8714E-01	0.706E-01
CO-60 #B	-1.7044E-03	2.4889E+01	2.4889E+01	0.993E-02
Cs-137 #B	-1.5102E-02	-9.3457E-02	-9.3461E-02	0.425E-01
EU-152 #B	-1.5418E-02	3.8479E+02	3.8479E+02	0.935E-01
EU-154 #B	-6.0224E-04	2.5887E+02	2.5887E+02	0.555E-01
K-40	1.1004E+01	2.0434E+00	2.1332E+00	0.982E-01
PA-234 #B	8.2478E-03	7.1399E-02	7.1400E-02	0.951E-01
Pb-210 #C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	3.8927E-01	1.5281E-01	1.5434E-01	0.698E-01
PB-214	4.3090E-01	2.3403E-01	2.3525E-01	0.850E-01
RA-226 A	5.0273E-01	1.4742E+00	1.4745E+00	0.821E+00
Th-230 B	-1.6597E+01	-2.8828E+01	-2.8843E+01	0.235E+02
TH-234 #B	2.6087E+00	5.5368E+00	5.5387E+00	0.262E+01
Tl-208 #F	8.8981E-02	1.1398E-01	1.1408E-01	0.515E-01
U-235 #B	-1.0467E-02	-8.2831E-02	-8.2833E-02	0.511E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.9 to 2675.6 keV) 1.2840692E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 28-APR-2006 12:16:18 Page 1
New World Technology Spectrum name: 3N002272.An1

Sample description
PCB Hot Spot 84NPCBSU2C1PE-001 425g
4/27/2006 09:00

Acquisition information
Start time: 28-Apr-2006 11:30:42
Live time: 2700
Real time: 2702

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Activity picoCi/g	Time of Count Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	3.0445E-01	2.6490E-01	2.6544E-01	0.167E+00
AM-241	#B	-1.0212E-02	-2.0481E-01	-2.0481E-01	0.740E-01
Bi-212	F	4.4815E-01	5.2763E-01	5.2822E-01	0.242E+00
BI-214	#F	4.5072E-01	3.0235E-01	3.0339E-01	0.110E+00
CO-60	#A	1.6657E-03	5.4284E-03	5.4292E-03	0.970E-02
Cs-137	#B	-5.5589E-02	-7.6039E-01	-7.6040E-01	0.329E-01
EU-152	B	5.6191E-02	1.5713E-01	1.5716E-01	0.774E-01
EU-154	#B	1.5203E-02	3.2683E-02	3.2694E-02	0.572E-01
K-40		1.2544E+01	2.1620E+00	2.2718E+00	0.965E-01
PA-234	#B	-4.6724E-02	-5.6527E-01	-5.6528E-01	0.792E-01
Pb-210	#B	-1.8419E-01	-1.7298E+00	-1.7299E+00	0.829E+00
PB-212	F	3.4508E-01	1.4331E-01	1.4459E-01	0.674E-01
PB-214	F	2.5565E-01	2.0820E-01	2.0868E-01	0.994E-01
RA-226		7.3837E-01	1.3141E+00	1.3147E+00	0.722E+00
Th-230	#B	-1.9486E+00	-1.7223E+01	-1.7223E+01	0.795E+01
TH-234	#	9.7452E-01	1.1725E+00	1.1737E+00	0.652E+00
Tl-208	#B	3.9580E-02	3.8581E-02	3.8644E-02	0.790E-01
U-235	#B	-6.1188E-03	-1.1061E-01	-1.1061E-01	0.485E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2660.5 keV) 1.6061338E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 03-MAY-2006 16:57:20 Page 1
New World Technology Spectrum name: 1N001790.An1

Sample description
PCB Hot Spot 84NPCBSU2C2PE-001 423g
5/1/06 16:00

Acquisition information
Start time: 03-May-2006 16:12:09
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228	5.1080E-01	2.5561E-01	2.5718E-01	0.410E-01
AM-241 #A	-8.0680E-02	-8.7101E-01	-8.7102E-01	0.207E+00
Bi-212	5.2127E-01	5.0360E-01	5.0443E-01	0.191E+00
BI-214 #F	1.4850E+00	1.3567E+00	1.3592E+00	0.332E+00
CO-60 #A	0.0000E+00	0.0000E+00	0.0000E+00	0.164E-01
CS-137 A	1.1378E-02	3.8275E-02	3.8281E-02	0.192E-01
EU-152 C	8.2665E-02	1.3171E-01	1.3179E-01	0.583E-01
EU-154 C	6.4259E-02	9.0877E-02	9.0946E-02	0.453E-01
K-40	1.0022E+01	2.5339E+00	2.5945E+00	0.166E+00
Pa-234 #B	1.6059E-02	1.9467E-02	1.9487E-02	0.110E+00
Pb-210 #A	6.4283E+00	1.8592E+01	1.8596E+01	0.789E+01
Pb-212	4.1071E-01	1.3964E-01	1.4149E-01	0.506E-01
Pb-214	4.1763E-01	1.7644E-01	1.7797E-01	0.550E-01
RA-226 A	7.3286E-01	1.3840E+00	1.3846E+00	0.778E+00
Th-230 #B	-2.9562E+00	-4.5844E+01	-4.5844E+01	0.853E+01
Th-234 A	9.4272E-01	1.1990E+00	1.2002E+00	0.146E+01
Tl-208	2.0033E-01	9.3712E-02	9.4372E-02	0.199E-01
U-235 C	7.4091E-02	6.1878E-02	6.2015E-02	0.505E-01

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---------------------------- S U M M A R Y ---------------------------

Total Activity (41.2 to 2606.4 keV) 1.3567234E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 28-MAR-2006 12:44:22 Page 1
New World Technology Spectrum name: 1N001570.An1

Sample description
PCB Hot Spot 84NPCBSU2D0PE-001 RECOUNT 194g
11/16/05 12:25

Acquisition information
Start time: 28-Mar-2006 11:14:10
Live time: 5400
Real time: 5406

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		9.6221E-01	3.6204E-01	3.6599E-01	0.717E-01
AM-241	#A	-1.3409E-01	-1.1786E+00	-1.1786E+00	0.209E+00
Bi-212	F	3.9834E-01	6.3176E-01	6.3215E-01	0.320E+00
BI-214	F	1.8796E+00	8.1680E-01	8.2349E-01	0.691E+00
CO-60	#A	2.8654E-03	6.3219E-03	6.3239E-03	0.155E-01
CS-137	#A	-6.7633E-03	-7.8079E-02	-7.8080E-02	0.188E-01
EU-152	C	1.3211E-01	1.5193E-01	1.5210E-01	0.832E-01
EU-154	A	4.2123E-02	5.8245E-02	5.8292E-02	0.474E-01
K-40		1.6433E+01	3.4075E+00	3.5283E+00	0.484E+00
Pa-234	#B	-4.8950E-01	-2.5196E+00	-2.5197E+00	0.133E+00
Pb-210	#A	2.2419E+00	4.5663E+00	4.5680E+00	0.233E+01
Pb-212		7.7517E-01	2.0037E-01	2.0497E-01	0.778E-01
Pb-214		1.3453E+00	3.1954E-01	3.2821E-01	0.742E-01
RA-226	A	3.5140E-01	1.7118E+00	1.7120E+00	0.101E+01
Th-230	#F	1.7199E+01	3.5956E+01	3.5968E+01	0.148E+02
Th-234	C	1.7999E+00	1.5875E+00	1.5906E+00	0.149E+01
Tl-208	#	2.6784E-01	1.3777E-01	1.3858E-01	0.425E-01
U-235	#B	4.8757E-02	7.2049E-02	7.2101E-02	0.610E-01

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---------------------------- S U M M A R Y ---------------------------

Total Activity (41.2 to 2608.7 keV) 3.9260918E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 17-NOV-2005 09:16:20 Page 1
New World Technology Spectrum name: 3N001790.An1

Sample description
PCB Hot Spot 84NPCBSU2D1PE-001 327g
11/16/05 12:30

Acquisition information
Start time: 17-Nov-2005 08:31:15
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
AC-228	F	3.5957E-01	3.3307E-01	3.3367E-01	0.234E+00
AM-241	#B	-2.2470E-02	-4.2121E-01	-4.2122E-01	0.113E+00
Bi-212	A	6.3928E-02	2.2366E-01	2.2369E-01	0.283E+00
BI-214		4.1311E-01	3.4417E-01	3.4494E-01	0.133E+00
CO-60	#B	-8.3449E-03	-2.1806E-02	-2.1811E-02	0.401E-01
Cs-137	#B	-2.9234E-03	-1.0035E-01	-1.0035E-01	0.523E-01
EU-152	F	1.8996E-01	2.8003E-01	2.8023E-01	0.732E-01
EU-154	C	1.3324E-01	1.4880E-01	1.4898E-01	0.636E-01
K-40		2.7681E+01	3.6477E+00	3.9590E+00	0.616E+00
PA-234	C	1.1502E-01	1.9717E-01	1.9727E-01	0.107E+00
Pb-210	#	2.0903E+00	2.7636E+00	2.7660E+00	0.123E+01
PB-212		3.0653E-01	1.6843E-01	1.6929E-01	0.810E-01
PB-214		4.3370E-01	2.4650E-01	2.4767E-01	0.116E+00
RA-226	#A	4.1346E-01	1.7633E+00	1.7634E+00	0.868E+00
Th-230	#B	-2.1197E+00	-1.4478E+02	-1.4478E+02	0.104E+02
TH-234	C	1.3734E+00	1.1121E+00	1.1148E+00	0.740E+00
Tl-208	F	1.1249E-01	6.5858E-02	6.6154E-02	0.358E-01
U-235	#B	0.0000E+00	1.7993E+02	1.7993E+02	0.454E-01

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---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.6 keV) 3.0924755E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 17-NOV-2005 08:10:18 Page 1
New World Technology Spectrum name: 3N001789.An1

Sample description
PCB Hot Spot 84NPCBSU2D2PE-001 293g
11/16/05 12:35

Acquisition information
Start time: 17-Nov-2005 07:25:08
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	C	3.0262E-01	2.4097E-01	2.4156E-01	0.241E+00
AM-241	A	6.5630E-03	2.1639E-01	2.1639E-01	0.122E+00
Bi-212	F	5.6808E-01	6.5859E-01	6.5934E-01	0.293E+00
BI-214	F	3.9178E-01	3.0232E-01	3.0310E-01	0.133E+00
CO-60	#B	-5.5705E-02	-3.5128E-01	-3.5130E-01	0.435E-01
Cs-137	#B	-5.3018E-03	-1.2406E-01	-1.2407E-01	0.596E-01
EU-152	#F	2.2806E-01	2.8930E-01	2.8958E-01	0.754E-01
EU-154	F	8.6355E-02	9.7917E-02	9.8034E-02	0.578E-01
K-40		1.2778E+01	2.7045E+00	2.7962E+00	0.688E+00
PA-234	C	2.5028E-01	2.9090E-01	2.9123E-01	0.122E+00
Pb-210	A	2.5490E-01	1.8980E+00	1.8981E+00	0.114E+01
PB-212		2.6966E-01	1.7278E-01	1.7343E-01	0.865E-01
PB-214		2.2574E-01	1.9558E-01	1.9598E-01	0.117E+00
RA-226	A	1.5001E-01	1.7688E+00	1.7688E+00	0.102E+01
Th-230	#B	-7.7862E-02	-1.3439E+01	-1.3439E+01	0.758E+01
TH-234	A	7.7755E-01	9.6596E-01	9.6692E-01	0.991E+00
Tl-208	#	2.5884E-01	1.0647E-01	1.0744E-01	0.231E-01
U-235	C	7.8491E-02	1.1759E-01	1.1768E-01	0.574E-01

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---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.6 keV) 1.4491659E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 28-NOV-2005 21:26:03 Page 1
New World Technology Spectrum name: 2N001790.An1

Sample description
PCB Hot Spot 84NPCBSU2E0PE-001 257g
11/28/05 09:15

Acquisition information
Start time: 28-Nov-2005 19:45:18
Live time: 5400
Real time: 5409

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	5.9981E-01	3.1028E-01	3.1207E-01	0.147E+00
AM-241	#B	-5.3425E-02	-4.9347E-01	-4.9348E-01	0.316E+00
Bi-212		1.5896E+00	7.6546E-01	7.7056E-01	0.188E+00
BI-214		6.4014E-01	2.5156E-01	2.5407E-01	0.734E-01
CO-60	#B	-3.5392E-02	-3.4779E-01	-3.4780E-01	0.286E-01
Cs-137	#B	-9.5577E-03	-8.0976E-02	-8.0978E-02	0.445E-01
EU-152	B	6.7851E-02	1.5749E-01	1.5754E-01	0.103E+00
EU-154	B	2.8328E-03	1.3572E-01	1.3572E-01	0.747E-01
K-40		1.2870E+01	2.2145E+00	2.3276E+00	0.624E+00
PA-234	#F	2.4223E-01	2.9068E-01	2.9099E-01	0.126E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		7.6588E-01	1.7175E-01	1.7697E-01	0.622E-01
PB-214		5.8913E-01	2.4238E-01	2.4459E-01	0.782E-01
RA-226		1.2860E+00	1.5694E+00	1.5711E+00	0.856E+00
Th-230	#B	1.4506E+01	4.2166E+01	4.2174E+01	0.232E+02
TH-234	B	3.8694E-01	8.7851E-01	8.7877E-01	0.203E+01
Tl-208		2.8394E-01	8.9765E-02	9.1146E-02	0.577E-01
U-235	C	1.3654E-01	1.6835E-01	1.6852E-01	0.519E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
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< - MDA value printed.
A - Activity printed, but activity < MDA.
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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2674.9 keV) 1.8624157E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 17-NOV-2005 06:21:23 Page 1
New World Technology Spectrum name: 2N001740.An1

Sample description
PCB Hot Spot 84NPCBSU2E1PE-001 345g
11/16/2005 12:15

Acquisition information
Start time: 16-Nov-2005 22:13:43
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	#	5.7836E-01	3.6968E-01	3.7108E-01	0.121E+00
AM-241	#A	1.4472E-01	6.8389E-01	6.8394E-01	0.386E+00
Bi-212		4.9742E-01	5.5943E-01	5.6012E-01	0.233E+00
BI-214	F	3.2309E-01	2.1968E-01	2.2041E-01	0.923E-01
CO-60	#B	-2.6365E-02	-1.7871E-01	-1.7872E-01	0.301E-01
Cs-137	#A	1.6934E-02	1.2109E-01	1.2109E-01	0.585E-01
EU-152	B	-4.9674E-02	4.2776E+02	4.2776E+02	0.123E+00
EU-154	B	4.2766E-02	1.0352E-01	1.0355E-01	0.618E-01
K-40		9.7220E+00	2.2885E+00	2.3516E+00	0.633E+00
PA-234	#	3.3484E-01	3.0971E-01	3.1027E-01	0.146E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.9179E-01	1.6818E-01	1.6959E-01	0.689E-01
PB-214		3.9695E-01	1.8557E-01	1.8688E-01	0.715E-01
RA-226		1.3275E+00	1.7256E+00	1.7272E+00	0.920E+00
Th-230	#B	1.2235E+01	5.2517E+01	5.2521E+01	0.265E+02
TH-234	#	3.8394E+00	3.9971E+00	4.0028E+00	0.335E+01
Tl-208		2.0115E-01	8.0169E-02	8.0948E-02	0.608E-01
U-235	A	1.7212E-02	1.0247E-01	1.0247E-01	0.522E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2674.9 keV) 1.7612509E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 18-NOV-2005 09:44:57 Page 1
New World Technology Spectrum name: 3N001802.An1

Sample description
PCB Hot Spot 84NPCBSU2E2PE-002 351g
11/17/05 14:40

Acquisition information
Start time: 18-Nov-2005 08:55:33
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	5.4077E-01	4.1314E-01	4.1423E-01	0.203E+00
AM-241		1.2742E-01	1.6840E-01	1.6855E-01	0.892E-01
Bi-212	A	2.5824E-01	4.9009E-01	4.9030E-01	0.322E+00
BI-214		3.4888E-01	2.7740E-01	2.7808E-01	0.116E+00
CO-60	#B	-4.5077E-02	-3.5075E-01	-3.5076E-01	0.375E-01
Cs-137	A	3.0639E-03	9.2664E-02	9.2664E-02	0.509E-01
EU-152	F	1.2662E-01	2.0917E-01	2.0929E-01	0.807E-01
EU-154	B	1.1381E-02	6.8283E-02	6.8286E-02	0.586E-01
K-40		1.1282E+01	2.3151E+00	2.3985E+00	0.574E+00
PA-234	#B	4.7692E-02	1.1922E-01	1.1925E-01	0.641E-01
Pb-210	A	8.5196E-01	2.3086E+00	2.3090E+00	0.109E+01
PB-212		4.2705E-01	1.6335E-01	1.6506E-01	0.716E-01
PB-214		4.0379E-01	2.3276E-01	2.3383E-01	0.970E-01
RA-226	A	8.8130E-01	1.6273E+00	1.6280E+00	0.893E+00
Th-230	F	1.4126E+01	1.9221E+01	1.9237E+01	0.890E+01
TH-234	C	1.2887E+00	1.1774E+00	1.1795E+00	0.881E+00
Tl-208	C	1.0706E-01	7.0089E-02	7.0341E-02	0.385E-01
U-235	C	6.4947E-02	1.3293E-01	1.3298E-01	0.564E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.6 keV) 2.7256638E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 16-NOV-2005 23:45:33 Page 1
New World Technology Spectrum name: 3N001788.An1

Sample description
PCB Hot Spot 84NPCBSU2F0PE-001 215g
11/16/05 12:00

Acquisition information
Start time: 16-Nov-2005 22:15:26
Live time: 5400
Real time: 5404

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	B	-5.9967E-01	-4.5539E-01	-4.5661E-01	0.332E+00
AM-241	#B	-1.0252E-02	-2.2910E-01	-2.2911E-01	0.104E+00
Bi-212		1.2538E+00	9.9901E-01	1.0014E+00	0.330E+00
BI-214		5.7966E-01	3.1948E-01	3.2110E-01	0.141E+00
CO-60	#B	-8.1724E-02	-5.5472E-01	-5.5474E-01	0.424E-01
Cs-137	#B	-1.3401E-02	-1.2634E-01	-1.2634E-01	0.660E-01
EU-152	#B	7.8360E-02	2.3687E-01	2.3691E-01	0.948E-01
EU-154	#B	-3.3805E-02	5.2682E+02	5.2682E+02	0.619E-01
K-40		1.7123E+01	2.6504E+00	2.8161E+00	0.690E+00
PA-234	#B	4.8005E-02	1.3091E-01	1.3093E-01	0.680E-01
Pb-210	A	9.9900E-01	2.5315E+00	2.5322E+00	0.124E+01
PB-212		9.8194E-01	2.0931E-01	2.1631E-01	0.859E-01
PB-214		7.6186E-01	3.1609E-01	3.1891E-01	0.133E+00
RA-226	A	4.0868E-01	1.6645E+00	1.6647E+00	0.952E+00
Th-230	B	7.0389E-01	2.1459E+01	2.1459E+01	0.119E+02
TH-234	C	2.3625E+00	1.1813E+00	1.1885E+00	0.100E+01
Tl-208	F	2.1540E-01	8.6165E-02	8.6993E-02	0.811E-01
U-235	C	8.5576E-02	1.3697E-01	1.3705E-01	0.595E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.7 to 2660.6 keV) 2.0700188E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 17-NOV-2005 09:10:03 Page 1
New World Technology Spectrum name: 1N001325.An1

Sample description
PCB Hot Spot 84NPCBSU2F1PE-001 347g
11/16/2005 12:05

Acquisition information
Start time: 17-Nov-2005 08:24:56
Live time: 2700
Real time: 2701

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		6.9822E-01	3.6489E-01	3.6695E-01	0.864E-01
AM-241	A	1.2354E-01	4.8800E-01	4.8805E-01	0.265E+00
Bi-212	#B	-1.1678E-01	-3.5033E-01	-3.5036E-01	0.376E+00
BI-214	F	3.6066E-01	1.8735E-01	1.8842E-01	0.277E+00
CO-60	#A	-3.7626E-03	4.9142E+01	4.9142E+01	0.175E-01
CS-137	#A	-7.9378E-02	3.1658E+02	3.1658E+02	0.576E-01
EU-152	#A	1.5093E-02	3.7493E-02	3.7503E-02	0.902E-01
EU-154	C	4.8640E-02	1.0323E-01	1.0327E-01	0.448E-01
K-40		1.0633E+01	2.7027E+00	2.7666E+00	0.205E+00
Pa-234	#B	-8.6765E-03	-2.0481E-01	-2.0481E-01	0.100E+00
Pb-210	#B	-3.3246E+00	-4.9449E+01	-4.9450E+01	0.424E+01
Pb-212	F	4.2520E-01	1.6371E-01	1.6541E-01	0.680E-01
Pb-214		4.8807E-01	2.1847E-01	2.2015E-01	0.555E-01
RA-226		1.0999E+00	1.6993E+00	1.7004E+00	0.919E+00
Th-230	C	1.7681E+01	2.3655E+01	2.3675E+01	0.160E+02
Th-234	A	1.0776E+00	1.5445E+00	1.5456E+00	0.152E+01
Tl-208	F	6.1606E-02	3.5449E-02	3.5614E-02	0.572E-01
U-235	#B	-1.7811E-02	-2.0439E-01	-2.0440E-01	0.649E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2654.1 keV) 1.3344827E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 18-NOV-2005 09:38:19 Page 1
New World Technology Spectrum name: 2N001757.An1

Sample description
PCB HOT SPOT 84NPCBSU2F2PE-002 384g
11/17/2005 14:45

Acquisition information
Start time: 18-Nov-2005 08:53:11
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	7.2412E-01	3.7615E-01	3.7830E-01	0.126E+00
AM-241	#B	0.0000E+00	1.7662E+03	1.7662E+03	0.508E+00
Bi-212	B	0.0000E+00	1.3891E+03	1.3891E+03	0.227E+00
BI-214		6.5390E-01	2.3621E-01	2.3900E-01	0.532E-01
CO-60	#B	-2.5582E-02	1.0167E+02	1.0167E+02	0.257E-01
Cs-137	A	3.0628E-03	6.1817E-02	6.1817E-02	0.427E-01
EU-152	F	1.1943E-01	1.6667E-01	1.6680E-01	0.967E-01
EU-154	B	4.2065E-02	1.3348E-01	1.3350E-01	0.710E-01
K-40		1.0801E+01	2.2585E+00	2.3372E+00	0.569E+00
PA-234	#A	6.9621E-02	1.7665E-01	1.7670E-01	0.121E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		5.8468E-01	1.6476E-01	1.6794E-01	0.558E-01
PB-214		4.9123E-01	2.1855E-01	2.2026E-01	0.666E-01
RA-226	A	8.3024E-01	1.5295E+00	1.5302E+00	0.836E+00
Th-230	B	-2.6119E+00	-2.0385E+01	-2.0385E+01	0.172E+02
TH-234	#	4.1978E+00	4.3626E+00	4.3688E+00	0.349E+01
Tl-208		2.2225E-01	8.6008E-02	8.6894E-02	0.546E-01
U-235	A	4.3472E-02	1.0147E-01	1.0149E-01	0.458E-01

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---------- S U M M A R Y ----------

Total Activity (41.8 to 2674.9 keV) 1.7674799E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 22-MAY-2006 16:18:54 Page 1
New World Technology Spectrum name: 1N002082.An1

Sample description
PCB Hot Spot 84NPCBSU3A0PE-001 454g
05/22/06 11:00

Acquisition information
Start time: 22-May-2006 15:33:44
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	F	6.2283E-01	2.6085E-01	2.6314E-01	0.379E-01
AM-241	#A	-1.5321E-01	-5.1053E+00	-5.1053E+00	0.213E+00
Bi-212	F	4.9611E-01	4.7036E-01	4.7117E-01	0.177E+00
BI-214	#F	4.2698E-01	2.4842E-01	2.4955E-01	0.260E+00
CO-60	#A	0.0000E+00	0.0000E+00	0.0000E+00	0.153E-01
CS-137	A	8.8017E-03	3.3616E-02	3.3620E-02	0.167E-01
EU-152	C	1.8600E-01	1.1905E-01	1.1949E-01	0.542E-01
EU-154	A	1.7761E-02	4.0981E-02	4.0993E-02	0.404E-01
K-40	#	1.6318E+00	3.2800E+00	3.2813E+00	0.134E+01
Pa-234	#B	1.7728E-02	3.4021E-02	3.4035E-02	0.118E+00
Pb-210	#	1.2951E+01	2.1560E+01	2.1572E+01	0.863E+01
Pb-212		3.2391E-01	1.3738E-01	1.3856E-01	0.584E-01
Pb-214		3.4424E-01	1.5353E-01	1.5472E-01	0.571E-01
RA-226	A	2.4334E-01	1.3398E+00	1.3399E+00	0.776E+00
Th-230	#B	9.6056E+00	1.9060E+01	1.9067E+01	0.989E+01
Th-234	#B	6.1469E-01	6.7645E-01	6.7731E-01	0.153E+01
Tl-208	#	1.8097E-01	1.0849E-01	1.0896E-01	0.293E-01
U-235	#B	1.8796E-02	2.6108E-02	2.6129E-02	0.519E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.2 to 2605.8 keV) 1.6550751E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 23-MAY-2006 18:25:54 Page 1
New World Technology Spectrum name: 2N002649.An1

Sample description
PCB Hot Spot 84NPCBSU3A1PE-002 496g
5/22/06 16:20

Acquisition information
Start time: 23-May-2006 17:26:15
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	C	2.1009E-01	2.0601E-01	2.0634E-01	0.125E+00
AM-241	#A	2.9036E-01	8.4733E-01	8.4748E-01	0.441E+00
Bi-212		2.5135E-01	3.3533E-01	3.3563E-01	0.172E+00
BI-214	F	2.3641E-01	1.5404E-01	1.5460E-01	0.653E-01
CO-60	#B	-1.4569E-03	2.1274E+01	2.1274E+01	0.849E-02
Cs-137	#B	-1.8700E-02	-7.2661E-02	-7.2668E-02	0.312E-01
EU-152	F	1.0401E-01	1.4245E-01	1.4257E-01	0.765E-01
EU-154	B	1.3906E-02	6.8050E-02	6.8055E-02	0.463E-01
K-40		7.3812E+00	1.5504E+00	1.6038E+00	0.843E-01
PA-234	#B	3.2873E-02	7.3507E-02	7.3529E-02	0.883E-01
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		1.5535E-01	1.1703E-01	1.1735E-01	0.595E-01
PB-214		2.5035E-01	1.7203E-01	1.7260E-01	0.711E-01
RA-226	#B	-2.7678E-02	-1.2880E+00	-1.2880E+00	0.702E+00
Th-230	B	9.8188E+00	6.4320E+01	6.4323E+01	0.291E+02
TH-234	#F	4.7675E+00	5.3811E+00	5.3876E+00	0.234E+01
Tl-208	#F	1.9057E-01	1.0107E-01	1.0162E-01	0.139E-01
U-235	#B	-2.0203E-02	-2.0789E-01	-2.0789E-01	0.376E-01

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C - Area < Critical level.
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H - Halflife limit exceeded

---------------------------- S U M M A R Y ----------------------------

Total Activity (41.8 to 2675.5 keV) 1.3232747E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 19-MAY-2006 10:16:15 Page 1
New World Technology Spectrum name: 1N002049.An1

Sample description
PCB Hot Spot 84NPCBSU3A2PE-001 511g
05/18/06 10:52

Acquisition information
Start time: 19-May-2006 09:31:04
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	F	3.9157E-01	1.8949E-01	1.9074E-01	0.337E-01
AM-241	#A	-1.5604E-01	5.1652E+02	5.1652E+02	0.130E+00
Bi-212	#F	4.0896E-01	3.6055E-01	3.6127E-01	0.117E+00
BI-214	#B	1.4969E-01	1.4237E-01	1.4262E-01	0.172E+00
CO-60	#A	5.8468E-03	1.7540E-02	1.7543E-02	0.136E-01
CS-137	#A	-3.0269E-03	3.1061E+01	3.1061E+01	0.871E-02
EU-152		9.8151E-02	1.1966E-01	1.1978E-01	0.390E-01
EU-154	#A	-2.7510E-02	1.2734E+02	1.2734E+02	0.299E-01
K-40	#	3.8621E+00	1.4371E+00	1.4531E+00	0.138E+00
Pa-234	#B	-2.0003E-01	-9.9065E-01	-9.9071E-01	0.933E-01
Pb-210	#A	1.0421E+00	6.7534E+00	6.7537E+00	0.373E+01
Pb-212	F	1.6887E-01	8.8522E-02	8.9019E-02	0.361E-01
Pb-214		2.5638E-01	1.4224E-01	1.4296E-01	0.301E-01
RA-226	#B	-1.4108E-01	-1.2886E+00	-1.2886E+00	0.570E+00
Th-230	#B	-3.3461E+00	-5.6819E+01	-5.6820E+01	0.577E+01
Th-234	B	-7.7040E-01	-1.1300E+00	-1.1308E+00	0.108E+01
Tl-208	#	4.7781E-02	6.2911E-02	6.2967E-02	0.190E-01
U-235	#B	-1.0311E-02	-3.7490E-02	-3.7494E-02	0.326E-01

- All peaks for activity calculation had bad shape.
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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.2 to 2605.8 keV) 5.2338161E+00 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 22-MAY-2006 16:24:40 Page 1
New World Technology Spectrum name: 2N002636.An1

Sample description
PCB Hot Spot 84NPCBSU3B0PE-001 500g
5/22/06 11:05

Acquisition information
Start time: 22-May-2006 15:39:32
Live time: 2700
Real time: 2704

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
AC-228	3.0514E-01	1.9900E-01	1.9972E-01	0.125E+00
AM-241 #B	-3.7835E-01	-3.8277E+00	-3.8278E+00	0.329E+00
Bi-212 #B	-4.8682E-02	-1.2820E+00	-1.2820E+00	0.175E+00
BI-214 F	2.6475E-01	1.7375E-01	1.7437E-01	0.698E-01
CO-60 #A	1.5254E-03	9.2451E-03	9.2455E-03	0.113E-01
Cs-137 #B	-1.4751E-03	-5.5076E-02	-5.5076E-02	0.354E-01
EU-152 #B	-1.3341E-02	2.0183E+02	2.0183E+02	0.581E-01
EU-154 B	4.9327E-03	1.0032E-01	1.0032E-01	0.548E-01
K-40	7.7544E+00	1.5829E+00	1.6405E+00	0.836E-01
PA-234 #B	-3.2873E-02	5.2714E+02	5.2714E+02	0.102E+00
Pb-210 #C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212 F	2.7572E-01	1.2486E-01	1.2580E-01	0.596E-01
PB-214	1.9094E-01	1.5230E-01	1.5267E-01	0.667E-01
RA-226 A	4.5835E-01	1.3195E+00	1.3198E+00	0.740E+00
Th-230 #B	-1.4512E+00	-5.8167E+00	-5.8172E+00	0.313E+02
TH-234	2.4767E+00	4.2658E+00	4.2680E+00	0.201E+01
Tl-208 #	1.4179E-01	8.6826E-02	8.7183E-02	0.138E-01
U-235 B	3.1454E-03	7.2669E-02	7.2669E-02	0.418E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

SUMMARY

Total Activity (41.8 to 2675.5 keV) 1.1409400E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 23-MAY-2006 20:59:54 Page 1
New World Technology Spectrum name: 2N002651.An1

Sample description
PCB Hot Spot 84NPCBSU3B1PE-002 481g
5/22/06 16:25

Acquisition information
Start time: 23-May-2006 20:14:48
Live time: 2700
Real time: 2704

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		5.1164E-01	2.2171E-01	2.2353E-01	0.137E+00
AM-241	#B	-3.9837E-01	-7.5593E+00	-7.5593E+00	0.453E+00
Bi-212	F	6.9204E-01	4.6885E-01	4.7043E-01	0.176E+00
BI-214	F	5.0222E-01	1.9275E-01	1.9476E-01	0.697E-01
CO-60	#B	3.7558E-04	6.2987E-03	6.2987E-03	0.875E-02
Cs-137	#B	-2.8508E-02	-1.4204E-01	-1.4205E-01	0.377E-01
EU-152	B	5.4566E-02	8.9909E-02	8.9960E-02	0.863E-01
EU-154	B	3.8786E-02	1.0883E-01	1.0885E-01	0.574E-01
K-40		7.1637E+00	1.5510E+00	1.6013E+00	0.869E-01
PA-234	#A	7.3814E-02	1.3234E-01	1.3240E-01	0.104E+00
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		5.0956E-01	1.6144E-01	1.6391E-01	0.708E-01
PB-214		4.4502E-01	2.0421E-01	2.0570E-01	0.797E-01
RA-226		9.5451E-01	1.3926E+00	1.3936E+00	0.756E+00
Th-230	#B	-2.1698E+01	-1.3493E+02	-1.3493E+02	0.238E+02
TH-234	#	2.9077E+00	3.2965E+00	3.3004E+00	0.253E+01
Tl-208		3.0499E-01	1.2284E-01	1.2401E-01	0.143E-01
U-235	#B	-3.1767E-02	-8.3688E-01	-8.3689E-01	0.472E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.8 to 2675.5 keV) 1.3991385E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 19-MAY-2006 11:06:14 Page 1
New World Technology Spectrum name: 1N002050.An1

Sample description
PCB Hot Spot 84NPCBSU3B2PE-001 541g
05/18/06 10:54

Acquisition information
Start time: 19-May-2006 10:21:05
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Activity picoCi/ g	Time of Count Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	F	4.9652E-01	2.3890E-01	2.4049E-01	0.318E-01
AM-241	#A	-1.2900E-01	-1.8935E+00	-1.8935E+00	0.107E+00
Bi-212		1.9995E-01	3.8990E-01	3.9006E-01	0.198E+00
BI-214	#F	4.0243E-01	3.0675E-01	3.0757E-01	0.163E+00
CO-60	#A	0.0000E+00	0.0000E+00	0.0000E+00	0.129E-01
CS-137	A	2.1180E-03	2.2686E-02	2.2686E-02	0.127E-01
EU-152	C	5.9495E-02	7.5120E-02	7.5192E-02	0.489E-01
EU-154	C	4.4220E-02	7.0197E-02	7.0240E-02	0.300E-01
K-40	#	4.7704E+00	1.5523E+00	1.5748E+00	0.131E+00
Pa-234	#B	-6.2915E-02	-9.4372E-02	-9.4437E-02	0.894E-01
Pb-210	#B	-2.4607E-01	-1.6963E+00	-1.6964E+00	0.181E+01
Pb-212	F	1.9690E-01	9.3987E-02	9.4623E-02	0.381E-01
Pb-214		2.4183E-01	1.2846E-01	1.2916E-01	0.324E-01
RA-226	A	2.1492E-01	7.8371E-01	7.8380E-01	0.477E+00
Th-230	#	1.1662E+01	2.3589E+01	2.3598E+01	0.963E+01
Th-234	B	-1.6519E+00	6.2350E+03	6.2350E+03	0.104E+01
Tl-208	#	9.0846E-02	7.3109E-02	7.3283E-02	0.221E-01
U-235	#B	-1.5654E-02	-3.8540E-02	-3.8550E-02	0.333E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.2 to 2605.8 keV) 1.8061066E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 04-MAY-2006 19:32:50 Page 1
New World Technology Spectrum name: 2N002340.An1

Sample description
PCB Hot Spot 84NPCBSU3C0PE-001 405g
5/04/06 14:35

Acquisition information
Start time: 04-May-2006 18:41:25
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	C	2.6679E-01	3.3182E-01	3.3215E-01	0.170E+00
AM-241	#B	-5.6354E-01	2.1861E+03	2.1861E+03	0.552E+00
Bi-212	F	4.5117E-01	4.1876E-01	4.1951E-01	0.169E+00
BI-214	F	4.1480E-01	2.1698E-01	2.1820E-01	0.828E-01
CO-60	#B	-1.7842E-03	2.6054E+01	2.6054E+01	0.104E-01
Cs-137	#B	-1.5605E-02	-1.0356E-01	-1.0356E-01	0.458E-01
EU-152	F	9.5931E-02	1.2293E-01	1.2304E-01	0.847E-01
EU-154	B	2.3656E-02	1.0697E-01	1.0698E-01	0.605E-01
K-40		7.0449E+00	1.8128E+00	1.8547E+00	0.536E+00
PA-234	#B	4.4889E-02	2.9583E-01	2.9584E-01	0.141E+00
Pb-210	C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	2.4477E-01	1.3009E-01	1.3080E-01	0.646E-01
PB-214		3.7095E-01	2.0002E-01	2.0108E-01	0.807E-01
RA-226	A	9.9206E-02	1.4799E+00	1.4799E+00	0.849E+00
Th-230	B	-2.4771E+01	-7.7880E+01	-7.7892E+01	0.305E+02
TH-234	A	2.6121E+00	5.8778E+00	5.8796E+00	0.268E+01
Tl-208	#F	2.4069E-01	1.2569E-01	1.2641E-01	0.170E-01
U-235	B	3.2275E-02	8.6656E-02	8.6674E-02	0.484E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.8 to 2675.5 keV) 8.7672415E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 09-MAY-2006 08:36:25 Page 1
New World Technology Spectrum name: 2N002402.An1

Sample description
PCB Hot Spot 84NPCBSU3C1PE-001 298g
5/08/06 08:50

Acquisition information
Start time: 09-May-2006 07:51:17
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	#B	-6.5468E-02	-5.8792E-02	-5.8905E-02	0.249E+00
AM-241	#B	-1.5973E-01	-1.7456E+00	-1.7456E+00	0.674E+00
Bi-212	F	3.2449E-01	6.0882E-01	6.0909E-01	0.306E+00
BI-214	F	2.2661E-01	2.6310E-01	2.6340E-01	0.102E+00
CO-60	#F	3.3949E-02	4.4548E-02	4.4588E-02	0.141E-01
Cs-137	#B	-4.4054E-02	-1.6172E-01	-1.6174E-01	0.529E-01
EU-152	B	4.3777E-02	7.8798E-02	7.8836E-02	0.118E+00
EU-154	B	6.8717E-03	1.1230E-01	1.1230E-01	0.656E-01
K-40	#	6.7442E+00	2.1298E+00	2.1626E+00	0.729E+00
PA-234		1.8335E-01	2.1802E-01	2.1825E-01	0.133E+00
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		1.8075E-01	1.7143E-01	1.7173E-01	0.944E-01
PB-214	F	2.0715E-01	2.2752E-01	2.2781E-01	0.106E+00
RA-226	A	3.2409E-01	1.7267E+00	1.7268E+00	0.994E+00
Th-230	#B	-4.3561E+01	-1.2896E+02	-1.2898E+02	0.252E+02
TH-234	F	7.0999E+00	8.3581E+00	8.3673E+00	0.337E+01
Tl-208	F	2.0816E-01	1.3627E-01	1.3676E-01	0.231E-01
U-235	#B	-3.2083E-02	-4.1435E-01	-4.1436E-01	0.723E-01

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---------- S U M M A R Y ----------

Total Activity (41.8 to 2675.5 keV) 1.5208598E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 10-MAY-2006 16:26:53 Page 1
New World Technology Spectrum name: 1N001884.An1

Sample description
PCB Hot Spot 84NPCBSU3C2PE-001 348g
5/08/06 08:55

Acquisition information
Start time: 10-May-2006 15:35:23
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Activity picoCi/ g	Time of Count Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	C	2.2889E-01	1.5380E-01	1.5432E-01	0.942E-01
AM-241	#A	-2.0629E-01	-5.4348E+00	-5.4349E+00	0.179E+00
Bi-212	A	2.0212E-01	4.5951E-01	4.5965E-01	0.216E+00
BI-214	#B	0.0000E+00	0.0000E+00	0.0000E+00	0.253E+00
CO-60	#A	0.0000E+00	0.0000E+00	0.0000E+00	0.202E-01
CS-137	A	2.2625E-02	7.1837E-02	7.1848E-02	0.359E-01
EU-152	A	5.2120E-03	1.4085E-02	1.4088E-02	0.700E-01
EU-154	A	1.1603E-02	8.2230E-02	8.2233E-02	0.485E-01
K-40	#	5.3675E+00	2.0617E+00	2.0832E+00	0.205E+00
Pa-234	#B	-2.8851E-01	-1.6875E+00	-1.6875E+00	0.144E+00
Pb-210	#	1.1022E+01	2.2656E+01	2.2664E+01	0.868E+01
Pb-212	F	2.1214E-01	1.2174E-01	1.2231E-01	0.510E-01
Pb-214		4.4841E-01	1.7315E-01	1.7494E-01	0.577E-01
RA-226	A	1.1807E-01	1.2058E+00	1.2058E+00	0.742E+00
Th-230	#B	-3.5533E+00	-4.5522E+01	-4.5522E+01	0.844E+01
Th-234	#B	4.7226E-01	5.9961E-01	6.0018E-01	0.167E+01
Tl-208	#	1.2485E-01	7.6228E-02	7.6544E-02	0.158E-01
U-235	#B	2.4991E-02	3.8980E-02	3.9005E-02	0.540E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2608.8 keV) 1.7175056E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 17-NOV-2005 10:27:55 Page 1
New World Technology Spectrum name: 1N001326.An1

Sample description
PCB Hot Spot 84NPCBSU3D0PE-001 354g
11/16/2005 12:50

Acquisition information
Start time: 17-Nov-2005 09:42:46
Live time: 2700
Real time: 2701

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	5.3950E-01	2.8332E-01	2.8490E-01	0.434E-01
AM-241	A	7.5224E-02	3.0762E-01	3.0765E-01	0.168E+00
Bi-212	#B	3.7571E-02	2.9821E-01	2.9821E-01	0.214E+00
BI-214	F	3.9343E-01	3.1545E-01	3.1621E-01	0.222E+00
CO-60	#A	-3.6882E-03	4.8171E+01	4.8171E+01	0.172E-01
CS-137	#A	-6.1559E-02	-4.3898E-01	-4.3899E-01	0.511E-01
EU-152	A	-5.1438E-02	2.6657E+02	2.6657E+02	0.673E-01
EU-154	#A	1.2238E-03	1.1002E-02	1.1003E-02	0.183E-01
K-40		8.5705E+00	2.4048E+00	2.4515E+00	0.201E+00
Pa-234	#B	-3.1751E-02	-1.0347E-01	-1.0349E-01	0.930E-01
Pb-210	#	9.3175E+00	1.6358E+01	1.6366E+01	0.769E+01
Pb-212		3.3819E-01	1.4487E-01	1.4609E-01	0.581E-01
Pb-214		3.5852E-01	1.8999E-01	1.9103E-01	0.571E-01
RA-226		9.1424E-01	1.4445E+00	1.4454E+00	0.789E+00
Th-230	#B	-7.7338E+00	-1.0333E+02	-1.0333E+02	0.766E+01
Th-234	C	1.6669E+00	1.5527E+00	1.5555E+00	0.147E+01
Tl-208	#C	7.6211E-02	5.7364E-02	5.7520E-02	0.296E-01
U-235	B	-2.8906E-04	-5.6515E-04	-5.6538E-04	0.571E-01

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B - Activity < MDA and failed test.
C - Area < Critical level.
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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2654.1 keV) 2.0038393E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 09-MAY-2006 01:28:19 Page 1
New World Technology Spectrum name: 2N002399.An1

Sample description
PCB Hot Spot 84NPCBSU3D1PE-001 323g
5/08/06 08:30

Acquisition information
Start time: 09-May-2006 00:43:11
Live time: 2700
Real time: 2704

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	#F	3.0998E-01	2.6534E-01	2.6590E-01	0.182E+00
AM-241	#B	-5.8569E-01	-9.2203E+00	-9.2203E+00	0.607E+00
Bi-212	F	3.0643E-01	4.1038E-01	4.1073E-01	0.186E+00
BI-214	F	2.7135E-01	2.4400E-01	2.4446E-01	0.104E+00
CO-60	#B	-2.2372E-03	3.2669E+01	3.2669E+01	0.130E-01
Cs-137	#B	-4.0498E-02	-1.4375E-01	-1.4376E-01	0.482E-01
EU-152	F	8.3309E-02	1.3835E-01	1.3843E-01	0.762E-01
EU-154	B	2.9828E-02	1.3827E-01	1.3828E-01	0.739E-01
K-40		7.2222E+00	2.0883E+00	2.1266E+00	0.673E+00
PA-234	#F	2.0866E-01	1.6154E-01	1.6196E-01	0.117E+00
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	1.4653E-01	1.4534E-01	1.4557E-01	0.814E-01
PB-214		2.4016E-01	1.9895E-01	1.9940E-01	0.109E+00
RA-226	A	5.0380E-01	1.8522E+00	1.8524E+00	0.104E+01
Th-230	B	-2.9552E+01	-7.7369E+01	-7.7387E+01	0.329E+02
TH-234		4.2385E+00	5.4219E+00	5.4270E+00	0.246E+01
Tl-208		1.7376E-01	1.1959E-01	1.1998E-01	0.213E-01
U-235	B	2.6019E-02	1.1023E-01	1.1024E-01	0.624E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.8 to 2675.5 keV) 1.2598937E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 10-MAY-2006 19:44:51 Page 1
New World Technology Spectrum name: 3N002430.An1

Sample description
PCB Hot Spot 84NPCBSU3D2PE-001 318g
5/08/06 8:35

Acquisition information
Start time: 10-May-2006 18:59:31
Live time: 2700
Real time: 2702

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228 #F	3.8374E-01	3.9907E-01	3.9964E-01	0.235E+00
AM-241 #A	7.4489E-02	2.3499E-01	2.3503E-01	0.111E+00
Bi-212 F	5.3591E-01	6.3297E-01	6.3367E-01	0.287E+00
BI-214 #F	4.5532E-01	2.9808E-01	2.9915E-01	0.131E+00
CO-60 #C	5.6586E-02	3.6358E-02	3.6494E-02	0.126E-01
Cs-137 #B	-3.9081E-03	-8.4027E-02	-8.4027E-02	0.498E-01
EU-152 B	7.3964E-02	9.0587E-02	9.0680E-02	0.901E-01
EU-154 C	9.6035E-02	1.0184E-01	1.0198E-01	0.599E-01
K-40	7.6968E+00	2.4282E+00	2.4657E+00	0.114E+01
PA-234 #F	1.3197E-01	2.3668E-01	2.3679E-01	0.126E+00
Pb-210 A	6.4901E-01	2.4377E+00	2.4379E+00	0.118E+01
PB-212 F	1.2415E-01	1.5319E-01	1.5335E-01	0.853E-01
PB-214 C	2.0919E-01	1.8345E-01	1.8381E-01	0.110E+00
RA-226 #B	-5.2108E-01	-4.8891E+00	-4.8891E+00	0.916E+00
Th-230 #B	2.5736E+00	4.3172E+00	4.3195E+00	0.766E+01
TH-234 C	9.5387E-01	1.4250E+00	1.4260E+00	0.886E+00
Tl-208 B	-5.4639E-02	-7.6737E-02	-7.6797E-02	0.127E+00
U-235 B	-1.2173E-02	-6.8069E-02	-6.8072E-02	0.498E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2659.7 keV) 9.1958799E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 16-NOV-2005 22:09:53 Page 1
New World Technology Spectrum name: 2N001739.An1

Sample description
PCB Hot Spot 84NPCBSU3E0PE-001 436g
11/16/2005 12:45

Acquisition information
Start time: 16-Nov-2005 21:24:45
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	3.9587E-01	2.1225E-01	2.1339E-01	0.128E+00
AM-241 #	5.1532E-01	9.3612E-01	9.3655E-01	0.432E+00
Bi-212 F	4.8758E-01	4.5385E-01	4.5466E-01	0.176E+00
BI-214 #F	4.1093E-01	1.9093E-01	1.9229E-01	0.475E-01
CO-60 #B	-1.6690E-03	-3.2467E-02	-3.2468E-02	0.226E-01
Cs-137 #A	7.0041E-03	6.7054E-02	6.7055E-02	0.387E-01
EU-152 B	8.3504E-02	1.2755E-01	1.2764E-01	0.889E-01
EU-154 B	1.3925E-02	5.0834E-02	5.0840E-02	0.487E-01
K-40	9.4299E+00	1.9814E+00	2.0497E+00	0.501E+00
PA-234 #F	1.6227E-01	1.7031E-01	1.7055E-01	0.117E+00
Pb-210 #	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	3.5799E-01	1.3441E-01	1.3588E-01	0.521E-01
PB-214	3.9999E-01	2.0459E-01	2.0580E-01	0.703E-01
RA-226	7.3207E-01	1.1140E+00	1.1147E+00	0.608E+00
Th-230 #B	1.0184E+01	3.4719E+01	3.4723E+01	0.189E+02
TH-234	3.3050E+00	3.0361E+00	3.0417E+00	0.247E+01
Tl-208 #	1.3370E-01	7.9728E-02	8.0075E-02	0.481E-01
U-235 C	6.4399E-02	1.0393E-01	1.0399E-01	0.450E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2674.9 keV) 1.6330669E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 09-MAY-2006 02:17:55 Page 1
New World Technology Spectrum name: 2N002400.An1

Sample description
PCB Hot Spot 84NPCBSU3E1PE-001 345g
5/08/06 08:40

Acquisition information
Start time: 09-May-2006 01:32:47
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		5.3128E-01	3.1128E-01	3.1268E-01	0.185E+00
AM-241	#B	-1.9847E-01	-2.4532E+00	-2.4533E+00	0.780E+00
Bi-212	F	3.0003E-01	4.1940E-01	4.1973E-01	0.195E+00
BI-214	F	5.7729E-01	2.8603E-01	2.8783E-01	0.103E+00
CO-60	#F	1.9130E-02	2.0860E-02	2.0887E-02	0.122E-01
Cs-137	#B	-8.7406E-03	-8.6482E-02	-8.6483E-02	0.494E-01
EU-152	F	1.4217E-01	1.9329E-01	1.9345E-01	0.807E-01
EU-154	B	6.3590E-02	1.3878E-01	1.3883E-01	0.720E-01
K-40		1.1027E+01	2.4123E+00	2.4890E+00	0.630E+00
PA-234	#B	-9.2858E-03	-4.2236E-01	-4.2236E-01	0.160E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.8033E-01	1.8737E-01	1.8856E-01	0.915E-01
PB-214		3.4603E-01	2.1421E-01	2.1507E-01	0.992E-01
RA-226	A	7.3765E-01	1.6438E+00	1.6443E+00	0.911E+00
Th-230	#B	-2.6036E+01	-5.8464E+01	-5.8482E+01	0.287E+02
TH-234	#F	4.4732E+00	8.0319E+00	8.0357E+00	0.364E+01
Tl-208	#C	1.0571E-01	5.9257E-02	5.9547E-02	0.346E-01
U-235	#B	-3.1492E-02	-4.2833E-01	-4.2833E-01	0.655E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.8 to 2675.5 keV) 1.7634937E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 09-MAY-2006 06:21:46 Page 1
New World Technology Spectrum name: 2N002401.An1

Sample description
PCB Hot Spot 84NPCBSU3E2PE-001 434g
5/08/06 08:45

Acquisition information
Start time: 09-May-2006 02:22:09
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	B	1.3207E-01	1.8375E-01	1.8390E-01	0.135E+00
AM-241	#B	-2.7849E-01	-3.2131E+00	-3.2131E+00	0.597E+00
Bi-212	#B	-1.0806E-01	-1.0484E+00	-1.0484E+00	0.130E+00
BI-214	#F	1.4617E-01	2.1701E-01	2.1716E-01	0.810E-01
CO-60	#B	-1.6650E-03	2.4313E+01	2.4313E+01	0.970E-02
Cs-137	#B	-5.1809E-02	-2.5692E-01	-2.5693E-01	0.356E-01
EU-152	F	8.4579E-02	1.4606E-01	1.4613E-01	0.789E-01
EU-154	B	2.8581E-02	1.0872E-01	1.0873E-01	0.578E-01
K-40		4.5481E+00	1.4519E+00	1.4737E+00	0.501E+00
PA-234	#F	1.2590E-01	1.0088E-01	1.0112E-01	0.778E-01
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	A	5.3229E-02	1.6424E-01	1.6427E-01	0.654E-01
PB-214		1.4181E-01	1.6307E-01	1.6326E-01	0.758E-01
RA-226	#B	-1.5983E-01	-2.0330E+00	-2.0330E+00	0.752E+00
Th-230	#B	-2.1770E+01	-1.0524E+02	-1.0525E+02	0.250E+02
TH-234	#B	0.0000E+00	7.4367E+03	7.4367E+03	0.214E+01
Tl-208	#B	1.3669E-02	3.1386E-02	3.1395E-02	0.491E-01
U-235	B	1.0327E-02	7.8684E-02	7.8687E-02	0.452E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2675.5 keV) 4.8361168E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 17-NOV-2005 09:13:56 Page 1
New World Technology Spectrum name: 2N001742.An1

Sample description
PCB Hot Spot 84NPCBSU3F0PE-001 312g
11/16/2005 12:40

Acquisition information
Start time: 17-Nov-2005 08:28:48
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228 F	7.2650E-01	3.4027E-01	3.4266E-01	0.134E+00
AM-241 #A	4.8008E-02	7.8225E-01	7.8226E-01	0.473E+00
Bi-212	5.7015E-01	5.2849E-01	5.2944E-01	0.183E+00
BI-214 F	7.3684E-01	2.8063E-01	2.8361E-01	0.654E-01
CO-60 #B	-1.3994E-02	-7.8772E-02	-7.8776E-02	0.316E-01
Cs-137 #A	4.1705E-02	1.1177E-01	1.1179E-01	0.571E-01
EU-152 B	9.2860E-02	1.4690E-01	1.4699E-01	0.123E+00
EU-154 A	6.7874E-02	1.1519E-01	1.1525E-01	0.866E-01
K-40	1.3698E+01	2.8173E+00	2.9187E+00	0.700E+00
PA-234 #B	1.0655E-01	3.1105E-01	3.1111E-01	0.152E+00
Pb-210 #C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	6.6830E-01	2.1397E-01	2.1718E-01	0.817E-01
PB-214	6.7200E-01	2.6581E-01	2.6843E-01	0.798E-01
RA-226 A	1.0043E+00	1.8406E+00	1.8415E+00	0.101E+01
Th-230 #	5.3950E+01	6.2303E+01	6.2374E+01	0.331E+02
TH-234 B	0.0000E+00	1.5432E+04	1.5432E+04	0.314E+01
Tl-208 #	1.8654E-01	9.2768E-02	9.3348E-02	0.672E-01
U-235 C	7.3452E-02	1.0915E-01	1.0923E-01	0.643E-01

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---------- S U M M A R Y ----------
Total Activity (41.8 to 2674.9 keV) 7.1208672E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 04-MAY-2006 17:51:26 Page 1
New World Technology Spectrum name: 1N001813.An1

Sample description
PCB Hot Spot 84NPCBSU3F1PE-001 384g
5/04/06 11:45

Acquisition information
Start time: 04-May-2006 17:06:17
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228	#F	2.7054E-01	2.5671E-01	2.5715E-01	0.164E+00
AM-241	#A	-6.9255E-02	-6.1557E-01	-6.1558E-01	0.190E+00
Bi-212	B	2.4239E-01	5.0834E-01	5.0852E-01	0.254E+00
BI-214		3.5853E-01	1.8776E-01	1.8881E-01	0.253E+00
CO-60	#A	0.0000E+00	0.0000E+00	0.0000E+00	0.181E-01
CS-137	A	7.9912E-03	5.8579E-02	5.8581E-02	0.317E-01
EU-152	#A	-1.3499E-02	-6.3389E-02	-6.3394E-02	0.675E-01
EU-154	A	-1.3233E-02	-9.8263E-02	-9.8265E-02	0.405E-01
K-40	#	7.2783E+00	2.2669E+00	2.3027E+00	0.183E+00
Pa-234	#B	-8.2220E-02	-1.0877E-01	-1.0886E-01	0.114E+00
Pb-210	#	1.5598E+01	2.8274E+01	2.8288E+01	0.989E+01
Pb-212		4.3110E-01	1.4178E-01	1.4379E-01	0.473E-01
Pb-214		5.9388E-01	2.1544E-01	2.1795E-01	0.383E-01
RA-226	#	1.3157E+00	1.8936E+00	1.8950E+00	0.783E+00
Th-230	#B	1.1434E+01	2.8795E+01	2.8802E+01	0.131E+02
Th-234	B	-1.8025E-01	-4.4439E-01	-4.4450E-01	0.158E+01
Tl-208	#	2.2593E-01	1.0876E-01	1.0949E-01	0.237E-01
U-235	#B	-5.6849E-02	2.2960E+02	2.2960E+02	0.539E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2606.4 keV) 2.5443216E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 04-MAY-2006 18:36:15 Page 1
New World Technology Spectrum name: 3N002344.An1

Sample description
PCB Hot Spot 84NPCBSU3F2PE-001 409g
5/04/06 11:45

Acquisition information
Start time: 04-May-2006 17:41:07
Live time: 2700
Real time: 2702

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	#F	4.3645E-01	4.0487E-01	4.0559E-01	0.168E+00
AM-241	#B	-3.1760E-02	-4.6573E-01	-4.6574E-01	0.666E-01
Bi-212	F	7.6675E-01	5.0443E-01	5.0623E-01	0.179E+00
BI-214	F	3.2877E-01	2.0840E-01	2.0920E-01	0.971E-01
CO-60	#C	4.3499E-02	4.1701E-02	4.1771E-02	0.980E-02
Cs-137	#B	-4.6441E-02	-6.3269E-01	-6.3269E-01	0.421E-01
EU-152	F	1.4439E-01	1.9185E-01	1.9202E-01	0.707E-01
EU-154	B	1.5386E-02	2.5443E-02	2.5457E-02	0.465E-01
K-40		9.1450E+00	2.1825E+00	2.2410E+00	0.884E+00
PA-234	#B	-3.5602E-02	-3.2628E-01	-3.2628E-01	0.753E-01
Pb-210	#B	-9.2358E-01	-4.0688E+00	-4.0691E+00	0.951E+00
PB-212		2.7975E-01	1.3218E-01	1.3309E-01	0.637E-01
PB-214		2.9915E-01	1.7902E-01	1.7980E-01	0.920E-01
RA-226		9.0759E-01	1.2809E+00	1.2819E+00	0.696E+00
Th-230	B	-7.8505E+00	-5.6309E+01	-5.6311E+01	0.470E+01
TH-234	#	1.2218E+00	1.1649E+00	1.1668E+00	0.628E+00
Tl-208	#C	9.2487E-02	1.0392E-01	1.0405E-01	0.887E-01
U-235	B	2.2092E-02	3.6638E-02	3.6659E-02	0.486E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2659.7 keV) 1.3093194E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 30-MAR-2006 15:57:36 Page 1
New World Technology Spectrum name: 3N002128.An1

Sample description
PCB Hotspot 84NPCBSU4AOPE-002 459g
3/30/06 13:30

Acquisition information
Start time: 30-Mar-2006 15:12:30
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	4.7439E-01	4.2183E-01	4.2266E-01	0.168E+00
AM-241 #B	-5.9435E-03	-1.4449E-01	-1.4449E-01	0.633E-01
Bi-212	4.8643E-01	5.2867E-01	5.2936E-01	0.184E+00
BI-214 F	4.0559E-01	2.5921E-01	2.6019E-01	0.969E-01
CO-60 #F	2.6991E-02	5.7257E-02	5.7277E-02	0.201E-01
Cs-137 #B	-4.8879E-03	-6.4411E-02	-6.4412E-02	0.357E-01
EU-152 A	5.2396E-02	1.7148E-01	1.7150E-01	0.551E-01
EU-154 #B	2.3125E-03	1.1963E-02	1.1963E-02	0.365E-01
K-40	8.0362E+00	2.1214E+00	2.1680E+00	0.946E+00
PA-234 #F	1.6917E-01	2.0612E-01	2.0633E-01	0.116E+00
Pb-210 #A	1.9416E-01	1.7707E+00	1.7707E+00	0.881E+00
PB-212	3.0655E-01	1.2670E-01	1.2784E-01	0.603E-01
PB-214	3.9394E-01	2.1002E-01	2.1116E-01	0.833E-01
RA-226 A	3.9607E-01	1.0547E+00	1.0550E+00	0.596E+00
Th-230 #B	-1.7210E-01	-1.4537E+00	-1.4537E+00	0.821E+01
TH-234 C	8.1916E-01	1.1752E+00	1.1761E+00	0.620E+00
Tl-208	1.0197E-01	7.1691E-02	7.1915E-02	0.732E-01
U-235 #B	-1.5149E-02	-1.3877E-01	-1.3877E-01	0.385E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
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< - MDA value printed.
A - Activity printed, but activity < MDA.
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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.5 keV) 1.0232068E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 10-MAY-2006 19:13:14 Page 1
New World Technology Spectrum name: 1N001887.An1

Sample description
PCB Hot Spot 84NPCBSU4A1PE-001 553g
5/09/06 13:00

Acquisition information
Start time: 10-May-2006 18:18:44
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228 #F	1.3712E-01	1.4069E-01	1.4090E-01	0.838E-01
AM-241 #A	-6.0215E-02	-5.5985E-01	-5.5985E-01	0.141E+00
Bi-212 #F	2.7041E-01	2.9162E-01	2.9201E-01	0.108E+00
BI-214 F	3.3238E-01	1.5412E-01	1.5523E-01	0.315E+00
CO-60 #	3.1223E-02	2.7424E-02	2.7479E-02	0.127E-01
CS-137 A	8.0026E-03	3.4137E-02	3.4140E-02	0.174E-01
EU-152 #C	2.0629E-01	2.0697E-01	2.0728E-01	0.462E-01
EU-154 A	9.2241E-03	6.9074E-02	6.9076E-02	0.391E-01
K-40	1.2683E+01	2.5143E+00	2.6115E+00	0.129E+00
Pa-234 #B	-1.5977E-01	-7.4237E-01	-7.4242E-01	0.947E-01
Pb-210	1.7744E+01	1.4315E+01	1.4348E+01	0.532E+01
Pb-212	2.9477E-01	1.1031E-01	1.1152E-01	0.426E-01
Pb-214	4.1207E-01	1.6331E-01	1.6491E-01	0.400E-01
RA-226	6.5647E-01	1.0661E+00	1.0667E+00	0.586E+00
Th-230 #F	1.2735E+01	2.8191E+01	2.8199E+01	0.116E+02
Th-234 A	7.5490E-01	1.5277E+00	1.5283E+00	0.115E+01
Tl-208 #B	-2.2362E-02	-1.2589E-01	-1.2590E-01	0.348E-01
U-235 #B	3.9797E-02	4.2496E-02	4.2554E-02	0.398E-01

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C - Area < Critical level.
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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2608.8 keV) 4.4826366E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 10-MAY-2006 20:35:58 Page 1
New World Technology Spectrum name: 3N002431.An1

Sample description
PCB Hot Spot 84NPCBSU4A2PE-001 484g
5/09/06 13:05

Acquisition information
Start time: 10-May-2006 19:50:53
Live time: 2700
Real time: 2703

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		3.2235E-01	3.3714E-01	3.3762E-01	0.139E+00
AM-241	A	7.1043E-02	2.5756E-01	2.5759E-01	0.103E+00
Bi-212	F	5.5036E-01	6.5756E-01	6.5828E-01	0.217E+00
BI-214	F	3.0209E-01	2.0791E-01	2.0859E-01	0.955E-01
CO-60	#B	0.0000E+00	0.0000E+00	0.0000E+00	0.828E-02
Cs-137	#B	-1.5082E-05	-5.7296E-02	-5.7296E-02	0.361E-01
EU-152	#B	-3.3667E-03	1.9481E+02	1.9481E+02	0.491E-01
EU-154	#B	-2.1031E-02	1.5656E+02	1.5656E+02	0.395E-01
K-40		1.1004E+01	2.1099E+00	2.1969E+00	0.747E+00
PA-234	#B	6.9085E-02	2.2576E-01	2.2579E-01	0.105E+00
Pb-210	A	3.8765E-02	1.3907E+00	1.3907E+00	0.784E+00
PB-212	F	2.9016E-01	1.2847E-01	1.2948E-01	0.615E-01
PB-214		2.9931E-01	1.5288E-01	1.5378E-01	0.767E-01
RA-226	A	2.1996E-01	1.2316E+00	1.2316E+00	0.697E+00
Th-230	#B	-5.3409E+00	-4.2457E+01	-4.2458E+01	0.567E+01
TH-234		7.3244E-01	1.0550E+00	1.0557E+00	0.570E+00
Tl-208	#F	1.3126E-01	7.8243E-02	7.8583E-02	0.750E-01
U-235	#B	-8.9406E-03	-1.2204E-01	-1.2204E-01	0.444E-01

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C - Area < Critical level.
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H - Halflife limit exceeded

SUMMARY

Total Activity (41.7 to 2659.7 keV) 1.3632190E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 12-MAY-2006 13:12:52 Page 1
New World Technology Spectrum name: 3N002468.An1

Sample description
PCB Hot Spot 84NPCBSU4A3PE-001 453g
5/10/06 9:10

Acquisition information
Start time: 12-May-2006 12:27:47
Live time: 2700
Real time: 2703

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
AC-228	F	7.9549E-01	3.2296E-01	3.2598E-01	0.131E+00
AM-241	#B	-2.4739E-02	-3.3218E-01	-3.3219E-01	0.628E-01
Bi-212	#B	-3.6959E-02	1.0912E+03	1.0912E+03	0.228E+00
BI-214	F	4.0562E-01	2.4019E-01	2.4125E-01	0.965E-01
CO-60	#B	1.1390E-03	4.1708E-03	4.1713E-03	0.885E-02
Cs-137	#B	-2.3903E-02	-1.9596E-01	-1.9596E-01	0.446E-01
EU-152	F	1.5271E-01	1.9433E-01	1.9451E-01	0.777E-01
EU-154	B	3.4702E-02	7.2801E-02	7.2826E-02	0.524E-01
K-40		1.0616E+01	2.1658E+00	2.2449E+00	0.798E+00
PA-234	B	6.5023E-03	1.9017E-01	1.9017E-01	0.108E+00
Pb-210	A	4.4179E-01	1.8053E+00	1.8055E+00	0.908E+00
PB-212		4.3214E-01	1.4526E-01	1.4723E-01	0.648E-01
PB-214		3.0951E-01	2.0426E-01	2.0498E-01	0.963E-01
RA-226		1.4588E+00	1.2937E+00	1.2962E+00	0.672E+00
Th-230	B	-1.5921E+00	-2.0308E+01	-2.0308E+01	0.810E+01
TH-234	C	9.1657E-01	1.2282E+00	1.2292E+00	0.761E+00
Tl-208		1.2958E-01	8.4596E-02	8.4902E-02	0.801E-01
U-235	#B	-1.1360E-02	-1.4179E-01	-1.4179E-01	0.472E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.7 to 2659.7 keV) 1.4146947E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 12-MAY-2006 17:19:27 Page 1
New World Technology Spectrum name: 1N001925.An1

Sample description
PCB HOT SPOT 84NPCBSU4A4PE-002 474g
5/11/06 08:00

Acquisition information
Start time: 12-May-2006 16:34:18
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Activity picoCi/ g	Time of Count Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	F	7.3972E-01	3.1702E-01	3.1968E-01	0.364E-01
AM-241	#A	-6.4547E-02	-6.5826E-01	-6.5827E-01	0.176E+00
Bi-212	B	1.9843E-01	4.4979E-01	4.4993E-01	0.228E+00
BI-214	F	4.2812E-01	1.6707E-01	1.6876E-01	0.186E+00
CO-60	#A	4.3127E-03	9.5514E-03	9.5544E-03	0.148E-01
CS-137	A	1.5847E-02	4.4457E-02	4.4466E-02	0.214E-01
EU-152	C	1.0708E-01	1.3728E-01	1.3741E-01	0.630E-01
EU-154	A	7.6177E-03	2.7475E-02	2.7478E-02	0.453E-01
K-40		1.0913E+01	2.5201E+00	2.5922E+00	0.151E+00
Pa-234	#B	4.0114E-02	3.2163E-02	3.2240E-02	0.129E+00
Pb-210	#	1.3926E+01	2.1946E+01	2.1959E+01	0.866E+01
Pb-212		5.5484E-01	1.4289E-01	1.4619E-01	0.441E-01
Pb-214		5.2051E-01	2.2560E-01	2.2745E-01	0.592E-01
RA-226	A	4.5972E-01	1.3936E+00	1.3939E+00	0.788E+00
Th-230	#B	5.0648E+00	2.5147E+01	2.5149E+01	0.120E+02
Th-234	#B	-3.5719E-02	-6.5941E-02	-6.5971E-02	0.143E+01
Tl-208	#	2.0095E-01	1.0309E-01	1.0369E-01	0.272E-01
U-235	C	8.5970E-02	1.0340E-01	1.0351E-01	0.483E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2608.8 keV) 2.6855412E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 13-MAY-2006 15:52:47 Page 1
New World Technology Spectrum name: 2N002488.An1

Sample description
PCB Hot Spot 84NPCBSU4A5PE-002 462g
5/11/06 08:05

Acquisition information
Start time: 13-May-2006 15:07:40
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	5.2331E-01	2.1929E-01	2.2122E-01	0.138E+00
AM-241	#B	-2.9852E-01	-3.7209E+00	-3.7210E+00	0.538E+00
Bi-212	F	4.6904E-01	4.8509E-01	4.8579E-01	0.219E+00
BI-214	F	4.2000E-01	1.8873E-01	1.9017E-01	0.730E-01
CO-60	#B	3.9103E-04	6.5577E-03	6.5578E-03	0.911E-02
Cs-137	#B	-4.2196E-02	-3.0921E-01	-3.0922E-01	0.433E-01
EU-152	B	6.2572E-02	9.2686E-02	9.2751E-02	0.667E-01
EU-154	A	4.6131E-02	6.1025E-02	6.1079E-02	0.613E-01
K-40		1.0099E+01	1.9740E+00	2.0523E+00	0.470E+00
PA-234	#F	1.4267E-01	2.2044E-01	2.2058E-01	0.978E-01
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.0190E-01	1.4789E-01	1.4884E-01	0.723E-01
PB-214		3.5660E-01	2.0261E-01	2.0358E-01	0.843E-01
RA-226	A	7.0117E-02	1.3751E+00	1.3751E+00	0.795E+00
Th-230	#B	-1.0698E+01	-1.8714E+01	-1.8724E+01	0.294E+02
TH-234	B	2.2090E+00	5.2976E+00	5.2991E+00	0.258E+01
Tl-208	F	7.2405E-02	5.1552E-02	5.1709E-02	0.394E-01
U-235	B	1.6192E-03	4.6735E-02	4.6735E-02	0.449E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2675.5 keV) 1.2169468E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 19-MAY-2006 05:22:27 Page 1
New World Technology Spectrum name: 1N002044.An1

Sample description
PCB Hot Spot 84NPCBSU4A6PE-002 361g
05/18/06 09:30

Acquisition information
Start time: 19-May-2006 04:37:17
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	7.6459E-01	3.6448E-01	3.6695E-01	0.476E-01
AM-241 #A	-1.0749E-01	-1.1868E+00	-1.1868E+00	0.249E+00
Bi-212	4.1478E-01	5.3924E-01	5.3973E-01	0.234E+00
BI-214 #F	4.2543E-01	2.3610E-01	2.3729E-01	0.385E+00
CO-60 #A	1.3088E-02	2.7579E-02	2.7588E-02	0.193E-01
CS-137 A	1.2693E-02	8.2136E-02	8.2139E-02	0.437E-01
EU-152 C	1.3163E-01	2.0372E-01	2.0385E-01	0.693E-01
EU-154 A	1.7684E-02	9.4382E-02	9.4387E-02	0.527E-01
K-40	1.2279E+01	3.0488E+00	3.1243E+00	0.196E+00
Pa-234 #B	2.0592E-02	1.9455E-02	1.9488E-02	0.125E+00
Pb-210 #	2.6551E+01	2.3659E+01	2.3705E+01	0.869E+01
Pb-212 F	4.2522E-01	1.7712E-01	1.7870E-01	0.707E-01
Pb-214	5.7155E-01	2.3452E-01	2.3667E-01	0.535E-01
RA-226 A	5.8189E-01	1.6239E+00	1.6243E+00	0.927E+00
Th-230 B	-2.8593E+00	-3.6503E+01	-3.6503E+01	0.941E+01
Th-234 A	9.0224E-01	1.4081E+00	1.4089E+00	0.173E+01
Tl-208 #	1.9539E-01	1.0364E-01	1.0421E-01	0.239E-01
U-235 #B	5.3558E-02	7.5663E-02	7.5722E-02	0.621E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.2 to 2605.8 keV) 4.1202274E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 19-MAY-2006 03:30:32 Page 1
New World Technology Spectrum name: 1N002042.An1

Sample description
PCB Hot Spot 84NPCBSU4A7PE-002 504g
05/18/06 09:20

Acquisition information
Start time: 19-May-2006 02:45:22
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228	3.9579E-01	1.8170E-01	1.8303E-01	0.928E-01
AM-241 #A	-1.0565E-01	-1.2827E+00	-1.2828E+00	0.162E+00
Bi-212	1.5947E-01	3.1895E-01	3.1908E-01	0.151E+00
BI-214 #F	1.0481E+00	8.4036E-01	8.4238E-01	0.174E+00
CO-60 #A	0.0000E+00	0.0000E+00	0.0000E+00	0.138E-01
CS-137	2.7480E-02	5.0752E-02	5.0775E-02	0.229E-01
EU-152 C	5.5008E-02	9.4015E-02	9.4065E-02	0.463E-01
EU-154 A	5.6741E-03	2.1592E-02	2.1594E-02	0.369E-01
K-40	6.3857E+00	1.8607E+00	1.8943E+00	0.140E+00
Pa-234 #B	4.8658E-02	4.4013E-02	4.4096E-02	0.930E-01
Pb-210 #A	8.8046E-01	5.4453E+00	5.4456E+00	0.324E+01
Pb-212 F	2.3465E-01	9.7918E-02	9.8784E-02	0.363E-01
Pb-214	3.1213E-01	1.7155E-01	1.7242E-01	0.499E-01
RA-226 A	3.6490E-01	8.4898E-01	8.4922E-01	0.505E+00
Th-230 #B	1.1454E+00	1.1401E+01	1.1401E+01	0.678E+01
Th-234 B	-1.2656E-01	-1.6861E-01	-1.6876E-01	0.120E+01
Tl-208 #	8.5101E-02	6.4385E-02	6.4558E-02	0.196E-01
U-235 B	1.3735E-02	2.1733E-02	2.1746E-02	0.404E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2605.8 keV) 8.6484089E+00 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 25-MAY-2006 18:54:47 Page 1
New World Technology Spectrum name: 2N002680.An1

Sample description
PCB Hot Spot 84NPCBSU4A8PE-001 363g
05/24/06 15:55

Acquisition information
Start time: 25-May-2006 18:09:40
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
AC-228	F	2.4746E-01	2.3055E-01	2.3096E-01	0.162E+00
AM-241	#B	-2.2527E-01	-2.5886E+00	-2.5886E+00	0.668E+00
Bi-212	F	3.3518E-01	4.6686E-01	4.6723E-01	0.220E+00
BI-214	#F	4.0316E-01	2.3040E-01	2.3148E-01	0.913E-01
CO-60	#F	3.7823E-02	4.2229E-02	4.2281E-02	0.116E-01
Cs-137	#B	-5.1591E-03	-8.1009E-02	-8.1010E-02	0.486E-01
EU-152	B	6.3777E-02	9.0653E-02	9.0722E-02	0.106E+00
EU-154	B	-7.1728E-04	2.0953E+02	2.0953E+02	0.603E-01
K-40		1.0086E+01	2.1184E+00	2.1914E+00	0.115E+00
PA-234	#F	1.4976E-01	2.7618E-01	2.7630E-01	0.122E+00
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		2.3735E-01	1.6560E-01	1.6613E-01	0.863E-01
PB-214		3.1751E-01	1.9713E-01	1.9792E-01	0.882E-01
RA-226	A	1.2575E-01	1.5516E+00	1.5516E+00	0.907E+00
Th-230	#B	-3.7474E+01	-7.7187E+02	-7.7188E+02	0.241E+02
TH-234		4.3200E+00	6.9625E+00	6.9666E+00	0.311E+01
Tl-208	F	1.6275E-01	1.0918E-01	1.0955E-01	0.190E-01
U-235	#B	-2.7741E-02	-3.4806E-01	-3.4806E-01	0.606E-01

- All peaks for activity calculation had bad shape.
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A - Activity printed, but activity < MDA.
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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.8 to 2675.5 keV) 1.6146832E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 30-MAR-2006 15:55:42 Page 1
New World Technology Spectrum name: 2N002125.An1

Sample description
PCB Hotspot 84NPCBSU4BOPE-002 456g
3/30/06 10:20

Acquisition information
Start time: 30-Mar-2006 15:10:35
Live time: 2700
Real time: 2705

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228 #F	4.4460E-01	3.5263E-01	3.5350E-01	0.152E+00
AM-241 A	1.1736E-02	9.1978E-01	9.1978E-01	0.538E+00
Bi-212 B	1.5870E-01	4.6429E-01	4.6437E-01	0.246E+00
BI-214 F	3.1480E-01	2.0513E-01	2.0587E-01	0.814E-01
CO-60 #A	1.7512E-03	8.7560E-03	8.7566E-03	0.930E-02
Cs-137 A	2.9236E-02	6.3722E-02	6.3743E-02	0.389E-01
EU-152 B	6.2042E-02	1.1223E-01	1.1228E-01	0.683E-01
EU-154 B	3.4020E-02	1.1587E-01	1.1588E-01	0.616E-01
K-40	8.2491E+00	1.9203E+00	1.9743E+00	0.676E+00
PA-234 #A	7.7159E-02	1.0457E-01	1.0466E-01	0.107E+00
Pb-210 #C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	3.6121E-01	1.4028E-01	1.4171E-01	0.650E-01
PB-214	2.9454E-01	1.4746E-01	1.4836E-01	0.674E-01
RA-226	8.8168E-01	1.5530E+00	1.5537E+00	0.842E+00
Th-230 #B	-2.4993E+01	-7.7399E+01	-7.7411E+01	0.226E+02
TH-234 #A	2.1735E+00	3.1083E+00	3.1107E+00	0.248E+01
Tl-208 B	3.6676E-02	4.4681E-02	4.4727E-02	0.563E-01
U-235 B	-1.9944E-02	-2.7899E-01	-2.7900E-01	0.518E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.9 to 2675.6 keV) 1.0545924E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 10-MAY-2006 21:01:29 Page 1
New World Technology Spectrum name: 1N001889.An1

Sample description
PCB Hot Spot 84NPCBSU4B1PE-001 478g
5/09/06 13:10

Acquisition information
Start time: 10-May-2006 20:13:39
Live time: 2700
Real time: 2703

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
AC-228	C	3.4358E-01	2.6269E-01	2.6339E-01	0.133E+00
AM-241	#A	-1.3449E-03	-3.4325E-01	-3.4325E-01	0.196E+00
Bi-212	A	1.7758E-01	3.9989E-01	4.0001E-01	0.203E+00
BI-214	F	5.2648E-01	2.7048E-01	2.7206E-01	0.285E+00
CO-60	#A	1.0463E-02	2.3096E-02	2.3103E-02	0.147E-01
CS-137		1.8072E-02	3.1773E-02	3.1789E-02	0.120E-01
EU-152	A	3.9767E-02	1.0492E-01	1.0494E-01	0.546E-01
EU-154	C	5.7248E-02	8.3880E-02	8.3940E-02	0.420E-01
K-40		9.6121E+00	2.3545E+00	2.4145E+00	0.149E+00
Pa-234	#B	4.2314E-02	4.7604E-02	4.7661E-02	0.130E+00
Pb-210	#	9.7041E+00	1.8085E+01	1.8093E+01	0.785E+01
Pb-212		4.5525E-01	1.3902E-01	1.4131E-01	0.494E-01
Pb-214		5.2702E-01	1.7059E-01	1.7309E-01	0.380E-01
RA-226		1.0474E+00	1.3355E+00	1.3367E+00	0.717E+00
Th-230	#F	2.0752E+01	3.3889E+01	3.3908E+01	0.133E+02
Th-234	A	7.0315E-01	1.2585E+00	1.2591E+00	0.136E+01
Tl-208	#B	5.8221E-03	2.3057E-02	2.3059E-02	0.389E-01
U-235	#B	-9.6521E-03	-6.8410E-02	-6.8412E-02	0.500E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.2 to 2608.8 keV) 4.2642544E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 10-MAY-2006 20:48:28 Page 1
New World Technology Spectrum name: 2N002432.An1

Sample description
PCB Hot Spot 84NPCBSU4B2PE-001 500g
5/09/06 13:15

Acquisition information
Start time: 10-May-2006 20:03:21
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228 #	4.8715E-01	2.2275E-01	2.2439E-01	0.139E+00
AM-241 #B	-4.0276E-01	-4.7217E+00	-4.7218E+00	0.309E+00
Bi-212 F	3.7188E-01	4.1763E-01	4.1814E-01	0.190E+00
BI-214 F	5.3434E-01	1.9893E-01	2.0113E-01	0.667E-01
CO-60 #B	2.8905E-03	1.7612E-02	1.7612E-02	0.922E-02
Cs-137 #B	-1.3953E-02	-7.8216E-02	-7.8220E-02	0.347E-01
EU-152 B	-1.3341E-02	2.6439E+02	2.6439E+02	0.643E-01
EU-154	7.5559E-02	7.1168E-02	7.1291E-02	0.538E-01
K-40	9.6362E+00	1.8995E+00	1.9736E+00	0.462E+00
PA-234 #B	-3.2873E-02	3.4293E+02	3.4293E+02	0.986E-01
Pb-210 #F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	3.3981E-01	1.3233E-01	1.3368E-01	0.608E-01
PB-214	3.0450E-01	1.5467E-01	1.5560E-01	0.714E-01
RA-226 A	4.6565E-01	1.3119E+00	1.3121E+00	0.728E+00
Th-230 #B	-2.2463E+01	-2.3328E+02	-2.3328E+02	0.207E+02
TH-234	5.1774E+00	5.7838E+00	5.7909E+00	0.240E+01
Tl-208 #F	7.4400E-02	5.6126E-02	5.6279E-02	0.663E-01
U-235 #B	-1.4556E-02	-1.8091E-01	-1.8091E-01	0.459E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2675.5 keV) 1.6926844E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 12-MAY-2006 13:53:28 Page 1
New World Technology Spectrum name: 1N001921.An1

Sample description
PCB HOT SPOT 84NPCBSU4B3PE-001 477g
5/10/06 09:15

Acquisition information
Start time: 12-May-2006 13:08:19
Live time: 2700
Real time: 2703

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	5.2426E-01	2.6370E-01	2.6531E-01	0.362E-01
AM-241 #A	-2.5170E-02	-5.2894E-01	-5.2895E-01	0.224E+00
Bi-212	3.0005E-01	3.5989E-01	3.6028E-01	0.126E+00
BI-214 F	1.3679E+00	8.2016E-01	8.2368E-01	0.185E+00
CO-60 #A	6.3130E-03	1.8939E-02	1.8942E-02	0.147E-01
CS-137 #A	-1.2403E-03	-1.5030E-02	-1.5030E-02	0.107E-01
EU-152 A	2.7839E-02	9.5121E-02	9.5133E-02	0.686E-01
EU-154 A	2.2449E-02	6.0613E-02	6.0626E-02	0.419E-01
K-40	1.1358E+01	2.5628E+00	2.6396E+00	0.150E+00
Pa-234 #B	-6.5385E-02	-1.3105E-01	-1.3110E-01	0.862E-01
Pb-210 #	8.1348E+00	1.2792E+01	1.2800E+01	0.583E+01
Pb-212	4.4578E-01	1.3287E-01	1.3517E-01	0.448E-01
Pb-214	4.9195E-01	1.9238E-01	1.9431E-01	0.421E-01
RA-226 A	1.4388E-01	1.5041E+00	1.5041E+00	0.863E+00
Th-230 #F	1.9316E+01	3.9890E+01	3.9905E+01	0.154E+02
Th-234 #B	1.7538E-01	5.3818E-01	5.3826E-01	0.139E+01
Tl-208 #	1.5732E-01	7.9673E-02	8.0153E-02	0.197E-01
U-235 F	7.3467E-02	8.4702E-02	8.4801E-02	0.450E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

SUMMARY

Total Activity (41.2 to 2608.8 keV) 4.2170002E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 13-MAY-2006 15:56:40 Page 1
New World Technology Spectrum name: 3N002490.An1

Sample description
PCB Hot Spot 84NPCBSU4B4PE-002 493g
5/11/06 08:10

Acquisition information
Start time: 13-May-2006 15:11:35
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		5.3979E-01	2.5813E-01	2.5987E-01	0.121E+00
AM-241	#A	8.5245E-03	1.5610E-01	1.5610E-01	0.786E-01
Bi-212	F	2.9369E-01	3.4530E-01	3.4569E-01	0.150E+00
BI-214	F	2.7010E-01	2.3173E-01	2.3222E-01	0.944E-01
CO-60	#C	2.0535E-02	2.8131E-02	2.8154E-02	0.813E-02
Cs-137	A	1.1311E-02	5.9608E-02	5.9611E-02	0.361E-01
EU-152	B	3.6932E-02	1.4816E-01	1.4818E-01	0.512E-01
EU-154	F	1.0099E-01	1.2213E-01	1.2226E-01	0.466E-01
K-40		9.4049E+00	1.9623E+00	2.0308E+00	0.733E+00
PA-234	B	3.1104E-02	1.7851E-01	1.7851E-01	0.996E-01
Pb-210	A	4.9862E-01	1.2902E+00	1.2905E+00	0.767E+00
PB-212	F	3.6366E-01	1.2619E-01	1.2780E-01	0.564E-01
PB-214		2.7571E-01	1.9486E-01	1.9546E-01	0.863E-01
RA-226	A	5.1699E-01	1.2559E+00	1.2563E+00	0.695E+00
Th-230	#B	2.1290E+00	6.6932E+00	6.6942E+00	0.752E+01
TH-234	A	4.3992E-01	1.0706E+00	1.0709E+00	0.640E+00
Tl-208	#	1.7087E-01	8.8783E-02	8.9290E-02	0.736E-01
U-235	#B	-1.6710E-03	-8.3453E-03	-8.3458E-03	0.461E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.7 to 2659.7 keV) 1.1318669E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 13-MAY-2006 16:37:51 Page 1
New World Technology Spectrum name: 1N001940.An1

Sample description
PCB Hot Spot 84NPCBSU4B5PE-002 492g
5/11/06 08:15

Acquisition information
Start time: 13-May-2006 15:52:40
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	8.0600E-01	3.9980E-01	4.0231E-01	0.745E-01
AM-241 #A	-7.8802E-02	-1.0235E+00	-1.0236E+00	0.205E+00
Bi-212 B	1.0896E-01	3.7959E-01	3.7964E-01	0.205E+00
BI-214	7.7843E-01	2.4434E-01	2.4815E-01	0.367E+00
CO-60 #	1.8362E-02	3.1803E-02	3.1820E-02	0.143E-01
CS-137 A	2.3902E-03	3.4075E-02	3.4075E-02	0.189E-01
EU-152 C	1.2486E-01	1.4260E-01	1.4277E-01	0.548E-01
EU-154 A	4.1920E-02	7.7012E-02	7.7047E-02	0.499E-01
K-40	9.6424E+00	2.3252E+00	2.3863E+00	0.145E+00
Pa-234 #B	-2.0852E-01	-1.3967E+00	-1.3968E+00	0.109E+00
Pb-210 #	1.5230E+01	2.1317E+01	2.1334E+01	0.834E+01
Pb-212	4.1749E-01	1.4010E-01	1.4202E-01	0.540E-01
Pb-214	6.2226E-01	2.0400E-01	2.0692E-01	0.488E-01
RA-226 A	7.1461E-01	1.3778E+00	1.3784E+00	0.763E+00
Th-230 #B	-5.3270E+00	-6.8747E+01	-6.8748E+01	0.540E+01
Th-234 B	8.0435E-01	9.3359E-01	9.3466E-01	0.146E+01
Tl-208	1.7152E-01	8.4179E-02	8.4718E-02	0.186E-01
U-235 #B	2.7092E-02	4.6985E-02	4.7009E-02	0.502E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.2 to 2608.8 keV) 2.6907780E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 19-MAY-2006 04:32:52 Page 1
New World Technology Spectrum name: 1N002043.An1

Sample description
PCB Hot Spot 84NPCBSU4B6PE-002 403g
05/18/06 09:25

Acquisition information
Start time: 19-May-2006 03:47:43
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228		6.5793E-01	3.2278E-01	3.2485E-01	0.843E-01
AM-241	#A	-5.5974E-03	-4.5173E-01	-4.5173E-01	0.247E+00
Bi-212	F	4.3127E-01	5.3594E-01	5.3647E-01	0.233E+00
BI-214	#F	8.7569E-01	5.6648E-01	5.6857E-01	0.284E+00
CO-60	#A	3.5107E-03	8.3263E-03	8.3286E-03	0.173E-01
CS-137	A	5.8615E-03	3.4683E-02	3.4684E-02	0.184E-01
EU-152	C	1.4168E-01	1.3386E-01	1.3409E-01	0.639E-01
EU-154	A	7.9723E-03	2.8636E-02	2.8639E-02	0.449E-01
K-40		8.8148E+00	2.4448E+00	2.4935E+00	0.176E+00
Pa-234	#B	-3.1646E-01	-5.3254E+00	-5.3255E+00	0.106E+00
Pb-210	#	1.1727E+01	1.4598E+01	1.4612E+01	0.638E+01
Pb-212		4.3488E-01	1.4866E-01	1.5061E-01	0.564E-01
Pb-214		4.5441E-01	2.5373E-01	2.5498E-01	0.685E-01
RA-226	A	6.5557E-01	1.5177E+00	1.5182E+00	0.856E+00
Th-230	#F	2.6095E+01	3.4244E+01	3.4274E+01	0.141E+02
Th-234	A	5.8514E-01	1.0229E+00	1.0234E+00	0.152E+01
Tl-208	#F	1.4301E-01	1.0038E-01	1.0070E-01	0.284E-01
U-235	#B	4.1890E-02	6.5612E-02	6.5654E-02	0.495E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

------------------------------ S U M M A R Y ----------------------------
Total Activity (41.2 to 2605.8 keV) 4.9634369E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 19-MAY-2006 02:36:15 Page 1
New World Technology Spectrum name: 1N002041.An1

Sample description
PCB Hot Spot 84NPCBSU4B7PE-002 388g
05/18/06 09:15

Acquisition information
Start time: 19-May-2006 01:51:05
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Activity picoCi/ g	Time of Count Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	#F	2.7004E-01	3.2996E-01	3.3030E-01	0.152E+00
AM-241	#A	-2.0550E-01	1.1480E+03	1.1480E+03	0.213E+00
Bi-212		4.1192E-01	6.0822E-01	6.0865E-01	0.224E+00
BI-214	#F	3.6491E-01	1.6033E-01	1.6161E-01	0.227E+00
CO-60	#A	0.0000E+00	0.0000E+00	0.0000E+00	0.179E-01
CS-137	A	2.3584E-02	5.8031E-02	5.8046E-02	0.275E-01
EU-152	C	1.4496E-01	1.6077E-01	1.6098E-01	0.581E-01
EU-154	#A	-3.6231E-02	1.8778E+02	1.8778E+02	0.474E-01
K-40		9.1556E+00	2.5393E+00	2.5899E+00	0.182E+00
Pa-234	#B	-3.4742E-01	-3.8390E+00	-3.8391E+00	0.108E+00
Pb-210	#	1.1265E+01	2.2958E+01	2.2967E+01	0.926E+01
Pb-212	F	4.1512E-01	1.5795E-01	1.5963E-01	0.596E-01
Pb-214		4.2202E-01	2.0664E-01	2.0797E-01	0.589E-01
RA-226	A	2.3686E-01	1.3534E+00	1.3534E+00	0.801E+00
Th-230	#B	-4.1158E+00	-7.4545E+01	-7.4545E+01	0.892E+01
Th-234	B	3.5822E-01	4.5199E-01	4.5242E-01	0.148E+01
Tl-208	#	2.0185E-01	1.1430E-01	1.1485E-01	0.262E-01
U-235	B	3.7585E-02	6.3382E-02	6.3417E-02	0.442E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2605.8 keV) 2.1871836E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 25-MAY-2006 20:19:56 Page 1
New World Technology Spectrum name: 2N002681.An1

Sample description
PCB Hot Spot 84NPCBSU4B8PE-001 367g
05/24/06 16:00

Acquisition information
Start time: 25-May-2006 19:34:47
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	2.7806E-01	2.6250E-01	2.6295E-01	0.187E+00
AM-241 #A	3.3256E-03	1.2075E+00	1.2075E+00	0.657E+00
Bi-212 F	3.9255E-01	5.1781E-01	5.1827E-01	0.243E+00
BI-214 F	4.3942E-01	2.6791E-01	2.6902E-01	0.932E-01
CO-60 #C	5.0829E-02	3.4552E-02	3.4668E-02	0.115E-01
Cs-137 A	1.4918E-02	6.7262E-02	6.7267E-02	0.446E-01
EU-152 B	4.6761E-02	1.2105E-01	1.2108E-01	0.963E-01
EU-154 B	6.9249E-02	9.1607E-02	9.1688E-02	0.742E-01
K-40 #	1.3790E+01	2.4635E+00	2.5801E+00	0.114E+00
PA-234 #B	1.1320E-02	1.3912E-01	1.3912E-01	0.136E+00
Pb-210 C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	2.4898E-01	1.6705E-01	1.6762E-01	0.865E-01
PB-214	4.2158E-01	2.4634E-01	2.4745E-01	0.982E-01
RA-226 A	1.7735E-01	1.6122E+00	1.6122E+00	0.934E+00
Th-230 #B	-3.9039E+01	-1.1528E+03	-1.1528E+03	0.231E+02
TH-234 #A	8.3268E-01	2.6852E+00	2.6856E+00	0.240E+01
Tl-208 F	2.4951E-01	1.3444E-01	1.3515E-01	0.188E-01
U-235 #B	-1.2868E-02	-1.7409E-01	-1.7409E-01	0.601E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2675.5 keV) 1.5820007E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 03-JUL-2006 20:39:03 Page 1
New World Technology Spectrum name: 1N002553.An1

Sample description
PCB Hot Spot 84NPCBSU5AOPE-001 402g
6/30/06 11:00

Acquisition information
Start time: 03-Jul-2006 19:53:53
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	4.9103E-01	2.6009E-01	2.6152E-01	0.428E-01
AM-241 #A	-1.8003E-02	-5.5494E-01	-5.5494E-01	0.267E+00
Bi-212	2.5022E-01	4.9313E-01	4.9333E-01	0.247E+00
BI-214 F	1.0279E+00	3.3058E-01	3.3549E-01	0.293E+00
CO-60 #A	5.9527E-03	1.0577E-02	1.0582E-02	0.402E-01
CS-137 A	1.3732E-02	4.4384E-02	4.4391E-02	0.216E-01
EU-152 C	2.1326E-01	2.5129E-01	2.5157E-01	0.816E-01
EU-154 C	6.8660E-02	8.8278E-02	8.8360E-02	0.563E-01
K-40	8.9420E+00	2.9587E+00	3.0002E+00	0.111E+01
Pa-234 #B	-7.2578E-02	-1.7137E-01	-1.7142E-01	0.120E+00
Pb-210 #	6.8439E+00	1.2817E+01	1.2823E+01	0.598E+01
Pb-212	2.6030E-01	1.4826E-01	1.4897E-01	0.670E-01
Pb-214	9.6118E-01	2.5298E-01	2.5857E-01	0.393E-01
RA-226	1.4385E+00	1.6916E+00	1.6935E+00	0.935E+00
Th-230 #B	-6.9225E+00	-8.3451E+01	-8.3452E+01	0.711E+01
Th-234 B	-2.4624E-01	-6.5657E-01	-6.5671E-01	0.162E+01
Tl-208 #	1.7921E-01	8.3874E-02	8.4465E-02	0.137E-01
U-235 C	7.3978E-02	8.6465E-02	8.6563E-02	0.648E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.2 to 2605.8 keV) 2.0394335E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 06-JUL-2006 11:09:46 Page 1
New World Technology Spectrum name: 2N003086.An1

Sample description
PCB Hot Spot 84NPCBSU5A1PE-001 453g
5/12/06 10:20

Acquisition information
Start time: 06-Jul-2006 10:24:39
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		4.0248E-01	2.9553E-01	2.9638E-01	0.162E+00
AM-241	#	9.9776E-01	1.3592E+00	1.3603E+00	0.579E+00
Bi-212	F	3.5149E-01	4.1239E-01	4.1285E-01	0.186E+00
BI-214	F	3.4670E-01	1.6461E-01	1.6574E-01	0.661E-01
CO-60	#B	-2.3389E-02	-1.1350E-01	-1.1351E-01	0.228E-01
Cs-137	#B	-1.8046E-03	-8.9582E-02	-8.9582E-02	0.430E-01
EU-152	B	4.3376E-02	7.0194E-02	7.0235E-02	0.763E-01
EU-154	F	6.6247E-02	1.1510E-01	1.1515E-01	0.595E-01
K-40		1.1119E+01	2.1162E+00	2.2049E+00	0.493E+00
PA-234	#B	1.1391E-01	3.4256E-01	3.4262E-01	0.144E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.0748E-01	1.3638E-01	1.3745E-01	0.647E-01
PB-214		2.4985E-01	1.7113E-01	1.7169E-01	0.741E-01
RA-226	A	5.7685E-01	1.4170E+00	1.4174E+00	0.803E+00
Th-230	B	-1.2268E+01	-6.1282E+01	-6.1285E+01	0.237E+02
TH-234		3.4479E+00	2.9220E+00	2.9282E+00	0.219E+01
Tl-208		1.9156E-01	1.0671E-01	1.0725E-01	0.154E-01
U-235	#B	-1.6228E-02	-2.0360E-01	-2.0360E-01	0.524E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2673.8 keV) 1.7413725E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 15-MAY-2006 20:03:02 Page 1
New World Technology Spectrum name: 2N002507.An1

Sample description
PCB Hot Spot 84NPCBSU5A2PE-001 475g
5/15/06 10:10

Acquisition information
Start time: 15-May-2006 19:16:46
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	#F	3.3552E-01	2.0967E-01	2.1049E-01	0.138E+00
AM-241	#B	-2.3382E-01	-2.7053E+00	-2.7053E+00	0.539E+00
Bi-212	#F	4.0203E-01	3.6904E-01	3.6971E-01	0.137E+00
BI-214	F	3.9423E-01	1.5624E-01	1.5777E-01	0.577E-01
CO-60	#C	3.2729E-02	3.4949E-02	3.4996E-02	0.116E-01
Cs-137	#B	-4.0213E-05	-4.9361E-02	-4.9361E-02	0.345E-01
EU-152	#B	-1.4044E-02	2.5047E+02	2.5047E+02	0.720E-01
EU-154	#B	-5.4816E-04	2.1332E+02	2.1332E+02	0.614E-01
K-40		8.6889E+00	1.8169E+00	1.8800E+00	0.457E+00
PA-234	B	6.3798E-02	2.2312E-01	2.2315E-01	0.121E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	3.6438E-01	1.4011E-01	1.4157E-01	0.641E-01
PB-214		3.2612E-01	1.9957E-01	2.0040E-01	0.825E-01
RA-226	A	4.0134E-01	1.2551E+00	1.2553E+00	0.712E+00
Th-230	#B	-1.8264E+01	-1.5846E+02	-1.5847E+02	0.255E+02
TH-234	A	2.2426E+00	3.2599E+00	3.2623E+00	0.272E+01
Tl-208		2.0763E-01	1.0683E-01	1.0745E-01	0.145E-01
U-235	A	2.7962E-02	8.4011E-02	8.4026E-02	0.450E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.8 to 2675.5 keV) 1.2961395E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 16-MAY-2006 00:04:40 Page 1
New World Technology Spectrum name: 3N002511.An1

Sample description
PCB Hot Spot 84NPCBSU5A3PE-001 501g
5/15/06 10:50

Acquisition information
Start time: 15-May-2006 23:19:34
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	3.3142E-01	2.5198E-01	2.5266E-01	0.140E+00
AM-241	#B	-5.4796E-03	-1.8062E-01	-1.8062E-01	0.775E-01
Bi-212	#	4.2744E-01	5.3652E-01	5.3704E-01	0.197E+00
BI-214	F	3.1335E-01	2.1160E-01	2.1231E-01	0.887E-01
CO-60	#	2.0227E-02	3.5034E-02	3.5052E-02	0.111E-01
Cs-137	A	2.2232E-02	5.4835E-02	5.4849E-02	0.326E-01
EU-152	F	2.2377E-01	1.6078E-01	1.6126E-01	0.697E-01
EU-154	B	2.8484E-02	8.5223E-02	8.5238E-02	0.464E-01
K-40		9.6922E+00	1.9353E+00	2.0090E+00	0.703E+00
PA-234	#C	2.6288E-01	2.2487E-01	2.2534E-01	0.938E-01
Pb-210	A	2.0950E-01	1.2780E+00	1.2781E+00	0.721E+00
PB-212		3.6434E-01	1.3283E-01	1.3437E-01	0.607E-01
PB-214		4.0392E-01	2.2150E-01	2.2263E-01	0.808E-01
RA-226		1.1307E+00	1.1780E+00	1.1797E+00	0.622E+00
Th-230	#B	-6.3544E+00	-9.6817E+01	-9.6818E+01	0.564E+01
TH-234		1.0329E+00	1.0843E+00	1.0858E+00	0.649E+00
Tl-208	#	1.0142E-01	7.3258E-02	7.3475E-02	0.660E-01
U-235	#B	1.9090E-02	4.9892E-02	4.9903E-02	0.433E-01

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---------- S U M M A R Y ----------

Total Activity (41.7 to 2661.2 keV) 1.3817978E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 15-MAY-2006 21:55:22 Page 1
New World Technology Spectrum name: 3N002509.An1

Sample description
PCB Hot Spot 84NPCBSU5A4PE-002 496g
5/15/06 10:25

Acquisition information
Start time: 15-May-2006 21:10:17
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	3.0596E-01	3.1523E-01	3.1568E-01	0.155E+00
AM-241	#A	5.0344E-03	1.2921E-01	1.2921E-01	0.696E-01
Bi-212	B	2.3762E-01	5.3564E-01	5.3580E-01	0.276E+00
BI-214	F	3.3137E-01	2.1125E-01	2.1205E-01	0.921E-01
CO-60	#B	0.0000E+00	0.0000E+00	0.0000E+00	0.793E-02
Cs-137	#B	-1.9273E-02	-1.3451E-01	-1.3452E-01	0.372E-01
EU-152	F	7.0352E-02	1.2642E-01	1.2648E-01	0.650E-01
EU-154	F	1.1281E-01	6.9409E-02	6.9690E-02	0.451E-01
K-40		7.3798E+00	2.1823E+00	2.2206E+00	0.101E+01
PA-234	#B	2.8654E-02	1.6386E-01	1.6387E-01	0.919E-01
Pb-210	#B	-3.2364E-02	-1.6088E+00	-1.6088E+00	0.827E+00
PB-212	F	4.4572E-01	1.3714E-01	1.3936E-01	0.594E-01
PB-214		3.4797E-01	1.5968E-01	1.6085E-01	0.803E-01
RA-226	A	5.0028E-01	1.1348E+00	1.1351E+00	0.631E+00
Th-230	#B	-4.8473E+00	-5.6511E+01	-5.6512E+01	0.745E+01
TH-234	#B	2.5944E-01	4.9636E-01	4.9657E-01	0.600E+00
Tl-208	#	1.4586E-01	8.5949E-02	8.6331E-02	0.666E-01
U-235	#B	8.2789E-03	2.1577E-02	2.1582E-02	0.464E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2661.2 keV) 8.9567280E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 22-MAY-2006 19:10:15 Page 1
New World Technology Spectrum name: 2N002639.An1

Sample description
PCB Hot Spot 84NPCBSU5A5PE-002 429g
5/22/06 11:30

Acquisition information
Start time: 22-May-2006 18:13:21
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		3.2886E-01	2.0967E-01	2.1046E-01	0.146E+00
AM-241	#B	-3.4183E-01	-4.9809E+00	-4.9809E+00	0.650E+00
Bi-212	F	5.0057E-01	5.0331E-01	5.0408E-01	0.223E+00
BI-214	F	2.7753E-01	1.6854E-01	1.6925E-01	0.801E-01
CO-60	#F	1.6648E-02	1.8154E-02	1.8177E-02	0.103E-01
Cs-137	#B	-3.5381E-03	-6.3271E-02	-6.3271E-02	0.396E-01
EU-152	F	1.4028E-01	1.3409E-01	1.3431E-01	0.852E-01
EU-154	F	6.6866E-02	6.6531E-02	6.6634E-02	0.660E-01
K-40		1.0333E+01	1.9724E+00	2.0544E+00	0.975E-01
PA-234	#A	7.8153E-02	1.0442E-01	1.0451E-01	0.104E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.1287E-01	1.4412E-01	1.4516E-01	0.691E-01
PB-214		3.7391E-01	2.0124E-01	2.0231E-01	0.890E-01
RA-226	A	7.1049E-01	1.3823E+00	1.3828E+00	0.769E+00
Th-230	B	-2.6134E+01	-9.3841E+01	-9.3853E+01	0.247E+02
TH-234	#B	1.0879E+00	2.7949E+00	2.7956E+00	0.160E+01
Tl-208	F	2.7542E-01	1.3064E-01	1.3154E-01	0.160E-01
U-235	#B	-6.2634E-03	-1.2355E-01	-1.2355E-01	0.532E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.8 to 2675.5 keV) 1.2401958E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 22-MAY-2006 16:30:02 Page 1
New World Technology Spectrum name: 3N002619.An1

Sample description
PCB Hot Spot 84NPCBSU5A6PE-002 408g
5/22/06 11:20

Acquisition information
Start time: 22-May-2006 15:42:44
Live time: 2700
Real time: 2702

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	B	2.9443E-02	3.3026E-02	3.3066E-02	0.167E+00
AM-241		1.0221E-01	1.9868E-01	1.9876E-01	0.904E-01
Bi-212	B	2.6108E-01	6.0179E-01	6.0196E-01	0.309E+00
BI-214	F	3.3842E-01	2.4424E-01	2.4496E-01	0.109E+00
CO-60	#	5.7954E-02	4.6466E-02	4.6578E-02	0.965E-02
Cs-137	A	2.7237E-03	8.8251E-02	8.8251E-02	0.528E-01
EU-152	#B	-3.9848E-03	2.4036E+02	2.4036E+02	0.565E-01
EU-154	#B	2.1361E-03	6.7033E-02	6.7033E-02	0.394E-01
K-40		9.2317E+00	2.2586E+00	2.3162E+00	0.890E+00
PA-234	#B	-6.2730E-02	-9.6103E-01	-9.6104E-01	0.707E-01
Pb-210	#B	-3.0263E-03	-1.9297E+00	-1.9297E+00	0.998E+00
PB-212	F	4.7507E-01	1.6638E-01	1.6847E-01	0.753E-01
PB-214		3.8733E-01	2.5319E-01	2.5411E-01	0.106E+00
RA-226		1.0488E+00	1.5614E+00	1.5624E+00	0.845E+00
Th-230	B	-2.9511E+00	-2.6042E+01	-2.6042E+01	0.766E+01
TH-234		9.4317E-01	1.1558E+00	1.1570E+00	0.629E+00
Tl-208	B	2.7904E-02	1.6981E-02	1.7052E-02	0.940E-01
U-235	B	5.2834E-03	9.6873E-02	9.6873E-02	0.551E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.7 to 2661.2 keV) 1.2584593E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 01-JUN-2006 08:32:44 Page 1
New World Technology Spectrum name: 2N002727.An1

Sample description
PCB Hot Spot 84NPCBSU5A7PE-001 370g
05/31/06 14:00

Acquisition information
Start time: 01-Jun-2006 07:47:37
Live time: 2700
Real time: 2704

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
Ac-228	2.7452E-01	2.3711E-01	2.3761E-01	0.167E+00
AM-241 #B	-4.7170E-01	-4.5583E+00	-4.5584E+00	0.476E+00
Bi-212 F	3.8962E-01	5.1670E-01	5.1716E-01	0.243E+00
BI-214 F	2.3688E-01	2.0693E-01	2.0735E-01	0.931E-01
CO-60 #B	-3.4178E-03	-1.3384E-02	-1.3385E-02	0.114E-01
Cs-137 A	8.2606E-04	6.8372E-02	6.8372E-02	0.465E-01
EU-152 B	3.6649E-02	6.5967E-02	6.5999E-02	0.648E-01
EU-154 A	2.7071E-02	4.5400E-02	4.5425E-02	0.410E-01
K-40	8.1487E+00	1.8860E+00	1.9397E+00	0.113E+00
PA-234 #B	-8.9936E-03	-2.9632E-01	-2.9632E-01	0.112E+00
Pb-210 #F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	1.5888E-01	1.4269E-01	1.4296E-01	0.778E-01
PB-214	1.9800E-01	2.2816E-01	2.2843E-01	0.920E-01
RA-226 A	2.3710E-01	1.5180E+00	1.5181E+00	0.881E+00
Th-230 B	-1.2666E+01	-2.0305E+01	-2.0318E+01	0.322E+02
TH-234 #F	2.8255E+00	5.0111E+00	5.0136E+00	0.239E+01
Tl-208	1.5169E-01	1.0440E-01	1.0474E-01	0.186E-01
U-235 #B	-2.3388E-02	-2.7126E-01	-2.7126E-01	0.580E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.8 to 2675.5 keV) 1.2383757E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 01-JUN-2006 09:22:38 Page 1
New World Technology Spectrum name: 2N002728.An1

Sample description
PCB Hot Spot 84NPCBSU5A8PE-001 357g
05/31/06 14:05

Acquisition information
Start time: 01-Jun-2006 08:36:08
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
Ac-228	#F	2.6349E-01	2.4141E-01	2.4186E-01	0.190E+00
AM-241	#B	-3.9999E-01	-3.4788E+00	-3.4789E+00	0.538E+00
Bi-212	F	4.7151E-01	4.8591E-01	4.8661E-01	0.207E+00
BI-214	F	2.2777E-01	1.8646E-01	1.8689E-01	0.971E-01
CO-60	#B	5.0604E-04	8.4865E-03	8.4865E-03	0.118E-01
Cs-137	A	1.6445E-03	7.0675E-02	7.0675E-02	0.480E-01
EU-152	B	4.2857E-02	1.1316E-01	1.1318E-01	0.952E-01
EU-154	B	4.5221E-02	1.2551E-01	1.2553E-01	0.657E-01
K-40		7.4400E+00	1.8347E+00	1.8808E+00	0.117E+00
PA-234	#B	-4.6041E-02	5.3169E+02	5.3169E+02	0.111E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	2.1734E-01	1.6313E-01	1.6358E-01	0.775E-01
PB-214		3.0895E-01	1.9724E-01	1.9799E-01	0.822E-01
RA-226	A	6.1093E-01	1.4859E+00	1.4862E+00	0.845E+00
Th-230	#B	-4.0926E+01	1.4661E+05	1.4661E+05	0.344E+02
TH-234	A	1.1330E+00	6.3023E+00	6.3026E+00	0.303E+01
Tl-208	F	1.9031E-01	1.1904E-01	1.1951E-01	0.193E-01
U-235	#B	-4.5381E-02	-1.5719E+00	-1.5719E+00	0.619E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.8 to 2675.5 keV) 9.1193304E+00 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 03-JUL-2006 20:46:43 Page 1
New World Technology Spectrum name: 2N003073.An1

Sample description
PCB Hot Spot 84NPCBSU5BOPE-001 403g
06/30/06 11:05

Acquisition information
Start time: 03-Jul-2006 19:55:44
Live time: 2700
Real time: 2704

- -

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		4.9627E-01	2.5569E-01	2.5718E-01	0.168E+00
AM-241	#B	-5.2736E-01	-3.1875E+01	-3.1875E+01	0.553E+00
Bi-212	F	6.0883E-01	5.3591E-01	5.3698E-01	0.225E+00
BI-214	F	3.2324E-01	2.1537E-01	2.1612E-01	0.885E-01
CO-60	#B	-2.2139E-02	-1.5201E-01	-1.5202E-01	0.259E-01
Cs-137	A	7.1036E-03	7.1933E-02	7.1934E-02	0.465E-01
EU-152	F	2.3122E-01	2.8026E-01	2.8055E-01	0.933E-01
EU-154	B	4.1843E-02	1.1223E-01	1.1226E-01	0.769E-01
K-40		9.7515E+00	2.1277E+00	2.1959E+00	0.554E+00
PA-234	B	7.0794E-02	2.1417E-01	2.1420E-01	0.115E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		4.0113E-01	1.6498E-01	1.6649E-01	0.769E-01
PB-214		3.0808E-01	2.0044E-01	2.0118E-01	0.928E-01
RA-226	A	6.7627E-01	1.7148E+00	1.7153E+00	0.966E+00
Th-230	#B	-3.4929E+01	1.0098E+05	1.0098E+05	0.290E+02
TH-234	B	2.2500E+00	6.0160E+00	6.0173E+00	0.316E+01
Tl-208	#	3.2779E-01	1.4825E-01	1.4937E-01	0.173E-01
U-235	#B	1.5626E-02	7.0075E-02	7.0080E-02	0.599E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- SUMMARY ----------

Total Activity (41.8 to 2673.8 keV) 1.2216864E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 10-MAY-2006 19:55:33 Page 1
New World Technology Spectrum name: 2N002431.An1

Sample description
PCB Hot Spot 84NPCBSU5B1PE-001 464g
5/09/06 15:30

Acquisition information
Start time: 10-May-2006 19:10:24
Live time: 2700
Real time: 2705

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	4.1710E-01	1.9314E-01	1.9453E-01	0.140E+00
AM-241 #B	-1.3415E-01	-1.3256E+00	-1.3256E+00	0.459E+00
Bi-212	4.0611E-01	4.1886E-01	4.1947E-01	0.194E+00
BI-214 F	4.4080E-01	2.1622E-01	2.1760E-01	0.742E-01
CO-60 #F	2.9590E-02	3.3037E-02	3.3078E-02	0.907E-02
Cs-137 #B	-1.1497E-02	-7.3464E-02	-7.3467E-02	0.366E-01
EU-152 B	7.3228E-02	1.1578E-01	1.1585E-01	0.840E-01
EU-154 B	4.0911E-02	1.0589E-01	1.0592E-01	0.555E-01
K-40	7.9667E+00	1.7710E+00	1.8255E+00	0.468E+00
PA-234 #B	-2.7373E-02	-7.7675E-01	-7.7675E-01	0.697E-01
Pb-210 #C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	3.2944E-01	1.3711E-01	1.3833E-01	0.640E-01
PB-214	4.6939E-01	2.2106E-01	2.2259E-01	0.799E-01
RA-226 A	6.1332E-01	1.3607E+00	1.3611E+00	0.749E+00
Th-230 B	-8.2136E+00	-1.6610E+01	-1.6617E+01	0.256E+02
TH-234 B	2.0454E-01	4.1904E+00	4.1904E+00	0.229E+01
Tl-208	2.1542E-01	1.1083E-01	1.1148E-01	0.148E-01
U-235 #B	-3.9812E-02	1.7703E+02	1.7703E+02	0.509E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.8 to 2675.5 keV) 1.0274569E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 15-MAY-2006 20:48:01 Page 1
New World Technology Spectrum name: 3N002508.An1

Sample description
PCB Hot Spot 84NPCBSU5B2PE-001 452g
5/15/06 10:20

Acquisition information
Start time: 15-May-2006 20:02:54
Live time: 2700
Real time: 2703

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	C	2.2760E-01	2.6068E-01	2.6098E-01	0.169E+00
AM-241	#B	-5.3587E-02	-6.4979E-01	-6.4980E-01	0.452E-01
Bi-212	#	1.0187E+00	8.5224E-01	8.5412E-01	0.245E+00
BI-214	F	3.8756E-01	2.2738E-01	2.2840E-01	0.904E-01
CO-60	#	5.9586E-02	4.1488E-02	4.1620E-02	0.871E-02
Cs-137	#B	-2.2975E-02	-1.8072E-01	-1.8073E-01	0.444E-01
EU-152	#B	-3.5969E-03	2.4409E+02	2.4409E+02	0.702E-01
EU-154	#B	-1.1442E-02	-2.8331E-01	-2.8331E-01	0.524E-01
K-40		8.5497E+00	1.9666E+00	2.0233E+00	0.780E+00
PA-234	#B	-5.0291E-02	-1.0757E+00	-1.0757E+00	0.977E-01
Pb-210	A	1.3548E-01	1.4338E+00	1.4338E+00	0.866E+00
PB-212		3.7624E-01	1.4518E-01	1.4668E-01	0.673E-01
PB-214		4.0873E-01	2.6710E-01	2.6807E-01	0.102E+00
RA-226	A	6.6206E-01	1.3534E+00	1.3539E+00	0.745E+00
Th-230	#B	-8.4429E+00	-5.0045E+02	-5.0045E+02	0.522E+01
TH-234	A	5.5688E-01	9.7839E-01	9.7888E-01	0.604E+00
Tl-208	B	8.6714E-03	8.9353E-03	8.9483E-03	0.870E-01
U-235	B	6.3600E-03	7.9347E-02	7.9348E-02	0.454E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

SUMMARY

Total Activity (41.7 to 2661.2 keV) 1.0800569E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 15-MAY-2006 15:46:33 Page 1
New World Technology Spectrum name: 2N002502.An1

Sample description
PCB Hot Spot 84NPCBSU5B3PE-001 472g
5/15/06 10:55

Acquisition information
Start time: 15-May-2006 14:59:25
Live time: 2700
Real time: 2704

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		3.6227E-01	2.6127E-01	2.6204E-01	0.147E+00
AM-241	#A	3.2322E-01	1.1845E+00	1.1847E+00	0.583E+00
Bi-212	B	8.9527E-03	4.1433E-01	4.1433E-01	0.237E+00
BI-214	F	3.7389E-01	1.9549E-01	1.9659E-01	0.778E-01
CO-60	#A	6.3027E-03	2.0307E-02	2.0310E-02	0.935E-02
Cs-137	#B	-1.1788E-02	-6.4536E-02	-6.4539E-02	0.336E-01
EU-152	#B	-1.4133E-02	2.7688E+02	2.7688E+02	0.796E-01
EU-154	B	3.9110E-02	1.0563E-01	1.0565E-01	0.555E-01
K-40		9.6185E+00	1.9085E+00	1.9820E+00	0.460E+00
PA-234	B	1.5322E-02	1.7032E-01	1.7032E-01	0.950E-01
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	2.7765E-01	1.4030E-01	1.4114E-01	0.690E-01
PB-214		2.4943E-01	1.6987E-01	1.7043E-01	0.779E-01
RA-226	A	3.2092E-01	1.2080E+00	1.2081E+00	0.692E+00
Th-230	#B	-3.0211E+01	-1.7941E+02	-1.7941E+02	0.179E+02
TH-234		3.9157E+00	6.3111E+00	6.3149E+00	0.280E+01
Tl-208		1.5376E-01	6.1795E-02	6.2384E-02	0.146E-01
U-235	#F	5.7250E-02	8.7362E-02	8.7420E-02	0.496E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

SUMMARY

Total Activity (41.8 to 2675.5 keV) 1.4951193E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 15-MAY-2006 15:40:54 Page 1
New World Technology Spectrum name: 3N002502.An1

Sample description
PCB Hot Spot 84NPCBSU5B4PE-002 507g
5/15/06 10:15

Acquisition information
Start time: 15-May-2006 14:55:49
Live time: 2700
Real time: 2703

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	5.1297E-01	3.6100E-01	3.6212E-01	0.136E+00
AM-241	A	1.0256E-02	1.2131E-01	1.2131E-01	0.681E-01
Bi-212	F	4.1924E-01	4.9320E-01	4.9375E-01	0.232E+00
BI-214	F	2.7590E-01	1.6382E-01	1.6454E-01	0.819E-01
CO-60	#B	7.3287E-03	2.9847E-02	2.9850E-02	0.130E-01
Cs-137	#B	-4.3390E-03	-6.4930E-02	-6.4931E-02	0.346E-01
EU-152	B	5.3220E-02	1.4002E-01	1.4005E-01	0.567E-01
EU-154	#F	6.2871E-02	8.5864E-02	8.5934E-02	0.463E-01
K-40		9.4052E+00	2.0286E+00	2.0949E+00	0.733E+00
PA-234	#B	8.1765E-03	1.7549E-01	1.7549E-01	0.899E-01
Pb-210	A	1.5372E-02	1.2713E+00	1.2713E+00	0.773E+00
PB-212		4.1144E-01	1.3370E-01	1.3564E-01	0.590E-01
PB-214		3.6348E-01	2.0533E-01	2.0632E-01	0.845E-01
RA-226		6.8469E-01	1.1983E+00	1.1990E+00	0.656E+00
Th-230	B	-1.7107E+00	-2.3052E+01	-2.3052E+01	0.726E+01
TH-234	A	4.2349E-01	9.8709E-01	9.8737E-01	0.610E+00
Tl-208	#F	1.6462E-01	1.2319E-01	1.2353E-01	0.652E-01
U-235	C	6.8556E-02	8.0380E-02	8.0470E-02	0.390E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

SUMMARY

Total Activity (41.7 to 2661.2 keV) 1.2237551E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 22-MAY-2006 20:03:17 Page 1
New World Technology Spectrum name: 2N002640.An1

Sample description
PCB Hot Spot 84NPCBSU5B5PE-002 434g
5/22/06 11:35

Acquisition information
Start time: 22-May-2006 19:18:07
Live time: 2700
Real time: 2706

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
AC-228	3.5231E-01	2.5568E-01	2.5643E-01	0.142E+00
AM-241 A	1.7583E-02	2.4315E+00	2.4315E+00	0.135E+01
Bi-212 #F	3.7386E-01	3.7340E-01	3.7398E-01	0.137E+00
BI-214	4.1409E-01	1.9223E-01	1.9360E-01	0.808E-01
CO-60 #	4.8286E-02	4.3259E-02	4.3342E-02	0.970E-02
Cs-137 #B	-1.8838E-02	-1.0513E-01	-1.0513E-01	0.417E-01
EU-152 #B	-1.5370E-02	3.2241E+02	3.2241E+02	0.757E-01
EU-154 #B	-5.9994E-04	2.3529E+02	2.3529E+02	0.519E-01
K-40	1.1661E+01	2.0832E+00	2.1818E+00	0.963E-01
PA-234 #B	5.8043E-02	9.3688E-02	9.3743E-02	0.112E+00
Pb-210 C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212 F	3.3885E-01	1.5914E-01	1.6025E-01	0.731E-01
PB-214	3.6673E-01	1.9332E-01	1.9440E-01	0.819E-01
RA-226 #B	-1.8400E-01	-2.1162E+00	-2.1162E+00	0.816E+00
Th-230 #B	-2.0784E+01	-1.2082E+02	-1.2083E+02	0.431E+02
TH-234 A	4.8439E+00	1.2498E+01	1.2501E+01	0.673E+01
Tl-208	1.6188E-01	7.8022E-02	7.8540E-02	0.159E-01
U-235 #B	-4.2564E-02	1.8791E+02	1.8791E+02	0.541E-01

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SUMMARY

Total Activity (41.8 to 2675.5 keV) 1.3717060E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 22-MAY-2006 17:18:50 Page 1
New World Technology Spectrum name: 2N002637.An1

Sample description
PCB Hot Spot 84NPCBSU5B6PE-002 494g
5/22/06 11:25

Acquisition information
Start time: 22-May-2006 16:29:54
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	C	3.1971E-01	2.5551E-01	2.5613E-01	0.138E+00
AM-241	#A	1.2600E-01	9.6149E-01	9.6152E-01	0.511E+00
Bi-212	F	2.6724E-01	3.9057E-01	3.9085E-01	0.188E+00
BI-214	F	3.0210E-01	2.0905E-01	2.0973E-01	0.768E-01
CO-60	#	1.7883E-02	2.2184E-02	2.2206E-02	0.852E-02
Cs-137	A	5.8659E-03	5.7260E-02	5.7261E-02	0.370E-01
EU-152	B	5.8569E-02	1.1715E-01	1.1720E-01	0.621E-01
EU-154	F	8.1317E-02	7.6825E-02	7.6957E-02	0.511E-01
K-40		8.7552E+00	1.6919E+00	1.7606E+00	0.846E-01
PA-234	#B	6.3780E-02	7.2159E-02	7.2246E-02	0.866E-01
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	3.1039E-01	1.3899E-01	1.4006E-01	0.666E-01
PB-214		2.3180E-01	1.6496E-01	1.6546E-01	0.742E-01
RA-226	A	3.5764E-01	1.0837E+00	1.0839E+00	0.621E+00
Th-230	#B	-2.4013E+01	-1.1929E+02	-1.1930E+02	0.166E+02
TH-234		3.1996E+00	5.5008E+00	5.5037E+00	0.240E+01
Tl-208	C	7.0473E-02	5.7791E-02	5.7924E-02	0.355E-01
U-235	#B	-3.0194E-02	-6.2402E-01	-6.2402E-01	0.406E-01

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S U M M A R Y

Total Activity (41.8 to 2675.5 keV) 1.3165581E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 01-JUN-2006 10:12:22 Page 1
New World Technology Spectrum name: 2N002729.An1

Sample description
PCB Hot Spot 84NPCBSU5B7PE-001 396g
05/31/06 14:10

Acquisition information
Start time: 01-Jun-2006 09:27:15
Live time: 2700
Real time: 2704

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
Ac-228	C	2.1941E-01	1.8110E-01	1.8151E-01	0.163E+00
AM-241	#A	3.6985E-01	1.1834E+00	1.1836E+00	0.592E+00
Bi-212	F	2.4970E-01	4.4335E-01	4.4356E-01	0.220E+00
BI-214	F	2.3509E-01	1.7832E-01	1.7879E-01	0.807E-01
CO-60	#B	-1.8248E-03	2.6647E+01	2.6647E+01	0.106E-01
Cs-137	#B	-1.2661E-02	-9.3118E-02	-9.3121E-02	0.455E-01
EU-152	F	8.2543E-02	1.2816E-01	1.2824E-01	0.693E-01
EU-154	F	7.3498E-02	1.3352E-01	1.3359E-01	0.689E-01
K-40		8.3161E+00	1.9191E+00	1.9741E+00	0.198E+00
PA-234	#B	4.0934E-02	1.2745E-01	1.2747E-01	0.117E+00
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	1.8515E-01	1.4188E-01	1.4226E-01	0.753E-01
PB-214		3.1708E-01	1.9163E-01	1.9244E-01	0.765E-01
RA-226		8.6283E-01	1.5101E+00	1.5108E+00	0.835E+00
Th-230	#B	-3.6895E+01	1.2351E+05	1.2351E+05	0.290E+02
TH-234	#F	3.3943E+00	5.2867E+00	5.2901E+00	0.241E+01
Tl-208		2.3124E-01	1.2459E-01	1.2526E-01	0.174E-01
U-235	#B	-4.3568E-02	-2.4048E+00	-2.4048E+00	0.506E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.8 to 2675.5 keV) 1.3864970E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 01-JUN-2006 12:09:18 Page 1
New World Technology Spectrum name: 2N002731.An1

Sample description
PCB Hot Spot 84NPCBSU5B8PE-001 359g
05/31/06 14:15

Acquisition information
Start time: 01-Jun-2006 11:24:12
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
Ac-228	C	1.8361E-01	2.1251E-01	2.1275E-01	0.172E+00
AM-241	#B	-3.5357E-01	-2.8769E+00	-2.8770E+00	0.551E+00
Bi-212	B	1.5091E-01	4.1037E-01	4.1045E-01	0.218E+00
BI-214	F	1.4806E-01	2.1159E-01	2.1175E-01	0.964E-01
CO-60	#C	1.7025E-02	2.1562E-02	2.1583E-02	0.117E-01
Cs-137	#B	-3.4146E-02	-1.6036E-01	-1.6037E-01	0.490E-01
EU-152	F	1.0448E-01	1.7928E-01	1.7937E-01	0.841E-01
EU-154	B	2.7203E-02	8.0978E-02	8.0992E-02	0.587E-01
K-40	#	6.3487E+00	1.6901E+00	1.7266E+00	0.116E+00
PA-234	#B	9.5380E-02	1.6336E-01	1.6344E-01	0.960E-01
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	1.2622E-01	1.3440E-01	1.3458E-01	0.756E-01
PB-214		1.9626E-01	1.7085E-01	1.7120E-01	0.923E-01
RA-226	#B	-8.6225E-02	-1.7290E+00	-1.7290E+00	0.877E+00
Th-230	#B	-7.7995E+00	-1.5820E+01	-1.5826E+01	0.334E+02
TH-234	#A	1.8793E+00	4.4264E+00	4.4276E+00	0.283E+01
Tl-208	F	1.8102E-01	1.1578E-01	1.1622E-01	0.192E-01
U-235	#B	-1.7410E-02	-1.9593E-01	-1.9593E-01	0.572E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.8 to 2675.5 keV) 7.0003061E+00 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 03-JUL-2006 21:50:57 Page 1
New World Technology Spectrum name: 6N000133.An1

Sample description
PCB Hot Spot 84NPCBSU6A1PE-001 414g
6/30/06 14:35

Acquisition information
Start time: 03-Jul-2006 21:05:46
Live time: 2700
Real time: 2705

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
Ac-228	F	3.6871E-01	2.7465E-01	2.7541E-01	0.184E+00
AM-241	#A	-3.3379E-02	-4.0670E-01	-4.0670E-01	0.984E-01
Bi-212	#B	-3.2597E-01	-2.3870E+00	-2.3871E+00	0.376E+00
BI-214	F	2.6405E-01	2.5574E-01	2.5616E-01	0.107E+00
CO-60	#B	-8.6662E-02	-5.7016E-01	-5.7018E-01	0.449E-01
CS-137	#B	-1.9769E-03	-7.4032E-02	-7.4032E-02	0.423E-01
EU-152	F	9.4339E-02	1.3199E-01	1.3209E-01	0.911E-01
EU-154	#F	2.2041E-01	3.0322E-01	3.0347E-01	0.606E-01
K-40	#	2.5634E+01	3.7491E+00	4.0100E+00	0.115E+01
Pa-234	#B	-7.0737E-02	3.6538E+02	3.6538E+02	0.105E+00
Pb-210	#	2.8014E+00	2.2028E+00	2.2083E+00	0.895E+00
Pb-212	F	3.1204E-01	1.6358E-01	1.6450E-01	0.821E-01
PB-214		3.1779E-01	1.8592E-01	1.8675E-01	0.103E+00
RA-226	B	5.3100E-01	1.6442E+00	1.6445E+00	0.951E+00
Th-230	#B	-8.1667E+00	-5.3383E+01	-5.3385E+01	0.887E+01
Th-234	#B	-1.0011E+00	-3.7595E+00	-3.7599E+00	0.102E+01
Tl-208	F	1.7725E-01	1.2907E-01	1.2945E-01	0.477E-01
U-235	#B	-4.4833E-01	-1.6858E+00	-1.6860E+00	0.838E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.1 to 2611.9 keV) 2.9875229E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 05-JUL-2006 12:52:22 Page 1
New World Technology Spectrum name: 3N003043.An1

Sample description
PCB Hot Spot 84NPCBSU6A2PE-001 309g
7/05/06 09:30

Acquisition information
Start time: 05-Jul-2006 12:07:17
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Activity picoCi/g	Time of Count Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		4.9127E-01	3.4011E-01	3.4121E-01	0.211E+00
AM-241	#B	-5.3932E-02	-1.4564E+00	-1.4564E+00	0.894E-01
Bi-212		4.9371E-01	6.7176E-01	6.7232E-01	0.281E+00
BI-214	F	4.4941E-01	2.6310E-01	2.6428E-01	0.123E+00
CO-60	#B	-2.9752E-02	1.1824E+02	1.1824E+02	0.298E-01
Cs-137	#B	-1.7402E-03	-9.8862E-02	-9.8862E-02	0.589E-01
EU-152	F	1.4745E-01	1.9918E-01	1.9935E-01	0.788E-01
EU-154	B	3.3063E-03	1.0247E-01	1.0247E-01	0.583E-01
K-40		1.5116E+01	2.7396E+00	2.8657E+00	0.129E+00
PA-234	#B	-6.0480E-02	-9.6430E-01	-9.6431E-01	0.134E+00
Pb-210	#B	-1.4271E-01	-2.1916E+00	-2.1916E+00	0.122E+01
PB-212		3.2461E-01	1.8071E-01	1.8161E-01	0.920E-01
PB-214		5.1271E-01	3.1033E-01	3.1163E-01	0.124E+00
RA-226	A	1.0620E-01	1.7823E+00	1.7823E+00	0.105E+01
Th-230	#B	-1.8501E+00	-4.8215E+00	-4.8226E+00	0.883E+01
TH-234	#A	7.8545E-01	1.2769E+00	1.2777E+00	0.805E+00
Tl-208	#B	-5.2281E-02	-4.1897E-02	-4.1998E-02	0.138E+00
U-235	#B	4.7267E-02	9.8699E-02	9.8734E-02	0.598E-01

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---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.8 keV) 1.7535303E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 05-JUN-2006 20:09:53 Page 1
New World Technology Spectrum name: 3N002766.An1

Sample description
PCB Hot Spot 84NPCBSU6A3PE-001 437g
6/02/06 11:30

Acquisition information
Start time: 05-Jun-2006 18:39:46
Live time: 5400
Real time: 5404

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		4.2936E-01	3.0428E-01	3.0521E-01	0.123E+00
AM-241	#A	5.1387E-02	1.3143E-01	1.3146E-01	0.616E-01
Bi-212		4.4772E-01	3.7346E-01	3.7428E-01	0.159E+00
BI-214		2.2175E-01	1.2404E-01	1.2465E-01	0.689E-01
CO-60	#B	-3.7721E-03	-1.5216E-02	-1.5218E-02	0.169E-01
Cs-137	#B	-3.8301E-02	-2.9990E-01	-2.9991E-01	0.332E-01
EU-152	F	8.0845E-02	1.1090E-01	1.1099E-01	0.440E-01
EU-154	F	3.3380E-02	5.3856E-02	5.3888E-02	0.306E-01
K-40		1.2422E+01	1.5640E+00	1.7097E+00	0.166E+00
PA-234	#B	-1.9931E-02	-2.7526E-01	-2.7526E-01	0.762E-01
Pb-210	A	2.7188E-01	1.2276E+00	1.2277E+00	0.617E+00
PB-212	F	3.9079E-01	1.0053E-01	1.0285E-01	0.455E-01
PB-214		3.0059E-01	1.1539E-01	1.1660E-01	0.659E-01
RA-226	A	4.7822E-01	9.4385E-01	9.4423E-01	0.527E+00
Th-230	#B	-4.4000E+00	-1.2687E+01	-1.2689E+01	0.442E+01
TH-234		7.5927E-01	8.0508E-01	8.0618E-01	0.480E+00
Tl-208	B	-1.7009E-01	1.5722E+03	1.5722E+03	0.908E-01
U-235	#B	-2.8725E-02	-2.9306E-01	-2.9307E-01	0.354E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.7 to 2660.0 keV) 1.4971902E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 05-JUN-2006 22:44:23 Page 1
New World Technology Spectrum name: 3N002767.An1

Sample description
PCB Hot Spot 84NPCBSU6A4PE-001 451g
6/02/06 11:40

Acquisition information
Start time: 05-Jun-2006 21:14:16
Live time: 5400
Real time: 5404

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		3.2430E-01	2.2332E-01	2.2405E-01	0.109E+00
AM-241	#B	-2.0923E-02	-2.4242E-01	-2.4242E-01	0.473E-01
Bi-212	F	2.2792E-01	3.6469E-01	3.6491E-01	0.186E+00
BI-214	F	2.4052E-01	1.3055E-01	1.3124E-01	0.652E-01
CO-60	#B	-2.2957E-03	-2.5827E-02	-2.5827E-02	0.156E-01
Cs-137	#B	-3.3901E-03	-5.0263E-02	-5.0263E-02	0.282E-01
EU-152	B	9.6020E-03	6.3208E-02	6.3210E-02	0.344E-01
EU-154	F	4.9626E-02	5.9145E-02	5.9209E-02	0.314E-01
K-40		1.1943E+01	1.4547E+00	1.5991E+00	0.899E-01
PA-234	#B	2.8255E-02	7.0862E-02	7.0879E-02	0.529E-01
Pb-210	#B	-5.3817E-01	-1.9863E+00	-1.9865E+00	0.576E+00
PB-212	F	3.9955E-01	9.9799E-02	1.0224E-01	0.449E-01
PB-214		2.9372E-01	1.5718E-01	1.5803E-01	0.660E-01
RA-226		5.8081E-01	9.2336E-01	9.2392E-01	0.511E+00
Th-230	#B	-7.1459E+00	-1.0577E+02	-1.0577E+02	0.564E+01
TH-234	A	3.7677E-01	7.0618E-01	7.0649E-01	0.429E+00
Tl-208		9.2585E-02	5.9373E-02	5.9596E-02	0.533E-01
U-235	#B	6.5173E-04	3.5609E-03	3.5611E-03	0.293E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2660.0 keV) 1.4152498E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 01-JUN-2006 13:30:26 Page 1
New World Technology Spectrum name: 2N002732.An1

Sample description
PCB Hot Spot 84NPCBSU6A5PE-001 491g
05/31/06 14:20

Acquisition information
Start time: 01-Jun-2006 12:45:19
Live time: 2700
Real time: 2704

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
AC-228	F	3.2840E-01	2.4287E-01	2.4355E-01	0.137E+00
AM-241	#B	-4.0269E-01	-6.0028E+00	-6.0029E+00	0.363E+00
Bi-212	F	2.5437E-01	3.8638E-01	3.8664E-01	0.187E+00
BI-214	F	2.4855E-01	1.4404E-01	1.4470E-01	0.640E-01
CO-60	#	3.1642E-02	3.3114E-02	3.3161E-02	0.857E-02
Cs-137	A	7.8690E-03	5.3995E-02	5.3997E-02	0.354E-01
EU-152	F	7.3638E-02	8.5175E-02	8.5273E-02	0.607E-01
EU-154	B	2.7119E-02	5.2206E-02	5.2228E-02	0.422E-01
K-40		7.7926E+00	1.6682E+00	1.7235E+00	0.166E+00
PA-234	#F	9.0013E-02	7.9529E-02	7.9685E-02	0.453E-01
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		2.1223E-01	1.2725E-01	1.2779E-01	0.646E-01
PB-214		2.4089E-01	1.5456E-01	1.5514E-01	0.638E-01
RA-226	A	1.5534E-01	1.2736E+00	1.2736E+00	0.733E+00
Th-230	#B	-2.9756E+01	1.1260E+05	1.1260E+05	0.256E+02
TH-234	#B	1.0773E+00	4.4948E+00	4.4952E+00	0.214E+01
Tl-208	#F	1.6243E-01	9.3781E-02	9.4215E-02	0.140E-01
U-235	#B	-1.5124E-02	-1.7609E-01	-1.7610E-01	0.436E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.8 to 2675.5 keV) 9.2711420E+00 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 03-JUL-2006 21:48:59 Page 1
New World Technology Spectrum name: 5N000134.An1

Sample description
PCB Hot Spot 84NPCBSU6B1PE-001 428g
6/30/06 14:40

Acquisition information
Start time: 03-Jul-2006 21:03:51
Live time: 2700
Real time: 2701

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
Ac-228	#B	-3.4465E-01	9.2923E+02	9.2923E+02	0.173E+00
AM-241	#B	-3.6814E-02	-3.1530E-01	-3.1531E-01	0.101E+00
Bi-212	B	3.4214E-01	5.3386E-01	5.3420E-01	0.359E+00
BI-214	F	3.3252E-01	1.9397E-01	1.9484E-01	0.905E-01
CO-60	#B	-9.8393E-03	5.5302E+01	5.5302E+01	0.140E-01
CS-137	#B	-2.5377E-02	-1.8164E-01	-1.8164E-01	0.360E-01
EU-152	F	1.0114E-01	1.1574E-01	1.1587E-01	0.594E-01
EU-154	#F	7.7598E-02	6.7202E-02	6.7340E-02	0.425E-01
K-40		2.9697E+00	2.4073E+00	2.4129E+00	0.121E+01
Pa-234	#B	6.0016E-02	7.8346E-02	7.8417E-02	0.862E-01
Pb-210	#	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
Pb-212		2.5052E-01	1.4420E-01	1.4487E-01	0.774E-01
PB-214	F	4.6096E-01	2.2191E-01	2.2338E-01	0.809E-01
RA-226	B	6.8406E-02	1.3208E+00	1.3208E+00	0.779E+00
Th-230	#B	-2.7604E+00	-3.5613E+01	-3.5613E+01	0.102E+02
Th-234	F	1.1338E+00	1.1560E+00	1.1577E+00	0.789E+00
Tl-208	F	2.6008E-01	9.2677E-02	9.3796E-02	0.195E-01
U-235	#B	-7.2460E-01	-5.4869E+00	-5.4870E+00	0.920E-01

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---------- S U M M A R Y ----------

Total Activity (52.4 to 3339.1 keV) 4.0137258E+00 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 25-MAY-2006 22:06:15 Page 1
New World Technology Spectrum name: 2N002683.An1

Sample description
PCB Hot Spot 84NPCBSU6B2PE-001 473g
05/25/06 10:05

Acquisition information
Start time: 25-May-2006 21:17:27
Live time: 2700
Real time: 2704

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	3.3137E-01	1.8924E-01	1.9014E-01	0.134E+00
AM-241 #B	-3.3544E-01	-4.8761E+00	-4.8762E+00	0.510E+00
Bi-212 #B	-2.7617E-02	-3.8170E-01	-3.8170E-01	0.136E+00
BI-214 F	2.9551E-01	1.5015E-01	1.5105E-01	0.635E-01
CO-60 #B	6.8748E-03	3.4221E-02	3.4223E-02	0.159E-01
Cs-137 #B	-1.0172E-02	-6.9011E-02	-6.9013E-02	0.357E-01
EU-152 F	8.8899E-02	1.2526E-01	1.2536E-01	0.712E-01
EU-154 B	2.0949E-03	4.7862E-02	4.7862E-02	0.463E-01
K-40	9.6751E+00	1.8176E+00	1.8956E+00	0.884E-01
PA-234 #F	2.0810E-01	1.9508E-01	1.9543E-01	0.891E-01
Pb-210 #C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212 F	2.9429E-01	1.3000E-01	1.3102E-01	0.616E-01
PB-214	2.5294E-01	1.4435E-01	1.4504E-01	0.671E-01
RA-226 A	6.8011E-01	1.3471E+00	1.3476E+00	0.746E+00
Th-230 B	6.2256E+00	5.3055E+01	5.3057E+01	0.276E+02
TH-234	2.6575E+00	5.2675E+00	5.2696E+00	0.249E+01
Tl-208 #F	2.1858E-01	1.1084E-01	1.1150E-01	0.146E-01
U-235 #B	-6.8825E-03	-1.2004E-01	-1.2004E-01	0.485E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.8 to 2675.5 keV) 1.3725375E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 06-JUN-2006 00:33:21 Page 1
New World Technology Spectrum name: 6N000019.An1

Sample description
PCB Hot Spot 84NPCBSU6B3PE-001 432g
6/2/06 11:35

Acquisition information
Start time: 05-Jun-2006 23:02:48
Live time: 5400
Real time: 5427

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
Ac-228	F	3.0837E-01	1.5455E-01	1.5550E-01	0.137E+00
AM-241	#A	-4.2254E-02	-4.1504E-01	-4.1504E-01	0.714E-01
Bi-212	#B	1.4300E-01	2.3100E-01	2.3113E-01	0.256E+00
BI-214	F	3.9910E-01	2.3767E-01	2.3870E-01	0.805E-01
CO-60	#F	5.0546E-02	5.2617E-02	5.2692E-02	0.175E-01
CS-137	#B	-4.6536E-02	-6.4796E-01	-6.4796E-01	0.329E-01
EU-152	F	9.1986E-02	1.1237E-01	1.1249E-01	0.598E-01
EU-154	#A	-3.4424E-02	2.6795E+02	2.6795E+02	0.385E-01
K-40		7.5448E+00	1.6682E+00	1.7201E+00	0.761E+00
Pa-234	B	5.0794E-02	1.2508E-01	1.2511E-01	0.667E-01
Pb-210		1.5899E+00	1.5360E+00	1.5385E+00	0.641E+00
Pb-212		3.6745E-01	1.1249E-01	1.1433E-01	0.567E-01
PB-214		3.2809E-01	1.5223E-01	1.5332E-01	0.808E-01
RA-226		9.5476E-01	1.1674E+00	1.1686E+00	0.651E+00
Th-230	#B	-1.3002E+01	-3.3397E+02	-3.3398E+02	0.618E+01
Th-234	B	2.4821E-01	1.2026E+00	1.2027E+00	0.699E+00
Tl-208	#F	1.8933E-01	1.2094E-01	1.2140E-01	0.385E-01
U-235	F	4.8325E-02	7.5027E-02	7.5075E-02	0.400E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.1 to 2611.9 keV) 1.1424014E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 05-JUN-2006 22:53:31 Page 1
New World Technology Spectrum name: 2N002794.An1

Sample description
PCB Hot Spot 84NPCBSU6B4PE-001 420g
6/02/06 11:45

Acquisition information
Start time: 05-Jun-2006 21:19:19
Live time: 5400
Real time: 5408

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
AC-228		2.8432E-01	1.6717E-01	1.6792E-01	0.106E+00
AM-241	#B	-1.3077E-01	-1.4534E+00	-1.4534E+00	0.449E+00
Bi-212		3.6194E-01	3.5833E-01	3.5890E-01	0.178E+00
BI-214	F	3.3232E-01	1.7149E-01	1.7248E-01	0.650E-01
CO-60	#B	-2.3227E-02	2.2498E+02	2.2498E+02	0.264E-01
Cs-137	#B	-4.5193E-02	-2.1214E-01	-2.1216E-01	0.325E-01
EU-152	B	2.4277E-02	6.2970E-02	6.2984E-02	0.662E-01
EU-154	B	5.0964E-03	7.1476E-02	7.1476E-02	0.390E-01
K-40		9.5714E+00	1.3566E+00	1.4573E+00	0.498E-01
PA-234	#B	1.6071E-02	6.1829E-02	6.1836E-02	0.784E-01
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	2.8929E-01	1.0468E-01	1.0591E-01	0.515E-01
PB-214		3.1164E-01	1.3840E-01	1.3948E-01	0.592E-01
RA-226	A	3.2515E-01	1.0280E+00	1.0282E+00	0.587E+00
Th-230	#B	-3.1686E+01	-3.1489E+02	-3.1489E+02	0.146E+02
TH-234	#F	3.9856E+00	5.1047E+00	5.1095E+00	0.225E+01
Tl-208	C	7.0270E-02	4.5091E-02	4.5260E-02	0.280E-01
U-235	#B	-1.9587E-02	-1.4676E-01	-1.4676E-01	0.337E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.8 to 2675.5 keV) 1.5136537E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 01-JUN-2006 14:43:44 Page 1
New World Technology Spectrum name: 2N002733.An1

Sample description
PCB Hot Spot 84NPCBSU6B5PE-001 445g
05/31/06 14:25

Acquisition information
Start time: 01-Jun-2006 13:49:39
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
Ac-228 F	2.7439E-01	2.2075E-01	2.2128E-01	0.140E+00
AM-241 #B	-4.6973E-01	-2.0558E+01	-2.0558E+01	0.565E+00
Bi-212 #F	3.7844E-01	3.8620E-01	3.8677E-01	0.148E+00
BI-214 F	2.4334E-01	1.5823E-01	1.5881E-01	0.741E-01
CO-60 #F	1.0555E-02	2.1095E-02	2.1103E-02	0.946E-02
Cs-137 #B	-7.5554E-03	-7.7726E-02	-7.7727E-02	0.415E-01
EU-152 B	6.3564E-02	1.2293E-01	1.2298E-01	0.887E-01
EU-154 B	2.8301E-02	1.0598E-01	1.0599E-01	0.563E-01
K-40	8.1465E+00	1.7196E+00	1.7782E+00	0.940E-01
PA-234 #B	7.1010E-02	7.5187E-02	7.5290E-02	0.979E-01
Pb-210 C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212 F	1.8988E-01	1.3435E-01	1.3476E-01	0.702E-01
PB-214	2.8801E-01	1.7543E-01	1.7616E-01	0.711E-01
RA-226 A	3.2508E-01	1.2829E+00	1.2831E+00	0.736E+00
Th-230 #B	-1.0690E+01	-8.6094E+01	-8.6096E+01	0.254E+02
TH-234	2.8173E+00	4.7805E+00	4.7831E+00	0.241E+01
Tl-208	1.2707E-01	6.6151E-02	6.6528E-02	0.155E-01
U-235 #B	-1.8454E-02	-2.0339E-01	-2.0340E-01	0.464E-01

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S U M M A R Y

Total Activity (41.8 to 2675.5 keV) 1.2475513E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 03-JUL-2006 22:30:40 Page 1
New World Technology Spectrum name: 2N003075.An1

Sample description
PCB Hot Spot 84NPCBSU6COPE-001 326g
06/30/06 15:30

Acquisition information
Start time: 03-Jul-2006 21:45:34
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		5.8287E-01	2.9204E-01	2.9384E-01	0.185E+00
AM-241	#B	-2.9053E-01	-3.9130E+00	-3.9130E+00	0.808E+00
Bi-212	F	9.0033E-01	6.4401E-01	6.4596E-01	0.239E+00
BI-214	F	3.7101E-01	2.1951E-01	2.2048E-01	0.105E+00
CO-60	#F	3.1930E-02	5.6732E-02	5.6760E-02	0.309E-01
Cs-137	#A	1.9225E-02	1.0922E-01	1.0922E-01	0.554E-01
EU-152	F	1.9663E-01	1.8739E-01	1.8771E-01	0.967E-01
EU-154	B	3.8090E-02	6.3879E-02	6.3913E-02	0.730E-01
K-40		9.6778E+00	2.3891E+00	2.4491E+00	0.685E+00
PA-234	#B	-5.2234E-02	6.7375E+02	6.7375E+02	0.134E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		4.9938E-01	1.9997E-01	2.0189E-01	0.878E-01
PB-214		4.4478E-01	3.0716E-01	3.0815E-01	0.119E+00
RA-226	A	3.0316E-01	1.9118E+00	1.9118E+00	0.111E+01
Th-230	B	-2.8686E+01	-9.0421E+01	-9.0435E+01	0.321E+02
TH-234	B	2.9018E+00	6.2619E+00	6.2640E+00	0.322E+01
Tl-208	#F	8.3137E-02	5.9826E-02	6.0005E-02	0.234E-01
U-235	#B	7.6175E-03	2.0388E-02	2.0393E-02	0.752E-01

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H - Halflife limit exceeded

----------------------------- S U M M A R Y ---------------------------

Total Activity (41.8 to 2673.8 keV) 1.2508093E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 05-JUL-2006 13:17:32 Page 1
New World Technology Spectrum name: 1N002555.An1

Sample description
PCB Hot Spot 84NPCBSU6C1PE-002 453g
6/30/06 14:45

Acquisition information
Start time: 03-Jul-2006 21:33:45
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	5.6482E-01	2.5327E-01	2.5521E-01	0.380E-01
AM-241 #A	-9.7253E-02	-1.0701E+00	-1.0701E+00	0.190E+00
Bi-212	2.9473E-01	4.8470E-01	4.8498E-01	0.248E+00
BI-214 F	5.0744E-01	2.4768E-01	2.4928E-01	0.425E+00
CO-60 #A	-2.2424E-02	-1.2312E-01	-1.2313E-01	0.357E-01
CS-137 A	1.1220E-02	4.4761E-02	4.4765E-02	0.227E-01
EU-152 A	1.4916E-02	6.0981E-02	6.0986E-02	0.714E-01
EU-154 A	4.6082E-02	1.0100E-01	1.0103E-01	0.473E-01
K-40	8.3763E+00	2.4785E+00	2.5219E+00	0.811E+00
Pa-234 #B	9.1539E-02	6.8654E-02	6.8841E-02	0.108E+00
Pb-210 #A	3.6245E+00	1.2069E+01	1.2070E+01	0.610E+01
Pb-212	4.9297E-01	1.4614E-01	1.4869E-01	0.470E-01
Pb-214	3.8346E-01	2.0926E-01	2.1034E-01	0.691E-01
RA-226 #B	-5.5009E-01	-2.9661E+00	-2.9662E+00	0.811E+00
Th-230 #B	1.1247E+01	2.7412E+01	2.7419E+01	0.121E+02
Th-234 B	-1.0574E-01	-1.9650E-01	-1.9659E-01	0.148E+01
Tl-208 #	1.4720E-01	8.2152E-02	8.2559E-02	0.215E-01
U-235 #B	1.8158E-02	3.8361E-02	3.8375E-02	0.421E-01

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< - MDA value printed.
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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.2 to 2605.8 keV) 1.0766941E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 25-MAY-2006 11:12:41 Page 1
New World Technology Spectrum name: 2N002673.An1

Sample description
PCB Hot Spot 84NPCBSU6C2PE-001 447g
05/24/06 15:30

Acquisition information
Start time: 25-May-2006 10:27:34
Live time: 2700
Real time: 2704

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Activity picoCi/g	Uncertainty (Time of Count) Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		3.8948E-01	2.5712E-01	2.5803E-01	0.131E+00
AM-241	#B	-1.5563E-01	-1.4174E+00	-1.4175E+00	0.471E+00
Bi-212	F	5.9519E-01	4.5786E-01	4.5905E-01	0.178E+00
BI-214	F	3.3591E-01	1.9328E-01	1.9418E-01	0.778E-01
CO-60	#B	-1.6166E-03	2.3606E+01	2.3606E+01	0.942E-02
Cs-137	#B	-1.0728E-02	-8.1054E-02	-8.1056E-02	0.402E-01
EU-152	F	1.1783E-01	1.1159E-01	1.1178E-01	0.759E-01
EU-154	B	5.8087E-03	7.8289E-02	7.8290E-02	0.425E-01
K-40		9.9569E+00	1.8968E+00	1.9759E+00	0.935E-01
PA-234	A	9.9404E-02	1.7428E-01	1.7437E-01	0.122E+00
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	3.7307E-01	1.4912E-01	1.5056E-01	0.691E-01
PB-214		4.3646E-01	2.4276E-01	2.4397E-01	0.895E-01
RA-226	#	8.1454E-01	1.6414E+00	1.6420E+00	0.769E+00
Th-230	#B	-1.5575E+01	-7.7936E+01	-7.7940E+01	0.262E+02
TH-234	F	3.7031E+00	5.7392E+00	5.7429E+00	0.256E+01
Tl-208	B	5.8236E-02	3.8685E-02	3.8820E-02	0.620E-01
U-235	B	-4.1326E-02	1.7003E+02	1.7003E+02	0.429E-01

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SUMMARY

Total Activity (41.8 to 2675.5 keV) 1.6604591E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 25-MAY-2006 13:56:58 Page 1
New World Technology Spectrum name: 2N002676.An1

Sample description
PCB Hot Spot 84NPCBSU6C3PE-001 360g
05/24/06 15:50

Acquisition information
Start time: 25-May-2006 13:10:45
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		3.7406E-01	3.1421E-01	3.1490E-01	0.163E+00
AM-241	#B	-5.5339E-01	-1.2504E+01	-1.2504E+01	0.571E+00
Bi-212	F	4.6683E-01	5.4684E-01	5.4746E-01	0.250E+00
BI-214	F	4.6334E-01	2.3128E-01	2.3271E-01	0.876E-01
CO-60	#C	1.3665E-02	1.9028E-02	1.9043E-02	0.117E-01
Cs-137	#B	-7.5959E-02	-2.5621E+00	-2.5621E+00	0.528E-01
EU-152	B	9.5843E-02	1.8922E-01	1.8930E-01	0.968E-01
EU-154	A	6.1175E-02	1.2049E-01	1.2054E-01	0.616E-01
K-40		1.2961E+01	2.4115E+00	2.5169E+00	0.116E+00
PA-234	#B	2.1978E-02	7.0066E-02	7.0077E-02	0.926E-01
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.5106E-01	1.6577E-01	1.6692E-01	0.799E-01
PB-214		4.9500E-01	2.5114E-01	2.5264E-01	0.955E-01
RA-226	A	3.0814E-01	1.7740E+00	1.7740E+00	0.101E+01
Th-230	B	-3.6059E+01	-9.8243E+02	-9.8243E+02	0.366E+02
TH-234	A	1.7378E+00	3.9835E+00	3.9847E+00	0.316E+01
Tl-208		2.7898E-01	1.4353E-01	1.4437E-01	0.191E-01
U-235	A	8.3504E-03	1.4026E-01	1.4026E-01	0.654E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2675.5 keV) 1.5390580E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 25-MAY-2006 14:48:31 Page 1
New World Technology Spectrum name: 2N002677.An1

Sample description
PCB Hot Spot 84NPCBSU6C4PE-001 508g
05/24/06 15:45

Acquisition information
Start time: 25-May-2006 14:03:23
Live time: 2700
Real time: 2704

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	#F	2.6490E-01	2.2777E-01	2.2825E-01	0.122E+00
AM-241	#B	-4.6129E-01	-1.4128E+01	-1.4128E+01	0.337E+00
Bi-212	B	6.9947E-02	3.1321E-01	3.1323E-01	0.173E+00
BI-214	F	3.0198E-01	1.6051E-01	1.6139E-01	0.643E-01
CO-60	#F	9.2461E-03	1.8479E-02	1.8486E-02	0.829E-02
Cs-137	#A	1.9905E-02	7.8083E-02	7.8091E-02	0.368E-01
EU-152	F	1.1411E-01	1.1045E-01	1.1064E-01	0.642E-01
EU-154	B	8.0345E-03	6.8451E-02	6.8452E-02	0.369E-01
K-40	#	7.8074E+00	1.5755E+00	1.6343E+00	0.823E-01
PA-234	#B	4.7150E-03	1.1431E-02	1.1434E-02	0.844E-01
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	2.4928E-01	1.2400E-01	1.2477E-01	0.606E-01
PB-214		2.0573E-01	1.7567E-01	1.7604E-01	0.694E-01
RA-226	A	3.6322E-01	1.1334E+00	1.1336E+00	0.645E+00
Th-230	#B	-2.4859E+01	-2.3771E+02	-2.3771E+02	0.167E+02
TH-234	#F	2.4744E+00	4.6676E+00	4.6696E+00	0.219E+01
Tl-208	#F	5.0874E-02	4.4889E-02	4.4978E-02	0.406E-01
U-235	A	2.9200E-02	1.2687E-01	1.2688E-01	0.423E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.8 to 2675.5 keV) 1.1312999E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 31-MAY-2006 10:19:32 Page 1
New World Technology Spectrum name: 2N002709.An1

Sample description
PCB Hot Spot 84NPCBSU6C5PE-001 415g
05/30/06 13:57

Acquisition information
Start time: 31-May-2006 09:34:23
Live time: 2700
Real time: 2704

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***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
Ac-228	3.3305E-01	2.6155E-01	2.6221E-01	0.159E+00
AM-241 #A	7.0583E-02	1.2191E+00	1.2191E+00	0.619E+00
Bi-212 F	5.5183E-01	5.0207E-01	5.0300E-01	0.213E+00
BI-214 F	3.0360E-01	1.8914E-01	1.8989E-01	0.794E-01
CO-60 #	4.7128E-02	3.2036E-02	3.2143E-02	0.101E-01
Cs-137 #B	-4.3512E-02	-3.0379E-01	-3.0380E-01	0.493E-01
EU-152 F	1.1792E-01	1.4424E-01	1.4438E-01	0.739E-01
EU-154 A	1.0337E-02	4.3857E-02	4.3860E-02	0.673E-01
K-40	7.1353E+00	1.6665E+00	1.7130E+00	0.101E+00
PA-234 #B	3.4083E-02	8.0228E-02	8.0250E-02	0.106E+00
Pb-210 #F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	1.7600E-01	1.3524E-01	1.3560E-01	0.718E-01
PB-214	2.2329E-01	2.1416E-01	2.1452E-01	0.922E-01
RA-226 A	4.0828E-01	1.3914E+00	1.3915E+00	0.794E+00
Th-230 #B	-1.3100E+01	-1.1082E+02	-1.1083E+02	0.282E+02
TH-234 F	3.1489E+00	4.9646E+00	4.9677E+00	0.226E+01
Tl-208 #	1.3999E-01	9.6348E-02	9.6662E-02	0.166E-01
U-235 #B	1.9473E-02	3.5924E-02	3.5940E-02	0.532E-01

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C - Area < Critical level.
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H - Halflife limit exceeded

---------- SUMMARY ----------
Total Activity (41.8 to 2675.5 keV) 1.2059150E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 26-JUL-2006 02:42:47 Page 1
New World Technology Spectrum name: 3N003276.An1

Sample description
PCB Hot Spot 84NPCBSU7A1PE-002 370g
7/25/06 17:40

Acquisition information
Start time: 26-Jul-2006 01:57:41
Live time: 2700
Real time: 2702

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	3.1924E-01	2.8914E-01	2.8968E-01	0.173E+00
AM-241	#B	-3.2449E-02	-5.7991E-01	-5.7991E-01	0.876E-01
Bi-212		6.6518E-01	5.9127E-01	5.9243E-01	0.251E+00
BI-214	F	4.2117E-01	2.8987E-01	2.9081E-01	0.116E+00
CO-60	#B	-2.0245E-02	-2.1389E-01	-2.1389E-01	0.271E-01
Cs-137	#B	-8.8122E-04	-9.3558E-02	-9.3558E-02	0.551E-01
EU-152	F	1.3794E-01	2.4933E-01	2.4945E-01	0.857E-01
EU-154	B	1.4049E-02	5.7301E-02	5.7306E-02	0.550E-01
K-40		2.5318E+01	3.3156E+00	3.6021E+00	0.230E+00
PA-234	#B	-1.9808E-02	-3.2067E-01	-3.2067E-01	0.109E+00
Pb-210	#B	-2.3665E-01	-2.0714E+00	-2.0715E+00	0.981E+00
PB-212		3.7707E-01	1.6324E-01	1.6458E-01	0.775E-01
PB-214		3.2096E-01	1.7905E-01	1.7994E-01	0.101E+00
RA-226	#B	-9.9096E-02	-1.9386E+00	-1.9386E+00	0.976E+00
Th-230	#B	5.1094E+00	2.1220E+01	2.1221E+01	0.101E+02
TH-234	A	8.3261E-01	1.5105E+00	1.5112E+00	0.835E+00
Tl-208	#B	7.7140E-02	5.8333E-02	5.8491E-02	0.108E+00
U-235	#B	-1.0710E-02	-1.2569E-01	-1.2569E-01	0.491E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.8 keV) 2.7421837E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 19-JUL-2006 15:27:21 Page 1
New World Technology Spectrum name: 2N003233.An1

Sample description
PCB Hot Spot 84NPCBSU7B1PE-002 467g
7/18/06 14:25

Acquisition information
Start time: 19-Jul-2006 14:42:14
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		2.5409E-01	2.6940E-01	2.6978E-01	0.146E+00
AM-241	#B	-3.6910E-01	-6.1718E+00	-6.1718E+00	0.505E+00
Bi-212	F	7.0749E-01	6.2223E-01	6.2348E-01	0.200E+00
BI-214	F	3.8983E-01	1.7343E-01	1.7478E-01	0.653E-01
CO-60	#B	-1.5921E-03	-3.0973E-02	-3.0973E-02	0.216E-01
Cs-137	A	1.0033E-02	6.1243E-02	6.1246E-02	0.394E-01
EU-152	#B	-1.4789E-02	2.4561E+02	2.4561E+02	0.707E-01
EU-154	B	5.6674E-02	1.2577E-01	1.2581E-01	0.659E-01
K-40		9.5612E+00	1.9440E+00	2.0156E+00	0.478E+00
PA-234	#B	-3.6463E-02	4.8562E+02	4.8562E+02	0.110E+00
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.2928E-01	1.3977E-01	1.4097E-01	0.657E-01
PB-214		3.9251E-01	1.8953E-01	1.9079E-01	0.767E-01
RA-226	A	6.9551E-01	1.4459E+00	1.4464E+00	0.810E+00
Th-230	#B	-2.0796E+01	-1.8122E+02	-1.8122E+02	0.222E+02
TH-234	#A	1.9299E+00	6.8505E+00	6.8514E+00	0.300E+01
Tl-208		2.2426E-01	1.1372E-01	1.1440E-01	0.149E-01
U-235	#B	-6.9507E-03	-3.9995E-02	-3.9997E-02	0.560E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2673.8 keV) 1.1858612E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 19-JUL-2006 15:35:04 Page 1
New World Technology Spectrum name: 3N003196.An1

Sample description
PCB Hot Spot 84NPCBSU7C1PE-002 511g
7/18/06 14:40

Acquisition information
Start time: 19-Jul-2006 14:49:18
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	2.7732E-01	2.6562E-01	2.6607E-01	0.141E+00
AM-241 #B	-1.2847E-02	-1.9400E-01	-1.9400E-01	0.579E-01
Bi-212 F	4.5095E-01	3.9824E-01	3.9903E-01	0.165E+00
BI-214 F	2.6599E-01	1.9525E-01	1.9581E-01	0.836E-01
CO-60 #B	-1.6325E-02	-1.1510E-01	-1.1510E-01	0.189E-01
Cs-137 A	9.8623E-03	4.9241E-02	4.9244E-02	0.308E-01
EU-152 #B	-3.2517E-03	2.1925E+02	2.1925E+02	0.631E-01
EU-154 B	-2.0311E-02	1.6810E+02	1.6810E+02	0.484E-01
K-40	1.0322E+01	2.0417E+00	2.1209E+00	0.719E+00
PA-234 F	1.0997E-01	1.7889E-01	1.7899E-01	0.104E+00
Pb-210 #B	-3.2599E-01	-1.7835E+00	-1.7836E+00	0.746E+00
PB-212	3.4836E-01	1.2712E-01	1.2859E-01	0.580E-01
PB-214	3.1739E-01	2.1924E-01	2.1995E-01	0.862E-01
RA-226	7.6750E-01	1.1744E+00	1.1752E+00	0.653E+00
Th-230 #B	-5.2437E+00	-5.8920E+01	-5.8921E+01	0.685E+01
TH-234 B	1.6911E-01	4.0901E-01	4.0912E-01	0.531E+00
Tl-208 #B	4.4872E-02	4.2367E-02	4.2441E-02	0.849E-01
U-235 #B	-2.5443E-02	-3.9874E-01	-3.9875E-01	0.457E-01

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S U M M A R Y

Total Activity (41.7 to 2660.8 keV) 1.2749514E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 19-JUL-2006 14:45:12 Page 1
New World Technology Spectrum name: 3N003195.An1

Sample description
PCB Hot Spot 84NPCBSU7D1PE-001 545g
7/18/06 14:20

Acquisition information
Start time: 19-Jul-2006 14:00:06
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	2.1329E-01	2.3843E-01	2.3872E-01	0.117E+00
AM-241	#A	8.3395E-03	1.1668E-01	1.1668E-01	0.604E-01
Bi-212	F	2.1898E-01	3.8021E-01	3.8040E-01	0.187E+00
BI-214	F	2.2765E-01	2.1737E-01	2.1773E-01	0.779E-01
CO-60	#B	-1.6244E-02	-1.8900E-01	-1.8900E-01	0.195E-01
Cs-137	#B	-2.0278E-02	-1.4381E-01	-1.4381E-01	0.333E-01
EU-152	#B	-3.0488E-03	1.5241E+02	1.5241E+02	0.438E-01
EU-154	B	3.0556E-02	4.4703E-02	4.4735E-02	0.440E-01
K-40		5.5679E+00	1.5102E+00	1.5416E+00	0.656E+00
PA-234	#B	-7.7186E-03	-1.7754E-01	-1.7754E-01	0.784E-01
Pb-210	A	4.0165E-02	1.4581E+00	1.4581E+00	0.734E+00
PB-212	F	2.1152E-01	1.0391E-01	1.0458E-01	0.506E-01
PB-214		1.4439E-01	1.2446E-01	1.2472E-01	0.686E-01
RA-226	#B	-1.7206E-01	-1.2794E+00	-1.2794E+00	0.533E+00
Th-230	#B	-2.7860E+00	-1.3314E+01	-1.3315E+01	0.533E+01
TH-234	A	4.3186E-01	7.8959E-01	7.8995E-01	0.482E+00
Tl-208	#B	4.8430E-02	4.8068E-02	4.8144E-02	0.777E-01
U-235	#B	-1.8180E-02	-1.6769E-01	-1.6770E-01	0.328E-01

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---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.8 keV) 6.3704042E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 19-JUL-2006 14:35:55 Page 1
New World Technology Spectrum name: 1N002730.An1

Sample description
PCB Hot Spot 84NPCBSU7E1PE-001 466g
7/18/06 14:15

Acquisition information
Start time: 19-Jul-2006 13:50:45
Live time: 2700
Real time: 2703

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228	F	6.7870E-01	3.0353E-01	3.0586E-01	0.369E-01
AM-241	#A	-1.6575E-01	-1.7978E+01	-1.7978E+01	0.183E+00
Bi-212	A	2.0257E-01	3.9458E-01	3.9474E-01	0.220E+00
BI-214	F	4.0540E-01	2.0756E-01	2.0878E-01	0.239E+00
CO-60	#A	-2.5407E-03	-5.2399E-03	-5.2418E-03	0.363E-01
CS-137	A	4.8340E-03	4.5035E-02	4.5036E-02	0.284E-01
EU-152	C	1.0694E-01	1.2989E-01	1.3003E-01	0.676E-01
EU-154	A	-1.0594E-03	-5.5049E-03	-5.5052E-03	0.388E-01
K-40		6.7054E+00	2.2268E+00	2.2578E+00	0.788E+00
Pa-234	#B	-1.5462E-01	-7.1980E-01	-7.1986E-01	0.116E+00
Pb-210	#A	4.7613E-01	4.2373E+00	4.2374E+00	0.272E+01
Pb-212		3.4807E-01	1.5118E-01	1.5242E-01	0.594E-01
Pb-214		3.7246E-01	1.9007E-01	1.9120E-01	0.610E-01
RA-226	#B	-4.5374E-01	-2.7445E+00	-2.7446E+00	0.841E+00
Th-230	B	-8.8198E-01	-2.6751E+01	-2.6751E+01	0.102E+02
Th-234	B	8.9014E-02	2.2681E-01	2.2686E-01	0.124E+01
Tl-208		1.6539E-01	7.4728E-02	7.5292E-02	0.118E-01
U-235	C	8.0638E-02	9.1346E-02	9.1456E-02	0.394E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.2 to 2605.8 keV) 8.6754026E+00 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 20-JUL-2006 11:17:01 Page 1
New World Technology Spectrum name: 3N003209.An1

Sample description
PCB Hot Spot 84NPCBSU7F1PE-001 365g
7/19/06 16:15

Acquisition information
Start time: 20-Jul-2006 10:18:48
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	#B	2.0109E-01	2.3950E-01	2.3976E-01	0.204E+00
AM-241	#B	-2.2492E-02	-3.5062E-01	-3.5062E-01	0.866E-01
Bi-212	B	2.0329E-02	5.0273E-01	5.0273E-01	0.279E+00
BI-214	F	1.2904E-01	1.3504E-01	1.3523E-01	0.102E+00
CO-60	#B	-2.0523E-02	-2.7426E-01	-2.7426E-01	0.296E-01
Cs-137	A	3.9984E-03	6.3801E-02	6.3802E-02	0.418E-01
EU-152	F	9.0764E-02	1.7284E-01	1.7291E-01	0.615E-01
EU-154	#F	5.5834E-02	5.5920E-02	5.6006E-02	0.454E-01
K-40		3.9747E+00	1.9069E+00	1.9197E+00	0.100E+01
PA-234	#B	-3.5138E-02	-3.8007E-01	-3.8007E-01	0.936E-01
Pb-210	A	2.0657E-01	1.8219E+00	1.8220E+00	0.984E+00
PB-212		2.5858E-01	1.7549E-01	1.7608E-01	0.761E-01
PB-214	B	1.0344E-02	3.8953E-02	3.8957E-02	0.109E+00
RA-226	#B	-2.8669E-01	-1.9510E+00	-1.9510E+00	0.781E+00
Th-230	#B	-5.0331E+00	-2.9244E+01	-2.9246E+01	0.689E+01
TH-234	A	4.9894E-01	1.3050E+00	1.3053E+00	0.659E+00
Tl-208	#B	-7.0128E-02	-1.1320E-01	-1.1326E-01	0.116E+00
U-235	#B	-3.4345E-03	-8.8935E-02	-8.8935E-02	0.463E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.8 keV) 4.2332563E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 19-JUL-2006 23:47:26 Page 1
New World Technology Spectrum name: 2N003238.An1

Sample description
PCB Hot Spot 84NPCBSU7G0PE-001 404g
7/19/06 15:35

Acquisition information
Start time: 19-Jul-2006 23:02:19
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	3.1047E-01	2.6758E-01	2.6814E-01	0.158E+00
AM-241 #A	2.3741E-02	8.6430E-01	8.6430E-01	0.495E+00
Bi-212 #F	6.4606E-01	5.8151E-01	5.8262E-01	0.193E+00
BI-214 F	2.5453E-01	1.8737E-01	1.8791E-01	0.820E-01
CO-60 #B	1.1962E-02	3.9040E-02	3.9046E-02	0.249E-01
Cs-137 #B	-6.2992E-03	-6.5169E-02	-6.5170E-02	0.404E-01
EU-152 B	-1.7095E-02	3.1997E+02	3.1997E+02	0.752E-01
EU-154 #B	-6.6738E-04	2.2331E+02	2.2331E+02	0.543E-01
K-40 #	7.6726E+00	1.9132E+00	1.9604E+00	0.553E+00
PA-234 #B	-4.2149E-02	5.2213E+02	5.2213E+02	0.112E+00
Pb-210 #F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	2.3717E-01	1.4665E-01	1.4724E-01	0.750E-01
PB-214	2.6797E-01	2.1503E-01	2.1554E-01	0.906E-01
RA-226 A	2.2727E-01	1.4610E+00	1.4611E+00	0.856E+00
Th-230 #B	-3.4843E+01	1.0658E+05	1.0658E+05	0.259E+02
TH-234 A	2.5283E+00	6.2623E+00	6.2639E+00	0.268E+01
Tl-208 #F	2.3701E-01	1.2569E-01	1.2638E-01	0.173E-01
U-235 B	3.5803E-03	9.9934E-02	9.9934E-02	0.572E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2673.8 keV) 9.6257620E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 20-JUL-2006 11:10:10 Page 1
New World Technology Spectrum name: 2N003245.An1

Sample description
PCB Hot Spot 84NPCBSU7G1PE-001 409g
7/19/06 16:10

Acquisition information
Start time: 20-Jul-2006 10:25:03
Live time: 2700
Real time: 2704

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	C	2.3754E-01	2.3528E-01	2.3565E-01	0.153E+00
AM-241	#B	-1.5536E-01	-1.6450E+00	-1.6450E+00	0.530E+00
Bi-212	F	2.6227E-01	4.8787E-01	4.8808E-01	0.245E+00
BI-214	F	3.1799E-01	2.1626E-01	2.1698E-01	0.824E-01
CO-60	#B	-2.4541E-02	1.1406E+02	1.1406E+02	0.268E-01
Cs-137	#B	-8.0574E-03	-7.9916E-02	-7.9917E-02	0.442E-01
EU-152	B	5.8838E-02	1.3086E-01	1.3090E-01	0.682E-01
EU-154	B	6.1457E-02	1.2206E-01	1.2211E-01	0.629E-01
K-40		7.3532E+00	1.8655E+00	1.9099E+00	0.546E+00
PA-234	#B	7.3344E-02	1.4416E-01	1.4422E-01	0.112E+00
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		2.3624E-01	1.5317E-01	1.5374E-01	0.784E-01
PB-214		2.9271E-01	2.1110E-01	2.1172E-01	0.793E-01
RA-226	A	8.3891E-02	1.2710E+00	1.2710E+00	0.767E+00
Th-230	#B	-3.4417E+01	1.3737E+05	1.3737E+05	0.245E+02
TH-234	A	1.6560E+00	3.6780E+00	3.6792E+00	0.237E+01
Tl-208	#F	1.6095E-01	1.0295E-01	1.0333E-01	0.170E-01
U-235	#B	-2.2321E-02	-2.6578E-01	-2.6578E-01	0.549E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.8 to 2673.8 keV) 8.6233616E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 20-JUL-2006 10:19:51 Page 1
New World Technology Spectrum name: 2N003244.An1

Sample description
PCB Hot Spot 84NPCBSU7H0PE-001 402g
7/19/06 16:20

Acquisition information
Start time: 20-Jul-2006 09:34:44
Live time: 2700
Real time: 2704

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	C	3.3078E-01	2.9282E-01	2.9340E-01	0.159E+00
AM-241	#B	-2.2952E-01	-2.2813E+00	-2.2814E+00	0.580E+00
Bi-212	F	3.0584E-01	4.4837E-01	4.4869E-01	0.214E+00
BI-214	F	2.1804E-01	1.4927E-01	1.4976E-01	0.736E-01
CO-60	#B	-2.2194E-02	-1.5239E-01	-1.5239E-01	0.259E-01
Cs-137	A	2.3387E-02	6.3903E-02	6.3916E-02	0.411E-01
EU-152	B	8.1744E-02	1.2454E-01	1.2462E-01	0.819E-01
EU-154	B	2.3658E-02	1.1434E-01	1.1435E-01	0.611E-01
K-40		7.5271E+00	1.9029E+00	1.9485E+00	0.556E+00
PA-234	#B	8.4858E-02	1.2852E-01	1.2860E-01	0.110E+00
Pb-210	C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		1.4662E-01	1.5152E-01	1.5174E-01	0.782E-01
PB-214		3.4360E-01	2.0301E-01	2.0391E-01	0.801E-01
RA-226	#B	-4.4792E-02	-1.6835E+00	-1.6835E+00	0.922E+00
Th-230	B	-2.1247E+01	-1.0204E+02	-1.0204E+02	0.268E+02
TH-234	B	1.1321E+00	5.9895E+00	5.9898E+00	0.322E+01
Tl-208	#A	5.8568E-02	5.7039E-02	5.7132E-02	0.616E-01
U-235	A	1.1239E-02	1.1322E-01	1.1322E-01	0.440E-01

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---------- S U M M A R Y ----------
Total Activity (41.8 to 2673.8 keV) 8.5412283E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 20-JUL-2006 11:50:02 Page 1
New World Technology Spectrum name: 1N002748.An1

Sample description
PCB Hot Spot 84NPCBSU7H1PE-001 355g
7/19/06 15:45

Acquisition information
Start time: 20-Jul-2006 11:04:52
Live time: 2700
Real time: 2703

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228 #F	1.9506E-01	1.1906E-01	1.1956E-01	0.880E-01
AM-241 #A	-2.2461E-01	7.5896E+02	7.5896E+02	0.191E+00
Bi-212 #B	-7.1291E-02	-5.2133E-01	-5.2135E-01	0.168E+00
BI-214 #B	8.2615E-02	2.4785E-01	2.4789E-01	0.332E+00
CO-60 #A	-4.5447E-02	1.8062E+02	1.8062E+02	0.456E-01
CS-137 #A	-3.2274E-02	-2.1611E-01	-2.1611E-01	0.307E-01
EU-152 #A	1.3713E-03	2.6096E-03	2.6107E-03	0.588E-01
EU-154 A	2.3081E-02	5.2571E-02	5.2586E-02	0.410E-01
K-40 #	1.7946E+00	1.7762E+00	1.7790E+00	0.103E+01
Pa-234 #B	-1.4706E-01	-2.4663E-01	-2.4676E-01	0.114E+00
Pb-210 #B	-6.2500E-01	-4.1505E+00	-4.1506E+00	0.252E+01
Pb-212 F	9.8241E-02	1.3743E-01	1.3754E-01	0.641E-01
Pb-214	1.5388E-01	1.1844E-01	1.1875E-01	0.365E-01
RA-226 #B	-9.0638E-01	-4.1786E+00	-4.1789E+00	0.915E+00
Th-230 #B	6.0008E+00	2.3213E+01	2.3216E+01	0.115E+02
Th-234 #B	-6.6341E-01	-1.2806E+00	-1.2811E+00	0.141E+01
Tl-208 #F	6.7003E-02	5.5750E-02	5.5874E-02	0.197E-01
U-235 #B	6.8275E-03	2.0482E-02	2.0486E-02	0.489E-01

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---------- S U M M A R Y ----------

Total Activity (41.2 to 2605.8 keV) 1.9484595E+00 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 20-JUL-2006 10:59:51 Page 1
New World Technology Spectrum name: 1N002747.An1

Sample description
PCB Hot Spot 84NPCBSU7I0PE-001 388g
7/19/06 16:05

Acquisition information
Start time: 20-Jul-2006 10:14:40
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	#B	7.4085E-02	9.1713E-02	9.1805E-02	0.213E+00
AM-241	#A	-1.2774E-01	-1.2827E+00	-1.2827E+00	0.194E+00
Bi-212	F	5.4936E-01	5.4896E-01	5.4981E-01	0.213E+00
BI-214	#B	4.7627E-02	1.5975E-01	1.5977E-01	0.278E+00
CO-60	#A	-3.3881E-02	-2.2639E-01	-2.2640E-01	0.417E-01
CS-137	#A	-2.4115E-02	-1.7003E-01	-1.7003E-01	0.279E-01
EU-152	C	1.0995E-01	1.0236E-01	1.0254E-01	0.687E-01
EU-154	A	2.2738E-02	4.5900E-02	4.5917E-02	0.465E-01
K-40		8.2097E+00	2.6949E+00	2.7333E+00	0.947E+00
Pa-234	#B	-3.2018E-01	-2.9029E+00	-2.9030E+00	0.111E+00
Pb-210	#A	4.5748E-01	7.2829E+00	7.2830E+00	0.519E+01
Pb-212		4.5237E-01	1.8191E-01	1.8365E-01	0.628E-01
Pb-214	F	5.3567E-01	2.1245E-01	2.1453E-01	0.459E-01
RA-226	#B	-3.9352E-01	-2.2770E+00	-2.2771E+00	0.886E+00
Th-230	#B	-6.0079E+00	-1.5391E+02	-1.5391E+02	0.782E+01
Th-234	B	2.9352E-01	3.3158E-01	3.3198E-01	0.163E+01
Tl-208		2.2195E-01	1.0835E-01	1.0905E-01	0.238E-01
U-235	C	1.2342E-01	1.2365E-01	1.2384E-01	0.559E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.2 to 2605.8 keV) 9.9690895E+00 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 20-JUL-2006 13:33:17 Page 1
New World Technology Spectrum name: 1N002750.An1

Sample description
PCB Hot Spot 84NPCBSU7I1PE-001 446g
7/19/06 15:40

Acquisition information
Start time: 20-Jul-2006 12:48:07
Live time: 2700
Real time: 2703

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228 #F	2.3022E-01	1.8238E-01	1.8283E-01	0.114E+00
AM-241 #A	-1.1868E-01	-1.2236E+00	-1.2236E+00	0.163E+00
Bi-212 #B	3.6105E-02	1.4838E-01	1.4839E-01	0.151E+00
BI-214 #F	5.6719E-01	5.3891E-01	5.3983E-01	0.197E+00
CO-60 #A	-3.6174E-02	1.4377E+02	1.4377E+02	0.363E-01
CS-137 #A	-2.4405E-02	-1.1843E-01	-1.1844E-01	0.238E-01
EU-152 #C	6.9371E-02	7.6287E-02	7.6384E-02	0.573E-01
EU-154 A	-3.1520E-02	1.5693E+02	1.5693E+02	0.396E-01
K-40	4.5573E+00	1.9784E+00	1.9946E+00	0.824E+00
Pa-234 #B	-1.2297E-01	-2.1299E-01	-2.1310E-01	0.102E+00
Pb-210 #	1.5919E+01	1.8545E+01	1.8566E+01	0.695E+01
Pb-212 F	3.0889E-01	1.2938E-01	1.3051E-01	0.399E-01
Pb-214 F	4.2037E-01	1.7063E-01	1.7222E-01	0.369E-01
RA-226 #B	-2.1771E-01	-1.6926E+00	-1.6926E+00	0.780E+00
Th-230 #F	1.5159E+01	2.6536E+01	2.6549E+01	0.110E+02
Th-234 B	-8.5913E-01	-5.1698E+00	-5.1700E+00	0.133E+01
Tl-208 #	1.4012E-01	9.1618E-02	9.1949E-02	0.227E-01
U-235 A	3.3998E-03	2.2784E-02	2.2784E-02	0.389E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.2 to 2605.8 keV) 3.7072514E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 22-AUG-2006 10:53:33 Page 1
New World Technology Spectrum name: 1N003075.An1

Sample description
PCB Hot Spot 84NPCBSU7J1PE-002 352g
8/21/06 14:00

Acquisition information
Start time: 22-Aug-2006 10:08:24
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty 2 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228	3.8497E-01	1.2757E-01	1.2837E-01	0.664E-01
AM-241 #	1.2287E-01	1.2528E-01	1.2536E-01	0.781E-01
Bi-212 C	2.9684E-01	2.9191E-01	2.9211E-01	0.254E+00
BI-214 #B	2.5866E-01	9.7765E-02	9.8235E-02	0.328E+00
CO-60 #A	-4.7628E-02	-2.0023E-01	-2.0024E-01	0.372E-01
CS-137	2.7173E-02	3.6266E-02	3.6280E-02	0.267E-01
EU-152 C	1.4394E-01	9.7977E-02	9.8121E-02	0.675E-01
EU-154 A	3.0862E-02	3.5636E-02	3.5655E-02	0.483E-01
K-40 #	2.3881E+00	9.8926E-01	9.9322E-01	0.834E+00
Pa-234 #B	-7.2869E-03	-1.3086E-01	-1.3086E-01	0.888E-01
Pb-210 #B	-1.3940E-01	-1.1964E+00	-1.1964E+00	0.864E+00
Pb-212 F	2.3676E-01	1.3409E-01	1.3438E-01	0.777E-01
Pb-214 #B	-1.1508E-01	-1.5190E+00	-1.5190E+00	0.773E-01
RA-226 A	3.5135E-01	9.0585E-01	9.0594E-01	0.812E+00
Th-230 #B	2.4808E+00	7.3514E+00	7.3520E+00	0.574E+01
Th-234 A	3.5053E-01	7.5449E-01	7.5460E-01	0.723E+00
Tl-208 B	0.0000E+00	0.0000E+00	0.0000E+00	0.749E-01
U-235 #F	6.2244E-02	4.0624E-02	4.0689E-02	0.520E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
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< - MDA value printed.
A - Activity printed, but activity < MDA.
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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2663.3 keV) 3.1599100E+00 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 23-AUG-2006 09:11:35 Page 1
New World Technology Spectrum name: 3N003711.An1

Sample description
PCB Hot Spot 84NPCBSU7K1PE-003 382g
8/21/06 14:05

Acquisition information
Start time: 22-Aug-2006 10:46:47
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	2 Sigma Total picoCi/g	MDA picoCi/g
Ac-228 #F	2.2911E-01	1.4318E-01	1.4344E-01	0.175E+00
AM-241 #B	-5.3541E-02	1.6082E+02	1.6082E+02	0.694E-01
Bi-212 B	1.4506E-01	2.3929E-01	2.3935E-01	0.179E+00
BI-214 F	2.2464E-01	1.2969E-01	1.2996E-01	0.997E-01
CO-60 #B	1.1587E-02	2.5211E-02	2.5214E-02	0.241E-01
Cs-137 #B	-8.2377E-03	-4.6228E-02	-4.6229E-02	0.375E-01
EU-152 F	1.0220E-01	9.9386E-02	9.9458E-02	0.534E-01
EU-154 #B	-1.8174E-02	-3.2716E-01	-3.2716E-01	0.561E-01
K-40	1.4593E+00	1.1777E+00	1.1789E+00	0.111E+01
PA-234 #B	1.1068E-01	1.5416E-01	1.5421E-01	0.123E+00
Pb-210 #B	-2.2285E-01	-1.0938E+00	-1.0938E+00	0.829E+00
PB-212 F	7.9362E-02	1.0389E-01	1.0393E-01	0.706E-01
PB-214 #F	1.2101E-01	9.9304E-02	9.9405E-02	0.845E-01
RA-226 #B	-2.2351E-01	-1.1918E+00	-1.1918E+00	0.820E+00
Th-230 #B	-3.7985E+00	-5.7911E+00	-5.7928E+00	0.745E+01
TH-234 A	5.8854E-01	8.0183E-01	8.0212E-01	0.648E+00
Tl-208 #B	2.4624E-02	1.1200E-02	1.1237E-02	0.107E+00
U-235 #B	-2.5823E-02	-1.1874E-01	-1.1874E-01	0.457E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.8 keV) 1.5699996E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 20-JUL-2006 13:53:11 Page 1
New World Technology Spectrum name: 3N003212.An1

Sample description
PCB Hot Spot 84NPCBSU7L1PE-001 371g
7/19/06 15:30

Acquisition information
Start time: 20-Jul-2006 13:08:06
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	5.4393E-01	3.9580E-01	3.9695E-01	0.184E+00
AM-241 #B	-1.4293E-02	-2.2225E-01	-2.2226E-01	0.761E-01
Bi-212	1.0545E+00	7.2813E-01	7.3049E-01	0.302E+00
BI-214 F	3.0439E-01	2.6279E-01	2.6334E-01	0.114E+00
CO-60 #B	1.9732E-02	5.7243E-02	5.7253E-02	0.297E-01
Cs-137 #B	-3.4827E-02	-2.9598E-01	-2.9599E-01	0.531E-01
EU-152 F	1.4688E-01	1.9389E-01	1.9406E-01	0.827E-01
EU-154 B	1.5849E-03	7.3172E-02	7.3172E-02	0.494E-01
K-40	1.2499E+01	2.5900E+00	2.6816E+00	0.964E+00
PA-234 #B	-6.5364E-02	-1.7100E+00	-1.7100E+00	0.130E+00
Pb-210 A	8.3587E-01	2.3843E+00	2.3847E+00	0.113E+01
PB-212	3.7999E-01	1.6540E-01	1.6675E-01	0.787E-01
PB-214	3.4737E-01	3.1546E-01	3.1606E-01	0.118E+00
RA-226 A	3.4429E-01	1.4025E+00	1.4026E+00	0.821E+00
Th-230 #B	-7.8926E+00	-1.0206E+02	-1.0206E+02	0.930E+01
TH-234 C	1.1109E+00	1.5191E+00	1.5204E+00	0.723E+00
Tl-208 #B	6.0530E-02	4.7658E-02	4.7777E-02	0.111E+00
U-235 B	-1.3246E-02	-1.3605E-01	-1.3605E-01	0.524E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.7 to 2660.8 keV) 1.5128740E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 06-JUL-2006 19:04:27 Page 1
New World Technology Spectrum name: 6N000143.An1

Sample description
PCB Hot Spot 84NPCBSU8A1PE-001 390g
7/06/06 08:15

Acquisition information
Start time: 06-Jul-2006 14:14:19
Live time: 2695
Real time: 2700

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
Ac-228		5.9200E-01	3.0368E-01	3.0545E-01	0.202E+00
AM-241	A	1.5453E-03	1.9849E-01	1.9849E-01	0.112E+00
Bi-212	B	8.1598E-02	5.6366E-01	5.6367E-01	0.349E+00
BI-214	#F	2.4710E-01	2.1655E-01	2.1699E-01	0.101E+00
CO-60	#B	-8.3297E-02	-5.0847E-01	-5.0849E-01	0.487E-01
CS-137	#B	-5.1256E-02	-1.0765E+00	-1.0765E+00	0.403E-01
EU-152	F	1.0289E-01	1.8164E-01	1.8173E-01	0.822E-01
EU-154	#F	1.8049E-01	1.2990E-01	1.3028E-01	0.713E-01
K-40		2.6619E+01	3.8993E+00	4.1699E+00	0.109E+01
Pa-234	#B	-5.0811E-02	-7.7430E-01	-7.7430E-01	0.882E-01
Pb-210	#	4.2748E+00	2.8120E+00	2.8220E+00	0.103E+01
Pb-212	F	3.3202E-01	1.6440E-01	1.6543E-01	0.847E-01
PB-214		2.4534E-01	1.5889E-01	1.5947E-01	0.105E+00
RA-226	#B	-3.2292E-01	-2.4020E+00	-2.4021E+00	0.102E+01
Th-230	B	5.6937E+00	2.3406E+01	2.3408E+01	0.106E+02
Th-234	#B	-4.2329E-01	-2.2816E+00	-2.2818E+00	0.101E+01
Tl-208	F	9.3576E-02	9.6408E-02	9.6548E-02	0.459E-01
U-235	B	-4.5152E-01	-1.2624E+00	-1.2627E+00	0.892E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.1 to 2611.9 keV) 3.2404110E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 06-JUL-2006 15:36:57 Page 1
New World Technology Spectrum name: 1N002567.An1

Sample description
PCB Hot Spot 84NPCBSU8A2PE-001 412g
7/06/06 08:25

Acquisition information
Start time: 06-Jul-2006 14:51:47
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228	6.4350E-01	2.5867E-01	2.6114E-01	0.417E-01
AM-241 #A	-1.1223E-01	-1.0976E+00	-1.0976E+00	0.187E+00
Bi-212 #	7.6030E-01	5.3134E-01	5.3302E-01	0.145E+00
BI-214 F	1.0226E+00	7.8588E-01	7.8794E-01	0.252E+00
CO-60 #	7.6869E-02	8.7021E-02	8.7126E-02	0.393E-01
CS-137 A	4.4627E-03	4.5146E-02	4.5147E-02	0.246E-01
EU-152 #A	-6.4742E-02	2.4461E+02	2.4461E+02	0.617E-01
EU-154 #A	1.2690E-02	8.6888E-02	8.6891E-02	0.439E-01
K-40	6.6311E+00	2.3909E+00	2.4192E+00	0.892E+00
Pa-234 #B	5.5966E-02	6.7842E-02	6.7912E-02	0.128E+00
Pb-210 #A	7.0009E+00	2.1372E+01	2.1376E+01	0.922E+01
Pb-212	3.4580E-01	1.4293E-01	1.4422E-01	0.571E-01
Pb-214	3.9069E-01	1.7930E-01	1.8061E-01	0.477E-01
RA-226 A	1.9440E-01	1.3282E+00	1.3283E+00	0.815E+00
Th-230 #F	2.3812E+01	4.1246E+01	4.1267E+01	0.164E+02
Th-234 B	7.3402E-01	5.9862E-01	6.0000E-01	0.155E+01
Tl-208 #	1.9720E-01	9.6956E-02	9.7574E-02	0.208E-01
U-235 #B	5.6031E-03	1.4754E-02	1.4757E-02	0.503E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.2 to 2605.8 keV) 3.3880096E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 11-JUL-2006 20:31:09 Page 1
New World Technology Spectrum name: 6N000194.An1

Sample description
PCB Hot Spot 84NPCBSU8A3PE-001 344g
7/11/06 08:50

Acquisition information
Start time: 11-Jul-2006 19:45:58
Live time: 2700
Real time: 2705

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
Ac-228	F	6.0762E-01	3.2938E-01	3.3110E-01	0.235E+00
AM-241	A	4.0825E-02	2.2137E-01	2.2138E-01	0.123E+00
Bi-212	#B	-7.4419E-02	-2.4961E-01	-2.4964E-01	0.454E+00
BI-214	F	3.6893E-01	2.6726E-01	2.6805E-01	0.122E+00
CO-60	#B	-9.4313E-02	-6.2050E-01	-6.2052E-01	0.488E-01
CS-137	#B	-4.9369E-03	-7.0388E-02	-7.0389E-02	0.419E-01
EU-152	F	1.7471E-01	1.6677E-01	1.6705E-01	0.821E-01
EU-154	F	1.7589E-01	1.8577E-01	1.8603E-01	0.558E-01
K-40		1.2531E+01	3.0084E+00	3.0880E+00	0.108E+01
Pa-234	#B	-1.0983E-02	-2.3788E-01	-2.3788E-01	0.105E+00
Pb-210		2.5830E+00	1.8285E+00	1.8341E+00	0.937E+00
Pb-212	F	5.2403E-01	1.9378E-01	1.9596E-01	0.946E-01
PB-214		2.1476E-01	2.1210E-01	2.1244E-01	0.123E+00
RA-226	#B	-5.0551E-01	-2.9916E+00	-2.9917E+00	0.112E+01
Th-230	#B	-7.3356E+00	-4.6673E+01	-4.6675E+01	0.113E+02
Th-234	B	1.0822E+00	1.9350E+00	1.9359E+00	0.112E+01
Tl-208	F	1.3158E-01	1.1787E-01	1.1810E-01	0.650E-01
U-235	#B	-5.3922E-01	-1.9116E+00	-1.9118E+00	0.101E+00

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.1 to 2611.8 keV) 1.6961376E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 11-JUL-2006 20:38:25 Page 1
New World Technology Spectrum name: 5N000171.An1

Sample description
PCB Hot Spot 84NPCBSU8A4PE-001 424g
7/11/06 09:00

Acquisition information
Start time: 11-Jul-2006 19:53:18
Live time: 2700
Real time: 2701

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
Ac-228		4.2133E-01	2.9229E-01	2.9322E-01	0.146E+00
AM-241	#B	-2.5170E-02	-2.4670E-01	-2.4671E-01	0.964E-01
Bi-212	F	4.2752E-01	5.2386E-01	5.2440E-01	0.247E+00
BI-214	F	2.6819E-01	1.8927E-01	1.8985E-01	0.909E-01
CO-60	#F	2.6976E-02	4.0798E-02	4.0826E-02	0.191E-01
CS-137	#B	-3.8615E-02	-6.0233E-01	-6.0234E-01	0.340E-01
EU-152	F	6.6508E-02	1.2464E-01	1.2470E-01	0.590E-01
EU-154	F	5.1064E-02	9.0385E-02	9.0430E-02	0.433E-01
K-40		7.5765E+00	1.9897E+00	2.0338E+00	0.856E+00
Pa-234	F	2.1650E-01	2.3000E-01	2.3032E-01	0.855E-01
Pb-210	#	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
Pb-212	F	3.6353E-01	1.5065E-01	1.5200E-01	0.759E-01
PB-214		4.9855E-01	2.0807E-01	2.0991E-01	0.688E-01
RA-226	#B	-3.1210E-01	-2.3820E+00	-2.3820E+00	0.846E+00
Th-230	#B	-2.5262E+00	-2.3335E+01	-2.3336E+01	0.866E+01
Th-234	F	1.4183E+00	7.4227E-01	7.4643E-01	0.777E+00
Tl-208		2.8037E-01	8.3385E-02	8.4829E-02	0.152E-01
U-235	#B	-6.6182E-01	-1.5132E+00	-1.5136E+00	0.904E-01

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C - Area < Critical level.
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H - Halflife limit exceeded

SUMMARY

Total Activity (52.4 to 3339.1 keV) 9.8360186E+00 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 06-JUL-2006 17:18:57 Page 1
New World Technology Spectrum name: 2N003088.An1

Sample description
PCB Hot Spot 84NPCBSU8B1PE-001 315g
7/06/06 08:20

Acquisition information
Start time: 06-Jul-2006 15:48:46
Live time: 5400
Real time: 5408

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	C	1.8938E-01	2.0165E-01	2.0193E-01	0.154E+00
AM-241	#B	-3.2351E-01	-2.3561E+00	-2.3562E+00	0.519E+00
Bi-212		5.0864E-01	4.5013E-01	4.5102E-01	0.201E+00
BI-214	F	2.7809E-01	1.9414E-01	1.9476E-01	0.845E-01
CO-60	#B	-3.0390E-02	-3.0971E-01	-3.0972E-01	0.241E-01
Cs-137		8.2193E-02	8.0721E-02	8.0851E-02	0.451E-01
EU-152	B	-2.3364E-04	-4.8110E-03	-4.8110E-03	0.821E-01
EU-154	B	1.5791E-02	1.0373E-01	1.0374E-01	0.562E-01
K-40		2.8670E+01	2.8237E+00	3.2437E+00	0.501E+00
PA-234	C	2.0293E-01	2.1256E-01	2.1285E-01	0.142E+00
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	2.8190E-01	1.2776E-01	1.2872E-01	0.673E-01
PB-214		1.6173E-01	1.3391E-01	1.3421E-01	0.799E-01
RA-226	A	2.7188E-01	1.4928E+00	1.4929E+00	0.864E+00
Th-230	B	-3.5544E+00	-3.3828E+01	-3.3829E+01	0.299E+02
TH-234		4.0629E+00	6.9465E+00	6.9501E+00	0.295E+01
Tl-208		2.2911E-01	9.8189E-02	9.9014E-02	0.111E-01
U-235	#B	4.1500E-03	1.4351E-02	1.4353E-02	0.557E-01

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C - Area < Critical level.
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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2673.8 keV) 3.4274334E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 11-JUL-2006 19:18:31 Page 1
New World Technology Spectrum name: 3N003090.An1

Sample description
PCB Hot Spot 84NPCBSU8B2PE-001 430g
7/11/06 08:45

Acquisition information
Start time: 11-Jul-2006 18:32:37
Live time: 2700
Real time: 2702

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	C	3.7501E-01	2.6990E-01	2.7070E-01	0.162E+00
AM-241	#B	-5.0500E-02	-1.6694E+00	-1.6694E+00	0.434E-01
Bi-212	F	2.5317E-01	4.1210E-01	4.1234E-01	0.197E+00
BI-214	F	3.8539E-01	2.9852E-01	2.9929E-01	0.111E+00
CO-60	#B	6.0725E-03	1.1689E-02	1.1693E-02	0.214E-01
Cs-137	#B	-8.6744E-03	-9.6335E-02	-9.6336E-02	0.437E-01
EU-152	F	1.3638E-01	1.7503E-01	1.7519E-01	0.547E-01
EU-154	B	2.7262E-02	1.0125E-01	1.0126E-01	0.554E-01
K-40		1.2506E+01	3.4619E+00	3.5310E+00	0.162E+01
PA-234	#B	7.0548E-02	2.0324E-01	2.0328E-01	0.755E-01
Pb-210	#A	2.2625E-01	1.8800E+00	1.8801E+00	0.948E+00
PB-212		2.8764E-01	1.4221E-01	1.4311E-01	0.696E-01
PB-214	F	2.7382E-01	1.9969E-01	2.0027E-01	0.930E-01
RA-226	A	1.6506E-01	1.3191E+00	1.3192E+00	0.771E+00
Th-230	B	-3.1395E+00	-1.0320E+01	-1.0321E+01	0.890E+01
TH-234		1.0105E+00	1.2524E+00	1.2537E+00	0.717E+00
Tl-208	F	1.0065E-01	7.1747E-02	7.1965E-02	0.989E-01
U-235	#B	-1.9111E-02	-1.9186E-01	-1.9186E-01	0.458E-01

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* - Activity omitted from total
& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

SUMMARY

Total Activity (41.7 to 2660.8 keV) 1.4716284E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 11-JUL-2006 21:23:17 Page 1
New World Technology Spectrum name: 1N002623.An1

Sample description
PCB Hot Spot 84NPCBSU8B3PE-001 360g
7/11/06 08:35

Acquisition information
Start time: 11-Jul-2006 20:07:32
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		6.1917E-01	2.7171E-01	2.7389E-01	0.676E-01
AM-241	#A	-1.2699E-01	-1.6351E+00	-1.6351E+00	0.267E+00
Bi-212	F	4.5443E-01	7.6564E-01	7.6606E-01	0.374E+00
BI-214	B	5.2947E-01	2.8511E-01	2.8663E-01	0.669E+00
CO-60	#A	6.6472E-03	1.1811E-02	1.1816E-02	0.449E-01
CS-137	#A	-2.2138E-02	-2.0688E-01	-2.0688E-01	0.307E-01
EU-152	C	8.6287E-02	9.7794E-02	9.7911E-02	0.789E-01
EU-154	A	7.5863E-03	8.5684E-02	8.5685E-02	0.536E-01
K-40		7.1673E+00	2.6771E+00	2.7066E+00	0.102E+01
Pa-234	#B	-3.3096E-02	-5.7324E-02	-5.7354E-02	0.148E+00
Pb-210	#A	5.5469E+00	1.3461E+01	1.3464E+01	0.674E+01
Pb-212		5.5584E-01	1.7991E-01	1.8254E-01	0.616E-01
Pb-214		5.2606E-01	2.2038E-01	2.2232E-01	0.590E-01
RA-226	A	6.8760E-01	1.5573E+00	1.5578E+00	0.922E+00
Th-230	#B	7.0155E+00	2.5990E+01	2.5993E+01	0.129E+02
Th-234	A	1.1611E+00	1.4267E+00	1.4282E+00	0.171E+01
Tl-208		2.7887E-01	1.6139E-01	1.6214E-01	0.423E-01
U-235	A	2.2262E-02	1.2246E-01	1.2247E-01	0.610E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2605.8 keV) 9.6017084E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 11-JUL-2006 20:56:01 Page 1
New World Technology Spectrum name: 2N003129.An1

Sample description
PCB Hot Spot 84NPCBSU8B4PE-001 389g
7/11/06 08:35

Acquisition information
Start time: 11-Jul-2006 20:10:54
Live time: 2700
Real time: 2704

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	4.0205E-01	2.6614E-01	2.6708E-01	0.179E+00
AM-241	#B	-4.6677E-01	-9.0822E+00	-9.0823E+00	0.601E+00
Bi-212	F	7.0622E-01	4.4481E-01	4.4654E-01	0.124E+00
BI-214	#F	5.2754E-01	2.6035E-01	2.6200E-01	0.957E-01
CO-60	#B	-2.5803E-02	1.0255E+02	1.0255E+02	0.259E-01
Cs-137	#B	-1.1131E-02	-7.6398E-02	-7.6400E-02	0.424E-01
EU-152	F	1.0875E-01	1.5557E-01	1.5569E-01	0.957E-01
EU-154	B	2.0133E-02	5.2307E-02	5.2319E-02	0.665E-01
K-40		1.0101E+01	2.2041E+00	2.2747E+00	0.574E+00
PA-234	A	8.4924E-02	2.8321E-01	2.8325E-01	0.153E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	4.3539E-01	1.7483E-01	1.7650E-01	0.811E-01
PB-214		3.2342E-01	2.3214E-01	2.3284E-01	0.931E-01
RA-226	A	3.1509E-01	1.6263E+00	1.6264E+00	0.941E+00
Th-230	B	-2.6824E+01	-3.0145E+02	-3.0146E+02	0.291E+02
TH-234		4.9065E+00	6.1863E+00	6.1923E+00	0.308E+01
Tl-208		2.5254E-01	1.3607E-01	1.3680E-01	0.179E-01
U-235	A	2.7704E-02	1.3821E-01	1.3822E-01	0.601E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

SUMMARY

Total Activity (41.8 to 2673.8 keV) 1.7654913E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 03-JUL-2006 20:42:46 Page 1
New World Technology Spectrum name: 3N003038.An1

Sample description
PCB Hot Spot 84NPCBSU8COPE-001 395g
6/30/06 11:10

Acquisition information
Start time: 03-Jul-2006 19:57:42
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	C	4.3027E-01	3.6510E-01	3.6589E-01	0.203E+00
AM-241	#A	6.5318E-02	1.7659E-01	1.7663E-01	0.855E-01
Bi-212	#F	6.0651E-01	6.0609E-01	6.0703E-01	0.204E+00
BI-214	F	3.9301E-01	2.8516E-01	2.8600E-01	0.116E+00
CO-60	#F	2.8833E-02	4.5400E-02	4.5428E-02	0.237E-01
Cs-137	#B	-5.9244E-02	2.7828E+02	2.7828E+02	0.478E-01
EU-152	F	1.3781E-01	2.1767E-01	2.1780E-01	0.757E-01
EU-154	#B	-2.5459E-02	2.1146E+02	2.1146E+02	0.608E-01
K-40		2.1441E+01	2.9872E+00	3.2162E+00	0.229E+00
PA-234	#B	-1.9800E-02	-3.1156E-01	-3.1156E-01	0.103E+00
Pb-210	#B	0.0000E+00	0.0000E+00	0.0000E+00	0.946E+00
PB-212	F	3.0068E-01	1.5462E-01	1.5552E-01	0.763E-01
PB-214		3.7994E-01	2.3373E-01	2.3469E-01	0.968E-01
RA-226	#B	-4.3786E-02	-1.5955E+00	-1.5955E+00	0.872E+00
Th-230	#B	-3.0959E+00	-3.1294E+01	-3.1295E+01	0.844E+01
TH-234		1.1813E+00	1.8355E+00	1.8367E+00	0.817E+00
Tl-208	F	1.0738E-01	8.9362E-02	8.9561E-02	0.860E-01
U-235	#B	-4.3563E-02	-1.6748E+00	-1.6748E+00	0.510E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.7 to 2660.0 keV) 2.4438166E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 07-JUL-2006 16:29:33 Page 1
New World Technology Spectrum name: 6N000157.An1

Sample description
PCB Hot Spot 84NPCBSU8C1PE-001 454g
7/7/06 13:00

Acquisition information
Start time: 07-Jul-2006 15:44:22
Live time: 2700
Real time: 2705

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
AC-228	F	2.7796E-01	2.8907E-01	2.8949E-01	0.159E+00
AM-241	#A	-1.8284E-02	-2.7838E-01	-2.7839E-01	0.960E-01
Bi-212	#B	-2.3912E-03	-7.7927E-03	-7.7938E-03	0.305E+00
BI-214	F	3.3025E-01	2.2785E-01	2.2859E-01	0.905E-01
CO-60	#B	-7.9026E-02	-5.1993E-01	-5.1994E-01	0.409E-01
CS-137	#B	-4.3501E-02	-9.2024E-01	-9.2024E-01	0.367E-01
EU-152	F	1.2060E-01	1.9571E-01	1.9582E-01	0.674E-01
EU-154	F	8.2067E-02	1.6253E-01	1.6260E-01	0.570E-01
K-40		1.1101E+01	2.4938E+00	2.5688E+00	0.903E+00
Pa-234	#B	-1.6221E-02	-1.6096E-01	-1.6096E-01	0.102E+00
Pb-210		2.4350E+00	1.4350E+00	1.4414E+00	0.719E+00
Pb-212	F	3.7309E-01	1.4460E-01	1.4608E-01	0.713E-01
PB-214		2.3880E-01	1.4369E-01	1.4430E-01	0.924E-01
RA-226	#B	-5.8444E-01	-3.1365E+00	-3.1366E+00	0.893E+00
Th-230	#B	-4.4921E+00	-3.3151E+01	-3.3152E+01	0.987E+01
Th-234	B	6.1311E-01	1.5361E+00	1.5364E+00	0.893E+00
Tl-208	#F	1.1421E-01	1.0482E-01	1.0501E-01	0.402E-01
U-235	#B	-3.5663E-01	-7.4232E-01	-7.4258E-01	0.765E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.1 to 2611.9 keV) 1.4870434E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 07-JUL-2006 16:23:53 Page 1
New World Technology Spectrum name: 2N003099.An1

Sample description
PCB Hot Spot 84NPCBSU8C2PE-001 499g
7/07/06 13:05

Acquisition information
Start time: 07-Jul-2006 15:29:45
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	4.0922E-01	2.4565E-01	2.4671E-01	0.131E+00
AM-241 #A	9.6104E-03	7.5317E-01	7.5317E-01	0.439E+00
Bi-212 F	5.5754E-01	4.1814E-01	4.1929E-01	0.159E+00
BI-214 F	3.4438E-01	2.2303E-01	2.2385E-01	0.826E-01
CO-60 #B	-2.1233E-02	-1.0304E-01	-1.0304E-01	0.207E-01
Cs-137 #B	-1.5859E-02	-1.0074E-01	-1.0074E-01	0.396E-01
EU-152 F	1.3992E-01	1.5030E-01	1.5050E-01	0.707E-01
EU-154 A	2.9515E-02	8.0001E-02	8.0018E-02	0.637E-01
K-40 #	9.3900E+00	1.8591E+00	1.9312E+00	0.448E+00
PA-234 #B	3.0016E-02	1.1071E-01	1.1072E-01	0.786E-01
Pb-210 C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	3.7540E-01	1.4518E-01	1.4668E-01	0.671E-01
PB-214	4.0703E-01	1.9254E-01	1.9387E-01	0.748E-01
RA-226 A	4.8291E-01	1.3908E+00	1.3911E+00	0.787E+00
Th-230 #B	-1.0429E+01	-1.3277E+01	-1.3290E+01	0.180E+02
TH-234 #B	1.6857E+00	4.0869E+00	4.0879E+00	0.212E+01
Tl-208 #F	1.8065E-01	6.7266E-02	6.8014E-02	0.140E-01
U-235 A	1.6171E-02	1.2023E-01	1.2024E-01	0.505E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2673.8 keV) 1.1664189E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 11-JUL-2006 21:35:51 Page 1
New World Technology Spectrum name: 3N003092.An1

Sample description
PCB Hot Spot 84NPCBSU8C3PE-001 368g
7/11/06 08:25

Acquisition information
Start time: 11-Jul-2006 20:14:39
Live time: 2700
Real time: 2702

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
AC-228	F	6.1942E-01	4.9591E-01	4.9710E-01	0.192E+00
AM-241	#B	-5.5578E-02	4.8924E+02	4.8924E+02	0.105E+00
Bi-212	B	2.7909E-01	7.2256E-01	7.2273E-01	0.376E+00
BI-214	F	3.0917E-01	2.7326E-01	2.7380E-01	0.114E+00
CO-60	#B	7.4020E-03	3.6720E-02	3.6722E-02	0.250E-01
Cs-137	A	2.5807E-02	6.9954E-02	6.9969E-02	0.423E-01
EU-152	F	1.1752E-01	2.1115E-01	2.1125E-01	0.797E-01
EU-154	F	9.1100E-02	7.9217E-02	7.9378E-02	0.578E-01
K-40		9.8192E+00	2.3785E+00	2.4403E+00	0.971E+00
PA-234	#B	-2.4894E-02	-2.7331E-01	-2.7331E-01	0.928E-01
Pb-210	#B	-3.3047E-01	-2.2954E+00	-2.2955E+00	0.989E+00
PB-212		5.1149E-01	1.7055E-01	1.7291E-01	0.709E-01
PB-214		3.4083E-01	2.0329E-01	2.0417E-01	0.108E+00
RA-226	A	4.5140E-01	1.5291E+00	1.5293E+00	0.882E+00
Th-230	#B	-6.5884E+00	-4.7847E+01	-4.7849E+01	0.749E+01
TH-234		1.3087E+00	1.3805E+00	1.3824E+00	0.779E+00
Tl-208	#B	1.6595E-02	1.2902E-02	1.2935E-02	0.105E+00
U-235	#B	-4.5190E-03	-1.1468E-01	-1.1468E-01	0.558E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2660.8 keV) 1.2908790E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 11-JUL-2006 21:14:00 Page 1
New World Technology Spectrum name: 7N000072.An1

Sample description
PCB Hot Spot 84NPCBSU8C4PE-001 416g
7/11/06 08:20

Acquisition information
Start time: 11-Jul-2006 20:28:50
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
AC-228	F	1.1012E+00	4.1244E-01	4.1696E-01	0.945E-01
AM-241	#B	-1.1167E-02	-2.9078E-01	-2.9078E-01	0.114E+00
BI-212	F	4.2525E-01	6.4798E-01	6.4841E-01	0.336E+00
BI-214	F	6.0048E-01	2.3409E-01	2.3646E-01	0.660E-01
CO-60	#F	3.5307E-02	3.9272E-02	3.9321E-02	0.155E-01
CS-137	#B	-3.4547E-03	-5.6656E-02	-5.6657E-02	0.326E-01
EU-152	B	1.0128E-01	1.4294E-01	1.4305E-01	0.107E+00
EU-154	B	4.1691E-02	1.3617E-01	1.3619E-01	0.706E-01
K-40		1.3380E+01	3.2842E+00	3.3675E+00	0.135E+01
PA-234	F	2.7632E-01	2.2289E-01	2.2342E-01	0.108E+00
PB-210	#B	-2.1409E+00	-5.8958E+00	-5.8970E+00	0.134E+01
PB-212	F	4.3474E-01	1.6584E-01	1.6759E-01	0.781E-01
PB-214		4.9200E-01	1.9850E-01	2.0038E-01	0.912E-01
RA-226	#B	-2.9146E-02	-1.7491E+00	-1.7491E+00	0.977E+00
Th-230	#B	-8.1176E+00	-7.3601E+01	-7.3603E+01	0.122E+02
TH-234	#B	-7.9409E-02	-2.2012E-01	-2.2016E-01	0.121E+01
TL-208	B	7.4344E-02	5.2193E-02	5.2357E-02	0.135E+00
U-235	#B	-5.7020E-01	-1.5604E+00	-1.5607E+00	0.954E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
& - Activity omitted from total and all peaks had bad shape.
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A - Activity printed, but activity < MDA.
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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (42.1 to 2683.2 keV) 1.6008839E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 04-JUL-2006 02:23:53 Page 1
New World Technology Spectrum name: 5N000133.An1

Sample description
PCB Hot Spot 84NPCBSU8DOPE-001 453g
6/30/06 11:15

Acquisition information
Start time: 03-Jul-2006 20:07:57
Live time: 2700
Real time: 2701

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
Ac-228		4.3271E-01	3.7079E-01	3.7157E-01	0.159E+00
AM-241	#B	-1.1775E-01	-1.7647E+01	-1.7647E+01	0.964E-01
Bi-212	F	5.0590E-01	5.6091E-01	5.6161E-01	0.265E+00
BI-214	F	3.6046E-01	2.1729E-01	2.1821E-01	0.937E-01
CO-60	#B	6.5419E-03	2.9142E-02	2.9145E-02	0.162E-01
CS-137	#B	-3.1867E-02	-3.1931E-01	-3.1932E-01	0.341E-01
EU-152	F	1.5804E-01	1.7349E-01	1.7371E-01	0.751E-01
EU-154	F	9.5839E-02	9.0849E-02	9.1005E-02	0.583E-01
K-40		1.2613E+01	2.0422E+00	2.1589E+00	0.173E+00
Pa-234	F	1.4474E-01	1.6701E-01	1.6720E-01	0.911E-01
Pb-210	#	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
Pb-212	F	3.1386E-01	1.4127E-01	1.4234E-01	0.718E-01
PB-214	F	4.9140E-01	2.1146E-01	2.1322E-01	0.698E-01
RA-226	B	1.0454E-01	1.4936E+00	1.4936E+00	0.862E+00
Th-230	#B	-7.7655E+00	-5.4605E+01	-5.4607E+01	0.746E+01
Th-234	F	1.2838E+00	8.6539E-01	8.6831E-01	0.743E+00
Tl-208	F	3.0196E-01	1.2397E-01	1.2510E-01	0.130E-01
U-235	#B	-6.3039E-01	-1.5894E+00	-1.5898E+00	0.883E-01

- All peaks for activity calculation had bad shape.
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A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (52.4 to 3339.1 keV) 1.5019474E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 07-JUL-2006 16:40:25 Page 1
New World Technology Spectrum name: 3N003063.An1

Sample description
PCB Hot Spot 84NPCBSU8D1PE-001 460g
7/07/06 13:10

Acquisition information
Start time: 07-Jul-2006 15:34:17
Live time: 2700
Real time: 2702

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228		5.2450E-01	3.4617E-01	3.4739E-01	0.141E+00
AM-241	#A	5.6538E-02	1.6441E-01	1.6444E-01	0.797E-01
Bi-212	F	4.9742E-01	4.4312E-01	4.4398E-01	0.184E+00
BI-214	F	3.1042E-01	2.4107E-01	2.4169E-01	0.940E-01
CO-60	#B	1.0131E-02	1.6972E-02	1.6981E-02	0.211E-01
Cs-137	#B	-2.7269E-02	-2.0638E-01	-2.0638E-01	0.401E-01
EU-152	B	5.3609E-02	2.1638E-01	2.1640E-01	0.635E-01
EU-154	C	7.1644E-02	6.5034E-02	6.5155E-02	0.496E-01
K-40		1.2116E+01	2.1568E+00	2.2596E+00	0.259E+00
PA-234	#B	5.2178E-02	2.8125E-01	2.8127E-01	0.123E+00
Pb-210	#B	-3.5162E-01	-2.3968E+00	-2.3969E+00	0.878E+00
PB-212		4.4783E-01	1.4803E-01	1.5011E-01	0.659E-01
PB-214		3.1814E-01	1.7320E-01	1.7410E-01	0.876E-01
RA-226	A	5.9682E-01	1.3359E+00	1.3363E+00	0.754E+00
Th-230	#F	9.0510E+00	1.1963E+01	1.1973E+01	0.830E+01
TH-234	C	7.2397E-01	9.7156E-01	9.7238E-01	0.659E+00
Tl-208	B	4.5760E-03	5.6467E-03	5.6524E-03	0.108E+00
U-235	B	1.4439E-03	3.9044E-03	3.9052E-03	0.477E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2660.8 keV) 1.4214378E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 07-JUL-2006 21:53:25 Page 1
New World Technology Spectrum name: 5N000155.An1

Sample description
PCB Hot Spot 84NPCBSU8D2PE-001 488g
7/07/06 13:15

Acquisition information
Start time: 07-Jul-2006 15:41:52
Live time: 2700
Real time: 2701

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
Ac-228 #	2.0830E-01	2.6671E-01	2.6696E-01	0.135E+00
AM-241 #B	-9.1635E-02	-1.4026E+00	-1.4027E+00	0.821E-01
Bi-212 F	5.7420E-01	4.3219E-01	4.3337E-01	0.173E+00
BI-214 F	3.8430E-01	2.1748E-01	2.1853E-01	0.852E-01
CO-60 #F	4.4185E-02	4.6314E-02	4.6379E-02	0.168E-01
CS-137 #B	-3.0766E-02	-3.4352E-01	-3.4352E-01	0.319E-01
EU-152 F	1.8192E-01	2.0818E-01	2.0842E-01	0.737E-01
EU-154 B	2.9618E-02	8.4454E-02	8.4470E-02	0.526E-01
K-40	7.7350E+00	1.8752E+00	1.9238E+00	0.758E+00
Pa-234 B	4.5382E-02	1.6546E-01	1.6548E-01	0.842E-01
Pb-210 #	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
Pb-212 F	2.7866E-01	1.3371E-01	1.3460E-01	0.697E-01
PB-214 F	3.9441E-01	2.1112E-01	2.1225E-01	0.732E-01
RA-226 #B	-1.1216E-01	-1.6463E+00	-1.6463E+00	0.783E+00
Th-230 #B	-5.4023E+00	-3.8260E+01	-3.8261E+01	0.748E+01
Th-234 F	1.0481E+00	7.0488E-01	7.0727E-01	0.712E+00
Tl-208	2.0269E-01	8.9801E-02	9.0504E-02	0.121E-01
U-235 #B	-5.6370E-01	-2.3230E+00	-2.3233E+00	0.827E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (52.4 to 3339.1 keV) 9.8217096E+00 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 11-JUL-2006 21:21:55 Page 1
New World Technology Spectrum name: 6N000195.An1

Sample description
PCB Hot Spot 84NPCBSU8D3PE-001 394g
7/11/06 08:15

Acquisition information
Start time: 11-Jul-2006 20:36:42
Live time: 2700
Real time: 2705

- -

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
Ac-228	F	3.5989E-01	2.7845E-01	2.7916E-01	0.191E+00
AM-241	#A	-1.7802E-02	-3.0573E-01	-3.0574E-01	0.113E+00
Bi-212	#B	-2.6702E-01	-1.5700E+00	-1.5701E+00	0.396E+00
BI-214	F	2.3876E-01	2.2101E-01	2.2141E-01	0.106E+00
CO-60	#B	9.3220E-03	5.7085E-02	5.7088E-02	0.421E-01
CS-137	#B	-5.1906E-02	-6.6294E-01	-6.6295E-01	0.400E-01
EU-152	F	9.8876E-02	1.8457E-01	1.8465E-01	0.793E-01
EU-154	F	1.3275E-01	1.9480E-01	1.9494E-01	0.635E-01
K-40		1.0458E+01	2.6067E+00	2.6707E+00	0.945E+00
Pa-234	#F	1.4070E-01	3.2333E-01	3.2342E-01	0.128E+00
Pb-210	#	2.7411E+00	1.9990E+00	2.0048E+00	0.843E+00
Pb-212		3.4742E-01	1.5876E-01	1.5993E-01	0.808E-01
PB-214		3.0043E-01	2.0225E-01	2.0294E-01	0.108E+00
RA-226	#B	-8.5687E-02	-1.9572E+00	-1.9572E+00	0.105E+01
Th-230	#B	-1.5383E+01	2.6347E+04	2.6347E+04	0.665E+01
Th-234	B	2.9276E-01	8.0174E-01	8.0191E-01	0.102E+01
Tl-208	F	1.5362E-01	1.5272E-01	1.5296E-01	0.577E-01
U-235	#B	-4.4483E-01	-1.1306E+00	-1.1309E+00	0.868E-01

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H - Halflife limit exceeded

---------- SUMMARY ----------

Total Activity (41.1 to 2611.8 keV) 1.4239682E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 11-JUL-2006 21:29:25 Page 1
New World Technology Spectrum name: 5N000172.An1

Sample description
PCB Hot Spot 84NPCBSU8D4PE-001 388g
7/11/06 08:10

Acquisition information
Start time: 11-Jul-2006 20:44:17
Live time: 2700
Real time: 2701

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
AC-228		2.6024E-01	3.3019E-01	3.3051E-01	0.168E+00
AM-241	#B	-1.0094E-01	-1.0223E+00	-1.0223E+00	0.100E+00
Bi-212	F	5.4966E-01	4.5793E-01	4.5895E-01	0.180E+00
BI-214	F	4.6680E-01	2.5261E-01	2.5394E-01	0.112E+00
CO-60	#F	2.5189E-02	3.5984E-02	3.6011E-02	0.153E-01
CS-137	#B	-3.9721E-02	-5.7412E-01	-5.7412E-01	0.415E-01
EU-152	F	2.3917E-01	1.9257E-01	1.9303E-01	0.763E-01
EU-154	F	1.9864E-01	1.7981E-01	1.8015E-01	0.543E-01
K-40		5.9758E+00	2.0291E+00	2.0562E+00	0.951E+00
Pa-234	B	5.0369E-02	6.0765E-02	6.0829E-02	0.100E+00
Pb-210	#	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
Pb-212	F	1.9110E-01	1.3755E-01	1.3796E-01	0.770E-01
PB-214		2.7835E-01	1.6523E-01	1.6596E-01	0.770E-01
RA-226	#B	-7.8230E-01	-5.9242E+00	-5.9244E+00	0.953E+00
Th-230	#B	-1.0564E+01	-8.5754E+01	-8.5756E+01	0.981E+01
Th-234		1.3299E+00	1.1623E+00	1.1646E+00	0.799E+00
Tl-208	F	2.5861E-01	1.1337E-01	1.1428E-01	0.496E-01
U-235	#B	-7.7050E-01	-3.4260E+00	-3.4263E+00	0.981E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (52.4 to 3339.1 keV) 9.2756062E+00 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 13-DEC-2005 18:43:45 Page 1
New World Technology Spectrum name: 1N001439.An1

Sample description
PCB Hot Spot 84NPCBSU9A0PE-001 347g
12/13/05 12:00

Acquisition information
Start time: 13-Dec-2005 17:58:36
Live time: 2700
Real time: 2701

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	#F	6.0702E-01	3.7972E-01	3.8122E-01	0.805E-01
AM-241	#A	-4.3701E-02	-1.6483E+00	-1.6483E+00	0.220E+00
Bi-212	#B	-2.2997E-01	1.7174E+03	1.7174E+03	0.379E+00
BI-214	C	1.4521E+00	1.2575E+00	1.2601E+00	0.226E+00
CO-60	#A	1.1288E-02	3.1927E-02	3.1933E-02	0.175E-01
CS-137	#A	-3.4437E-02	-2.1970E-01	-2.1970E-01	0.615E-01
EU-152	#A	5.1348E-02	6.4185E-02	6.4248E-02	0.666E-01
EU-154	A	3.1182E-02	5.9332E-02	5.9358E-02	0.488E-01
K-40		2.5071E+01	4.1384E+00	4.3668E+00	0.205E+00
Pa-234	#B	-9.1723E-02	-1.4816E+00	-1.4816E+00	0.876E-01
Pb-210	#A	3.9801E+00	1.9515E+01	1.9517E+01	0.869E+01
Pb-212	F	2.8852E-01	1.5205E-01	1.5289E-01	0.696E-01
Pb-214	F	3.6605E-01	1.6791E-01	1.6914E-01	0.562E-01
RA-226		9.4313E-01	1.4328E+00	1.4337E+00	0.781E+00
Th-230	#B	9.2195E+00	1.1783E+01	1.1794E+01	0.110E+02
Th-234	A	6.7908E-01	2.1296E+00	2.1299E+00	0.157E+01
Tl-208	#F	9.0601E-02	6.4137E-02	6.4335E-02	0.302E-01
U-235	#B	-1.0613E-02	-1.2967E-01	-1.2967E-01	0.606E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

----------------------------- S U M M A R Y -----------------------------
Total Activity (41.8 to 2654.1 keV) 2.8727459E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 13-DEC-2005 23:12:35 Page 1
New World Technology Spectrum name: 1N001442.An1

Sample description
PCB Hot Spot 84NPCBSU9A1PE-001 415g
12/13/05 12:05

Acquisition information
Start time: 13-Dec-2005 22:27:26
Live time: 2700
Real time: 2701

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	6.1644E-01	2.5316E-01	2.5547E-01	0.370E-01
AM-241	A	1.3642E-02	4.0652E-01	4.0652E-01	0.226E+00
Bi-212	F	3.4677E-01	4.4248E-01	4.4290E-01	0.214E+00
BI-214		4.1803E-01	2.2322E-01	2.2442E-01	0.189E+00
CO-60	#	2.8315E-02	4.2209E-02	4.2238E-02	0.147E-01
CS-137	#A	-2.0799E-02	-1.3884E-01	-1.3884E-01	0.506E-01
EU-152	C	1.1287E-01	1.3076E-01	1.3091E-01	0.741E-01
EU-154	A	4.5140E-02	6.7710E-02	6.7757E-02	0.530E-01
K-40		2.1152E+01	3.4758E+00	3.6694E+00	0.171E+00
Pa-234	#B	3.3828E-02	5.0742E-02	5.0777E-02	0.916E-01
Pb-210	A	1.5335E+00	1.2737E+01	1.2737E+01	0.713E+01
Pb-212	F	3.3096E-01	1.2967E-01	1.3097E-01	0.534E-01
Pb-214		4.2746E-01	1.5722E-01	1.5900E-01	0.436E-01
RA-226	A	3.2487E-01	1.3550E+00	1.3551E+00	0.768E+00
Th-230	#B	5.9189E+00	2.7244E+01	2.7246E+01	0.126E+02
Th-234	B	-2.4192E-02	-7.7636E-02	-7.7647E-02	0.142E+01
Tl-208	#B	0.0000E+00	0.0000E+00	0.0000E+00	0.252E-01
U-235	A	2.7238E-02	6.6898E-02	6.6915E-02	0.474E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2654.1 keV) 2.2902256E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 13-DEC-2005 17:59:54 Page 1
New World Technology Spectrum name: 2N001854.An1

Sample description
PCB Hot Spot 84NPCBSU9A2PE-001 233g
12/13/2005 12:10

Acquisition information
Start time: 13-Dec-2005 17:14:47
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	B	1.9103E-01	2.1740E-01	2.1766E-01	0.228E+00
AM-241	#A	7.1785E-01	1.9649E+00	1.9653E+00	0.870E+00
Bi-212	F	3.8727E-01	5.7291E-01	5.7332E-01	0.230E+00
BI-214		3.9942E-01	3.0939E-01	3.1018E-01	0.850E-01
CO-60	#B	-1.0931E-02	-7.9637E-02	-7.9639E-02	0.423E-01
Cs-137	#B	-2.0514E-02	-1.1725E-01	-1.1726E-01	0.645E-01
EU-152	B	7.5800E-02	1.4524E-01	1.4530E-01	0.153E+00
EU-154	A	5.8318E-02	9.8264E-02	9.8317E-02	0.882E-01
K-40		6.4237E+00	2.4351E+00	2.4613E+00	0.937E+00
PA-234	#B	5.7371E-02	7.6971E-02	7.7037E-02	0.163E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.5449E-01	2.0175E-01	2.0272E-01	0.849E-01
PB-214		3.3475E-01	2.6212E-01	2.6278E-01	0.114E+00
RA-226	A	1.0998E-01	2.0967E+00	2.0967E+00	0.123E+01
Th-230	#B	1.7705E+01	2.1768E+01	2.1790E+01	0.259E+02
TH-234		5.0092E+00	4.7216E+00	4.7298E+00	0.363E+01
Tl-208	#C	9.1630E-02	7.4458E-02	7.4632E-02	0.900E-01
U-235	C	6.9582E-02	1.4606E-01	1.4611E-01	0.536E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2674.9 keV) 1.2908802E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 13-DEC-2005 19:02:41 Page 1
New World Technology Spectrum name: 3N001888.An1

Sample description
PCB Hot Spot 84NPCBSU9B0PE-001 352g
12/13/2005 12:25

Acquisition information
Start time: 13-Dec-2005 18:17:36
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	5.1074E-01	3.2855E-01	3.2977E-01	0.207E+00
AM-241	A	2.8653E-02	1.9872E-01	1.9873E-01	0.111E+00
Bi-212	F	3.7957E-01	6.9527E-01	6.9559E-01	0.348E+00
BI-214	#	5.3094E-01	3.1061E-01	3.1201E-01	0.112E+00
CO-60	#B	-4.4003E-02	-6.0298E-01	-6.0299E-01	0.431E-01
Cs-137	#A	1.6634E-02	9.8233E-02	9.8237E-02	0.507E-01
EU-152	F	1.8206E-01	2.8246E-01	2.8264E-01	0.818E-01
EU-154	F	2.0477E-01	1.5116E-01	1.5158E-01	0.507E-01
K-40		2.4297E+01	3.5834E+00	3.8294E+00	0.697E+00
PA-234	#C	3.8441E-01	2.6869E-01	2.6954E-01	0.110E+00
Pb-210	A	9.0441E-01	1.7481E+00	1.7489E+00	0.101E+01
PB-212		3.8623E-01	1.6311E-01	1.6452E-01	0.739E-01
PB-214		4.0998E-01	3.0546E-01	3.0631E-01	0.117E+00
RA-226	A	1.9503E-01	1.4337E+00	1.4337E+00	0.823E+00
Th-230	B	-1.4104E+00	-4.7885E+01	-4.7885E+01	0.777E+01
TH-234	#C	1.7370E+00	1.3565E+00	1.3599E+00	0.946E+00
Tl-208		2.1750E-01	1.1968E-01	1.2029E-01	0.192E-01
U-235	C	9.0607E-02	1.2898E-01	1.2908E-01	0.527E-01

- All peaks for activity calculation had bad shape.
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< - MDA value printed.
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C - Area < Critical level.
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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2660.6 keV) 2.6732018E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 13-DEC-2005 23:19:46 Page 1
New World Technology Spectrum name: 2N001858.An1

Sample description
PCB Hot Spot 84NPCBSU9B1PE-001 416g
12/13/2005 12:20

Acquisition information
Start time: 13-Dec-2005 22:34:38
Live time: 2700
Real time: 2705

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	5.6295E-01	2.3394E-01	2.3603E-01	0.110E+00
AM-241	#	6.3611E-01	1.3587E+00	1.3592E+00	0.601E+00
Bi-212		2.4423E-01	3.6342E-01	3.6367E-01	0.153E+00
BI-214	F	4.3859E-01	1.8659E-01	1.8819E-01	0.381E-01
CO-60	#B	-2.2566E-03	-7.8437E-03	-7.8447E-03	0.268E-01
Cs-137	A	3.0321E-02	8.2184E-02	8.2201E-02	0.417E-01
EU-152	F	1.1107E-01	2.0941E-01	2.0950E-01	0.846E-01
EU-154	B	4.0256E-02	9.8375E-02	9.8400E-02	0.551E-01
K-40		1.7903E+01	2.7278E+00	2.9042E+00	0.525E+00
PA-234	#A	9.3212E-02	1.9441E-01	1.9448E-01	0.123E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.0013E-01	1.4237E-01	1.4335E-01	0.609E-01
PB-214		2.4491E-01	1.4417E-01	1.4481E-01	0.689E-01
RA-226	A	2.9541E-01	1.4664E+00	1.4665E+00	0.827E+00
Th-230	#A	1.7808E+01	3.5005E+01	3.5019E+01	0.225E+02
TH-234	A	1.3099E+00	1.9368E+00	1.9381E+00	0.284E+01
Tl-208	#	1.7068E-01	7.5087E-02	7.5686E-02	0.504E-01
U-235	#B	0.0000E+00	1.6274E+02	1.6274E+02	0.468E-01

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H - Halflife limit exceeded

----------------------------- S U M M A R Y -----------------------------

Total Activity (41.8 to 2674.9 keV) 2.0500252E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 13-DEC-2005 18:50:53 Page 1
New World Technology Spectrum name: 2N001855.An1

Sample description
PCB Hot Spot 84NPCBSU9B2PE-001 251g
12/13/2005 12:15

Acquisition information
Start time: 13-Dec-2005 18:05:46
Live time: 2700
Real time: 2705

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
AC-228	F	3.3343E-01	3.3762E-01	3.3813E-01	0.183E+00
AM-241	A	6.4469E-01	1.6815E+00	1.6819E+00	0.875E+00
Bi-212	#B	0.0000E+00	1.3618E+03	1.3618E+03	0.344E+00
BI-214	#F	2.8608E-01	2.1218E-01	2.1278E-01	0.592E-01
CO-60	#B	4.3486E-03	5.3259E-02	5.3260E-02	0.392E-01
Cs-137	#B	-9.9977E-02	-7.3870E-01	-7.3872E-01	0.615E-01
EU-152	#B	6.3638E-02	1.0664E-01	1.0670E-01	0.137E+00
EU-154	B	4.7464E-02	1.7024E-01	1.7026E-01	0.905E-01
K-40		4.0139E+00	2.3916E+00	2.4020E+00	0.115E+01
PA-234	#B	-8.7981E-03	-2.4533E-02	-2.4538E-02	0.160E+00
Pb-210	#	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.7840E-01	1.7535E-01	1.7661E-01	0.652E-01
PB-214		2.9790E-01	1.9659E-01	1.9729E-01	0.101E+00
RA-226	A	2.5814E-01	1.9805E+00	1.9805E+00	0.115E+01
Th-230	#A	2.4798E+01	6.2575E+01	6.2590E+01	0.367E+02
TH-234		4.1524E+00	6.0559E+00	6.0603E+00	0.296E+01
Tl-208	#	1.4164E-01	9.3652E-02	9.3984E-02	0.836E-01
U-235		1.1019E-01	1.3494E-01	1.3508E-01	0.622E-01

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H - Halflife limit exceeded

---------------------------- S U M M A R Y ---------------------------

Total Activity (41.8 to 2674.9 keV) 9.3804359E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 14-DEC-2005 06:38:39 Page 1
New World Technology Spectrum name: 3N001890.An1

Sample description
PCB Hot Spot 84NPCBSU9C0PE-001 399g
12/13/2005 12:30

Acquisition information
Start time: 13-Dec-2005 22:37:14
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	3.3228E-01	2.5127E-01	2.5194E-01	0.177E+00
AM-241	#B	-2.9464E-02	-4.2489E-01	-4.2489E-01	0.775E-01
Bi-212		5.1774E-01	4.7179E-01	4.7267E-01	0.191E+00
BI-214	#	4.2313E-01	2.9080E-01	2.9175E-01	0.110E+00
CO-60	#B	-4.2576E-02	-2.8323E-01	-2.8324E-01	0.325E-01
Cs-137	#B	-6.6186E-02	-9.6547E-01	-9.6548E-01	0.413E-01
EU-152	F	9.6355E-02	2.3320E-01	2.3326E-01	0.716E-01
EU-154	A	5.1982E-02	6.9323E-02	6.9383E-02	0.567E-01
K-40		1.8432E+01	2.7094E+00	2.8966E+00	0.505E+00
PA-234	A	7.2274E-02	1.4680E-01	1.4686E-01	0.992E-01
Pb-210		1.3264E+00	1.8426E+00	1.8441E+00	0.880E+00
PB-212		3.3561E-01	1.3824E-01	1.3950E-01	0.617E-01
PB-214		3.6477E-01	2.1358E-01	2.1454E-01	0.990E-01
RA-226		1.1907E+00	1.3201E+00	1.3218E+00	0.702E+00
Th-230	#B	4.0768E+00	1.4253E+01	1.4255E+01	0.725E+01
TH-234	#C	1.1368E+00	7.9818E-01	8.0067E-01	0.748E+00
Tl-208		2.7636E-01	1.3449E-01	1.3537E-01	0.169E-01
U-235	B	3.1214E-02	9.3529E-02	9.3545E-02	0.499E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.6 keV) 2.2867168E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 14-DEC-2005 09:21:44 Page 1
New World Technology Spectrum name: 1N001443.An1

Sample description
PCB Hot Spot 84NPCBSU9C1PE-001 387g
12/13/05 12:35

Acquisition information
Start time: 14-Dec-2005 08:36:36
Live time: 2700
Real time: 2701

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	#F	3.1193E-01	2.2105E-01	2.2172E-01	0.397E-01
AM-241	#A	-8.1673E-03	-3.9675E-01	-3.9675E-01	0.174E+00
Bi-212	B	1.7735E-01	5.3414E-01	5.3423E-01	0.298E+00
BI-214	F	5.9388E-01	3.2077E-01	3.2246E-01	0.203E+00
CO-60	#	1.6868E-02	3.5060E-02	3.5073E-02	0.157E-01
CS-137	#A	-4.1894E-02	-2.2381E-01	-2.2382E-01	0.486E-01
EU-152	C	1.2508E-01	1.2586E-01	1.2605E-01	0.820E-01
EU-154		6.9234E-02	9.6808E-02	9.6885E-02	0.500E-01
K-40		1.0414E+01	2.5316E+00	2.5970E+00	0.183E+00
Pa-234	#B	1.6402E-02	2.8409E-02	2.8423E-02	0.108E+00
Pb-210	#B	-2.3092E+00	-2.2536E+01	-2.2537E+01	0.409E+01
Pb-212		1.9205E-01	1.2297E-01	1.2343E-01	0.596E-01
Pb-214		3.3631E-01	1.5230E-01	1.5344E-01	0.408E-01
RA-226	A	4.0832E-01	1.3809E+00	1.3811E+00	0.781E+00
Th-230		1.5612E+01	3.0629E+01	3.0641E+01	0.123E+02
Th-234	B	3.3410E-01	3.5795E-01	3.5843E-01	0.122E+01
Tl-208	#C	9.1506E-02	4.3405E-02	4.3702E-02	0.270E-01
U-235	#B	4.7320E-03	3.4437E-02	3.4438E-02	0.507E-01

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H - Halflife limit exceeded

---------------------------- S U M M A R Y ----------------------------

Total Activity (41.8 to 2654.1 keV) 2.7546387E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 13-DEC-2005 19:41:50 Page 1
New World Technology Spectrum name: 1N001440.An1

Sample description
PCB Hot Spot 84NPCBSU9C2PE-001 268g
12/13/05 12:40

Acquisition information
Start time: 13-Dec-2005 18:56:43
Live time: 2700
Real time: 2701

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	6.8630E-01	3.3594E-01	3.3810E-01	0.907E-01
AM-241	A	4.1297E-02	5.6167E-01	5.6168E-01	0.312E+00
Bi-212	#B	6.4441E-02	1.1161E-01	1.1167E-01	0.420E+00
BI-214	B	3.7075E-01	3.3318E-01	3.3382E-01	0.541E+00
CO-60	#A	-4.8717E-03	6.3628E+01	6.3628E+01	0.227E-01
CS-137	#A	-5.7058E-02	-2.7268E-01	-2.7270E-01	0.677E-01
EU-152	A	2.9560E-02	7.3784E-02	7.3802E-02	0.108E+00
EU-154		1.4259E-01	1.1019E-01	1.1047E-01	0.531E-01
K-40		1.3571E+01	3.4743E+00	3.5553E+00	0.265E+00
Pa-234	#B	9.3202E-02	1.1415E-01	1.1427E-01	0.130E+00
Pb-210	#A	5.2746E+00	2.0175E+01	2.0177E+01	0.961E+01
Pb-212		4.9552E-01	1.9966E-01	2.0155E-01	0.832E-01
Pb-214		4.6429E-01	2.7138E-01	2.7260E-01	0.786E-01
RA-226	A	1.0468E+00	2.0721E+00	2.0730E+00	0.114E+01
Th-230	#	2.9894E+01	4.5085E+01	4.5115E+01	0.228E+02
Th-234	A	4.8591E-01	2.4874E+00	2.4876E+00	0.191E+01
Tl-208	#B	0.0000E+00	0.0000E+00	0.0000E+00	0.391E-01
U-235	#B	-6.4757E-03	-6.4981E-02	-6.4982E-02	0.728E-01

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H - Halflife limit exceeded

SUMMARY

Total Activity (41.8 to 2654.1 keV) 4.5623997E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 06-JUL-2006 15:49:38 Page 1
New World Technology Spectrum name: 3N003049.An1

Sample description
PCB Hot Spot 84NPCBSU9DOPE-001 405g
7/06/06 08:00

Acquisition information
Start time: 06-Jul-2006 15:02:04
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	#B	-6.9245E-02	-8.3676E-02	-8.3765E-02	0.229E+00
AM-241	A	1.6084E-02	1.6269E-01	1.6269E-01	0.910E-01
Bi-212	A	2.9776E-01	5.3746E-01	5.3771E-01	0.308E+00
BI-214	F	3.9327E-01	2.3764E-01	2.3864E-01	0.115E+00
CO-60	#B	-2.2699E-02	1.1344E+02	1.1344E+02	0.266E-01
Cs-137	A	2.0359E-02	6.7796E-02	6.7805E-02	0.409E-01
EU-152	B	3.0402E-02	1.0325E-01	1.0326E-01	0.553E-01
EU-154	F	1.0334E-01	8.0438E-02	8.0642E-02	0.476E-01
K-40	#	1.9151E+01	2.9233E+00	3.1113E+00	0.883E+00
PA-234	#B	-5.9716E-02	-7.2202E-01	-7.2203E-01	0.724E-01
Pb-210	#B	-9.6088E-02	-2.2004E+00	-2.2004E+00	0.103E+01
PB-212		2.7417E-01	1.4123E-01	1.4205E-01	0.695E-01
PB-214		3.5772E-01	2.0516E-01	2.0612E-01	0.925E-01
RA-226		8.9628E-01	1.4254E+00	1.4263E+00	0.797E+00
Th-230	#B	-3.5854E+00	-1.1209E+01	-1.1211E+01	0.523E+01
TH-234	A	3.5779E-01	1.0226E+00	1.0228E+00	0.701E+00
Tl-208	#B	-9.8037E-02	-2.2591E-01	-2.2598E-01	0.113E+00
U-235	B	1.7565E-03	6.8854E-03	6.8861E-03	0.549E-01

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< - MDA value printed.
A - Activity printed, but activity < MDA.
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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.7 to 2660.8 keV) 2.1072262E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 26-JUN-2006 10:02:30 Page 1
New World Technology Spectrum name: 3N002980.An1

Sample description
PCB Hot Spot 84NPCBSU9D1PE-001 349g
6/23/06 08:25

Acquisition information
Start time: 24-Jun-2006 02:28:51
Live time: 5400
Real time: 5404

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	3.0948E-01	3.4459E-01	3.4502E-01	0.163E+00
AM-241	#B	-1.7113E-03	-1.6331E-01	-1.6331E-01	0.748E-01
Bi-212	F	4.3360E-01	4.2961E-01	4.3029E-01	0.203E+00
BI-214	F	4.4071E-01	1.9083E-01	1.9240E-01	0.950E-01
CO-60	B	5.9732E-03	1.1944E-02	1.1948E-02	0.222E-01
Cs-137	#B	-4.0360E-02	-2.1086E-01	-2.1087E-01	0.367E-01
EU-152	F	8.7804E-02	1.5454E-01	1.5462E-01	0.526E-01
EU-154	B	2.3354E-02	7.2362E-02	7.2374E-02	0.475E-01
K-40		3.1088E+01	2.7805E+00	3.2739E+00	0.257E+00
PA-234	#B	-3.0049E-02	-3.9152E-01	-3.9152E-01	0.955E-01
Pb-210	#B	-5.3172E-01	-2.2501E+00	-2.2503E+00	0.755E+00
PB-212	F	2.9567E-01	1.1665E-01	1.1780E-01	0.584E-01
PB-214	C	1.0876E-01	1.3045E-01	1.3059E-01	0.829E-01
RA-226	A	4.7786E-01	1.0011E+00	1.0014E+00	0.567E+00
Th-230	#B	-4.0830E+00	-3.5629E+01	-3.5630E+01	0.771E+01
TH-234	B	7.7344E-02	2.7507E-01	2.7510E-01	0.544E+00
Tl-208	A	4.1574E-02	6.0287E-02	6.0332E-02	0.688E-01
U-235	#B	-3.8350E-02	-3.8288E-01	-3.8289E-01	0.400E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2660.0 keV) 3.2567097E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 24-JUN-2006 02:39:52 Page 1
New World Technology Spectrum name: 3N002976.An1

Sample description
PCB Hot Spot 84NPCBSU9D2PE-001 372g
6/23/06 08:05

Acquisition information
Start time: 23-Jun-2006 22:02:02
Live time: 2700
Real time: 2702

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	#F	2.0562E-01	3.7284E-01	3.7302E-01	0.193E+00
AM-241	#A	1.9266E-02	1.3704E-01	1.3704E-01	0.756E-01
Bi-212	#	9.6400E-01	6.8794E-01	6.9003E-01	0.213E+00
BI-214	F	3.9473E-01	2.8458E-01	2.8543E-01	0.119E+00
CO-60	#B	-7.4219E-03	-6.5054E-02	-6.5055E-02	0.278E-01
Cs-137	A	1.2347E-02	7.5644E-02	7.5648E-02	0.467E-01
EU-152	#F	1.5134E-01	1.5472E-01	1.5495E-01	0.802E-01
EU-154	#B	-2.7033E-02	2.0136E+02	2.0136E+02	0.508E-01
K-40		1.8937E+01	2.9066E+00	3.0913E+00	0.241E+00
PA-234	#B	2.0546E-02	2.1274E-01	2.1274E-01	0.109E+00
Pb-210	#B	-2.6648E-01	-1.9632E+00	-1.9633E+00	0.945E+00
PB-212	F	2.3391E-01	1.4489E-01	1.4548E-01	0.739E-01
PB-214		3.5778E-01	2.1346E-01	2.1438E-01	0.122E+00
RA-226	A	2.8350E-01	1.6200E+00	1.6201E+00	0.916E+00
Th-230	B	-3.9169E+00	-1.0099E+01	-1.0102E+01	0.932E+01
TH-234		9.7205E-01	1.2825E+00	1.2836E+00	0.702E+00
Tl-208	B	-7.0240E-02	-4.9775E-02	-4.9928E-02	0.104E+00
U-235	A	8.8416E-03	1.2858E-01	1.2859E-01	0.550E-01

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SUMMARY

Total Activity (41.7 to 2660.0 keV) 2.2010990E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 06-JUL-2006 15:53:09 Page 1
New World Technology Spectrum name: 7N000033.An1

Sample description
PCB Hot Spot 84NPCBSU9EOPE-001 440g
7/06/06 08:05

Acquisition information
Start time: 06-Jul-2006 15:08:00
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
AC-228	F	8.3709E-01	3.6379E-01	3.6675E-01	0.908E-01
AM-241	B	3.1551E-02	2.2823E-01	2.2824E-01	0.126E+00
BI-212	F	3.2458E-01	5.5648E-01	5.5678E-01	0.313E+00
BI-214	F	4.8110E-01	2.1792E-01	2.1956E-01	0.707E-01
CO-60	B	0.0000E+00	0.0000E+00	0.0000E+00	0.101E-01
CS-137	B	1.4069E-02	7.5688E-02	7.5693E-02	0.438E-01
EU-152	F	1.1844E-01	1.2574E-01	1.2591E-01	0.102E+00
EU-154	F	1.2707E-01	1.8782E-01	1.8795E-01	0.552E-01
K-40	#	3.8800E+01	4.4402E+00	4.9370E+00	0.561E+00
PA-234	#F	2.9526E-01	2.7332E-01	2.7381E-01	0.100E+00
PB-210	#B	-1.3153E+00	-4.5465E+00	-4.5471E+00	0.130E+01
PB-212	F	3.4502E-01	1.6142E-01	1.6256E-01	0.793E-01
PB-214	F	4.5625E-01	3.2263E-01	3.2363E-01	0.105E+00
RA-226	#B	-5.6717E-01	-4.3258E+00	-4.3259E+00	0.104E+01
Th-230	#B	-1.2558E+01	-1.9381E+02	-1.9381E+02	0.110E+02
TH-234	#B	-1.0084E+00	-4.3628E+00	-4.3632E+00	0.116E+01
TL-208	B	9.3968E-02	7.1230E-02	7.1421E-02	0.160E+00
U-235	F	9.7297E-02	1.0810E-01	1.0823E-01	0.559E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

------------------ S U M M A R Y ------------------

Total Activity (42.1 to 2683.2 keV) 4.1016964E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 24-JUN-2006 01:09:53 Page 1
New World Technology Spectrum name: 2N003011.An1

Sample description
PCB Hot Spot 84NPCBSU9E1PE-001 414g
6/23/06 08:15

Acquisition information
Start time: 23-Jun-2006 22:08:47
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	4.5197E-01	3.2391E-01	3.2488E-01	0.155E+00
AM-241	#B	-4.6913E-01	-5.9723E+00	-5.9724E+00	0.389E+00
Bi-212	F	5.9856E-01	5.8348E-01	5.8443E-01	0.261E+00
BI-214	F	4.8126E-01	2.0800E-01	2.0972E-01	0.866E-01
CO-60	#B	-1.7959E-02	-3.0642E-01	-3.0642E-01	0.314E-01
Cs-137	#B	-3.5696E-02	-1.9132E-01	-1.9134E-01	0.465E-01
EU-152	B	8.4616E-02	1.5549E-01	1.5556E-01	0.109E+00
EU-154	B	3.3761E-02	1.0897E-01	1.0899E-01	0.687E-01
K-40		9.8044E+00	2.1012E+00	2.1710E+00	0.540E+00
PA-234	#F	3.1989E-01	1.9189E-01	1.9271E-01	0.136E+00
Pb-210	C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		4.3432E-01	1.6737E-01	1.6910E-01	0.768E-01
PB-214		3.5018E-01	1.7291E-01	1.7400E-01	0.848E-01
RA-226		9.4367E-01	1.6337E+00	1.6346E+00	0.897E+00
Th-230	#B	6.6224E+00	1.3671E+01	1.3676E+01	0.299E+02
TH-234	#C	2.4459E+00	3.1018E+00	3.1048E+00	0.219E+01
Tl-208	F	2.2257E-01	8.4394E-02	8.5299E-02	0.168E-01
U-235	#B	-3.4222E-03	-1.2325E-01	-1.2326E-01	0.607E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2673.8 keV) 1.3286909E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 23-JUN-2006 22:51:45 Page 1
New World Technology Spectrum name: 5N000075.An1

Sample description
PCB Hot Spot 84NPCBSU9E2PE-001 416g
6/23/06 08:00

Acquisition information
Start time: 23-Jun-2006 22:06:36
Live time: 2700
Real time: 2701

- -

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
Ac-228	4.3780E-01	3.6070E-01	3.6152E-01	0.163E+00
AM-241 #B	-4.0048E-02	-3.0702E-01	-3.0703E-01	0.958E-01
Bi-212 #B	-1.6240E-02	-3.4483E-01	-3.4483E-01	0.115E+00
BI-214 F	2.6921E-01	2.0031E-01	2.0087E-01	0.985E-01
CO-60 #F	4.2177E-02	4.1897E-02	4.1962E-02	0.143E-01
CS-137 #B	-3.5492E-02	-5.1090E-01	-5.1091E-01	0.429E-01
EU-152 #B	3.8708E-02	6.7996E-02	6.8030E-02	0.599E-01
EU-154 F	7.7731E-02	5.4964E-02	5.5133E-02	0.525E-01
K-40	7.4006E+00	2.1562E+00	2.1951E+00	0.996E+00
Pa-234 B	9.0911E-02	1.8006E-01	1.8013E-01	0.921E-01
Pb-210	1.6444E+00	1.5764E+00	1.5791E+00	0.718E+00
Pb-212 F	3.9322E-01	1.5059E-01	1.5217E-01	0.753E-01
PB-214	4.0207E-01	1.6689E-01	1.6838E-01	0.708E-01
RA-226 #B	-5.5245E-01	-4.7685E+00	-4.7686E+00	0.888E+00
Th-230 #B	-1.4114E+01	-2.4381E+02	-2.4381E+02	0.587E+01
Th-234 F	1.4321E+00	8.8683E-01	8.9038E-01	0.796E+00
Tl-208 F	1.3304E-01	6.2892E-02	6.3326E-02	0.538E-01
U-235 F	6.3252E-02	8.6193E-02	8.6265E-02	0.444E-01

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---------- SUMMARY ----------

Total Activity (42.0 to 3339.1 keV) 1.0652698E+01 pCi/g

Laboratory: New World Technology

6N000144.rpt

ORTEC g v - i (3263) wan32 G53W2.06 06-JUL-2006 19:02:45 Page 1
New World Technology Spectrum name: 6N000144.An1

Sample description
PCB Hot Spot 84NPCBSU9FOPE-001 352g
7/06/06 08:10

Acquisition information
Start time: 06-Jul-2006 15:14:14
Live time: 2695
Real time: 2700

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
Ac-228	F	7.0447E-01	3.3766E-01	3.3992E-01	0.217E+00
AM-241	#A	-9.5602E-02	-4.0873E+01	-4.0873E+01	0.127E+00
Bi-212	B	3.0652E-01	6.3954E-01	6.3977E-01	0.377E+00
BI-214	F	3.7366E-01	2.8340E-01	2.8415E-01	0.114E+00
CO-60	#B	-6.0018E-02	-3.8832E-01	-3.8833E-01	0.629E-01
CS-137	B	1.4216E-03	7.5687E-02	7.5687E-02	0.470E-01
EU-152	#B	4.9932E-02	1.4626E-01	1.4629E-01	0.729E-01
EU-154	#B	-4.1967E-02	2.5626E+02	2.5626E+02	0.624E-01
K-40	#	2.2500E+01	4.0361E+00	4.2249E+00	0.122E+01
Pa-234	#B	1.1755E-01	2.3559E-01	2.3568E-01	0.124E+00
Pb-210	#	2.4030E+00	2.4665E+00	2.4701E+00	0.105E+01
Pb-212	F	3.5662E-01	1.7660E-01	1.7770E-01	0.911E-01
PB-214		3.0216E-01	1.8483E-01	1.8559E-01	0.118E+00
RA-226	#B	-4.1583E-01	-2.8733E+00	-2.8734E+00	0.115E+01
Th-230	#B	-1.1639E+01	-9.0323E+01	-9.0325E+01	0.105E+02
Th-234	B	7.0458E-01	2.0372E+00	2.0375E+00	0.118E+01
Tl-208	#F	1.3381E-01	1.1360E-01	1.1385E-01	0.486E-01
U-235	#B	-4.8195E-01	-1.1711E+00	-1.1715E+00	0.993E-01

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H - Halflife limit exceeded

---------------------------- S U M M A R Y ---------------------------
Total Activity (41.1 to 2611.9 keV) 2.6773464E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 23-JUN-2006 23:06:03 Page 1
New World Technology Spectrum name: 4N000147.An1

Sample description
PCB Hot Spot 84NPCBSU9F1PE-001 409g
6/23/06 08:20

Acquisition information
Start time: 23-Jun-2006 22:20:53
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
AC-228	F	5.2761E-01	3.6510E-01	3.6628E-01	0.201E+00
AM-241	B	4.4082E-02	1.6242E-01	1.6244E-01	0.905E-01
BI-212	#B	3.1868E-01	2.8725E-01	2.8780E-01	0.355E+00
BI-214	F	3.6931E-01	2.7707E-01	2.7783E-01	0.110E+00
CO-60	#B	8.3742E-03	1.3415E-02	1.3423E-02	0.102E-01
CS-137	#B	-3.8969E-02	-3.7073E-01	-3.7074E-01	0.382E-01
EU-152	F	2.3003E-01	1.8782E-01	1.8825E-01	0.960E-01
EU-154	B	3.3412E-02	5.0661E-02	5.0695E-02	0.548E-01
K-40		5.9332E+00	2.2118E+00	2.2363E+00	0.120E+01
PA-234	F	1.8828E-01	1.8384E-01	1.8414E-01	0.980E-01
PB-210	#B	-1.0589E+00	-3.2850E+00	-3.2855E+00	0.118E+01
PB-212	F	4.9038E-01	1.6699E-01	1.6920E-01	0.777E-01
PB-214	F	4.1353E-01	2.1301E-01	2.1425E-01	0.102E+00
RA-226	B	9.2692E-01	1.8076E+00	1.8083E+00	0.102E+01
Th-230	#B	-3.0167E+00	-4.8604E+01	-4.8605E+01	0.799E+01
TH-234	F	1.1498E+00	1.4518E+00	1.4532E+00	0.961E+00
TL-208	F	1.0665E-01	1.0205E-01	1.0222E-01	0.964E-01
U-235	B	1.4908E-02	1.4177E-01	1.4177E-01	0.634E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2663.9 keV) 7.9223537E+00 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 23-JUN-2006 23:10:43 Page 1
New World Technology Spectrum name: 1N002487.An1

Sample description
PCB Hot Spot 84NPCBSU9F2PE-001 380g
6/23/06 08:10

Acquisition information
Start time: 23-Jun-2006 22:25:33
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	4.7972E-01	3.5773E-01	3.5873E-01	0.147E+00
AM-241	A	4.3907E-02	4.0490E-01	4.0490E-01	0.234E+00
Bi-212	A	3.0240E-01	4.8644E-01	4.8673E-01	0.457E+00
BI-214	#F	2.7573E-01	1.6140E-01	1.6213E-01	0.231E+00
CO-60	#A	-4.2457E-02	1.6874E+02	1.6874E+02	0.426E-01
CS-137	A	4.7946E-03	3.7646E-02	3.7647E-02	0.204E-01
EU-152	C	1.0061E-01	1.5777E-01	1.5787E-01	0.654E-01
EU-154	#A	-3.0279E-03	-8.5419E-02	-8.5420E-02	0.436E-01
K-40		9.1811E+00	2.5709E+00	2.6211E+00	0.186E+00
Pa-234	#B	-7.4008E-02	-1.2411E-01	-1.2418E-01	0.148E+00
Pb-210	#A	8.1744E-01	6.0780E+00	6.0782E+00	0.375E+01
Pb-212		4.4450E-01	1.5401E-01	1.5599E-01	0.551E-01
Pb-214		5.4904E-01	1.9439E-01	1.9678E-01	0.246E-01
RA-226	#B	-7.3892E-01	-4.3761E+00	-4.3763E+00	0.104E+01
Th-230	#F	2.0542E+01	3.1136E+01	3.1157E+01	0.130E+02
Th-234	A	7.9678E-01	1.1775E+00	1.1783E+00	0.160E+01
Tl-208		2.6198E-01	1.2981E-01	1.3063E-01	0.301E-01
U-235	A	7.9834E-03	5.8051E-02	5.8053E-02	0.550E-01

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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.2 to 2605.8 keV) 3.0978100E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 28-NOV-2005 18:33:04 Page 1
New World Technology Spectrum name: 1N001366.An1

Sample description
PCB Hot Spot 84NPCBSU10A0PE-001 358g
11/28/05 12:05

Acquisition information
Start time: 28-Nov-2005 12:12:43
Live time: 2700
Real time: 2701

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	6.2531E-01	2.8973E-01	2.9181E-01	0.848E-01
AM-241	A	8.6669E-02	4.4615E-01	4.4617E-01	0.244E+00
Bi-212	C	3.2394E-01	5.3222E-01	5.3252E-01	0.288E+00
BI-214		6.2871E-01	2.3744E-01	2.4000E-01	0.340E+00
CO-60	#	8.3880E-02	7.5801E-02	7.5944E-02	0.170E-01
CS-137	A	4.1920E-02	8.8949E-02	8.8979E-02	0.533E-01
EU-152	C	1.0885E-01	9.4267E-02	9.4461E-02	0.710E-01
EU-154	C	6.7206E-02	1.2667E-01	1.2673E-01	0.585E-01
K-40		1.8072E+01	3.4616E+00	3.6045E+00	0.198E+00
Pa-234	#B	2.3240E-02	4.1136E-02	4.1156E-02	0.911E-01
Pb-210	#A	6.3540E+00	1.5147E+01	1.5151E+01	0.740E+01
Pb-212		3.4879E-01	1.4443E-01	1.4573E-01	0.603E-01
Pb-214		4.6913E-01	1.9437E-01	1.9611E-01	0.558E-01
RA-226	A	4.5068E-01	1.4457E+00	1.4460E+00	0.819E+00
Th-230	#	3.7316E+01	4.8994E+01	4.9038E+01	0.183E+02
Th-234	A	8.3915E-01	1.8544E+00	1.8550E+00	0.154E+01
Tl-208	B	0.0000E+00	1.2449E+02	1.2449E+02	0.292E-01
U-235	#B	-2.8757E-02	-2.5811E-01	-2.5812E-01	0.534E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2654.1 keV) 5.6914970E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 28-NOV-2005 18:26:07 Page 1
New World Technology Spectrum name: 2N001784.An1

Sample description
PCB Hot Spot 84NPCBSU10A1PE-001 410g
11/28/05 12:00

Acquisition information
Start time: 28-Nov-2005 12:18:38
Live time: 2700
Real time: 2705

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	4.1136E-01	2.6822E-01	2.6919E-01	0.113E+00
AM-241 #	8.4026E-01	1.3255E+00	1.3264E+00	0.595E+00
Bi-212	3.4860E-01	4.4462E-01	4.4504E-01	0.220E+00
BI-214 #F	5.1049E-01	1.9871E-01	2.0073E-01	0.425E-01
CO-60 #B	-2.2185E-02	-1.6144E-01	-1.6144E-01	0.253E-01
Cs-137 #A	3.6270E-02	6.9733E-02	6.9762E-02	0.391E-01
EU-152 B	5.3112E-02	1.1284E-01	1.1287E-01	0.105E+00
EU-154 B	3.3861E-02	7.3469E-02	7.3493E-02	0.678E-01
K-40	1.8562E+01	2.7961E+00	2.9810E+00	0.533E+00
PA-234 #A	1.0076E-01	1.4821E-01	1.4832E-01	0.102E+00
Pb-210 #	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	4.4441E-01	1.4867E-01	1.5072E-01	0.553E-01
PB-214	4.4714E-01	2.0146E-01	2.0299E-01	0.715E-01
RA-226	8.7660E-01	1.4153E+00	1.4161E+00	0.768E+00
Th-230 #	3.4708E+01	6.4535E+01	6.4563E+01	0.286E+02
TH-234	4.8069E+00	3.6929E+00	3.7025E+00	0.280E+01
Tl-208	1.9081E-01	8.7557E-02	8.8199E-02	0.511E-01
U-235 #B	0.0000E+00	1.8206E+02	1.8206E+02	0.524E-01

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---------- S U M M A R Y ----------
Total Activity (41.8 to 2674.9 keV) 6.2146351E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 28-NOV-2005 18:38:09 Page 1
New World Technology Spectrum name: 3N001826.An1

Sample description
PCB Hot Spot 84NPCBSU10B0PE-001 393g
11/28/05 12:10

Acquisition information
Start time: 28-Nov-2005 12:22:07
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228 #F	6.4921E-01	4.0247E-01	4.0408E-01	0.179E+00
AM-241 #B	-1.0087E-02	-2.5512E-01	-2.5512E-01	0.101E+00
Bi-212 A	1.5781E-01	3.6418E-01	3.6429E-01	0.282E+00
BI-214 #F	2.5723E-01	2.6114E-01	2.6153E-01	0.109E+00
CO-60 #B	-2.7122E-02	-1.4540E-01	-1.4541E-01	0.348E-01
Cs-137 #B	-2.7365E-02	-1.5489E-01	-1.5490E-01	0.442E-01
EU-152 F	1.2192E-01	1.8146E-01	1.8159E-01	0.767E-01
EU-154 C	1.6063E-01	1.3231E-01	1.3261E-01	0.452E-01
K-40	2.5584E+01	3.2611E+00	3.5576E+00	0.556E+00
PA-234 #	1.2989E-01	2.0647E-01	2.0660E-01	0.941E-01
Pb-210 #A	7.1260E-01	2.0011E+00	2.0015E+00	0.976E+00
PB-212	2.7815E-01	1.4809E-01	1.4890E-01	0.711E-01
PB-214	2.0646E-01	1.7408E-01	1.7445E-01	0.910E-01
RA-226	8.0344E-01	1.3571E+00	1.3578E+00	0.744E+00
Th-230 #B	-2.2817E+00	3.7023E+04	3.7023E+04	0.753E+01
TH-234 C	1.2726E+00	9.5306E-01	9.5567E-01	0.739E+00
Tl-208 #	1.4363E-01	7.0192E-02	7.0644E-02	0.487E-01
U-235 A	4.6661E-02	1.1927E-01	1.1930E-01	0.489E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.7 to 2660.6 keV) 2.8051809E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 28-NOV-2005 15:10:19 Page 1
New World Technology Spectrum name: 2N001786.An1

Sample description
PCB Hot Spot 84NPCBSU10B1PE-001 294g
11/28/05 12:35

Acquisition information
Start time: 28-Nov-2005 14:25:12
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	7.7497E-01	3.3526E-01	3.3803E-01	0.162E+00
AM-241	#	8.4912E-01	1.7389E+00	1.7396E+00	0.791E+00
Bi-212	B	3.6601E-01	8.2153E-01	8.2178E-01	0.411E+00
BI-214	F	7.4826E-01	2.9034E-01	2.9331E-01	0.663E-01
CO-60	#B	-1.1756E-02	-1.0425E-01	-1.0425E-01	0.379E-01
Cs-137		6.1871E-02	1.1273E-01	1.1278E-01	0.579E-01
EU-152	B	3.1664E-02	1.0236E-01	1.0237E-01	0.115E+00
EU-154	B	7.6736E-02	1.4371E-01	1.4377E-01	0.901E-01
K-40		2.1500E+01	3.6908E+00	3.8801E+00	0.802E+00
PA-234	#B	-2.2001E-02	-8.5890E-02	-8.5898E-02	0.117E+00
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		6.1090E-01	1.9966E-01	2.0253E-01	0.714E-01
PB-214		5.5706E-01	3.1067E-01	3.1222E-01	0.124E+00
RA-226	A	7.6550E-01	1.9143E+00	1.9148E+00	0.106E+01
Th-230	#	5.0943E+01	6.9298E+01	6.9355E+01	0.356E+02
TH-234	B	0.0000E+00	2.2281E+04	2.2281E+04	0.453E+01
Tl-208	#	2.3485E-01	1.1628E-01	1.1701E-01	0.713E-01
U-235	C	6.8930E-02	1.4103E-01	1.4108E-01	0.499E-01

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---------------------------- S U M M A R Y ---------------------------

Total Activity (41.8 to 2674.9 keV) 7.6279968E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 28-NOV-2005 14:08:32 Page 1
New World Technology Spectrum name: 1N001367.An1

Sample description
PCB Hot Spot 84NPCBSU10C0PE-001 420g
11/28/05 12:13

Acquisition information
Start time: 28-Nov-2005 13:23:26
Live time: 2700
Real time: 2701

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	6.0578E-01	4.0680E-01	4.0819E-01	0.996E-01
AM-241 #A	-5.0053E-02	-6.2937E+00	-6.2937E+00	0.261E+00
Bi-212	5.6092E-01	5.8534E-01	5.8617E-01	0.312E+00
BI-214 #F	5.8553E-01	3.3895E-01	3.4051E-01	0.383E+00
CO-60 #A	1.9372E-03	9.1520E-03	9.1527E-03	0.152E-01
CS-137 #A	-6.5582E-02	2.1997E+02	2.1997E+02	0.517E-01
EU-152 C	1.5616E-01	1.9734E-01	1.9753E-01	0.830E-01
EU-154 C	6.4625E-02	8.8546E-02	8.8619E-02	0.616E-01
K-40	2.2649E+01	3.5747E+00	3.7900E+00	0.169E+00
Pa-234 #B	6.5687E-02	8.0449E-02	8.0532E-02	0.120E+00
Pb-210 A	1.2162E+00	1.4136E+01	1.4136E+01	0.790E+01
Pb-212	3.9181E-01	1.4762E-01	1.4922E-01	0.623E-01
Pb-214	4.8153E-01	1.8588E-01	1.8780E-01	0.495E-01
RA-226 A	3.4449E-02	1.4126E+00	1.4126E+00	0.814E+00
Th-230 #F	2.2053E+01	5.5521E+01	5.5535E+01	0.201E+02
Th-234 A	1.1491E+00	1.6347E+00	1.6360E+00	0.142E+01
Tl-208 #B	0.0000E+00	0.0000E+00	0.0000E+00	0.249E-01
U-235 A	3.6557E-02	8.9300E-02	8.9324E-02	0.490E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.8 to 2654.1 keV) 4.7328102E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 29-NOV-2005 09:52:11 Page 1
New World Technology Spectrum name: 3N001835.An1

Sample description
PCB Hot Spot 84NPCBSU10C1PE-001 277g
11/28/05 12:55

Acquisition information
Start time: 29-Nov-2005 09:07:07
Live time: 2700
Real time: 2702

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	4.6022E-01	2.8551E-01	2.8665E-01	0.282E+00
AM-241	#B	-5.5856E-02	-9.9677E-01	-9.9678E-01	0.112E+00
Bi-212		7.0675E-01	6.2395E-01	6.2519E-01	0.229E+00
BI-214	#F	5.5803E-01	3.8261E-01	3.8386E-01	0.158E+00
CO-60	#A	3.6028E-02	6.6812E-02	6.6842E-02	0.517E-01
Cs-137	#B	-7.7869E-03	-1.1968E-01	-1.1968E-01	0.673E-01
EU-152	F	2.3219E-01	2.8871E-01	2.8899E-01	0.986E-01
EU-154	B	7.8720E-02	7.8720E-02	7.8841E-02	0.816E-01
K-40		1.9645E+01	3.3909E+00	3.5624E+00	0.727E+00
PA-234	C	2.3986E-01	2.5587E-01	2.5622E-01	0.142E+00
Pb-210	#A	2.8274E-01	2.7172E+00	2.7173E+00	0.136E+01
PB-212		6.6089E-01	2.1071E-01	2.1389E-01	0.863E-01
PB-214		4.4738E-01	3.0485E-01	3.0586E-01	0.134E+00
RA-226	A	9.6773E-01	1.8554E+00	1.8562E+00	0.103E+01
Th-230	C	2.3596E+01	3.3814E+01	3.3839E+01	0.122E+02
TH-234	C	1.6571E+00	1.3384E+00	1.3415E+00	0.110E+01
Tl-208	F	4.9235E-01	2.1545E-01	2.1718E-01	0.244E-01
U-235	C	1.3997E-01	1.9321E-01	1.9337E-01	0.620E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2660.6 keV) 2.2510077E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 28-NOV-2005 14:12:52 Page 1
New World Technology Spectrum name: 2N001785.An1

Sample description
PCB Hot Spot 84NPCBSU10D0PE-001 386g
11/28/05 12:20

Acquisition information
Start time: 28-Nov-2005 13:27:45
Live time: 2700
Real time: 2705

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	4.9367E-01	3.8459E-01	3.8557E-01	0.130E+00
AM-241 #A	7.7609E-02	7.2389E-01	7.2390E-01	0.410E+00
Bi-212	5.3988E-01	5.3931E-01	5.4014E-01	0.221E+00
BI-214	4.6312E-01	2.1274E-01	2.1429E-01	0.550E-01
CO-60 #B	1.1684E-02	1.7151E-02	1.7164E-02	0.267E-01
Cs-137 #	5.6412E-02	1.0584E-01	1.0589E-01	0.491E-01
EU-152 B	7.7550E-02	1.5918E-01	1.5924E-01	0.115E+00
EU-154 F	7.6123E-02	1.1443E-01	1.1451E-01	0.701E-01
K-40	1.4997E+01	2.6147E+00	2.7448E+00	0.566E+00
PA-234 #B	1.0409E-02	5.6822E-02	5.6825E-02	0.136E+00
Pb-210 #	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	4.6544E-01	1.5134E-01	1.5354E-01	0.524E-01
PB-214	4.4693E-01	1.9899E-01	2.0054E-01	0.728E-01
RA-226 #	1.1897E+00	1.4674E+00	1.4689E+00	0.718E+00
Th-230 #A	2.0662E+01	4.3477E+01	4.3492E+01	0.213E+02
TH-234	4.6581E+00	4.2924E+00	4.3002E+00	0.340E+01
Tl-208	1.2799E-01	8.1820E-02	8.2130E-02	0.543E-01
U-235 #B	0.0000E+00	1.6918E+02	1.6918E+02	0.427E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2674.9 keV) 2.3438675E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 29-NOV-2005 10:51:55 Page 1
New World Technology Spectrum name: 1N001377.An1

Sample description
PCB Hot Spot 84NPCBSU10D1PE-001 233g
11/28/05 12:40

Acquisition information
Start time: 29-Nov-2005 10:06:47
Live time: 2700
Real time: 2701

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	2.0540E-01	2.4995E-01	2.5021E-01	0.177E+00
AM-241	A	6.6418E-02	5.7918E-01	5.7919E-01	0.321E+00
Bi-212	A	3.2021E-01	6.7927E-01	6.7951E-01	0.479E+00
BI-214	F	3.0206E+00	2.0263E+00	2.0332E+00	0.337E+00
CO-60	#C	3.3739E-02	4.5266E-02	4.5305E-02	0.261E-01
CS-137	A	3.4433E-03	1.3012E-01	1.3012E-01	0.859E-01
EU-152	#A	6.0713E-02	8.3213E-02	8.3281E-02	0.913E-01
EU-154	C	7.7330E-02	1.3687E-01	1.3694E-01	0.634E-01
K-40		1.5722E+01	4.0104E+00	4.1046E+00	0.305E+00
Pa-234	#B	1.4398E-01	3.8360E-01	3.8368E-01	0.169E+00
Pb-210	#A	1.0669E+01	2.7331E+01	2.7338E+01	0.117E+02
Pb-212	F	3.8266E-01	2.0050E-01	2.0163E-01	0.899E-01
Pb-214		7.7824E-01	2.6451E-01	2.6802E-01	0.718E-01
RA-226		1.2475E+00	1.9838E+00	1.9851E+00	0.109E+01
Th-230	#A	1.0860E+01	2.5951E+01	2.5958E+01	0.173E+02
Th-234	A	2.1914E+00	2.7245E+00	2.7272E+00	0.222E+01
Tl-208	B	0.0000E+00	1.9127E+02	1.9127E+02	0.449E-01
U-235	#B	-6.8339E-02	-9.5001E-01	-9.5001E-01	0.797E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

---------------------------- S U M M A R Y ----------------------------

Total Activity (41.8 to 2654.1 keV) 2.1150768E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 28-NOV-2005 14:15:01 Page 1
New World Technology Spectrum name: 3N001827.An1

Sample description
PCB Hot Spot 84NPCBSU10E0PE-001 429g
11/28/05 12:25

Acquisition information
Start time: 28-Nov-2005 13:29:57
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228		4.6242E-01	2.8280E-01	2.8397E-01	0.170E+00
AM-241	A	1.4900E-02	1.6959E-01	1.6959E-01	0.947E-01
Bi-212		7.4365E-01	5.0435E-01	5.0604E-01	0.186E+00
BI-214	F	3.9991E-01	1.9182E-01	1.9310E-01	0.899E-01
CO-60	#B	-4.1928E-02	1.1783E+02	1.1783E+02	0.297E-01
Cs-137	#A	3.7603E-02	9.4643E-02	9.4666E-02	0.447E-01
EU-152	F	8.7355E-02	1.6375E-01	1.6382E-01	0.659E-01
EU-154	A	3.5289E-02	9.2695E-02	9.2716E-02	0.540E-01
K-40		2.0714E+01	2.7563E+00	2.9871E+00	0.470E+00
PA-234	#F	1.6115E-01	1.8662E-01	1.8683E-01	0.790E-01
Pb-210	#A	8.5749E-02	1.5149E+00	1.5149E+00	0.830E+00
PB-212		3.9974E-01	1.4436E-01	1.4606E-01	0.632E-01
PB-214		3.9618E-01	2.2847E-01	2.2953E-01	0.938E-01
RA-226		1.0182E+00	1.3047E+00	1.3060E+00	0.701E+00
Th-230	#	2.0615E+01	2.7864E+01	2.7887E+01	0.893E+01
TH-234	C	1.2371E+00	1.4105E+00	1.4122E+00	0.744E+00
Tl-208	#B	5.8145E-02	4.0281E-02	4.0410E-02	0.669E-01
U-235	C	7.2442E-02	1.1311E-01	1.1318E-01	0.478E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.6 keV) 4.4749199E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 29-NOV-2005 10:59:02 Page 1
New World Technology Spectrum name: 3N001836.An1

Sample description
PCB Hot Spot 84NPCBSU10E1PE-001 290g
11/28/05 12:45

Acquisition information
Start time: 29-Nov-2005 10:13:56
Live time: 2700
Real time: 2702

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***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	7.2242E-01	5.0815E-01	5.0974E-01	0.245E+00
AM-241 #A	7.3476E-02	2.2430E-01	2.2434E-01	0.112E+00
Bi-212 #F	1.3242E+00	7.8149E-01	7.8495E-01	0.202E+00
BI-214 F	4.3434E-01	3.5094E-01	3.5177E-01	0.143E+00
CO-60 #B	-1.0337E-02	-7.2362E-02	-7.2364E-02	0.440E-01
Cs-137 #A	1.1125E-02	1.4277E-01	1.4277E-01	0.694E-01
EU-152 B	8.6514E-02	2.5575E-01	2.5580E-01	0.922E-01
EU-154 #F	9.9772E-02	7.9996E-02	8.0187E-02	0.704E-01
K-40	1.9642E+01	3.4750E+00	3.6425E+00	0.765E+00
PA-234 #C	1.4028E-01	2.9947E-01	2.9957E-01	0.126E+00
Pb-210 #	2.2997E+00	2.8863E+00	2.8891E+00	0.131E+01
PB-212	5.7823E-01	2.0896E-01	2.1142E-01	0.917E-01
PB-214	4.0490E-01	2.5861E-01	2.5959E-01	0.138E+00
RA-226 A	3.5832E-01	1.8494E+00	1.8495E+00	0.105E+01
Th-230 #B	-3.3934E+00	-1.1402E+02	-1.1402E+02	0.512E+01
TH-234	2.4349E+00	1.7143E+00	1.7196E+00	0.105E+01
Tl-208	3.2945E-01	1.0642E-01	1.0799E-01	0.233E-01
U-235	8.9893E-02	1.2463E-01	1.2473E-01	0.585E-01

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---------- SUMMARY ----------
Total Activity (41.7 to 2660.6 keV) 2.8259953E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 28-NOV-2005 15:04:36 Page 1
New World Technology Spectrum name: 1N001368.An1

Sample description
PCB Hot Spot 84NPCBSU10F0PE-001 405g
11/28/05 12:30

Acquisition information
Start time: 28-Nov-2005 14:19:28
Live time: 2700
Real time: 2701

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	7.8263E-01	3.4487E-01	3.4760E-01	0.380E-01
AM-241 #A	-6.0177E-02	7.7461E+02	7.7461E+02	0.182E+00
Bi-212 A	1.5245E-01	4.6020E-01	4.6027E-01	0.230E+00
BI-214 F	1.1583E+00	6.5977E-01	6.6291E-01	0.347E+00
CO-60 #A	-3.2237E-03	4.2105E+01	4.2105E+01	0.150E-01
CS-137 #A	-2.6204E-02	-1.2706E-01	-1.2707E-01	0.451E-01
EU-152 C	1.2118E-01	1.1741E-01	1.1761E-01	0.825E-01
EU-154 C	5.9540E-02	8.0525E-02	8.0593E-02	0.456E-01
K-40	1.6817E+01	3.1391E+00	3.2754E+00	0.175E+00
Pa-234 #F	1.0316E-01	1.2385E-01	1.2398E-01	0.786E-01
Pb-210 #	1.1354E+01	2.0479E+01	2.0489E+01	0.829E+01
Pb-212	4.2600E-01	1.4500E-01	1.4692E-01	0.581E-01
Pb-214 B	1.4811E-02	1.0537E-01	1.0537E-01	0.125E+00
RA-226 A	7.3980E-01	1.4844E+00	1.4849E+00	0.815E+00
Th-230 F	7.1556E+00	8.3490E+00	8.3584E+00	0.670E+01
Th-234 A	6.0300E-01	1.6324E+00	1.6328E+00	0.127E+01
Tl-208 #C	1.0154E-01	5.8117E-02	5.8391E-02	0.258E-01
U-235 A	2.4745E-02	9.3592E-02	9.3602E-02	0.517E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2654.1 keV) 3.0537590E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 29-NOV-2005 11:07:26 Page 1
New World Technology Spectrum name: 2N001795.An1

Sample description
PCB Hot Spot 84NPCBSU10F1PE-001 308g
11/28/05 12:50

Acquisition information
Start time: 29-Nov-2005 10:12:02
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	#F	5.0097E-01	3.0326E-01	3.0454E-01	0.188E+00
AM-241	#	7.8621E-01	1.4639E+00	1.4646E+00	0.698E+00
Bi-212	#B	0.0000E+00	4.6757E+02	4.6757E+02	0.110E+00
BI-214	F	5.0345E-01	2.1109E-01	2.1294E-01	0.440E-01
CO-60	#B	-3.1894E-02	1.4823E+02	1.4823E+02	0.348E-01
Cs-137		7.8458E-02	1.2708E-01	1.2716E-01	0.593E-01
EU-152	#F	9.1705E-02	1.0101E-01	1.0114E-01	0.777E-01
EU-154	#B	-6.0252E-03	3.9607E+02	3.9607E+02	0.707E-01
K-40		1.7566E+01	3.1765E+00	3.3236E+00	0.709E+00
PA-234	#A	1.1236E-01	1.4939E-01	1.4952E-01	0.148E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		5.7464E-01	2.1252E-01	2.1492E-01	0.860E-01
PB-214		4.7307E-01	2.4091E-01	2.4235E-01	0.830E-01
RA-226	#B	-3.2943E-01	-3.5457E+00	-3.5458E+00	0.102E+01
Th-230	A	2.3796E+01	5.2145E+01	5.2162E+01	0.367E+02
TH-234		4.3052E+00	3.9084E+00	3.9157E+00	0.300E+01
Tl-208	#	2.4142E-01	1.2071E-01	1.2146E-01	0.768E-01
U-235		6.5889E-02	9.9277E-02	9.9344E-02	0.478E-01

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---------------------------- S U M M A R Y ----------------------------

Total Activity (41.8 to 2674.9 keV) 2.5095200E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 13-DEC-2005 19:50:28 Page 1
New World Technology Spectrum name: 2N001856.An1

Sample description
PCB Hot Spot 84NPCBSU10G0PE-001 288g
12/13/2005 12:45

Acquisition information
Start time: 13-Dec-2005 19:05:20
Live time: 2700
Real time: 2705

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	6.4770E-01	3.7534E-01	3.7707E-01	0.145E+00
AM-241	A	2.8890E-01	1.4556E+00	1.4557E+00	0.778E+00
Bi-212		7.3422E-01	6.3905E-01	6.4036E-01	0.193E+00
BI-214	F	5.6093E-01	2.9281E-01	2.9447E-01	0.815E-01
CO-60	#B	-3.4109E-02	1.3556E+02	1.3556E+02	0.342E-01
Cs-137	#A	2.1207E-02	1.1250E-01	1.1250E-01	0.611E-01
EU-152	B	7.0632E-02	2.1733E-01	2.1737E-01	0.126E+00
EU-154	#B	-6.4436E-03	2.8286E+02	2.8286E+02	0.714E-01
K-40		2.0935E+01	3.9609E+00	4.1289E+00	0.121E+01
PA-234	C	3.1636E-01	3.2879E-01	3.2925E-01	0.187E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		5.1467E-01	1.9034E-01	1.9248E-01	0.705E-01
PB-214		3.9516E-01	2.1359E-01	2.1472E-01	0.884E-01
RA-226	A	4.5598E-01	1.7664E+00	1.7666E+00	0.101E+01
Th-230	B	1.3171E+00	3.8572E+00	3.8579E+00	0.258E+02
TH-234	A	3.6069E+00	4.7160E+00	4.7202E+00	0.374E+01
Tl-208	#F	1.0388E-01	4.7972E-02	4.8320E-02	0.951E-01
U-235	A	3.8796E-02	1.4147E-01	1.4148E-01	0.498E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2674.9 keV) 2.7394371E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 14-DEC-2005 09:42:09 Page 1
New World Technology Spectrum name: 2N001859.An1

Sample description
PCB Hot Spot 84NPCBSU10G1PE-001 403g
12/13/2005 12:50

Acquisition information
Start time: 14-Dec-2005 08:57:02
Live time: 2700
Real time: 2705

- -

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	4.7828E-01	2.9713E-01	2.9832E-01	0.122E+00
AM-241 #A	6.1946E-03	9.5702E-02	9.5703E-02	0.313E+00
Bi-212 F	6.6137E-01	5.4051E-01	5.4176E-01	0.206E+00
BI-214 F	3.3570E-01	1.6553E-01	1.6659E-01	0.417E-01
CO-60 #B	-2.5279E-02	-2.1689E-01	-2.1690E-01	0.270E-01
Cs-137 #B	-5.4032E-02	-2.8674E-01	-2.8676E-01	0.394E-01
EU-152 #B	-4.2525E-02	3.6107E+02	3.6107E+02	0.104E+00
EU-154 B	5.2176E-02	8.6979E-02	8.7028E-02	0.566E-01
K-40	2.0270E+01	2.9410E+00	3.1501E+00	0.542E+00
PA-234 #C	1.2706E-01	1.6726E-01	1.6740E-01	0.114E+00
Pb-210 #C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	4.1020E-01	1.5290E-01	1.5460E-01	0.605E-01
PB-214	3.3451E-01	2.0191E-01	2.0276E-01	0.856E-01
RA-226 A	6.5844E-01	1.5187E+00	1.5192E+00	0.838E+00
Th-230 B	-4.7751E-01	-1.5153E+00	-1.5155E+00	0.162E+02
TH-234 #	3.4276E+00	3.3817E+00	3.3871E+00	0.317E+01
Tl-208	1.5465E-01	7.7074E-02	7.7554E-02	0.520E-01
U-235 #B	0.0000E+00	1.5062E+02	1.5062E+02	0.433E-01

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H - Halflife limit exceeded

---------- SUMMARY ----------
Total Activity (41.8 to 2674.9 keV) 2.6072290E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 13-DEC-2005 19:55:27 Page 1
New World Technology Spectrum name: 3N001889.An1

Sample description
PCB Hot Spot 84NPCBSU10H0PE-001 395g
12/13/2005 13:00

Acquisition information
Start time: 13-Dec-2005 19:10:21
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	3.7302E-01	3.7171E-01	3.7229E-01	0.188E+00
AM-241 #B	-5.7664E-02	3.5478E+02	3.5478E+02	0.102E+00
Bi-212	6.5780E-01	4.9789E-01	4.9923E-01	0.187E+00
BI-214	1.9568E-01	2.0283E-01	2.0312E-01	0.110E+00
CO-60 #B	-4.5537E-02	1.2797E+02	1.2797E+02	0.323E-01
Cs-137 #	5.1125E-02	1.0963E-01	1.0967E-01	0.489E-01
EU-152 F	1.4273E-01	1.6838E-01	1.6856E-01	0.692E-01
EU-154 F	1.2593E-01	1.0628E-01	1.0651E-01	0.594E-01
K-40	1.8366E+01	2.7192E+00	2.9045E+00	0.510E+00
PA-234 C	1.2602E-01	2.0148E-01	2.0160E-01	0.722E-01
Pb-210 #B	-1.2017E-02	-1.5527E+00	-1.5527E+00	0.856E+00
PB-212	3.3191E-01	1.4735E-01	1.4850E-01	0.678E-01
PB-214	3.8688E-01	2.2483E-01	2.2586E-01	0.875E-01
RA-226 A	2.1019E-01	1.3841E+00	1.3842E+00	0.788E+00
Th-230 #C	1.0495E+01	2.5699E+01	2.5706E+01	0.949E+01
TH-234 C	1.2098E+00	1.1412E+00	1.1432E+00	0.727E+00
Tl-208 #	1.9178E-01	7.8542E-02	7.9262E-02	0.171E-01
U-235	8.6976E-02	1.2233E-01	1.2242E-01	0.467E-01

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S U M M A R Y

Total Activity (41.7 to 2660.6 keV) 2.0641512E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 14-DEC-2005 09:48:58 Page 1
New World Technology Spectrum name: 3N001891.An1

Sample description
PCB Hot Spot 84NPCBSU10H1PE-001 435g
12/13/2005 12:55

Acquisition information
Start time: 14-Dec-2005 08:59:12
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	#C	2.5050E-01	2.7258E-01	2.7294E-01	0.174E+00
AM-241	#A	2.6463E-02	2.0444E-01	2.0445E-01	0.938E-01
Bi-212		4.0045E-01	4.1119E-01	4.1179E-01	0.172E+00
BI-214		3.3704E-01	1.9520E-01	1.9610E-01	0.876E-01
CO-60	#B	-3.4075E-02	-6.7232E-01	-6.7232E-01	0.388E-01
Cs-137	#	6.3730E-02	1.0784E-01	1.0790E-01	0.438E-01
EU-152	B	1.9245E-02	8.8750E-02	8.8756E-02	0.760E-01
EU-154	A	3.0008E-02	7.0586E-02	7.0606E-02	0.522E-01
K-40		1.8743E+01	2.6092E+00	2.8095E+00	0.463E+00
PA-234	#C	2.2591E-01	2.4606E-01	2.4638E-01	0.101E+00
Pb-210	#B	-5.7287E-02	-1.5028E+00	-1.5028E+00	0.802E+00
PB-212	F	3.7144E-01	1.4024E-01	1.4175E-01	0.621E-01
PB-214		3.1935E-01	1.8943E-01	1.9026E-01	0.806E-01
RA-226	#B	-1.1762E-01	-1.6960E+00	-1.6960E+00	0.705E+00
Th-230	A	4.6560E-01	1.0035E+01	1.0035E+01	0.554E+01
TH-234	C	9.7602E-01	6.4681E-01	6.4907E-01	0.611E+00
Tl-208	#C	1.3255E-01	7.4779E-02	7.5141E-02	0.515E-01
U-235	A	3.8769E-02	1.0686E-01	1.0688E-01	0.428E-01

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C - Area < Critical level.
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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2660.6 keV) 2.0235027E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 19-JUL-2006 15:30:01 Page 1
New World Technology Spectrum name: 1N002731.An1

Sample description
PCB Hot Spot 84NPCBSU11A0PE-001 447g
7/18/06 14:30

Acquisition information
Start time: 19-Jul-2006 14:44:50
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228 #B	0.0000E+00	7.3261E+02	7.3261E+02	0.133E+00
AM-241 #A	-1.0938E-01	-1.2855E+00	-1.2856E+00	0.191E+00
Bi-212 #B	1.4429E-01	3.4471E-01	3.4480E-01	0.168E+00
BI-214 F	1.7727E+00	1.1605E+00	1.1647E+00	0.197E+00
CO-60 #A	-3.6093E-02	1.4345E+02	1.4345E+02	0.362E-01
CS-137 #A	-9.3982E-03	-9.5866E-02	-9.5867E-02	0.285E-01
EU-152 #A	2.1486E-02	8.7682E-02	8.7690E-02	0.617E-01
EU-154 #A	-3.1449E-02	1.7843E+02	1.7843E+02	0.419E-01
K-40	1.0180E+01	2.7088E+00	2.7673E+00	0.822E+00
Pa-234 #B	1.7996E-02	1.8969E-02	1.8995E-02	0.119E+00
Pb-210 #	1.9954E+01	2.1511E+01	2.1540E+01	0.791E+01
Pb-212	3.7917E-01	1.4454E-01	1.4607E-01	0.576E-01
Pb-214	3.8174E-01	1.7720E-01	1.7846E-01	0.717E-01
RA-226 A	2.5835E-01	1.2900E+00	1.2901E+00	0.779E+00
Th-230 #F	1.3230E+01	2.6415E+01	2.6426E+01	0.119E+02
Th-234 A	8.2944E-01	1.7747E+00	1.7753E+00	0.147E+01
Tl-208 #	2.3614E-01	9.0656E-02	9.1603E-02	0.124E-01
U-235 A	4.4473E-03	3.9579E-02	3.9580E-02	0.481E-01

- All peaks for activity calculation had bad shape.
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< - MDA value printed.
A - Activity printed, but activity < MDA.
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C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.2 to 2605.8 keV) 4.6134098E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 19-JUL-2006 10:00:51 Page 1
New World Technology Spectrum name: 2N003227.An1

Sample description
PCB Hot Spot 84NPCBSU11B0PE-001 479g
7/18/06 14:35

Acquisition information
Start time: 19-Jul-2006 09:07:10
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	2.6400E-01	2.1333E-01	2.1384E-01	0.132E+00
AM-241 #B	-3.8795E-01	-5.9536E+00	-5.9537E+00	0.402E+00
Bi-212 B	6.7254E-02	3.9045E-01	3.9047E-01	0.217E+00
BI-214 F	3.5644E-01	1.7604E-01	1.7715E-01	0.673E-01
CO-60 #B	-9.3133E-03	-5.2426E-02	-5.2429E-02	0.210E-01
Cs-137 #B	-1.1720E-04	-5.4941E-02	-5.4941E-02	0.371E-01
EU-152 B	4.1926E-02	7.6292E-02	7.6328E-02	0.633E-01
EU-154 F	6.0904E-02	1.0775E-01	1.0781E-01	0.552E-01
K-40	7.4342E+00	1.7140E+00	1.7633E+00	0.466E+00
PA-234 B	2.6222E-02	1.5172E-01	1.5173E-01	0.118E+00
Pb-210 #F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	2.3060E-01	1.4178E-01	1.4236E-01	0.702E-01
PB-214	2.7374E-01	1.5747E-01	1.5821E-01	0.678E-01
RA-226 A	6.7279E-01	1.3333E+00	1.3338E+00	0.749E+00
Th-230 #B	-1.4565E+01	-3.4517E+01	-3.4527E+01	0.208E+02
TH-234 #F	3.7130E+00	5.9612E+00	5.9648E+00	0.247E+01
Tl-208 F	1.4992E-01	9.1810E-02	9.2189E-02	0.146E-01
U-235 #B	7.3276E-03	2.9741E-02	2.9744E-02	0.502E-01

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C - Area < Critical level.
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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.8 to 2673.8 keV) 1.2482764E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 26-JUL-2006 11:35:51 Page 1
New World Technology Spectrum name: 6N000364.An1

Sample description
PCB Hot Spot 84NPCBSU11B1PE-001 401g
7/26/06 09:30

Acquisition information
Start time: 26-Jul-2006 10:50:41
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
Ac-228	#B	-1.3101E-01	-1.0306E-01	-1.0332E-01	0.229E+00
AM-241	#A	6.7066E-02	2.9266E-01	2.9268E-01	0.119E+00
Bi-212	B	2.3481E-01	5.8447E-01	5.8461E-01	0.348E+00
BI-214	F	3.9426E-01	3.1167E-01	3.1244E-01	0.113E+00
CO-60	#B	-6.6297E-02	-4.8081E-01	-4.8082E-01	0.456E-01
CS-137	#B	-5.3521E-02	-6.0192E-01	-6.0192E-01	0.307E-01
EU-152	#B	-2.6366E-02	2.2765E+02	2.2765E+02	0.655E-01
EU-154	#F	1.3816E-01	1.4607E-01	1.4628E-01	0.597E-01
K-40	#	1.3418E+01	2.5859E+00	2.6917E+00	0.848E+00
Pa-234	B	7.7311E-02	1.3769E-01	1.3775E-01	0.110E+00
Pb-210		2.4558E+00	1.6073E+00	1.6131E+00	0.817E+00
Pb-212	F	4.3058E-01	1.6190E-01	1.6367E-01	0.793E-01
PB-214		3.9310E-01	2.3189E-01	2.3292E-01	0.110E+00
RA-226	B	1.5425E-01	1.6675E+00	1.6675E+00	0.981E+00
Th-230	#B	-9.1457E+00	-6.1999E+01	-6.2001E+01	0.914E+01
Th-234	F	1.1662E+00	2.1143E+00	2.1153E+00	0.975E+00
Tl-208	F	2.2824E-01	1.5208E-01	1.5261E-01	0.514E-01
U-235	#B	-4.1910E-01	-1.4327E+00	-1.4328E+00	0.889E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.1 to 2611.7 keV) 1.7320141E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 26-JUL-2006 11:39:23 Page 1
New World Technology Spectrum name: 7N000260.An1

Sample description
PCB Hot Spot 84NPCBSU11C0PE-001 405g
7/26/06 09:35

Acquisition information
Start time: 26-Jul-2006 10:54:12
Live time: 2700
Real time: 2704

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty Counting pCi/g	3 Sigma Total pCi/g	MDA pCi/g
AC-228	F	6.1890E-01	2.9155E-01	2.9357E-01	0.748E-01
AM-241	B	4.0579E-02	2.3312E-01	2.3313E-01	0.129E+00
BI-212	B	8.3433E-02	5.4595E-01	5.4597E-01	0.306E+00
BI-214	F	4.1114E-01	1.7269E-01	1.7419E-01	0.699E-01
CO-60	B	6.6618E-03	3.0528E-02	3.0531E-02	0.173E-01
CS-137	#B	-1.4506E-02	-1.3580E-01	-1.3580E-01	0.461E-01
EU-152	B	3.6241E-02	4.5065E-02	4.5110E-02	0.859E-01
EU-154	B	5.6514E-02	1.4785E-01	1.4789E-01	0.658E-01
K-40	#	1.3089E+01	3.1446E+00	3.2278E+00	0.152E+01
PA-234	F	1.3806E-01	1.5446E-01	1.5465E-01	0.126E+00
PB-210	#B	-1.9911E+00	-5.2508E+00	-5.2519E+00	0.134E+01
PB-212	F	2.5823E-01	1.6411E-01	1.6474E-01	0.838E-01
PB-214		3.1936E-01	2.0190E-01	2.0268E-01	0.880E-01
RA-226	#B	-1.0361E+00	-5.3544E+00	-5.3547E+00	0.108E+01
Th-230	#B	-6.9374E+00	-5.1642E+01	-5.1643E+01	0.112E+02
TH-234	#B	-9.7971E-01	-4.0960E+00	-4.0963E+00	0.120E+01
TL-208	B	-2.2438E-02	-2.6571E-02	-2.6600E-02	0.157E+00
U-235	B	4.9019E-02	1.0161E-01	1.0164E-01	0.538E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (42.1 to 2683.2 keV) 1.4697012E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 21-JUL-2006 08:19:44 Page 1
New World Technology Spectrum name: 5N000307.An1

Sample description
PCB Hot Spot 84NPCBSU11C1PE-001 439g
7/20/06 18:15

Acquisition information
Start time: 21-Jul-2006 07:34:34
Live time: 2700
Real time: 2703

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***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
AC-228	#B	5.4520E-02	2.4432E-01	2.4434E-01	0.148E+00
AM-241	#B	-2.6205E-02	-2.8477E-01	-2.8477E-01	0.975E-01
Bi-212	#F	7.7585E-01	7.1589E-01	7.1719E-01	0.222E+00
BI-214	F	4.5385E-01	2.3107E-01	2.3245E-01	0.903E-01
CO-60	#B	-1.0424E-02	5.8586E+01	5.8586E+01	0.148E-01
CS-137	#B	-2.1186E-02	-1.6818E-01	-1.6819E-01	0.383E-01
EU-152	B	4.9574E-02	1.2252E-01	1.2255E-01	0.684E-01
EU-154	#B	-1.1461E-02	1.8658E+02	1.8658E+02	0.537E-01
K-40		8.9179E+00	2.1289E+00	2.1859E+00	0.904E+00
Pa-234	F	1.4850E-01	2.1741E-01	2.1757E-01	0.930E-01
Pb-210	#	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
Pb-212	F	1.3549E-01	1.3612E-01	1.3632E-01	0.779E-01
PB-214	F	1.5116E-01	1.4670E-01	1.4694E-01	0.746E-01
RA-226	#B	-3.7305E-01	-2.4867E+00	-2.4868E+00	0.826E+00
Th-230	#B	-1.4026E+01	-1.0474E+02	-1.0474E+02	0.599E+01
Th-234	F	9.7890E-01	1.0506E+00	1.0520E+00	0.807E+00
Tl-208	F	2.4204E-01	1.0923E-01	1.1006E-01	0.866E-01
U-235	#B	-7.3229E-01	-3.0696E+00	-3.0698E+00	0.928E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (53.5 to 3408.3 keV) 1.0676295E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 21-JUL-2006 08:23:58 Page 1
New World Technology Spectrum name: 6N000323.An1

Sample description
PCB Hot Spot 84NPCBSU11D0PE-001 540g
7/20/06 18:00

Acquisition information
Start time: 21-Jul-2006 07:38:47
Live time: 2700
Real time: 2704

- -

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
Ac-228	B	-9.6966E-02	-7.8639E-02	-7.8824E-02	0.175E+00
AM-241	#A	-3.6306E-02	-3.6930E-01	-3.6931E-01	0.566E-01
Bi-212	#B	-6.1620E-02	-8.2672E-02	-8.2743E-02	0.252E+00
BI-214	F	1.6918E-01	1.1829E-01	1.1867E-01	0.805E-01
CO-60	#B	-5.8286E-02	-3.5820E-01	-3.5822E-01	0.306E-01
CS-137	B	3.0816E-03	4.6591E-02	4.6591E-02	0.294E-01
EU-152	B	2.9049E-02	8.4258E-02	8.4274E-02	0.537E-01
EU-154	#B	1.1690E-03	6.4578E-03	6.4582E-03	0.449E-01
K-40	#	2.5211E+00	1.3259E+00	1.3333E+00	0.655E+00
Pa-234	#B	-5.4650E-03	-3.8887E-02	-3.8888E-02	0.617E-01
Pb-210		1.2519E+00	1.2610E+00	1.2629E+00	0.562E+00
Pb-212	B	1.7295E-02	6.7036E-02	6.7043E-02	0.544E-01
PB-214	A	2.6962E-02	3.3316E-02	3.3350E-02	0.679E-01
RA-226	#B	-4.2538E-01	-2.0388E+00	-2.0390E+00	0.665E+00
Th-230	#B	-6.8580E+00	-3.6249E+01	-3.6251E+01	0.554E+01
Th-234	#B	-1.4669E-01	-1.7690E+00	-1.7691E+00	0.713E+00
Tl-208	#B	-2.7548E-02	-6.5500E-02	-6.5518E-02	0.298E-01
U-235	#B	-3.7012E-01	-3.2388E+00	-3.2388E+00	0.630E-01

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---------- SUMMARY ----------
Total Activity (41.1 to 2611.7 keV) 3.7729559E+00 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 26-JUL-2006 11:26:38 Page 1
New World Technology Spectrum name: 2N003319.An1

Sample description
PCB Hot Spot 84NPCBSU11D1PE-001 385g
7/25/06 17:20

Acquisition information
Start time: 26-Jul-2006 10:41:32
Live time: 2700
Real time: 2704

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	5.8321E-01	3.7293E-01	3.7434E-01	0.168E+00
AM-241	#A	7.7851E-02	9.2924E-01	9.2925E-01	0.526E+00
Bi-212	F	5.8530E-01	5.7225E-01	5.7317E-01	0.251E+00
BI-214	#F	4.3966E-01	2.0619E-01	2.0764E-01	0.792E-01
CO-60	#B	-2.6071E-02	1.0361E+02	1.0361E+02	0.261E-01
Cs-137	#A	1.3448E-02	7.2536E-02	7.2540E-02	0.430E-01
EU-152	F	1.0167E-01	1.5452E-01	1.5462E-01	0.975E-01
EU-154	B	5.5761E-02	1.3321E-01	1.3324E-01	0.696E-01
K-40		8.3387E+00	2.0383E+00	2.0905E+00	0.580E+00
PA-234	#B	4.8172E-02	1.3744E-01	1.3747E-01	0.120E+00
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.2556E-01	1.6556E-01	1.6655E-01	0.821E-01
PB-214		2.6360E-01	2.5348E-01	2.5391E-01	0.964E-01
RA-226	A	2.6975E-01	1.5861E+00	1.5862E+00	0.924E+00
Th-230	#B	-2.8353E+01	-7.1445E+01	-7.1462E+01	0.280E+02
TH-234	#B	0.0000E+00	2.3541E+04	2.3541E+04	0.367E+01
Tl-208	C	7.4038E-02	5.6951E-02	5.7100E-02	0.643E-01
U-235	C	7.0208E-02	1.1635E-01	1.1642E-01	0.539E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

---------------------------- S U M M A R Y ----------------------------

Total Activity (41.8 to 2673.8 keV) 1.0536076E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 21-JUL-2006 08:26:12 Page 1
New World Technology Spectrum name: 7N000208.An1

Sample description
PCB Hot Spot 84NPCBSU11E0PE-001 555g
7/20/06 18:10

Acquisition information
Start time: 21-Jul-2006 07:41:02
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
AC-228	F	8.8063E-02	1.7805E-01	1.7812E-01	0.693E-01
AM-241	#B	-4.7423E-02	3.0933E+02	3.0933E+02	0.890E-01
BI-212	B	7.4872E-02	3.9622E-01	3.9624E-01	0.221E+00
BI-214	F	1.3411E-01	1.0527E-01	1.0553E-01	0.501E-01
CO-60	#F	3.7425E-02	4.2979E-02	4.3030E-02	0.116E-01
CS-137	#B	-3.4728E-02	-1.3378E+00	-1.3378E+00	0.275E-01
EU-152	F	1.0824E-01	1.0611E-01	1.0628E-01	0.638E-01
EU-154	F	4.7191E-02	7.4147E-02	7.4193E-02	0.411E-01
K-40		2.6127E+00	1.6945E+00	1.7007E+00	0.996E+00
PA-234	#B	7.0319E-02	8.3043E-02	8.3135E-02	0.748E-01
PB-210	#B	-2.2139E+00	-8.2425E+00	-8.2434E+00	0.974E+00
PB-212	F	9.0281E-02	9.5349E-02	9.5481E-02	0.512E-01
PB-214	F	1.4159E-01	1.5399E-01	1.5419E-01	0.690E-01
RA-226	#B	-3.0428E-01	-2.3516E+00	-2.3516E+00	0.770E+00
Th-230	#B	-3.7476E+00	-2.9154E+01	-2.9154E+01	0.886E+01
TH-234	#B	-4.8290E-01	-2.2601E+00	-2.2603E+00	0.842E+00
TL-208	B	7.4188E-03	6.0428E-03	6.0569E-03	0.761E-01
U-235	#B	-4.2474E-01	-1.0541E+00	-1.0544E+00	0.697E-01

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F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (42.1 to 2683.2 keV) 3.0160809E+00 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 26-JUL-2006 11:32:35 Page 1
New World Technology Spectrum name: 5N000364.An1

Sample description
PCB Hot Spot 84NPCBSU11E1PE-001 402g
7/25/06 17:30

Acquisition information
Start time: 26-Jul-2006 10:47:25
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
Ac-228		5.5359E-01	4.3702E-01	4.3810E-01	0.184E+00
AM-241	#B	-1.4650E-01	5.0192E+02	5.0192E+02	0.913E-01
Bi-212	F	6.3835E-01	5.7904E-01	5.8013E-01	0.257E+00
BI-214	F	3.6813E-01	2.2186E-01	2.2280E-01	0.104E+00
CO-60	#B	2.2680E-02	4.0015E-02	4.0035E-02	0.230E-01
CS-137	#B	-3.5187E-02	-3.5231E-01	-3.5232E-01	0.382E-01
EU-152	F	1.3400E-01	1.4711E-01	1.4729E-01	0.897E-01
EU-154	F	1.7116E-01	1.6138E-01	1.6166E-01	0.513E-01
K-40		1.3792E+01	2.7142E+00	2.8203E+00	0.101E+01
Pa-234	B	-2.0420E-02	3.0393E+02	3.0393E+02	0.874E-01
Pb-210	#	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
Pb-212	F	4.7261E-01	1.7014E-01	1.7216E-01	0.839E-01
PB-214		4.8997E-01	2.3800E-01	2.3956E-01	0.849E-01
RA-226	#B	-3.0576E-01	-2.5149E+00	-2.5150E+00	0.959E+00
Th-230	#B	-8.5805E-01	-2.5137E+01	-2.5137E+01	0.116E+02
Th-234	F	1.7424E+00	1.2771E+00	1.2807E+00	0.101E+01
Tl-208		5.5511E-01	2.7853E-01	2.8024E-01	0.561E-01
U-235	#B	-7.6839E-01	-2.1944E+00	-2.1948E+00	0.104E+00

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A - Activity printed, but activity < MDA.
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F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (53.5 to 3408.3 keV) 1.6869394E+01 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 19-JUL-2006 23:56:58 Page 1
New World Technology Spectrum name: 3N003202.An1

Sample description
PCB Hot Spot 84NPCBSU11F0PE-001 390g
7/19/06 15:10

Acquisition information
Start time: 19-Jul-2006 23:11:54
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228 #F	1.7917E-01	2.7004E-01	2.7023E-01	0.152E+00
AM-241 A	4.1443E-02	1.4174E-01	1.4175E-01	0.785E-01
Bi-212 F	3.8920E-01	4.9404E-01	4.9451E-01	0.226E+00
BI-214 F	1.6411E-01	2.0915E-01	2.0935E-01	0.110E+00
CO-60 #A	1.0848E-02	2.9355E-02	2.9361E-02	0.236E-01
Cs-137 #B	-5.0438E-02	-3.7870E-01	-3.7872E-01	0.339E-01
EU-152 B	1.5968E-02	5.0057E-02	5.0065E-02	0.546E-01
EU-154 B	3.0432E-03	2.3468E-02	2.3469E-02	0.425E-01
K-40	3.2784E+00	1.6379E+00	1.6480E+00	0.917E+00
PA-234 #B	1.7217E-03	1.6806E-02	1.6806E-02	0.985E-01
Pb-210 #B	-2.6817E-01	-2.2902E+00	-2.2903E+00	0.929E+00
PB-212 F	7.0257E-02	1.0800E-01	1.0808E-01	0.676E-01
PB-214 F	1.1477E-01	1.8486E-01	1.8498E-01	0.983E-01
RA-226 #B	-5.4834E-01	-3.2231E+00	-3.2233E+00	0.775E+00
Th-230 #B	-3.5264E+00	-2.8489E+01	-2.8490E+01	0.824E+01
TH-234 B	2.0908E-01	1.1219E+00	1.1219E+00	0.654E+00
Tl-208 #B	-1.1465E-01	-1.3491E-01	-1.3506E-01	0.105E+00
U-235 #B	-2.1594E-02	-1.6561E-01	-1.6561E-01	0.404E-01

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---------- S U M M A R Y ----------
Total Activity (41.7 to 2660.8 keV) 4.0811343E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 21-JUL-2006 09:18:00 Page 1
New World Technology Spectrum name: 6N000324.An1

Sample description
PCB Hot Spot 84NPCBSU11F1PE-001 385g
7/20/06 18:05

Acquisition information
Start time: 21-Jul-2006 08:26:44
Live time: 2700
Real time: 2704

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***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity pCi/g	Uncertainty 3 Sigma Counting pCi/g	Total pCi/g	MDA pCi/g
Ac-228	B	-9.2491E-02	-9.1795E-02	-9.1939E-02	0.180E+00
AM-241	#A	-7.7910E-04	-1.8795E-01	-1.8795E-01	0.904E-01
Bi-212	#B	-1.3844E-01	-2.3979E-01	-2.3992E-01	0.367E+00
BI-214	F	4.3711E-01	2.6119E-01	2.6232E-01	0.104E+00
CO-60	#B	-8.5720E-02	1.7034E+02	1.7034E+02	0.430E-01
CS-137	#B	-5.6907E-02	-2.4126E+00	-2.4126E+00	0.419E-01
EU-152	B	5.2718E-02	1.6053E-01	1.6056E-01	0.862E-01
EU-154	F	6.7554E-02	7.0407E-02	7.0507E-02	0.497E-01
K-40	#	5.2560E+00	2.1584E+00	2.1782E+00	0.966E+00
Pa-234	#B	4.6897E-02	9.9181E-02	9.9216E-02	0.102E+00
Pb-210		1.9298E+00	1.5923E+00	1.5959E+00	0.828E+00
Pb-212		9.0101E-02	1.2195E-01	1.2206E-01	0.718E-01
PB-214	C	1.4852E-01	1.5281E-01	1.5303E-01	0.106E+00
RA-226	#B	-5.8670E-01	-2.6472E+00	-2.6474E+00	0.886E+00
Th-230	#B	-1.4785E+01	-1.6289E+02	-1.6289E+02	0.540E+01
Th-234	#B	5.8317E-02	3.8159E-01	3.8161E-01	0.984E+00
Tl-208	B	2.5459E-02	8.4580E-02	8.4592E-02	0.516E-01
U-235	#B	-5.1620E-01	-4.0623E+00	-4.0624E+00	0.887E-01

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H - Halflife limit exceeded

---------- SUMMARY ----------
Total Activity (41.1 to 2611.7 keV) 7.2758932E+00 pCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 20-JUL-2006 12:01:26 Page 1
New World Technology Spectrum name: 2N003246.An1

Sample description
PCB Hot Spot 84NPCBSU11G0PE-001 374g
7/19/06 15:00

Acquisition information
Start time: 20-Jul-2006 11:16:19
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
AC-228 #F	2.6090E-01	2.1534E-01	2.1583E-01	0.162E+00
AM-241 #B	-1.0258E-01	-1.5596E+00	-1.5596E+00	0.603E+00
Bi-212 #B	-9.4662E-02	-7.1934E+00	-7.1934E+00	0.257E+00
BI-214 #F	3.7163E-01	2.6693E-01	2.6773E-01	0.966E-01
CO-60 #B	-2.1868E-02	-1.4612E-01	-1.4612E-01	0.269E-01
Cs-137 #A	1.0200E-02	7.9399E-02	7.9401E-02	0.451E-01
EU-152 F	1.1881E-01	9.2879E-02	9.3113E-02	0.728E-01
EU-154 B	5.0311E-02	7.3941E-02	7.3994E-02	0.559E-01
K-40	4.7360E+00	1.6414E+00	1.6624E+00	0.597E+00
PA-234 #F	1.5522E-01	2.5602E-01	2.5616E-01	0.116E+00
Pb-210 #F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	1.4918E-01	1.3377E-01	1.3403E-01	0.735E-01
PB-214 C	1.5584E-01	1.7872E-01	1.7893E-01	0.965E-01
RA-226 A	4.2200E-01	1.5757E+00	1.5759E+00	0.914E+00
Th-230 #B	-1.8103E+01	-2.8144E+01	-2.8162E+01	0.248E+02
TH-234 F	5.3659E+00	6.7247E+00	6.7313E+00	0.284E+01
Tl-208 #	1.9422E-01	1.2149E-01	1.2197E-01	0.186E-01
U-235 #B	-1.5322E-02	-1.9447E-01	-1.9447E-01	0.608E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2673.8 keV) 1.0972101E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 20-JUL-2006 13:00:57 Page 1
New World Technology Spectrum name: 3N003211.An1

Sample description
PCB Hot Spot 84NPCBSU11G1PE-001 398g
7/19/06 15:15

Acquisition information
Start time: 20-Jul-2006 12:15:53
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228 #B	-1.2291E-01	-1.5013E-01	-1.5029E-01	0.177E+00
AM-241 #A	3.3307E-02	1.3761E-01	1.3762E-01	0.722E-01
Bi-212 F	2.5237E-01	4.2788E-01	4.2811E-01	0.205E+00
BI-214 F	1.4970E-01	1.4201E-01	1.4226E-01	0.998E-01
CO-60 #A	3.6221E-03	2.6385E-02	2.6386E-02	0.232E-01
Cs-137 A	8.9950E-03	5.6996E-02	5.6999E-02	0.370E-01
EU-152 #F	8.6665E-02	1.3196E-01	1.3205E-01	0.507E-01
EU-154 #B	-8.8111E-03	-1.9375E-01	-1.9375E-01	0.546E-01
K-40	2.7842E+00	1.5527E+00	1.5604E+00	0.898E+00
PA-234 #B	-7.5787E-02	-6.2052E+00	-6.2052E+00	0.866E-01
Pb-210 #B	-4.3349E-01	-2.0690E+00	-2.0691E+00	0.878E+00
PB-212 F	8.7938E-02	1.2533E-01	1.2542E-01	0.704E-01
PB-214 A	5.5026E-02	1.2699E-01	1.2703E-01	0.874E-01
RA-226 #B	-3.8980E-01	-2.5190E+00	-2.5191E+00	0.790E+00
Th-230 #B	-2.5029E+00	-2.3053E+01	-2.3054E+01	0.764E+01
TH-234 B	3.1857E-02	1.5382E-01	1.5383E-01	0.673E+00
Tl-208 #B	-4.0813E-02	-2.0656E-01	-2.0657E-01	0.987E-01
U-235 #B	8.0924E-03	5.8100E-02	5.8102E-02	0.474E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2660.8 keV) 3.1244795E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 20-JUL-2006 13:40:45 Page 1
New World Technology Spectrum name: 3N003210.An1

Sample description
PCB Hot Spot 84NPCBSU11H0PE-001 377g
7/19/06 15:05

Acquisition information
Start time: 20-Jul-2006 11:21:46
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	3.5525E-01	3.3381E-01	3.3440E-01	0.168E+00
AM-241	#A	9.3767E-03	1.2612E-01	1.2612E-01	0.707E-01
Bi-212	#F	6.5020E-01	6.5199E-01	6.5299E-01	0.204E+00
BI-214	F	4.8108E-01	2.4814E-01	2.4957E-01	0.105E+00
CO-60	#B	-2.7095E-03	-4.6190E-02	-4.6191E-02	0.270E-01
Cs-137	#B	-1.2869E-02	-1.1899E-01	-1.1899E-01	0.492E-01
EU-152	B	2.5068E-02	9.8919E-02	9.8929E-02	0.822E-01
EU-154	B	7.4459E-03	7.5387E-02	7.5389E-02	0.491E-01
K-40		6.5116E+00	2.0349E+00	2.0668E+00	0.948E+00
PA-234	#B	3.7430E-02	1.9999E-01	2.0000E-01	0.114E+00
Pb-210	A	1.7742E-01	1.9739E+00	1.9739E+00	0.987E+00
PB-212	F	1.9274E-01	1.5542E-01	1.5579E-01	0.719E-01
PB-214		2.4433E-01	2.0963E-01	2.1007E-01	0.100E+00
RA-226	#B	-6.2044E-01	-3.7510E+00	-3.7512E+00	0.810E+00
Th-230	B	6.8757E+00	1.2700E+01	1.2705E+01	0.849E+01
TH-234		8.5472E-01	1.4057E+00	1.4065E+00	0.690E+00
Tl-208	B	1.8745E-02	1.4217E-02	1.4255E-02	0.108E+00
U-235	#B	-1.2478E-02	-1.1416E-01	-1.1416E-01	0.423E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.7 to 2660.8 keV) 8.9346390E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 20-JUL-2006 09:15:35 Page 1
New World Technology Spectrum name: 1N002745.An1

Sample description
PCB Hot Spot 84NPCBSU11H1PE-001 425g
7/19/06 15:25

Acquisition information
Start time: 20-Jul-2006 08:18:23
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228 #F	2.8617E-01	2.0135E-01	2.0197E-01	0.405E-01
AM-241 #A	-1.7248E-01	-4.9553E+00	-4.9554E+00	0.153E+00
Bi-212 B	5.7773E-03	3.1306E-01	3.1306E-01	0.197E+00
BI-214 #B	3.0422E-01	1.2833E-01	1.2944E-01	0.494E+00
CO-60 #A	-3.0932E-02	-2.0668E-01	-2.0669E-01	0.381E-01
CS-137 #A	-1.5054E-03	-5.8983E-02	-5.8983E-02	0.337E-01
EU-152 #A	-2.8250E-03	-9.4754E-03	-9.4767E-03	0.536E-01
EU-154 A	-4.9524E-03	-1.9869E-02	-1.9871E-02	0.401E-01
K-40	7.6346E+00	2.2142E+00	2.2546E+00	0.166E+00
Pa-234 #B	-4.4223E-02	-7.6596E-02	-7.6635E-02	0.126E+00
Pb-210 #	1.3469E+01	1.5966E+01	1.5983E+01	0.611E+01
Pb-212	2.8441E-01	1.5693E-01	1.5772E-01	0.555E-01
Pb-214 #B	-2.2536E-02	-1.0954E-01	-1.0954E-01	0.572E-01
RA-226 #B	-1.0233E+00	-6.8128E+00	-6.8130E+00	0.819E+00
Th-230 #F	1.5045E+01	2.7480E+01	2.7493E+01	0.116E+02
Th-234 #B	-7.3353E-01	-4.5513E+00	-4.5515E+00	0.139E+01
Tl-208 #	1.1275E-01	7.9827E-02	8.0073E-02	0.213E-01
U-235 C	4.2316E-02	7.9342E-02	7.9377E-02	0.385E-01

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H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.2 to 2605.8 keV) 3.6831745E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 20-JUL-2006 12:39:52 Page 1
New World Technology Spectrum name: 1N002749.An1

Sample description
PCB Hot Spot 84NPCBSU11I0PE-001 393g
7/19/06 15:20

Acquisition information
Start time: 20-Jul-2006 11:54:42
Live time: 2700
Real time: 2703

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Activity picoCi/ g	Uncertainty (Time of Count) Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228	#F	3.3764E-01	2.1870E-01	2.1951E-01	0.649E-01
AM-241	A	3.1061E-02	3.2315E-01	3.2315E-01	0.192E+00
Bi-212	B	3.9985E-02	3.5911E-01	3.5912E-01	0.215E+00
BI-214	#B	1.9901E-01	1.4761E-01	1.4802E-01	0.224E+00
CO-60	#A	-4.1053E-02	1.6316E+02	1.6316E+02	0.412E-01
CS-137	#A	-1.8464E-02	-1.6721E-01	-1.6722E-01	0.295E-01
EU-152	C	9.5459E-02	1.1849E-01	1.1861E-01	0.545E-01
EU-154	A	1.2962E-02	4.3302E-02	4.3308E-02	0.503E-01
K-40	#	3.0877E+00	1.8956E+00	1.9033E+00	0.935E+00
Pa-234	#B	-1.6695E-01	-3.5415E-01	-3.5427E-01	0.111E+00
Pb-210	#A	1.6937E+00	5.8672E+00	5.8679E+00	0.322E+01
Pb-212		1.4773E-01	1.1806E-01	1.1834E-01	0.598E-01
Pb-214		3.8811E-01	1.6132E-01	1.6275E-01	0.258E-01
RA-226	#B	-8.3631E-01	-3.5914E+00	-3.5917E+00	0.788E+00
Th-230	#B	7.2886E+00	1.7821E+01	1.7826E+01	0.930E+01
Th-234	#B	-1.3973E+00	-8.6132E+00	-8.6135E+00	0.140E+01
Tl-208	#C	5.3586E-02	5.3586E-02	5.3668E-02	0.270E-01
U-235	#B	8.0252E-03	1.6299E-02	1.6305E-02	0.422E-01

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H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.2 to 2605.8 keV) 3.9612145E+00 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 20-JUL-2006 12:51:56 Page 1
New World Technology Spectrum name: 2N003247.An1

Sample description
PCB Hot Spot 84NPCBSU11J0PE-001 384g
7/19/06 16:25

Acquisition information
Start time: 20-Jul-2006 12:06:49
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	F	3.0621E-01	3.0279E-01	3.0327E-01	0.181E+00
AM-241	#B	-1.9928E-01	-2.1212E+00	-2.1212E+00	0.627E+00
Bi-212	#F	6.6875E-01	6.2618E-01	6.2729E-01	0.207E+00
BI-214	F	2.8347E-01	1.8681E-01	1.8747E-01	0.840E-01
CO-60	#B	-2.0535E-03	-1.4632E-02	-1.4632E-02	0.262E-01
Cs-137	#B	-8.0188E-02	-1.0415E+00	-1.0415E+00	0.410E-01
EU-152	F	1.3421E-01	1.5122E-01	1.5141E-01	0.680E-01
EU-154	#B	-7.0214E-04	2.2506E+02	2.2506E+02	0.568E-01
K-40		8.0722E+00	2.0129E+00	2.0625E+00	0.582E+00
PA-234	B	1.2309E-01	2.1959E-01	2.1969E-01	0.152E+00
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		1.8873E-01	1.4714E-01	1.4751E-01	0.784E-01
PB-214		2.3531E-01	1.6905E-01	1.6956E-01	0.770E-01
RA-226	#B	-1.7179E-01	-2.1243E+00	-2.1244E+00	0.954E+00
Th-230	#B	-1.7280E+01	-3.8582E+01	-3.8594E+01	0.319E+02
TH-234	B	7.5780E-01	6.1769E+00	6.1771E+00	0.334E+01
Tl-208	#F	2.6494E-01	1.3631E-01	1.3711E-01	0.182E-01
U-235	#B	1.9176E-03	2.0222E-02	2.0222E-02	0.558E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2673.8 keV) 9.8475704E+00 picoCi/g

Laboratory: New World Technology

APPENDIX E

BACKFILL MATERIAL REVIEW AND ACCEPTANCE DOCUMENTATION AND DATA

TETRA TECH EC, INC.

BACKFILL REVIEW AND ACCEPTANCE FORM

Contract No.	CTO No.	Form No.
N68711-98-D-5713	0084	BACKFILL – PCB Hot Spot 002

Preparer: Kendall Walker	Date: 4-18-06

Planned Backfill Usage: PCB Hot Spot import fill

Source of Material: Cow Palace (South San Francisco)

Sample I.D.:	84-BACKFILL-013 through -016		
Sample I.D.:			

ATTACHMENTS

	Attached	Not Applicable	Specify
Work Plan Section/Tables for geotechnical:	☐	☒	N/A
SAP Section/Tables for Analytical:	☒	☐	SAP 4.5 Import material; Table A.8-2
SAP Section/Tables for Radiological:	☒	☐	SAP 4.5 Import material; Table A.8-2
Chemistry Data:	☒	☐	See Attachment 1 (chemical data) See attached email confirmation from Chemist regarding review of data
Geotechnical Data:	☐	☒	N/A
Radiological Data (onsite):	☒	☐	Cow Palace Rad Data
Radiological Data (offsite):	☐	☒	N/A
Other:	☒	☐	See e-mail regarding Navy acceptance of the fill material attached

CHEMISTRY DATA EVALUATION

Class 1	Class 2	Class 3
Analytes are below established criteria AND Analytes without established standards are not detected	Non-metal analytes are below established criteria AND Metal analytes are below HPAL AND Detected analytes without established criteria are deemed "acceptable" by the RS	One or more non-metal analytes exceeds established criteria OR One or more metal analytes exceeds HPAL OR Detected analytes without established criteria are deemed "acceptable" by the RS
☐	☒	☐

Explanation for Class 2 or 3: (Attach additional sheet if necessary)

Arsenic was above the Action Levels for Import Material for PCB Hot Spot. However; arsenic was high in all the other approved sources, but more importantly, below the HPAL and therefore deemed acceptable. See attached email confirming review of data. **Evaluation by the RS will be documented below to confirm the classification of the material as a Class 2.**

Chemist Signature	Date
Lisa A. Bienkowski	4/18/06

BACKFILL REVIEW AND ACCEPTANCE FORM (Cont.)

Contract No.	CTO No.	Form No.
N68711-98-D-5713	0084	BACKFILL - PCB Hot Spot 002

RADIOLOGICAL DATA EVALUATION

Class 1	Class 3	RSO Signature	Date
Results are below established standards ☒	One or more results exceeded established standards ☐		

Explanation for Class 3 (Attach additional sheet if necessary)

GEOTECHNICAL DATA EVALUATION

Class 1	Class 3	Engineer Signature	Date
Results are below established standards ☐	One or more results exceeded established standards ☐	N/A	

Explanation for Class 3 (Attach additional sheet if necessary)

REVIEW

Regulatory Specialist (Signature)	Explanation	Date
[signature]	Arsenic is below the PPAL.	4/18/06
Project QC Manager (Signature)	**Explanation (if any)**	**Date**

APPROVAL

Project Manager (Signature)	Date	DON Representative (Signature)	Date
[signature]	4/18/06	See Attached Memorandum	

ACKNOWLEDGEMENT

Construction Manager (Signature)	Date
[signature]	4/18/06

ORTEC g v - i (3263) wan32 G53W2.06 23-MAR-2006 17:55:28 Page 1
New World Technology Spectrum name: 1N001557.An1

Sample description
Backfill 84-T-BACKFILL-013 329g
3/23/06 11:00

Acquisition information
Start time: 23-Mar-2006 17:10:19
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	1.1941E+00	4.8750E-01	4.9200E-01	0.517E-01
AM-241		3.8871E-01	6.8633E-01	6.8667E-01	0.304E+00
Bi-212	F	1.0315E+00	8.3404E-01	8.3601E-01	0.319E+00
BI-214		1.0328E+00	4.4638E-01	4.5006E-01	0.555E+00
CO-60	#	4.9820E-02	4.5763E-02	4.5846E-02	0.207E-01
CS-137	#A	-6.6820E-03	1.8207E+02	1.8207E+02	0.428E-01
EU-152	#C	8.9595E-02	9.9403E-02	9.9527E-02	0.805E-01
EU-154	C	8.8833E-02	1.1209E-01	1.1220E-01	0.519E-01
K-40		1.1158E+01	3.0179E+00	3.0810E+00	0.294E+00
Pa-234	#B	-1.0649E-01	-3.5717E-01	-3.5721E-01	0.140E+00
Pb-210	#	2.6138E+01	4.2382E+01	4.2407E+01	0.174E+02
Pb-212		8.2361E-01	2.0215E-01	2.0727E-01	0.658E-01
Pb-214		6.1595E-01	2.3831E-01	2.4076E-01	0.602E-01
RA-226	A	7.6131E-01	1.7405E+00	1.7411E+00	0.982E+00
Th-230	#B	-6.7768E-01	-2.2090E+00	-2.2093E+00	0.106E+02
Th-234	#A	1.0915E+00	2.8552E+00	2.8558E+00	0.210E+01
Tl-208		3.1235E-01	1.3176E-01	1.3290E-01	0.265E-01
U-235	#B	-1.0609E-02	-4.3639E-02	-4.3643E-02	0.633E-01

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< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.2 to 2608.7 keV) 4.1711926E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 23-MAR-2006 18:00:21 Page 1
New World Technology Spectrum name: 2N002101.An1

Sample description
Backfill 84-T-BACKFILL-014 336g
3/23/06 11:10

Acquisition information
Start time: 23-Mar-2006 17:15:14
Live time: 2700
Real time: 2705

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	C	3.3196E-01	2.9707E-01	2.9764E-01	0.190E+00
AM-241	#A	7.8250E-02	1.4343E+00	1.4343E+00	0.712E+00
Bi-212	F	9.1981E-01	6.4677E-01	6.4879E-01	0.241E+00
BI-214	F	2.7434E-01	2.3432E-01	2.3481E-01	0.105E+00
CO-60	#F	1.9495E-02	3.2491E-02	3.2509E-02	0.126E-01
Cs-137	A	4.1921E-02	7.5366E-02	7.5402E-02	0.471E-01
EU-152	B	3.5198E-02	6.5154E-02	6.5184E-02	0.102E+00
EU-154	F	7.7282E-02	7.6894E-02	7.7014E-02	0.766E-01
K-40	#	1.2108E+01	2.4163E+00	2.5084E+00	0.125E+00
PA-234	#F	1.4615E-01	2.0143E-01	2.0159E-01	0.113E+00
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		3.4865E-01	1.7025E-01	1.7135E-01	0.826E-01
PB-214		2.9857E-01	2.2276E-01	2.2338E-01	0.935E-01
RA-226		9.5634E-01	1.6994E+00	1.7002E+00	0.930E+00
Th-230	#A	1.4993E+01	5.6412E+01	5.6418E+01	0.390E+02
TH-234	#	5.3471E+00	7.8587E+00	7.8642E+00	0.327E+01
Tl-208	C	6.6426E-02	8.6577E-02	8.6656E-02	0.279E-01
U-235	#B	-3.5750E-02	-5.1044E-01	-5.1044E-01	0.654E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.9 to 2675.6 keV) 2.0272736E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 23-MAR-2006 18:08:01 Page 1
New World Technology Spectrum name: 3N002100.An1

Sample description
Backfill 84-T-BACKFILL-015 282g
3/23/06 11:20

Acquisition information
Start time: 23-Mar-2006 17:19:50
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	#F	6.0156E-01	5.7066E-01	5.7164E-01	0.258E+00
AM-241	#A	2.1107E-02	1.7649E-01	1.7650E-01	0.100E+00
Bi-212	F	9.8038E-01	6.7378E-01	6.7598E-01	0.225E+00
BI-214	B	3.2514E-03	5.5741E-03	5.5770E-03	0.196E+00
CO-60	#B	3.1380E-03	1.0525E-02	1.0527E-02	0.146E-01
Cs-137	#B	-3.5680E-02	-4.5607E-01	-4.5607E-01	0.490E-01
EU-152	F	1.0844E-01	2.5769E-01	2.5776E-01	0.850E-01
EU-154	#B	-2.5170E-02	-5.9192E-01	-5.9192E-01	0.631E-01
K-40	#	8.4352E+00	3.0814E+00	3.1170E+00	0.154E+01
PA-234	#B	-1.1011E-01	5.6849E+02	5.6849E+02	0.164E+00
Pb-210	#B	-6.1497E-01	-3.6172E+00	-3.6173E+00	0.133E+01
PB-212		3.9142E-01	2.1193E-01	2.1305E-01	0.102E+00
PB-214	C	1.8920E-01	2.3876E-01	2.3900E-01	0.137E+00
RA-226	A	1.6612E-01	2.0149E+00	2.0149E+00	0.115E+01
Th-230	#B	1.2422E+00	2.8378E+00	2.8386E+00	0.105E+02
TH-234	A	3.8906E-01	1.6650E+00	1.6651E+00	0.948E+00
Tl-208	B	4.9977E-03	3.2772E-03	3.2890E-03	0.128E+00
U-235	B	2.3894E-02	1.0745E-01	1.0746E-01	0.615E-01

- All peaks for activity calculation had bad shape.
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& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.7 to 2660.5 keV) 1.0408527E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.06 23-MAR-2006 18:47:56 Page 1
New World Technology Spectrum name: 1N001558.An1

Sample description
Backfill 84-T-BACKFILL-016 253g
3/23/06 11:40

Acquisition information
Start time: 23-Mar-2006 18:02:45
Live time: 2700
Real time: 2703

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228 F	8.7909E-01	3.6131E-01	3.6460E-01	0.672E-01
AM-241 #A	-3.2601E-01	-1.4793E+01	-1.4793E+01	0.279E+00
Bi-212 C	4.4211E-01	7.3828E-01	7.3869E-01	0.400E+00
BI-214 #F	7.3405E-01	3.7099E-01	3.7323E-01	0.664E+00
CO-60 #A	0.0000E+00	0.0000E+00	0.0000E+00	0.269E-01
CS-137 A	2.1890E-02	7.5126E-02	7.5136E-02	0.380E-01
EU-152 C	8.9790E-02	1.5504E-01	1.5512E-01	0.845E-01
EU-154 A	3.1413E-02	1.3041E-01	1.3042E-01	0.712E-01
K-40 #	1.1724E+01	3.5343E+00	3.5939E+00	0.383E+00
Pa-234 #B	-1.8207E-01	-2.4428E-01	-2.4448E-01	0.157E+00
Pb-210 #A	2.0678E+00	1.1383E+01	1.1384E+01	0.700E+01
Pb-212	7.8523E-01	2.2497E-01	2.2916E-01	0.729E-01
Pb-214	4.6069E-01	2.4406E-01	2.4540E-01	0.695E-01
RA-226 A	5.9689E-01	2.0788E+00	2.0791E+00	0.120E+01
Th-230 A	1.0069E+01	2.7162E+01	2.7167E+01	0.174E+02
Th-234 #B	-3.2959E+00	6.9983E+03	6.9983E+03	0.201E+01
Tl-208 #	2.4560E-01	1.4450E-01	1.4514E-01	0.388E-01
U-235 A	6.6760E-02	1.4994E-01	1.4998E-01	0.730E-01

- All peaks for activity calculation had bad shape.
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& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.2 to 2608.7 keV) 1.4828709E+01 picoCi/g

Laboratory: New World Technology

TETRA TECH EC, INC.

BACKFILL REVIEW AND ACCEPTANCE FORM

Contract No.	CTO No.	Form No.
N68711-98-D-5713	0084	BACKFILL – PCB Hot Spot 001

Preparer: Ulrika T. Messer	Date: 4-12-06

Planned Backfill Usage: PCB Hot Spot import fill

Source of Material: Gellert (South San Fran), Santa Rosa Stockpile (Santa Rosa), American Canyon Stockpile (American Canyon), DeSilva-Gates Construction Site 1 (Oakland)

Sample I.D.:	Gellert: 72-BACKFILL-013 through -016	American Canyon: 72-BACKFILL-125 through - 128 ✓	
Sample I.D.:	Santa Rosa: 72-BACKFILL-120 through - 124 ✓	DeSilva-Gates: 84-BACKFILL-001 through – 004 ✓	

ATTACHMENTS

	Attached	Not Applicable	Specify
Work Plan Section/Tables for geotechnical:	☐	☒	N/A
SAP Section/Tables for Analytical:	☒	☐	SAP 4.5 Import material; Table A.8-2
SAP Section/Tables for Radiological:	☒	☐	SAP 4.5 Import material; Table A.8-2
Chemistry Data:	☒	☐	See Attachment 1 and 2 of attached Memorandum
Geotechnical Data:	☐	☒	N/A
Radiological Data (onsite):	☒	☐	Gellert, Santa Rosa, American Canyon, DeSilva Gates (Site 1) Oakland
Radiological Data (offsite):	☐	☒	N/A
Other:	☒	☐	Memorandum regarding Navy acceptance of the fill material attached

CHEMISTRY DATA EVALUATION

Class 1	Class 2	Class 3
Analytes are below established criteria AND Analytes without established standards are not detected	Non-metal analytes are below established criteria AND Metal analytes are below HPAL AND Detected analytes without established criteria are deemed "acceptable" by the RS	One or more non-metal analytes exceeds established criteria OR One or more metal analytes exceeds HPAL OR Detected analytes without established criteria are deemed "acceptable" by the RS
☐	☒	☐

Explanation for Class 2 or 3: (Attach additional sheet if necessary)
Evaluation of the analytical results for the source material described herein confirms the following:

- Non-metal analytes are below the established criteria.
- Metals analytes are below established criteria except for arsenic; however, arsenic is below the HPAL.
- Analytes without established criteria are not detected except for total petroleum hydrocarbons (TPH) as diesel and motor oil. TPH concentrations are listed in the attached summary of data.

Evaluation of the RS will be documented below to confirm the classification of the material as a Class 2.

Chemist Signature	Date
Lisa A. Bienkowski	4/13/06

TETRA TECH EC, INC

BACKFILL REVIEW AND ACCEPTANCE FORM (Cont.)

Contract No.	CTO No.	Form No.
N68711-98-D-5713	0084	BACKFILL – PCB Hot Spot 001

RADIOLOGICAL DATA EVALUATION

Class 1	Class 3	RSO Signature	Date
Results are below established standards ☒	One or more results exceeded established standards ☐	Daryl E. Delong	April 14, 2006

Explanation for Class 3 (Attach additional sheet if necessary)

GEOTECHNICAL DATA EVALUATION

Class 1	Class 3	Engineer Signature	Date
Results are below established standards ☐	One or more results exceeded established standards ☐	N/A	—

Explanation for Class 3 (Attach additional sheet if necessary)

REVIEW

Regulatory Specialist (Signature)	Explanation	Date
Jennifer Kinney	Arsenic is above Action Levels for import material but below Ambient levels.	4/17/06
Project QC Manager (Signature)	**Explanation (if any)**	**Date**

APPROVAL

Project Manager (Signature)	Date	DON Representative (Signature)	Date
[signature]	4-18-06	See Attached Memorandum	

ACKNOWLEDGEMENT

Construction Manager (Signature)	Date
[signature]	4-18-06

ORTEC g v - i (3263) wan32 G53W2.06 13-FEB-2006 16:01:54 Page 1
New World Technology Spectrum name: 1N001502.An1

Sample description
Backfill 84-T-Backfill-001 429g
2/13/06 09:20

Acquisition information
Start time: 13-Feb-2006 15:16:46
Live time: 2700
Real time: 2702

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	1.1201E+00	5.0081E-01	5.0468E-01	0.567E-01
AM-241	A	7.7198E-02	4.9418E-01	4.9420E-01	0.271E+00
Bi-212	C	5.1401E-01	9.7775E-01	9.7817E-01	0.283E+00
BI-214	F	1.6669E+00	1.5077E+00	1.5106E+00	0.241E+00
CO-60	#A	0.0000E+00	0.0000E+00	0.0000E+00	0.484E-01
CS-137	A	2.3661E-02	7.0880E-02	7.0893E-02	0.348E-01
EU-152	A	6.4588E-02	1.3541E-01	1.3546E-01	0.688E-01
EU-154	A	4.9313E-02	8.2194E-02	8.2240E-02	0.502E-01
K-40		2.5022E+01	7.8691E+00	7.9915E+00	0.641E+00
Pa-234	A	6.3705E-02	1.4581E-01	1.4586E-01	0.918E-01
Pb-210	#B	-1.6145E+01	-9.7402E+01	-9.7406E+01	0.888E+01
Pb-212		5.2322E-01	2.0258E-01	2.0466E-01	0.855E-01
Pb-214		4.1528E-01	2.1481E-01	2.1605E-01	0.640E-01
RA-226		1.2239E+00	1.9521E+00	1.9533E+00	0.102E+01
Th-230	A	1.0995E+01	3.3169E+01	3.3174E+01	0.254E+02
Th-234	B	1.7633E-01	2.4524E-01	2.4544E-01	0.237E+01
Tl-208	#	7.7610E+00	7.7221E+00	7.7341E+00	0.181E+01
U-235	B	4.4616E-02	1.2006E-01	1.2009E-01	0.652E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (42.3 to 2680.7 keV) 3.7732456E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 13-FEB-2006 16:04:28 Page 1
New World Technology Spectrum name: 2N002013.An1

Sample description
Backfill 84-T-Backfill-002 433g
2/13/2006 09:25

Acquisition information
Start time: 13-Feb-2006 15:19:19
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228	F	6.5621E-01	3.1735E-01	3.1944E-01	0.146E+00
AM-241	#B	-8.3598E-01	2.4400E+03	2.4400E+03	0.702E+00
Bi-212	#	5.8948E-01	4.6777E-01	4.6892E-01	0.135E+00
BI-214		4.3124E-01	2.4360E-01	2.4478E-01	0.101E+00
CO-60	#B	2.6109E-03	6.6463E-03	6.6479E-03	0.979E-02
Cs-137	#B	-5.0711E-02	-1.5954E-01	-1.5956E-01	0.395E-01
EU-152	#B	-9.6698E-02	5.6302E+02	5.6302E+02	0.107E+00
EU-154	#B	5.0264E-02	7.7697E-02	7.7747E-02	0.541E-01
K-40	#	6.9962E+00	1.8615E+00	1.9018E+00	0.713E+00
PA-234	#B	-2.8218E-03	-2.2289E-01	-2.2289E-01	0.117E+00
Pb-210	#C	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	F	3.6785E-01	1.4613E-01	1.4756E-01	0.653E-01
PB-214		3.2751E-01	1.9238E-01	1.9325E-01	0.763E-01
RA-226	A	2.2867E-01	1.4262E+00	1.4262E+00	0.830E+00
Th-230	#B	0.0000E+00	6.0195E+04	6.0195E+04	0.141E+02
TH-234	#B	-1.4136E+00	-2.4753E+01	-2.4753E+01	0.263E+01
Tl-208		2.1434E-01	1.1367E-01	1.1430E-01	0.154E-01
U-235	B	4.0667E-02	8.5954E-02	8.5984E-02	0.449E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2674.9 keV) 9.5828476E+00 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 13-FEB-2006 22:15:50 Page 1
New World Technology Spectrum name: 3N002034.An1

Sample description
Backfill 84-T-Backfill-003 429g
2/13/06 09:30

Acquisition information
Start time: 13-Feb-2006 15:22:11
Live time: 2700
Real time: 2702

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide		Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228		6.6525E-01	4.1972E-01	4.2135E-01	0.134E+00
AM-241	#B	-1.4427E-03	-1.5529E-01	-1.5529E-01	0.787E-01
Bi-212		6.5509E-01	4.8505E-01	4.8642E-01	0.229E+00
BI-214	F	4.6787E-01	2.4248E-01	2.4387E-01	0.959E-01
CO-60	#F	2.0628E-02	2.7675E-02	2.7699E-02	0.961E-02
Cs-137	A	1.3828E-02	5.9524E-02	5.9529E-02	0.315E-01
EU-152	B	3.7090E-02	2.2304E-01	2.2305E-01	0.753E-01
EU-154	#B	-7.5750E-03	-4.4602E-01	-4.4602E-01	0.433E-01
K-40		8.8983E+00	2.2177E+00	2.2723E+00	0.993E+00
PA-234	#A	8.4455E-02	2.3075E-01	2.3080E-01	0.939E-01
Pb-210	A	1.1629E-01	1.3830E+00	1.3830E+00	0.835E+00
PB-212		4.9719E-01	1.4250E-01	1.4515E-01	0.563E-01
PB-214		4.3697E-01	2.3025E-01	2.3153E-01	0.956E-01
RA-226	A	5.5631E-01	1.2875E+00	1.2879E+00	0.719E+00
Th-230	B	9.1087E-01	2.2510E+00	2.2516E+00	0.591E+01
TH-234	C	9.6008E-01	9.0037E-01	9.0194E-01	0.672E+00
Tl-208	B	7.1753E-02	3.3024E-02	3.3264E-02	0.790E-01
U-235	B	-1.1689E-03	-1.9001E-02	-1.9002E-02	0.402E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

S U M M A R Y

Total Activity (41.7 to 2660.5 keV) 1.1641337E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 13-FEB-2006 19:17:08 Page 1
New World Technology Spectrum name: 2N002014.An1

Sample description
Backfill 84-T-Backfill-004 426g
2/13/2006 09:40

Acquisition information
Start time: 13-Feb-2006 18:23:02
Live time: 2700
Real time: 2705

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	4.4259E-01	2.5438E-01	2.5557E-01	0.138E+00
AM-241 #B	-5.0397E-01	-4.5278E+00	-4.5278E+00	0.670E+00
Bi-212 #F	5.3484E-01	4.2668E-01	4.2772E-01	0.123E+00
BI-214 F	2.8888E-01	2.3086E-01	2.3142E-01	0.100E+00
CO-60 #	1.6979E-02	2.2780E-02	2.2800E-02	0.995E-02
Cs-137 #B	-1.8011E-02	-1.0869E-01	-1.0870E-01	0.486E-01
EU-152 B	-9.8287E-02	5.5176E+02	5.5176E+02	0.105E+00
EU-154 #B	-1.7620E-02	2.6052E+02	2.6052E+02	0.544E-01
K-40 #	7.0688E+00	1.8878E+00	1.9284E+00	0.725E+00
PA-234 #B	-6.9408E-02	-6.6476E-01	-6.6477E-01	0.974E-01
Pb-210 #F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212	4.6735E-01	1.4980E-01	1.5205E-01	0.615E-01
PB-214	4.4611E-01	1.9880E-01	2.0035E-01	0.729E-01
RA-226	8.9629E-01	1.5264E+00	1.5272E+00	0.851E+00
Th-230 #A	7.8030E+00	2.7378E+01	2.7381E+01	0.175E+02
TH-234 #B	-1.4104E+00	-1.8471E+01	-1.8472E+01	0.232E+01
Tl-208 F	2.6190E-01	1.2581E-01	1.2666E-01	0.156E-01
U-235 B	1.8197E-02	9.2999E-02	9.3005E-02	0.501E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------

Total Activity (41.8 to 2674.9 keV) 1.0423789E+01 picoCi/g

Laboratory: New World Technology

TETRA TECH EC, INC.

BACKFILL REVIEW AND ACCEPTANCE FORM

Contract No.	CTO No.	Form No.
N68711-98-D-5713	0084	BACKFILL – PCB Hot Spot 001

Preparer: Ulrika T. Messer	Date: 4-12-06

Planned Backfill Usage: PCB Hot Spot import fill

Source of Material: Gellert (South San Fran), Santa Rosa Stockpile (Santa Rosa), American Canyon Stockpile (American Canyon), DeSilva-Gates Construction Site 1 (Oakland)

Sample I.D.:	Gellert: 72-BACKFILL-013 through -016	American Canyon: 72-BACKFILL-125 through - 128 ✓	
Sample I.D.:	Santa Rosa: 72-BACKFILL-120 through - 124 ✓	DeSilva-Gates: 84-BACKFILL-001 through – 004 ✓	

ATTACHMENTS

	Attached	Not Applicable	Specify
Work Plan Section/Tables for geotechnical:	☐	☒	N/A
SAP Section/Tables for Analytical:	☒	☐	SAP 4.5 Import material; Table A.8-2
SAP Section/Tables for Radiological:	☒	☐	SAP 4.5 Import material; Table A.8-2
Chemistry Data:	☒	☐	See Attachment 1 and 2 of attached Memorandum
Geotechnical Data:	☐	☒	N/A
Radiological Data (onsite):	☒	☐	Gellert, Santa Rosa, American Canyon, DeSilva Gates (Site 1) Oakland
Radiological Data (offsite):	☐	☒	N/A
Other:	☒	☐	Memorandum regarding Navy acceptance of the fill material attached

CHEMISTRY DATA EVALUATION

Class 1	Class 2	Class 3
Analytes are below established criteria AND Analytes without established standards are not detected	Non-metal analytes are below established criteria AND Metal analytes are below HPAL AND Detected analytes without established criteria are deemed "acceptable" by the RS	One or more non-metal analytes exceeds established criteria OR One or more metal analytes exceeds HPAL OR Detected analytes without established criteria are deemed "acceptable" by the RS
☐	☒	☐

Explanation for Class 2 or 3: (Attach additional sheet if necessary)
Evaluation of the analytical results for the source material described herein confirms the following:

- Non-metal analytes are below the established criteria.
- Metals analytes are below established criteria except for arsenic; however, arsenic is below the HPAL.
- Analytes without established criteria are not detected except for total petroleum hydrocarbons (TPH) as diesel and motor oil. TPH concentrations are listed in the attached summary of data.

Evaluation of the RS will be documented below to confirm the classification of the material as a Class 2.

Chemist Signature	Date
Lisa A. Bienkowski	4/13/06

TETRA TECH EC INC

BACKFILL REVIEW AND ACCEPTANCE FORM (Cont.)

Contract No.	CTO No.	Form No.
N68711-98-D-5713	0084	BACKFILL – PCB Hot Spot 001

RADIOLOGICAL DATA EVALUATION

Class 1	Class 3	RSO Signature	Date
Results are below established standards ☒	One or more results exceeded established standards ☐	Daryl E. Delony	April 14, 2006

Explanation for Class 3 (Attach additional sheet if necessary)

GEOTECHNICAL DATA EVALUATION

Class 1	Class 3	Engineer Signature	Date
Results are below established standards ☐	One or more results exceeded established standards ☐	N/A	—

Explanation for Class 3 (Attach additional sheet if necessary)

REVIEW

Regulatory Specialist (Signature)	Explanation	Date
Jennifer Kinney	Arsenic is above Action Levels for import material but below Ambient levels.	4/17/06
Project QC Manager (Signature)	**Explanation (if any)**	**Date**

APPROVAL

Project Manager (Signature)	Date	DON Representative (Signature)	Date
[signature]	4-18-06	See Attached Memorandum	

ACKNOWLEDGEMENT

Construction Manager (Signature)	Date
[signature]	4-18-06

Gamma Spectroscopy Results

Sample results given in (picoCi/g)

NWT Field Report

Ufo ID	Sample Description
2N000043	PCB Hotspot New Backfill 72-T-Backfill-013 403g 6/7/05 9:15

Dry Weight (g)	Time Counted (s)	Operator	Date Acquired	Time Acquired
403	2696.52	Murat Kerimbaev	08-Jun-05	10:14:06 AM

Library Path	Reviewed By:	Date Sampled	Time Sampled
Hunter's Point 1.Lib		07-Jun-05	9:15:00 AM

Nuclide	Net Activity	MDA	Uncertainty	Soil DCGL
AC-228	3.8041E-01	1.1637E-01	2.5556E-01	*NA
AM-241	-6.2112E-01	5.4622E-01	**	5.6700E+00
BI-212	-7.1720E-02	2.5168E-01	**	*NA
BI-214	3.3212E-01	7.5297E-02	1.7463E-01	*NA
CO-60	2.2477E-03	1.0320E-02	**	6.0200E-02
Cs-137	-5.2094E-02	3.3141E-02	**	1.3000E-01
EU-152	8.7092E-02	6.8747E-02	9.2211E-02	*NA
EU-154	2.3596E-02	6.4773E-02	**	*NA
K-40	9.7732E+00	8.6914E-02	1.8114E+00	*NA
PA-234	-1.2545E-01	1.4402E-01	**	*NA
PB-212	2.6358E-01	6.7640E-02	1.3527E-01	*NA
PB-214	5.1394E-01	6.1214E-02	1.8240E-01	*NA
RA-226	6.2214E-01	7.6387E-01	**	2.0000E+00
Th-230	0.0000E+00	1.8374E+01	**	*NA
TH-234	1.0325E-01	3.2515E+00	**	*NA
TI-208	-1.9073E-01	8.3109E-02	**	*NA
U-235	8.5208E-03	4.8821E-02	**	4.1700E-01

*F=Failed energy identification fraction and key energy tests demonstrating non-existence of the nuclide

#F = All energy peakes determining this isotope had bad poisson shape; this distortion signifies non-existence of the radionuclide

*<DCGL=Nuclide failed key line energy and shape tests and is determined not to be present in sample

*<MDA = Activity for this Nuclide is less than the Minimum Detectable Activity (MDA)

** = Activity for this Nuclide is less than the MDA, therefore no Uncertainty is neccesary

*NA = No DCGL available for this Nuclide

Gamma Spectroscopy Results

Sample results given in (picoCi/g)

NWT Field Report

Ufo ID	Sample Description
3N000116	PCB Hot Spot New Backfill 72-T-Backfill-014 440g 6/7/05 9:25

Dry Weight (g)	Time Counted (s)	Operator	Date Acquired	Time Acquired
440	2696.64	Murat Kerimbaev	08-Jun-05	10:17:02 AM

Library Path	Reviewed By:	Date Sampled	Time Sampled
Hunter's Point 1.Lib		07-Jun-05	9:25:00 AM

Nuclide	Net Activity	MDA	Uncertainty	Soil DCGL
AC-228	4.2009E-01	1.5149E-01	3.6277E-01	*NA
AM-241	-7.2639E-02	5.1712E-02	**	5.6700E+00
BI-212	-4.7610E-02	2.6842E-01	**	*NA
BI-214	5.7327E-01	9.5096E-02	2.6633E-01	*NA
CO-60	-3.7512E-03	8.7436E-03	**	6.0200E-02
Cs-137	1.3856E-02	4.0659E-02	**	1.3000E-01
EU-152	7.1992E-02	5.6996E-02	1.2814E-01	*NA
EU-154	3.7157E-02	5.2841E-02	**	*NA
K-40	8.8891E+00	1.0231E+00	2.3358E+00	*NA
PA-234	-6.3975E-02	1.1322E-01	**	*NA
Pb-210	-2.1651E-01	1.0435E+00	**	*NA
PB-212	3.2073E-01	7.5609E-02	1.6125E-01	*NA
PB-214	5.9913E-01	8.2720E-02	2.1098E-01	*NA
RA-226	8.5290E-01	6.7057E-01	1.2593E+00	2.0000E+00
Th-230	9.5412E+00	8.4291E+00	1.5287E+01	*NA
TH-234	1.6675E+00	7.7587E-01	1.5431E+00	*NA
Tl-208	-1.9547E-01	1.0501E-01	**	*NA

*F=Failed energy identification fraction and key energy tests demonstrating non-existence of the nuclide

#F = All energy peakes determining this isotope had bad poisson shape; this distortion signifies non-existence of the radionuclide

*<DCGL=Nuclide failed key line energy and shape tests and is determined not to be present in sample

*<MDA = Activity for this Nuclide is less than the Minimum Detectable Activity (MDA)

** = Activity for this Nuclide is less than the MDA, therefore no Uncertainty is neccesary

*NA = No DCGL available for this Nuclide

Gamma Spectroscopy Results

Sample results given in (picoCi/g)

NWT Field Report

Ufo ID	Sample Description
2N000044	PCB Hotspot New Backfill 72-T-Backfill-015 409g 6/7/05 9:35

Dry Weight (g)	Time Counted (s)	Operator	Date Acquired	Time Acquired
409	2696.68	Murat Kerimbaev	08-Jun-05	11:06:46 AM

Library Path	Reviewed By:	Date Sampled	Time Sampled
Hunter's Point 1.Lib		07-Jun-05	9:35:00 AM

Nuclide	Net Activity	MDA	Uncertainty	Soil DCGL
AC-228	2.2477E-01	1.1353E-01	2.3407E-01	*NA
AM-241	-6.1473E-01	5.0013E-01	**	5.6700E+00
BI-212	-5.0953E-02	2.0894E-01	**	*NA
BI-214	4.9464E-02	7.9615E-02	**	*NA
CO-60	1.6969E-02	8.5945E-03	2.4744E-02	6.0200E-02
Cs-137	2.9330E-03	3.2251E-02	**	1.3000E-01
EU-152	3.1557E-02	9.1656E-02	**	*NA
EU-154	1.4394E-02	5.6803E-02	**	*NA
K-40	1.3232E+01	8.5638E-02	2.0921E+00	*NA
PA-234	-1.8911E-01	1.1279E-01	**	*NA
PB-212	2.4733E-01	6.3342E-02	1.4567E-01	*NA
PB-214	3.0379E-01	6.7463E-02	1.9985E-01	*NA
RA-226	-6.2704E-02	7.3464E-01	**	2.0000E+00
Th-230	0.0000E+00	2.0652E+01	**	*NA
TH-234	-2.8125E+00	2.7229E+00	**	*NA
U-235	1.1093E-02	4.2081E-02	**	4.1700E-01

*F=Failed energy identification fraction and key energy tests demonstrating non-existence of the nuclide

#F = All energy peakes determining this isotope had bad poisson shape; this distortion signifies non-existence of the radionuclide

*<DCGL=Nuclide failed key line energy and shape tests and is determined not to be present in sample

*<MDA = Activity for this Nuclide is less than the Minimum Detectable Activity (MDA)

** = Activity for this Nuclide is less than the MDA, therefore no Uncertainty is neccesary

*NA = No DCGL available for this Nuclide

Gamma Spectroscopy Results

Sample results given in (picoCi/g)

NWT Field Report

Ufo ID	Sample Description
3N000117	PCB Hot Spot New Backfill 72-T-Backfill-016 360g 6/7/05 9:50

Dry Weight (g)	Time Counted (s)	Operator	Date Acquired	Time Acquired
360	2696.68	Murat Kerimbaev	08-Jun-05	11:09:17 AM

Library Path	Reviewed By:	Date Sampled	Time Sampled
Hunter's Point 1.Lib		07-Jun-05	9:50:00 AM

Nuclide	Net Activity	MDA	Uncertainty	Soil DCGL
AC-228	5.3998E-01	1.9341E-01	4.1141E-01	*NA
AM-241	4.6583E-02	1.2476E-01	**	5.6700E+00
BI-212	-2.6456E-01	3.7720E-01	**	*NA
BI-214	7.0562E-01	1.0607E-01	3.0249E-01	*NA
CO-60	5.7791E-02	1.0686E-02	4.9610E-02	6.0200E-02
Cs-137	8.6933E-02	4.8397E-02	1.1808E-01	1.3000E-01
EU-152	1.9087E-01	7.5647E-02	1.9060E-01	*NA
EU-154	3.5413E-02	6.9547E-02	**	*NA
K-40	1.1627E+01	1.2009E+00	2.6829E+00	*NA
PA-234	-8.5553E-03	1.0609E-01	**	*NA
Pb-210	1.0310E+00	1.1586E+00	**	*NA
PB-212	2.3089E-01	9.2599E-02	2.0861E-01	*NA
PB-214	6.9399E-01	1.0425E-01	2.9756E-01	*NA
RA-226	1.1412E+00	8.2364E-01	1.5544E+00	2.0000E+00
Th-230	7.5197E+00	7.1448E+00	9.0602E+00	*NA
TH-234	5.8840E-01	9.5778E-01	**	*NA
Tl-208	-2.5241E-01	1.2794E-01	**	*NA
U-235	0.0000E+00	5.1705E-02	**	4.1700E-01

*F=Failed energy identification fraction and key energy tests demonstrating non-existence of the nuclide

#F = All energy peakes determining this isotope had bad poisson shape; this distortion signifies non-existence of the radionuclide

*<DCGL=Nuclide failed key line energy and shape tests and is determined not to be present in sample

*<MDA = Activity for this Nuclide is less than the Minimum Detectable Activity (MDA)

** = Activity for this Nuclide is less than the MDA, therefore no Uncertainty is neccesary

*NA = No DCGL available for this Nuclide

TETRA TECH EC INC

BACKFILL REVIEW AND ACCEPTANCE FORM

Contract No.	CTO No.	Form No.
N68711-98-D-5713	0084	BACKFILL - PCB Hot Spot 001

Preparer: Ulrika T. Messer	Date: 7-25-2006

Planned Backfill Usage: PCB Hot Spot import fill

Source of Material: Golden Gate Park A (San Fran), Letterman (LOCATION), Gellert (South San Fran)

Sample I.D.(s):	Golden Gate Park A: 072-BACKFILL-001 through -004	Letterman: 072-BACKFILL-009 through - 012	Gellert: 072-BACKFILL-013 through -016

ATTACHMENTS

	Attached	Not Applicable	Specify
Work Plan Section/Tables for geotechnical:	☐	☒	N/A
SAP Section/Tables for Analytical:	☒	☐	SAP 4.5 Import material; Table A.8-2
SAP Section/Tables for Radiological:	☒	☐	SAP 4.5 Import material; Table A.8-2
Chemistry Data:	☒	☐	Golden Gate Park A: 072-BACKFILL-001 through -004; Letterman: 072-BACKFILL-009 through -012; Gellert: 072-BACKFILL-013 through -016
Geotechnical Data:	☐	☒	N/A
Radiological Data (onsite):	☒	☐	Golden Gate Park A, Letterman, Gellert
Radiological Data (offsite):	☐	☒	N/A
Other:	☒	☐	Memorandum regarding Navy acceptance of the fill material attached

CHEMISTRY DATA EVALUATION

Class 1	Class 2	Class 3
Analytes are below established criteria AND Analytes without established standards are not detected	Non-metal analytes are below established criteria AND Metal analytes are below HPAL AND Detected analytes without established criteria are deemed "acceptable" by the RS	One or more non-metal analytes exceeds established criteria OR One or more metal analytes exceeds HPAL OR Detected analytes without established criteria are deemed "acceptable" by the RS
☐	☒	☐

Explanation for Class 2 or 3: (Attach additional sheet if necessary)
See attached email dated 7/26/06 from Lisa Bienkowski to Ulrika Trulson-Messor.

Chemist Signature	Date
Lisa A. Bienkowski	07/26/06

TETRA TECH EC, INC

BACKFILL REVIEW AND ACCEPTANCE FORM (Cont.)

Contract No.	CTO No.	Form No.
N68711-98-D-5713	0084	BACKFILL - PCB Hot Spot 001

RADIOLOGICAL DATA EVALUATION

Class 1	Class 3	RSO Signature	Date
Results are below established standards ☒	One or more results exceeded established standards ☐	we have Daryl's Signature on a different doc — server down I cannot access	

Explanation for Class 3 (Attach additional sheet if necessary)

GEOTECHNICAL DATA EVALUATION

Class 1	Class 3	Engineer Signature	Date
Results are below established standards ☐	One or more results exceeded established standards ☐	N/A	

Explanation for Class 3 (Attach additional sheet if necessary)

REVIEW

Regulatory Specialist (Signature)	Explanation	Date

Project QC Manager (Signature)	Explanation (if any)	Date

APPROVAL

Project Manager (Signature)	Date	DON Representative (Signature)	Date
	2-26-06	See Attached Memorandum	

ACKNOWLEDGEMENT

Construction Manager (Signature)	Date

Gamma Spectroscopy Results

Sample results given in (picoCi/g)

NWT Field Report

Ufo ID	Sample Description
3N000001	PCB Hotspot New Backfill 72-Backfill-001 421g 4/12/05 08:30

Dry Weight (g)	Time Counted (s)	Operator
421	5397.72	Paul Wall

Date Acquired	Time Acquired
13-Apr-05	7:27:12 AM

Library Path
Hunter's Point 1.Lib

Reviewed By:

Date Sampled	Time Sampled
12-Apr-05	8:30:00 AM

Nuclide	Net Activity	MDA	Uncertainty	Soil DCGL
AC-228	4.2532E-01	1.1071E-01	2.8634E-01	*NA
AM-241	-8.7002E-02	3.8010E-02	**	5.6700E+00
BI-212	2.6011E-01	2.0081E-01	3.1854E-01	*NA
BI-214	3.2942E-01	7.6010E-02	1.8955E-01	*NA
CO-60	4.5974E-03	1.0562E-02	**	6.0200E-02
Cs-137	9.3575E-03	2.6781E-02	**	1.3000E-01
EU-152	6.7032E-02	5.3889E-02	7.7010E-02	*NA
EU-154	5.2142E-02	3.9730E-02	7.9142E-02	*NA
K-40	7.5689E+00	7.1124E-01	1.4922E+00	*NA
PA-234	-7.5188E-03	8.7760E-02	**	*NA
Pb-210	-1.2501E+00	6.1304E-01	**	*NA
PB-212	3.8874E-01	5.0294E-02	1.0642E-01	*NA
PB-214	3.5933E-01	5.7073E-02	1.4992E-01	*NA
RA-226	6.4593E-01	4.8574E-01	8.9769E-01	2.0000E+00
Th-230	9.5801E-01	4.6150E+00	**	*NA
Th-232	1.7860E+00	7.6193E+00	**	*NA
TH-234	2.3747E-01	7.2037E-01	**	*NA
Tl-208	1.2301E-01	5.5034E-02	9.1334E-02	*NA
U-235	9.0186E-03	3.3092E-02	**	4.1700E-01

*F=Failed energy identification fraction and key energy tests demonstrating non-existence of the nuclide

#F = All energy peakes determining this isotope had bad poisson shape; this distortion signifies non-existence of the radionuclide

*<DCGL=Nuclide failed key line energy and shape tests and is determined not to be present in sample

*<MDA = Activity for this Nuclide is less than the Minimum Detectable Activity (MDA)

** = Activity for this Nuclide is less than the MDA, therefore no Uncertainty is neccesary

*NA = No DCGL available for this Nuclide

Gamma Spectroscopy Results

Sample results given in (picoCi/g)

NWT Field Report

Ufo ID	Sample Description
3N000002	PCB Hotspot New Backfill 72-Backfill-002 419g 4/12/05 08:35

Dry Weight (g)	Time Counted (s)	Operator	Date Acquired	Time Acquired
419	5397.62	Paul Wall	13-Apr-05	9:22:00 AM

Library Path	Reviewed By:	Date Sampled	Time Sampled
Hunter's Point 1.Lib		12-Apr-05	8:35:00 AM

Nuclide	Net Activity	MDA	Uncertainty	Soil DCGL
AC-228	3.8586E-01	1.1627E-01	2.2422E-01	*NA
AM-241	-8.9632E-02	4.4425E-02	**	5.6700E+00
BI-212	2.5706E-01	1.9265E-01	3.4764E-01	*NA
BI-214	4.1834E-01	6.2276E-02	1.6316E-01	*NA
CO-60	3.3490E-02	1.1521E-02	3.6891E-02	6.0200E-02
Cs-137	8.1951E-03	3.1109E-02	**	1.3000E-01
EU-152	6.4245E-02	5.2707E-02	7.5596E-02	*NA
EU-154	5.1871E-02	4.1433E-02	7.3210E-02	*NA
K-40	8.3338E+00	7.1450E-01	1.5393E+00	*NA
PA-234	5.3108E-02	7.8638E-02	**	*NA
Pb-210	-8.9058E-01	7.1905E-01	**	*NA
PB-212	3.9139E-01	5.0354E-02	1.0273E-01	*NA
PB-214	4.0954E-01	5.4576E-02	1.4614E-01	*NA
RA-226	4.7637E-01	5.1645E-01	**	2.0000E+00
Th-230	0.0000E+00	3.6338E+00	**	*NA
Th-232	6.2688E-01	6.3327E+00	**	*NA
TH-234	1.1933E+00	7.5926E-01	1.7138E+00	*NA
Tl-208	1.1456E-01	5.5297E-02	9.0425E-02	*NA
U-235	8.6319E-03	2.9376E-02	**	4.1700E-01

*F=Failed energy identification fraction and key energy tests demonstrating non-existence of the nuclide

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** = Activity for this Nuclide is less than the MDA, therefore no Uncertainty is neccesary

*NA = No DCGL available for this Nuclide

Gamma Spectroscopy Results

Sample results given in (picoCi/g)

NWT Field Report

Ufo ID	Sample Description
3N000003	PCB Hotspot New Backfill 72-Backfill-003 349g 4/12/05 08:40

Dry Weight (g)	Time Counted (s)	Operator	Date Acquired	Time Acquired
349	5397.78	Paul Wall	13-Apr-05	10:56:04 AM

Library Path	Reviewed By:	Date Sampled	Time Sampled
Hunter's Point 1.Lib		12-Apr-05	8:40:00 AM

Nuclide	Net Activity	MDA	Uncertainty	Soil DCGL
AC-228	4.4898E-01	1.2762E-01	2.6956E-01	*NA
AM-241	2.8436E-03	7.6995E-02	**	5.6700E+00
BI-212	2.1117E-01	2.7174E-01	**	*NA
BI-214	4.1131E-01	6.6344E-02	1.5761E-01	*NA
CO-60	2.3108E-03	1.0768E-02	**	6.0200E-02
Cs-137	7.4187E-03	3.2826E-02	**	1.3000E-01
EU-154	8.0610E-02	3.9574E-02	7.6749E-02	*NA
K-40	7.3052E+00	8.5880E-01	1.7005E+00	*NA
PA-234	-2.0780E-01	6.6852E-02	**	*NA
Pb-210	-1.5765E+00	6.8581E-01	**	*NA
PB-212	4.0606E-01	6.0504E-02	1.2451E-01	*NA
PB-214	4.1143E-01	6.8493E-02	1.8616E-01	*NA
RA-226	1.0555E+00	5.8731E-01	1.1030E+00	2.0000E+00
Th-230	2.3376E+00	6.3186E+00	**	*NA
TH-234	6.1545E-01	8.5846E-01	**	*NA
Tl-208	9.4098E-02	6.6387E-02	1.0184E-01	*NA
U-235	0.0000E+00	4.0541E-02	**	4.1700E-01

*F=Failed energy identification fraction and key energy tests demonstrating non-existence of the nuclide

#F = All energy peakes determining this isotope had bad poisson shape; this distortion signifies non-existence of the radionuclide

*<DCGL=Nuclide failed key line energy and shape tests and is determined not to be present in sample

*<MDA = Activity for this Nuclide is less than the Minimum Detectable Activity (MDA)

** = Activity for this Nuclide is less than the MDA, therefore no Uncertainty is neccesary

*NA = No DCGL available for this Nuclide

Gamma Spectroscopy Results

Sample results given in (picoCi/g)

NWT Field Report

Ufo ID	Sample Description
3N000004	PCB Hotspot New Backfill 72-Backfill-004 370g 4/12/05 08:45

Dry Weight (g)	Time Counted (s)	Operator	Date Acquired	Time Acquired
370	5397.84	Paul Wall	13-Apr-05	12:30:15 PM

Library Path	Reviewed By:	Date Sampled	Time Sampled
Hunter's Point 1.Lib		12-Apr-05	8:45:00 AM

Nuclide	Net Activity	MDA	Uncertainty	Soil DCGL
AC-228	4.0413E-01	1.2447E-01	3.1843E-01	*NA
AM-241	2.3083E-02	7.8045E-02	**	5.6700E+00
BI-212	3.8156E-01	2.4037E-01	5.9429E-01	*NA
BI-214	4.3996E-01	7.8392E-02	2.0365E-01	*NA
CO-60	3.4873E-03	7.8671E-03	**	6.0200E-02
Cs-137	-1.7328E-02	2.9296E-02	**	1.3000E-01
EU-152	4.8824E-02	5.5029E-02	**	*NA
K-40	7.4274E+00	8.0089E-01	1.5846E+00	*NA
PA-234	-2.9919E-02	1.0147E-01	**	*NA
Pb-210	5.3838E-01	7.0632E-01	**	*NA
PB-212	3.8161E-01	5.4454E-02	1.1711E-01	*NA
PB-214	4.4373E-01	6.7259E-02	1.9088E-01	*NA
RA-226	-1.3633E-02	5.7041E-01	**	2.0000E+00
Th-230	1.7225E+00	3.8794E+00	**	*NA
TH-234	1.7280E+00	8.8480E-01	1.9933E+00	*NA
Tl-208	1.4678E-01	6.4607E-02	1.1448E-01	*NA
U-235	3.3642E-02	3.2426E-02	5.8936E-02	4.1700E-01

*F=Failed energy identification fraction and key energy tests demonstrating non-existence of the nuclide

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** = Activity for this Nuclide is less than the MDA, therefore no Uncertainty is neccesary

*NA = No DCGL available for this Nuclide

TETRA TECH EC, INC

BACKFILL REVIEW AND ACCEPTANCE FORM

Contract No.	CTO No.	Form No.
N68711-98-D-5713	0084	BACKFILL – PCB Hot Spot 001

Preparer: Ulrika T. Messer	Date: 7-25-2006

Planned Backfill Usage: PCB Hot Spot import fill

Source of Material: Golden Gate Park A (San Fran), Letterman (LOCATION), Gellert (South San Fran)

Sample I.D.(s):	Golden Gate Park A: 072-BACKFILL-001 through -004	Letterman: 072-BACKFILL-009 through - 012	Gellert: 072-BACKFILL-013 through -016

ATTACHMENTS

	Attached	Not Applicable	Specify
Work Plan Section/Tables for geotechnical:	☐	☒	N/A
SAP Section/Tables for Analytical:	☒	☐	SAP 4.5 Import material; Table A.8-2
SAP Section/Tables for Radiological:	☒	☐	SAP 4.5 Import material; Table A.8-2
Chemistry Data:	☒	☐	Golden Gate Park A: 072-BACKFILL-001 through -004; Letterman: 072-BACKFILL-009 through -012; Gellert: 072-BACKFILL-013 through -016
Geotechnical Data:	☐	☒	N/A
Radiological Data (onsite):	☒	☐	Golden Gate Park A, Letterman, Gellert
Radiological Data (offsite):	☐	☒	N/A
Other:	☒	☐	Memorandum regarding Navy acceptance of the fill material attached

CHEMISTRY DATA EVALUATION

Class 1	Class 2	Class 3
Analytes are below established criteria AND Analytes without established standards are not detected	Non-metal analytes are below established criteria AND Metal analytes are below HPAL AND Detected analytes without established criteria are deemed "acceptable" by the RS	One or more non-metal analytes exceeds established criteria OR One or more metal analytes exceeds HPAL OR Detected analytes without established criteria are deemed "acceptable" by the RS
☐	☒	☐

Explanation for Class 2 or 3: (Attach additional sheet if necessary)
See attached email dated 7/26/06 from Lisa Bienkowski to Ulrika Trulson-Messor.

Chemist Signature	Date
Lisa A. Bienkowski	07/26/06

TETRA TECH EC, INC

BACKFILL REVIEW AND ACCEPTANCE FORM (Cont.)

Contract No.	CTO No.	Form No.
N68711-98-D-5713	0084	BACKFILL - PCB Hot Spot 001

RADIOLOGICAL DATA EVALUATION

Class 1	Class 3	RSO Signature	Date
Results are below established standards ☒	One or more results exceeded established standards ☐	we have Daryl's Signature on a different doc — server down - I cannot access	

Explanation for Class 3 (Attach additional sheet if necessary)

GEOTECHNICAL DATA EVALUATION

Class 1	Class 3	Engineer Signature	Date
Results are below established standards ☐	One or more results exceeded established standards ☐	N/A	

Explanation for Class 3 (Attach additional sheet if necessary)

REVIEW

Regulatory Specialist (Signature)	Explanation	Date

Project QC Manager (Signature)	Explanation (if any)	Date

APPROVAL

Project Manager (Signature)	Date	DON Representative (Signature)	Date
	2-26-06	See Attached Memorandum	

ACKNOWLEDGEMENT

Construction Manager (Signature)	Date

Gamma Spectroscopy Results

Sample results given in (picoCi/g)

NWT Field Report

Ufo ID	Sample Description
3N000009	General New Backfill 72-T-Backfill-009 402g 4/19/05 07:40

Dry Weight (g)	Time Counted (s)	Operator	Date Acquired	Time Acquired
402	5397.7	Paul Wall	19-Apr-05	2:07:00 PM

Library Path	Reviewed By:	Date Sampled	Time Sampled
Hunter's Point 1.Lib		19-Apr-05	7:40:00 AM

Nuclide	Net Activity	MDA	Uncertainty	Soil DCGL
AC-228	4.5290E-01	1.0300E-01	2.0045E-01	*NA
AM-241	-3.4317E-02	6.5080E-02	**	5.6700E+00
BI-212	3.0032E-01	2.2366E-01	4.0822E-01	*NA
BI-214	4.3819E-01	7.3808E-02	1.9916E-01	*NA
CO-60	5.2159E-03	9.8044E-03	**	6.0200E-02
Cs-137	1.4418E-02	3.0707E-02	**	1.3000E-01
EU-152	6.6784E-02	5.5076E-02	1.0038E-01	*NA
EU-154	1.1767E-02	4.5792E-02	**	*NA
K-40	6.7707E+00	7.4341E-01	1.4822E+00	*NA
PA-234	-5.8606E-02	8.6247E-02	**	*NA
Pb-210	1.4743E-01	6.1827E-01	**	*NA
PB-212	5.0419E-01	5.0732E-02	1.1645E-01	*NA
PB-214	4.6491E-01	5.5582E-02	1.6783E-01	*NA
RA-226	1.1953E+00	5.6969E-01	1.0793E+00	2.0000E+00
Th-230	0.0000E+00	4.3370E+00	**	*NA
TH-234	1.9759E+00	8.2050E-01	1.8174E+00	*NA
Tl-208	1.0840E-01	5.9239E-02	9.9854E-02	*NA
U-235	3.9787E-02	3.6633E-02	6.7113E-02	4.1700E-01

*F=Failed energy identification fraction and key energy tests demonstrating non-existence of the nuclide

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*NA = No DCGL available for this Nuclide

Gamma Spectroscopy Results

Sample results given in (picoCi/g)

NWT Field Report

Ufo ID	Sample Description
3N000010	General New Backfill 72-T-Backfill-010 384g 4/19/05 07:45

Dry Weight (g)	Time Counted (s)	Operator
384	5397.74	Paul Wall

Date Acquired	Time Acquired
20-Apr-05	7:16:50 AM

Library Path
Hunter's Point 1.Lib

Reviewed By:

Date Sampled	Time Sampled
19-Apr-05	7:45:00 AM

Nuclide	Net Activity	MDA	Uncertainty	Soil DCGL
AC-228	3.7657E-01	1.1101E-01	2.2936E-01	*NA
AM-241	-9.4096E-02	4.6500E-02	**	5.6700E+00
BI-212	4.5725E-01	2.3008E-01	6.2272E-01	*NA
BI-214	4.3303E-01	6.6030E-02	1.6308E-01	*NA
CO-60	1.6802E-03	7.2577E-03	**	6.0200E-02
Cs-137	7.6220E-03	3.3057E-02	**	1.3000E-01
EU-152	1.2109E-01	6.3874E-02	1.0680E-01	*NA
EU-154	8.0605E-02	4.6475E-02	6.6924E-02	*NA
K-40	7.2236E+00	8.0292E-01	1.6879E+00	*NA
PA-234	1.3989E-02	8.1832E-02	**	*NA
Pb-210	-1.5874E-01	7.1040E-01	**	*NA
PB-212	4.5202E-01	5.3109E-02	1.1336E-01	*NA
PB-214	4.3001E-01	6.2335E-02	1.5545E-01	*NA
RA-226	7.3048E-01	5.2581E-01	9.7356E-01	2.0000E+00
Th-230	8.9605E+00	5.5361E+00	1.3861E+01	*NA
Th-232	6.3453E+00	9.2828E+00	**	*NA
TH-234	1.6357E+00	8.5320E-01	1.8443E+00	*NA
Tl-208	1.2828E-01	6.0336E-02	9.9157E-02	*NA
U-235	6.5833E-03	3.6715E-02	**	4.1700E-01

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Gamma Spectroscopy Results

Sample results given in (picoCi/g)

NWT Field Report

Ufo ID	Sample Description
3N000011	General New Backfill 72-T-Backfill-011 418g 4/19/05 07:55

Dry Weight (g)	Time Counted (s)	Operator	Date Acquired	Time Acquired
418	5397.74	Paul Wall	20-Apr-05	8:54:01 AM

Library Path	Reviewed By:	Date Sampled	Time Sampled
Hunter's Point 1.Lib		19-Apr-05	7:55:00 AM

Nuclide	Net Activity	MDA	Uncertainty	Soil DCGL
AC-228	5.0459E-01	1.0164E-01	2.6510E-01	*NA
AM-241	-6.6606E-02	5.3986E-02	**	5.6700E+00
BI-212	3.5034E-01	2.4512E-01	6.5747E-01	*NA
BI-214	4.0298E-01	6.5953E-02	1.7802E-01	*NA
CO-60	-3.0867E-03	7.2482E-03	**	6.0200E-02
Cs-137	5.7908E-03	3.1621E-02	**	1.3000E-01
EU-152	7.3582E-02	5.8913E-02	1.3747E-01	*NA
K-40	6.7357E+00	7.2368E-01	1.4886E+00	*NA
PA-234	-1.7719E-01	7.0875E-02	**	*NA
Pb-210	3.4066E-01	5.7955E-01	**	*NA
PB-212	3.7319E-01	4.6747E-02	1.0001E-01	*NA
PB-214	4.5562E-01	5.4591E-02	1.5808E-01	*NA
RA-226	4.0521E-01	5.2606E-01	**	2.0000E+00
Th-230	8.2603E-01	4.5003E+00	**	*NA
TH-234	1.9491E+00	7.9888E-01	1.8200E+00	*NA
Tl-208	9.7904E-02	5.9566E-02	1.1104E-01	*NA
U-235	3.0395E-03	3.3053E-02	**	4.1700E-01

*F=Failed energy identification fraction and key energy tests demonstrating non-existence of the nuclide

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*<MDA = Activity for this Nuclide is less than the Minimum Detectable Activity (MDA)

** = Activity for this Nuclide is less than the MDA, therefore no Uncertainty is neccesary

*NA = No DCGL available for this Nuclide

Gamma Spectroscopy Results

Sample results given in (picoCi/g)

NWT Field Report

Ufo ID	Sample Description
3N000012	General New Backfill 72-T-Backfill-012 425g 4/19/05 08:05

Dry Weight (g)	Time Counted (s)	Operator
425	5397.68	Paul Wall

Date Acquired	Time Acquired
20-Apr-05	10:29:24 AM

Library Path
Hunter's Point 1.Lib

Reviewed By:

Date Sampled	Time Sampled
19-Apr-05	8:05:00 AM

Nuclide	Net Activity	MDA	Uncertainty	Soil DCGL
AC-228	5.5775E-01	1.1433E-01	3.2206E-01	*NA
AM-241	-2.0084E-02	6.3897E-02	**	5.6700E+00
BI-212	3.2016E-01	1.9932E-01	3.6848E-01	*NA
BI-214	4.9049E-01	6.5831E-02	1.8083E-01	*NA
CO-60	-2.6563E-03	5.2311E-03	**	6.0200E-02
Cs-137	1.3373E-02	3.0670E-02	**	1.3000E-01
EU-152	-2.4439E-04	4.2088E-02	**	*NA
EU-154	1.6961E-02	3.8526E-02	**	*NA
K-40	6.3082E+00	7.1690E-01	1.4640E+00	*NA
PA-234	-6.2856E-02	8.0773E-02	**	*NA
Pb-210	3.2241E-01	6.7923E-01	**	*NA
PB-212	4.0463E-01	4.6296E-02	1.0241E-01	*NA
PB-214	5.2806E-01	5.1432E-02	1.5314E-01	*NA
RA-226	9.5685E-01	5.2860E-01	9.9295E-01	2.0000E+00
Th-230	0.0000E+00	3.9180E+00	**	*NA
TH-234	1.7182E+00	8.2641E-01	1.9287E+00	*NA
Tl-208	1.0699E-01	5.4516E-02	8.8251E-02	*NA
U-235	0.0000E+00	3.5953E-02	**	4.1700E-01

*F=Failed energy identification fraction and key energy tests demonstrating non-existence of the nuclide

#F = All energy peakes determining this isotope had bad poisson shape; this distortion signifies non-existence of the radionuclide

*<DCGL=Nuclide failed key line energy and shape tests and is determined not to be present in sample

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*NA = No DCGL available for this Nuclide

TETRA TECH EC INC

BACKFILL REVIEW AND ACCEPTANCE FORM

Contract No.	CTO No.	Form No.
N62473-06-D-2201	06	BACKFILL - 001

Preparer: LARRY W MULLEN	Date: 26-Jun-06
Planned Backfill Usage: PARCEL B, RESIDENTIAL AREAS	
Source of Material: PANCAKE HOUSE	

Sample I.D.:	006-BACKFILL-001	006-BACKFILL-002	006-BACKFILL-003
Sample I.D.:	006-BACKFILL-004		

ATTACHMENTS

	Attached	Not Applicable	Specify
Work Plan Section/Tables for geotechnical:	☐	☒	No geo-technical parameters in the work plan
SAP Section/Tables for Analytical:	☒	☐	
SAP Section/Tables for Radiological:	☒	☐	
Chemistry Data:	☒	☐	
Geotechnical Data:	☐	☒	No geotechnical requirements by specification.
Radiological Data (onsite):	☐	☒	
Radiological Data (offsite):	☐	☒	
Other:	☒	☐	Electronic approvals by Matthew Slack and Lisa Blenkowski

CHEMISTRY DATA EVALUATION

Class 1	Class 2	Class 3
Analytes are below established criteria AND Analytes without established standards are not detected	Non-metal analytes are below established criteria AND Metal analytes are below HPAL AND Detected analytes without established criteria are deemed "acceptable" by the RS	One or more non-metal analytes exceeds established criteria OR One or more metal analytes exceeds HPAL OR Detected analytes without established criteria are deemed "acceptable" by the RS
☒	☒	☐

Explanation for Class 2 or 3: (Attach additional sheet if necessary)

Chemist Signature	Date
Lisa Blenkowski (by attachment)	23 June 2006

TETRA TECH EC, INC.

BACKFILL REVIEW AND ACCEPTANCE FORM (Cont.)

Contract No.	CTO No.	Form No.
N68711-98-D-5713		BACKFILL -

RADIOLOGICAL DATA EVALUATION

Class 1	Class 3	RSO Signature	Date
Results are below established standards ☒	One or more results exceeded established standards ☐		7/10/2006

Explanation for Class 3 (Attach additional sheet if necessary)

GEOTECHNICAL DATA EVALUATION

Class 1	Class 3	Engineer Signature	Date
Results are below established standards ☒	One or more results exceeded established standards ☐		

Explanation for Class 3 (Attach additional sheet if necessary)

N/A

REVIEW

Regulatory Specialist (Signature)	Explanation	Date
	All Results below standards	7/11/06
Project QC Manager (Signature)	**Explanation (if any)**	**Date**
		7/11/06

APPROVAL

Project Manager (Signature)	Date	DON Representative (Signature)	Date
	7/12/06		

ACKNOWLEDGEMENT

Construction Manager (Signature)	Date
	7/12/06

TETRA TECH EC, INC.

BACKFILL REVIEW AND ACCEPTANCE FORM

Contract No.	CTO No.	Form No.
N68711-98-D-5713	0084	BACKFILL – PCB Hot Spot 004

Preparer: Ulrika T. Messer	Date: 8/1/06
Planned Backfill Usage: PCB Hot Spot import fill per industrial PRGs	
Source of Material: Pancake House	

Sample I.D.:	006-Backfill -001 through 004		
Sample I.D.:			

ATTACHMENTS

	Attached	Not Applicable	Specify
Work Plan Section/Tables for geotechnical:	☐	☒	N/A
SAP Section/Tables for Analytical:	☒	☐	SAP 4.5 Import material; Table A.8-2
SAP Section/Tables for Radiological:	☒	☐	SAP 4.5 Import material; Table A.8-2
Chemistry Data:	☒	☐	See Attachment with approval per residential standards (more stringent than required for PCB Hot Spot) as applied to CTO 006
Geotechnical Data:	☐	☒	N/A
Radiological Data (onsite):	☒	☐	See Attachment with approval for CTO 006
Radiological Data (offsite):	☐	☒	N/A
Other:	☒	☐	

CHEMISTRY DATA EVALUATION

Class 1	Class 2	Class 3
Analytes are below established criteria AND Analytes without established standards are not detected	Non-metal analytes are below established criteria AND Metal analytes are below HPAL AND Detected analytes without established criteria are deemed "acceptable" by the RS	One or more non-metal analytes exceeds established criteria OR One or more metal analytes exceeds HPAL OR Detected analytes without established criteria are deemed "acceptable" by the RS
☒	☐	☐

Explanation for Class 2 or 3: (Attach additional sheet if necessary)

Chemist Signature	Date

TETRA TECH EC, INC.

BACKFILL REVIEW AND ACCEPTANCE FORM (Cont.)

Contract No.	CTO No.	Form No.
N68711-98-D-5713	0084	BACKFILL – PCB Hot Spot 001

RADIOLOGICAL DATA EVALUATION

Class 1	Class 3	RSO Signature	Date
Results are below established standards ☒	One or more results exceeded established standards ☐	[signature]	August 1, 2006

Explanation for Class 3 (Attach additional sheet if necessary)

GEOTECHNICAL DATA EVALUATION

Class 1	Class 3	Engineer Signature	Date
Results are below established standards ☐	One or more results exceeded established standards ☐	N/A	

Explanation for Class 3 (Attach additional sheet if necessary)

N/A

REVIEW

Regulatory Specialist (Signature)	Explanation	Date
[signature]	Results are below established standards	8/1/06
Project QC Manager (Signature)	**Explanation (if any)**	**Date**

APPROVAL

Project Manager (Signature)	Date	DON Representative (Signature)	Date
		N/A as there were no exceedances for parameters without standards	

ACKNOWLEDGEMENT

Construction Manager (Signature)	Date

TETRA TECH EC, INC

BACKFILL REVIEW AND ACCEPTANCE FORM (Cont.)

Contract No.	CTO No.	Form No.
N68711-98-D-5713	0084	BACKFILL - PCB Hot Spot 001

RADIOLOGICAL DATA EVALUATION

Class 1	Class 3	RSO Signature	Date
Results are below established standards ☒	One or more results exceeded established standards ☐		

Explanation for Class 3 (Attach additional sheet if necessary)

GEOTECHNICAL DATA EVALUATION

Class 1	Class 3	Engineer Signature	Date
Results are below established standards ☐	One or more results exceeded established standards ☐	N/A	

Explanation for Class 3 (Attach additional sheet if necessary)

N/A

REVIEW

Regulatory Specialist (Signature)	Explanation	Date
Project QC Manager (Signature)	**Explanation (if any)**	**Date**

APPROVAL

Project Manager (Signature)	Date	DON Representative (Signature)	Date
	8/1/06	N/A as there were no exceedances for parameters without standards	

ACKNOWLEDGEMENT

Construction Manager (Signature)	Date

ORTEC g v - i (3327) wan32 G53W2.06 06-JUN-2006 18:17:40 Page 1
New World Technology Spectrum name: 1N002254.An1

Sample description
Backfill 006-T-Backfill-001 398g
6/06/06 12:10

Acquisition information
Start time: 06-Jun-2006 17:19:37
Live time: 2700
Real time: 2703

- -

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty 3 Sigma Counting picoCi/ g	Total picoCi/ g	MDA picoCi/ g
Ac-228	4.8477E-01	2.8106E-01	2.8235E-01	0.432E-01
AM-241 #A	-9.7307E-02	-1.1770E+00	-1.1770E+00	0.243E+00
Bi-212 B	1.5721E-01	4.7972E-01	4.7980E-01	0.254E+00
BI-214 #F	1.8961E+00	1.2719E+00	1.2763E+00	0.221E+00
CO-60 #A	-3.7534E-02	-2.7314E-01	-2.7315E-01	0.428E-01
CS-137 A	1.4791E-02	4.1378E-02	4.1386E-02	0.193E-01
EU-152 A	2.1008E-03	9.6822E-03	9.6829E-03	0.589E-01
EU-154 A	2.9407E-02	6.1665E-02	6.1686E-02	0.410E-01
K-40	8.2330E+00	2.3791E+00	2.4228E+00	0.178E+00
Pa-234 #B	-2.4575E-01	-1.1432E+00	-1.1433E+00	0.125E+00
Pb-210 #	1.0927E+01	1.8278E+01	1.8288E+01	0.805E+01
Pb-212	4.7093E-01	1.5562E-01	1.5781E-01	0.557E-01
Pb-214	4.9209E-01	2.4615E-01	2.4767E-01	0.675E-01
RA-226 A	6.8596E-01	1.4814E+00	1.4819E+00	0.836E+00
Th-230 #F	2.0535E+01	3.7942E+01	3.7959E+01	0.153E+02
Th-234 B	-1.3288E-01	-2.2448E-01	-2.2460E-01	0.162E+01
Tl-208 #B	-7.8299E-02	-1.5611E-01	-1.5617E-01	0.560E-01
U-235 #B	-1.3391E-02	-5.8531E-02	-5.8536E-02	0.559E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- SUMMARY ----------
Total Activity (41.2 to 2605.8 keV) 4.3038231E+01 picoCi/ g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 06-JUN-2006 18:14:09 Page 1
New World Technology Spectrum name: 2N002799.An1

Sample description
Backfill 006-T-Backfill-002 441g
6/06/06 12:23

Acquisition information
Start time: 06-Jun-2006 17:29:02
Live time: 2700
Real time: 2704

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide		Time of Count Activity picoCi/g	Uncertainty 3 Sigma Counting picoCi/g	Total picoCi/g	MDA picoCi/g
Ac-228	C	2.8348E-01	2.4195E-01	2.4246E-01	0.151E+00
AM-241	#B	-5.1753E-01	2.2244E+03	2.2244E+03	0.477E+00
Bi-212	#	6.4379E-01	6.5619E-01	6.5717E-01	0.259E+00
BI-214	F	3.2546E-01	1.5763E-01	1.5867E-01	0.716E-01
CO-60	#B	-1.8025E-02	-1.2044E-01	-1.2044E-01	0.222E-01
Cs-137	#B	-3.1900E-03	-6.5808E-02	-6.5808E-02	0.404E-01
EU-152	B	6.0743E-02	1.0399E-01	1.0405E-01	0.930E-01
EU-154	#B	-5.9042E-04	2.2247E+02	2.2247E+02	0.640E-01
K-40		7.9355E+00	1.7048E+00	1.7610E+00	0.948E-01
PA-234	#F	1.4908E-01	2.7307E-01	2.7319E-01	0.123E+00
Pb-210	#F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212		2.5615E-01	1.3380E-01	1.3455E-01	0.661E-01
PB-214		3.6647E-01	2.3579E-01	2.3667E-01	0.883E-01
RA-226	#B	-3.6531E-03	-1.2859E+00	-1.2859E+00	0.751E+00
Th-230	B	-8.1540E-01	-2.8386E+00	-2.8390E+00	0.319E+02
TH-234	#F	2.2577E+00	4.3584E+00	4.3602E+00	0.221E+01
Tl-208		2.9472E-01	1.3329E-01	1.3430E-01	0.156E-01
U-235	B	7.9626E-03	9.0932E-02	9.0933E-02	0.517E-01

- All peaks for activity calculation had bad shape.
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< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

SUMMARY

Total Activity (41.8 to 2675.5 keV) 1.2228902E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3263) wan32 G53W2.03 06-JUN-2006 19:10:00 Page 1
New World Technology Spectrum name: 2N002800.An1

Sample description
Backfill 006-T-Backfill-003 384g
6/06/06 12:44

Acquisition information
Start time: 06-Jun-2006 18:24:52
Live time: 2700
Real time: 2704

- -

***** S U M M A R Y O F N U C L I D E S I N S A M P L E *****

Nuclide	Time of Count Activity picoCi/g	Uncertainty Counting picoCi/g	3 Sigma Total picoCi/g	MDA picoCi/g
Ac-228 #	4.2077E-01	2.5785E-01	2.5891E-01	0.180E+00
AM-241 #B	-1.7852E-01	-2.0888E+00	-2.0888E+00	0.669E+00
Bi-212 F	5.1825E-01	4.7262E-01	4.7349E-01	0.193E+00
BI-214 #F	2.5120E-01	2.8045E-01	2.8080E-01	0.103E+00
CO-60 #B	1.6936E-02	4.2341E-02	4.2351E-02	0.255E-01
Cs-137 #A	2.0789E-03	6.9588E-02	6.9588E-02	0.423E-01
EU-152 #B	-1.7372E-02	3.6803E+02	3.6803E+02	0.837E-01
EU-154 C	7.4575E-02	7.8609E-02	7.8718E-02	0.635E-01
K-40	1.1590E+01	2.2080E+00	2.3001E+00	0.109E+00
PA-234 #B	1.0415E-01	2.0363E-01	2.0371E-01	0.140E+00
Pb-210 #F	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
PB-212 F	3.3727E-01	1.5717E-01	1.5829E-01	0.755E-01
PB-214	2.3359E-01	2.0267E-01	2.0308E-01	0.877E-01
RA-226 #B	-1.9081E-01	-2.1748E+00	-2.1749E+00	0.876E+00
Th-230 #B	-2.5987E+00	-2.1510E+01	-2.1511E+01	0.261E+02
TH-234	4.3430E+00	6.9014E+00	6.9056E+00	0.310E+01
Tl-208 F	2.9231E-01	1.4226E-01	1.4318E-01	0.179E-01
U-235 A	1.2536E-02	1.1605E-01	1.1605E-01	0.545E-01

- All peaks for activity calculation had bad shape.
* - Activity omitted from total
& - Activity omitted from total and all peaks had bad shape.
< - MDA value printed.
A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- S U M M A R Y ----------
Total Activity (41.8 to 2675.5 keV) 1.7986853E+01 picoCi/g

Laboratory: New World Technology

ORTEC g v - i (3327) wan32 G53W2.06 06-JUN-2006 19:09:51 Page 1
New World Technology Spectrum name: 1N002255.An1

Sample description
Backfill 006-T-Backfill-004 415g
6/06/06 12:51

Acquisition information
Start time: 06-Jun-2006 18:24:41
Live time: 2700
Real time: 2703

- -

***** SUMMARY OF NUCLIDES IN SAMPLE *****

Nuclide	Time of Count Activity picoCi/ g	Uncertainty Counting picoCi/ g	3 Sigma Total picoCi/ g	MDA picoCi/ g
Ac-228 #	4.9236E-01	3.2614E-01	3.2728E-01	0.718E-01
AM-241 #A	-3.8725E-02	-6.0222E-01	-6.0223E-01	0.235E+00
Bi-212	5.2412E-01	6.1550E-01	6.1619E-01	0.284E+00
BI-214 #F	1.6381E+00	1.2968E+00	1.3000E+00	0.354E+00
CO-60 #A	-1.0079E-02	-7.3433E-02	-7.3435E-02	0.390E-01
CS-137 A	9.8654E-03	5.0293E-02	5.0296E-02	0.262E-01
EU-152 A	-4.8700E-02	2.5071E+02	2.5071E+02	0.589E-01
EU-154 A	3.4408E-02	9.4266E-02	9.4285E-02	0.465E-01
K-40	8.7008E+00	2.3950E+00	2.4434E+00	0.171E+00
Pa-234 #B	-1.1112E-01	-1.4908E-01	-1.4921E-01	0.986E-01
Pb-210 #A	7.8057E+00	1.9724E+01	1.9728E+01	0.802E+01
Pb-212	3.4309E-01	1.3484E-01	1.3618E-01	0.493E-01
Pb-214	2.7983E-01	1.5583E-01	1.5661E-01	0.436E-01
RA-226 #B	-4.3832E-02	-1.4993E+00	-1.4993E+00	0.820E+00
Th-230 #F	2.5477E+01	3.6981E+01	3.7008E+01	0.142E+02
Th-234 #B	-1.7443E+00	-2.1537E+01	-2.1537E+01	0.149E+01
Tl-208 #	1.2754E-01	8.1888E-02	8.2195E-02	0.212E-01
U-235 #B	-5.2384E-04	-1.7521E-03	-1.7523E-03	0.493E-01

- All peaks for activity calculation had bad shape.
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& - Activity omitted from total and all peaks had bad shape.
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A - Activity printed, but activity < MDA.
B - Activity < MDA and failed test.
C - Area < Critical level.
F - Failed fraction or key line test.
H - Halflife limit exceeded

---------- SUMMARY ----------
Total Activity (41.2 to 2605.8 keV) 3.7582809E+01 picoCi/ g

Laboratory: New World Technology

APPENDIX E

TABLE E-1

BACKFILL SOIL SAMPLING DATA

Sample Number: / Location: / Sample Date:			006-BACKFILL-001 PANCAKE HOUSE 6/6/2006		006-BACKFILL-002 PANCAKE HOUSE 6/6/2006		006-BACKFILL-003 PANCAKE HOUSE 6/6/2006		006-BACKFILL-004 PANCAKE HOUSE 6/6/2006		72-BACKFILL-001 GGPARK-SITE A 4/12/2005		72-BACKFILL-002 GGPARK-SITE A 4/12/2005		72-BACKFILL-003 GGPARK- SITE A 4/12/2005		72-BACKFILL-004 GGPARK-SITE A 4/12/2005		72-BACKFILL-009 DEYOUNG/LETTERMAN 4/19/2005	
Analyte	**Units**	**Method**																		
Volatiles																				
1,1,1-TRICHLOROETHANE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
1,1,2,2-TETRACHLOROETHANE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
1,1,2-TRICHLOROETHANE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
1,1-DICHLOROETHANE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
1,1-DICHLOROETHENE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
1,2-DICHLOROETHANE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
1,2-DICHLOROPROPANE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
2-BUTANONE	UG/KG	EPA 8260B	52	U	49	U	53	U	51	U	14	U	16	U	15	U	16	U	12	U
2-HEXANONE	UG/KG	EPA 8260B	52	U	49	U	53	U	51	U	14	U	16	U	15	U	16	U	12	U
4-METHYL-2-PENTANONE	UG/KG	EPA 8260B	52	U	49	U	53	U	51	U	14	U	16	U	15	U	16	U	12	U
ACETONE	UG/KG	EPA 8260B	52	U	49	U	53	U	5.1	J	29	U	32	U	30	U	33	U	24	U
BENZENE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
BROMODICHLOROMETHANE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
BROMOFORM	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
BROMOMETHANE	UG/KG	EPA 8260B	10	U	9.9	U	11	U	10	U	14	U	16	U	15	U	16	U	12	U
CARBON TETRACHLORIDE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
CHLOROBENZENE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
CHLOROETHANE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	14	U	16	U	15	U	16	U	12	U
CHLOROFORM	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
CHLOROMETHANE	UG/KG	EPA 8260B	10	U	9.9	U	11	U	10	U	14	U	16	U	15	U	16	U	12	U
CIS-1,2-DICHLOROETHENE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
CIS-1,3-DICHLOROPROPENE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
DIBROMOCHLOROMETHANE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
DIESEL	MG/KG	EPA 8015B	12	U	12	U	12	U	12	U	2.3	HY	14	HY	4.3	HY	20	HY	3.6	HY
ETHYLBENZENE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
GASOLINE	MG/KG	EPA 8015B	0.98	U	1.1	U	1.1	U	1	U		U		U		U		U	NA	
METHYLENE CHLORIDE	UG/KG	EPA 8260B	10	U	9.9	U	11	U	10	U	29	U	32	U	30	U	33	U	24	U
MOTOR OIL	MG/KG	EPA 8015B	24	U	24	U	24	U	24	U	17		95		30		110		26	
MTBE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
STYRENE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
TETRACHLOROETHENE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
TOLUENE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
TRANS-1,2-DICHLOROETHENE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
TRANS-1,3-DICHLOROPROPENE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
TRICHLOROETHENE	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
VINYL ACETATE	UG/KG	EPA 8260B	52	U	49	U	53	U	51	U	72	U	80	U	75	U	82	U	60	U
VINYL CHLORIDE	UG/KG	EPA 8260B	10	U	9.9	U	11	U	10	U	14	U	16	U	15	U	16	U	12	U
XYLENE (TOTAL)	UG/KG	EPA 8260B	5.2	U	4.9	U	5.3	U	5.1	U	7.2	U	8	U	7.5	U	8.2	U	6	U
Semivolatiles																				
1,2,4-TRICHLOROBENZENE	UG/KG	EPA 8270C	390	U	390	U	400	U	390	U	350	U	350	U	350	U	350	U	380	U
1,2-DICHLOROBENZENE	UG/KG	EPA 8270C	390	U	390	U	400	U	390	U	350	U	350	U	350	U	350	U	380	U
1,3-DICHLOROBENZENE	UG/KG	EPA 8270C	390	U	390	U	400	U	390	U	350	U	350	U	350	U	350	U	380	U
1,4-DICHLOROBENZENE	UG/KG	EPA 8270C	390	U	390	U	400	U	390	U	350	U	350	U	350	U	350	U	380	U

APPENDIX E

TABLE E-1

BACKFILL SOIL SAMPLING DATA

Sample Number: Location: Sample Date:			006-BACKFILL-001 PANCAKE HOUSE 6/6/2006	006-BACKFILL-002 PANCAKE HOUSE 6/6/2006	006-BACKFILL-003 PANCAKE HOUSE 6/6/2006	006-BACKFILL-004 PANCAKE HOUSE 6/6/2006	72-BACKFILL-001 GGPARK-SITE A 4/12/2005	72-BACKFILL-002 GGPARK-SITE A 4/12/2005	72-BACKFILL-003 GGPARK- SITE A 4/12/2005	72-BACKFILL-004 GGPARK-SITE A 4/12/2005	72-BACKFILL-009 DEYOUNG/LETTERMAN 4/19/2005
Analyte	Units	Method									
2,4,5-TRICHLOROPHENOL	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
2,4,6-TRICHLOROPHENOL	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
2,4-DICHLOROPHENOL	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
2,4-DIMETHYLPHENOL	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
2,4-DINITROPHENOL	UG/KG	EPA 8270C	2000 U	2000 U	2000 U	2000 U	700 U	690 U	700 U	700 U	760 U
2,4-DINITROTOLUENE	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
2,6-DINITROTOLUENE	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
2-CHLORONAPHTHALENE	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
2-CHLOROPHENOL	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
2-METHYLPHENOL	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
2-NITROANILINE	UG/KG	EPA 8270C	790 U	800 U	810 U	800 U	700 U	690 U	700 U	700 U	760 U
2-NITROPHENOL	UG/KG	EPA 8270C	790 U	800 U	810 U	800 U	700 U	690 U	700 U	700 U	760 U
3,3'-DICHLOROBENZIDINE	UG/KG	EPA 8270C	790 U	800 U	810 U	800 U	700 U	690 U	700 U	700 U	760 U
3-NITROANILINE	UG/KG	EPA 8270C	790 U	800 U	810 U	800 U	700 U	690 U	700 U	700 U	760 U
4,6-DINITRO-2-METHYLPHENOL	UG/KG	EPA 8270C	2000 U	2000 U	2000 U	2000 U	700 U	690 U	700 U	700 U	760 U
4-BROMOPHENYL-PHENYL ETHER	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
4-CHLORO-3-METHYLPHENOL	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
4-CHLOROANILINE	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
4-CHLOROPHENYL-PHENYL ETHER	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
4-METHYLPHENOL	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
4-NITROANILINE	UG/KG	EPA 8270C	790 U	800 U	810 U	800 U	700 U	690 U	700 U	700 U	760 U
4-NITROPHENOL	UG/KG	EPA 8270C	790 U	800 U	810 U	800 U	700 U	690 U	700 U	700 U	760 U
ACENAPHTHENE	UG/KG	EPA 8270C	24 U	24 U	24 U	24 U	70 U	69 U	70 U	70 U	76 U
ACENAPHTHYLENE	UG/KG	EPA 8270C	24 U	24 U	24 U	24 U	70 U	69 U	70 U	70 U	76 U
ANTHRACENE	UG/KG	EPA 8270C	24 U	24 U	24 U	24 U	70 U	69 U	70 U	70 U	76 U
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	24 U	24 U	24 U	24 U	70 U	69 U	70 U	70 U	76 U
BENZO(A)PYRENE	UG/KG	EPA 8270C	24 U	24 U	24 U	24 U	70 U	69 U	70 U	70 U	76 U
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	24 U	24 U	24 U	24 U	70 U	69 U	70 U	70 U	76 U
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	24 U	24 U	24 U	24 U	70 U	69 U	70 U	70 U	76 U
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	24 U	24 U	24 U	24 U	70 U	69 U	70 U	70 U	76 U
BIS(2-CHLOROETHOXY)METHANE	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
BIS(2-CHLOROETHYL)ETHER	UG/KG	EPA 8270C	24 U	24 U	24 U	24 U	350 U	350 U	350 U	350 U	380 U
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	32 J	36 J	350 U	350 U	190 J
BUTYLBENZYLPHTHALATE	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
CHRYSENE	UG/KG	EPA 8270C	24 U	24 U	24 U	24 U	70 U	69 U	70 U	70 U	76 U
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	24 U	24 U	24 U	24 U	70 U	69 U	70 U	70 U	76 U
DIBENZOFURAN	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
DIETHYLPHTHALATE	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
DIMETHYLPHTHALATE	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
DI-N-BUTYLPHTHALATE	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
DI-N-OCTYLPHTHALATE	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
FLUORANTHENE	UG/KG	EPA 8270C	24 U	24 U	24 U	24 U	70 U	69 U	70 U	70 U	76 U
FLUORENE	UG/KG	EPA 8270C	24 U	24 U	24 U	24 U	70 U	69 U	70 U	70 U	76 U

APPENDIX E

TABLE E-1

BACKFILL SOIL SAMPLING DATA

Sample Number: Location: Sample Date:			006-BACKFILL-001 PANCAKE HOUSE 6/6/2006	006-BACKFILL-002 PANCAKE HOUSE 6/6/2006	006-BACKFILL-003 PANCAKE HOUSE 6/6/2006	006-BACKFILL-004 PANCAKE HOUSE 6/6/2006	72-BACKFILL-001 GGPARK-SITE A 4/12/2005	72-BACKFILL-002 GGPARK-SITE A 4/12/2005	72-BACKFILL-003 GGPARK- SITE A 4/12/2005	72-BACKFILL-004 GGPARK-SITE A 4/12/2005	72-BACKFILL-009 DEYOUNG/LETTERMAN 4/19/2005
Analyte	**Units**	**Method**									
HEXACHLOROBENZENE	UG/KG	EPA 8270C	24 U	24 U	24 U	24 U	350 U	350 U	350 U	350 U	380 U
HEXACHLOROBUTADIENE	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
HEXACHLOROCYCLOPENTADIENE	UG/KG	EPA 8270C	2000 U	2000 U	2000 U	2000 U	700 U	690 U	700 U	700 U	760 U
HEXACHLOROETHANE	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	24 U	24 U	24 U	24 U	70 U	69 U	70 U	70 U	76 U
NAPHTHALENE	UG/KG	EPA 8270C	24 U	24 U	24 U	24 U	70 U	69 U	70 U	70 U	76 U
NITROBENZENE	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	EPA 8270C	24 U	24 U	24 U	24 U	350 U	350 U	350 U	350 U	380 U
N-NITROSODIPHENYLAMINE	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
PENTACHLOROPHENOL	UG/KG	EPA 8270C	790 U	800 U	810 U	800 U	700 U	690 U	700 U	700 U	760 U
PHENANTHRENE	UG/KG	EPA 8270C	24 U	24 U	24 U	24 U	70 U	69 U	70 U	70 U	76 U
PHENOL	UG/KG	EPA 8270C	390 U	390 U	400 U	390 U	350 U	350 U	350 U	350 U	380 U
PYRENE	UG/KG	EPA 8270C	24 U	24 U	24 U	24 U	70 U	69 U	70 U	70 U	76 U
PYRIDINE	UG/KG	EPA 8270C	980 U	990 U	1000 U	990 U	NA	NA	NA	NA	NA
Pesticides											
4,4'-DDD	UG/KG	EPA 8081A	3.9 U	3.9 U	4 U	3.9 U	3.5 U	17 U	3.5 U	17 U	3.7 U
4,4'-DDE	UG/KG	EPA 8081A	3.9 U	3.9 U	4 U	3.9 U	3.5 U	17 U	3.5 U	17 U	1.6 J
4,4'-DDT	UG/KG	EPA 8081A	3.9 U	3.9 U	4 U	3.9 U	3.5 U	17 U	3.5 U	17 U	3.7 U
ALDRIN	UG/KG	EPA 8081A	2 U	2 U	2 U	2 U	1.8 U	8.9 U	1.8 U	8.9 U	1.9 U
ALPHA-BHC	UG/KG	EPA 8081A	2 U	2 U	2 U	2 U	1.8 U	8.9 U	1.8 U	8.9 U	1.9 U
BETA-BHC	UG/KG	EPA 8081A	2 U	2 U	2 U	2 U	0.92 CJ	8.9 U	0.48 CJ	8.9 U	1.9 U
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	59 U	60 U	60 U	59 U	32 U	160 U	31 U	160 U	110
DELTA-BHC	UG/KG	EPA 8081A	2 U	2 U	2 U	2 U	1.8 U	8.9 U	1.8 U	8.9 U#	1.9 U
DIELDRIN	UG/KG	EPA 8081A	3.9 U	3.9 U	4 U	3.9 U	3.5 U	17 U	3.5 U	17 U	4.2 C
ENDOSULFAN I	UG/KG	EPA 8081A	2 U	2 U	2 U	2 U	1.8 U	8.9 U	1.8 U	8.9 U	1.9 U
ENDOSULFAN II	UG/KG	EPA 8081A	3.9 U	3.9 U	4 U	3.9 U	3.5 U	17 U	3.5 U	17 U	3.7 U
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	3.9 U	3.9 U	4 U	3.9 U	3.5 U	17 U	3.5 U	17 U	3.7 U
ENDRIN	UG/KG	EPA 8081A	3.9 U	3.9 U	4 U	3.9 U	3.5 U	17 U	3.5 U	17 U	3.7 U
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	3.9 U	3.9 U	4 U	3.9 U	3.5 U	17 U	3.5 U	17 U	3.7 U
ENDRIN KETONE	UG/KG	EPA 8081A	3.9 U	3.9 U	4 U	3.9 U	3.5 U	17 U	3.5 U	17 U	3.7 U
GAMMA-BHC	UG/KG	EPA 8081A	2 U	2 U	2 U	2 U	1.8 U	8.9 U	1.8 U	8.9 U	1.9 U
HEPTACHLOR	UG/KG	EPA 8081A	2 U	2 U	2 U	2 U	1.8 U	8.9 U	1.8 U	8.9 U#	1.5 J
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	2 U	2 U	2 U	2 U	1.8 U	8.9 U	1.8 U	8.9 U	2.5 C
METHOXYCHLOR	UG/KG	EPA 8081A	20 U	20 U	20 U	20 U	18 U	89 U	18 U	89 U#	19 U
TOXAPHENE	UG/KG	EPA 8081A	71 U	72 U	72 U	71 U	63 U	320 U	63 U	310 U	68 U
PCBs											
AROCLOR-1016	UG/KG	EPA 8082	59 U	60 U	60 U	59 U	10 U	10 U	10 U	10 U	11 U
AROCLOR-1221	UG/KG	EPA 8082	59 U	60 U	60 U	59 U	20 U	20 U	20 U	20 U	22 U
AROCLOR-1232	UG/KG	EPA 8082	59 U	60 U	60 U	59 U	10 U	10 U	10 U	10 U	11 U
AROCLOR-1242	UG/KG	EPA 8082	59 U	60 U	60 U	59 U	10 U	10 U	10 U	10 U	11 U
AROCLOR-1248	UG/KG	EPA 8082	59 U	60 U	60 U	59 U	10 U	10 U	10 U	10 U	11 U
AROCLOR-1254	UG/KG	EPA 8082	59 U	60 U	60 U	59 U	10 U	10 U	10 U	10 U	11 U
AROCLOR-1260	UG/KG	EPA 8082	59 U	60 U	60 U	59 U	10 U	10 U	10 U	5.1 J	11 U
Metals											

APPENDIX E

TABLE E-1

BACKFILL SOIL SAMPLING DATA

Sample Number: / Location: / Sample Date:			006-BACKFILL-001 PANCAKE HOUSE 6/6/2006		006-BACKFILL-002 PANCAKE HOUSE 6/6/2006		006-BACKFILL-003 PANCAKE HOUSE 6/6/2006		006-BACKFILL-004 PANCAKE HOUSE 6/6/2006		72-BACKFILL-001 GGPARK-SITE A 4/12/2005		72-BACKFILL-002 GGPARK-SITE A 4/12/2005		72-BACKFILL-003 GGPARK- SITE A 4/12/2005		72-BACKFILL-004 GGPARK-SITE A 4/12/2005		72-BACKFILL-009 DEYOUNG/LETTERMAN 4/19/2005	
Analyte	**Units**	**Method**																		
ANTIMONY	MG/KG	EPA 6010B	5.94	J	11.9	U	12	U	11.9	U	2.9	U	3.2	U	2	U	3.4	U	1	J
ARSENIC	MG/KG	EPA 6010B	2.72		1.77		3.69		1.88		3.6		4.5		3.7		4.4		3.4	
BARIUM	MG/KG	EPA 6010B	44.2		52.9		58.1		77.5		19		28		20		24		63	
BERYLLIUM	MG/KG	EPA 6010B	0.567	J	0.267	J	0.444	J	0.32	J	0.14		0.16		0.13		0.14		0.28	
CADMIUM	MG/KG	EPA 6010B	0.193	J	1.19	U	1.2	U	1.19	U	0.022	J	0.044	J	0.025	J	0.055	J	0.54	
CHROMIUM	MG/KG	EPA 6010B	81.7		75.3		68.2		34.1		38		43		37		36		75	
COBALT	MG/KG	EPA 6010B	5.13		4.01		4.88		3.43		5.1		5.9		4.8		5.4		12	
COPPER	MG/KG	EPA 6010B	6.55		5.61		9.73		5.19		6.6		9.9		6		9.6		9.3	
LEAD	MG/KG	EPA 6010B	2.64		2.54		2.37		1.76		15		24		7.1		15		6.7	
MANGANESE	MG/KG	EPA 6010B	50.7		49.2		86.9		61.9		NA		NA		NA		NA		NA	
MERCURY	MG/KG	EPA 7471A	0.138	J	0.238	U	0.24	U	0.238	U	0.0076	J	0.067		0.041		0.024		0.12	U
MOLYBDENUM	MG/KG	EPA 6010B	0.848	J	5.96	U	6.01	U	5.95	U	0.085	J	0.25	J	0.065	J	0.1	J	0.11	J
NICKEL	MG/KG	EPA 6010B	73.5		64.3		80.8		64.2		23		27		22		24		52	
SELENIUM	MG/KG	EPA 6010B	1.18	U	1.19	U	1.2	U	1.19	U	0.82		1.1		1.1		0.96		0.18	J
SILVER	MG/KG	EPA 6010B	0.876	J	0.314	J	0.443	J	0.351	J	0.048	J	0.079	J	0.16	U	0.084	J	0.23	U
THALLIUM	MG/KG	EPA 6010B	1.99	J	1.52	J	2.4	U	1.34	J	0.24	U	0.27	U	0.16	U	0.29	U	0.23	U
VANADIUM	MG/KG	EPA 6010B	36.4		23.9		30.1		21.6		33		40		33		34		50	
ZINC	MG/KG	EPA 6010B	22.3		16.1		33.7		18.6		22		28		19		26		34	
ASBESTOS	Percent	CARB 435	None Detected		None Detected		None Detected		None Detected		None Detected		None Detected		None Detected		None Detected		None Detected	

Abbreviations and Acronyms:

EPA - Environmental Protection Agency
J-Estimated
NA-Not Analyzed
H-Heavier Hydrocarbons Contributed to the Quantitation
U-Not Detected
Y-Sample Exhibits Chromatographic Pattern Which Does Not Resemble Standard

APPENDIX E

TABLE E-1

BACKFILL SOIL SAMPLING DATA

Sample Number:			72-BACKFILL-010		72-BACKFILL-011		72-BACKFILL-012		72-BACKFILL-013		72-BACKFILL-014		72-BACKFILL-015		72-BACKFILL-016		84-BACKFILL-001		84-BACKFILL-002	
Location:			DEYOUNG/LETTERMAN		DEYOUNG/LETTERMAN		DEYOUNG/LETTERMAN		GELLERT SITE		GELLERT SITE		GELLERT SITE		GELLERT SITE		OAKLAND		OAKLAND	
Sample Date:			4/19/2005		4/19/2005		4/19/2005		6/7/2005		6/7/2005		6/7/2005		6/7/2005		2/13/2006		2/13/2006	
Analyte	**Units**	**Method**																		
Volatiles																				
1,1,1-TRICHLOROETHANE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
1,1,2,2-TETRACHLOROETHANE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
1,1,2-TRICHLOROETHANE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
1,1-DICHLOROETHANE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
1,1-DICHLOROETHENE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
1,2-DICHLOROETHANE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
1,2-DICHLOROPROPANE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
2-BUTANONE	UG/KG	EPA 8260B	11	U	12	U	10	U	12	U	12	U	11	U	12	U	9.3	U	9.1	U
2-HEXANONE	UG/KG	EPA 8260B	11	U	12	U	10	U	12	U	12	U	11	U	12	U	9.3	U	9.1	U
4-METHYL-2-PENTANONE	UG/KG	EPA 8260B	11	U	12	U	10	U	12	U	12	U	11	U	12	U	9.3	U	9.1	U
ACETONE	UG/KG	EPA 8260B	2.4	J	24	U	21	U	5.1	J	24	U	22	U	24	U	19	U	18	U
BENZENE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
BROMODICHLOROMETHANE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
BROMOFORM	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
BROMOMETHANE	UG/KG	EPA 8260B	11	U	12	U	10	U	12	U	12	U	11	U	12	U	9.3	U	9.1	U
CARBON TETRACHLORIDE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
CHLOROBENZENE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
CHLOROETHANE	UG/KG	EPA 8260B	11	U	12	U	10	U	12	U	12	U	11	U	12	U	9.3	U	9.1	U
CHLOROFORM	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
CHLOROMETHANE	UG/KG	EPA 8260B	11	U	12	U	10	U	12	U	12	U	11	U	12	U	9.3	U	9.1	U
CIS-1,2-DICHLOROETHENE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
CIS-1,3-DICHLOROPROPENE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
DIBROMOCHLOROMETHANE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
DIESEL	MG/KG	EPA 8015B	5.5	HY	18	HY	26	HY	1.1	U	1.1	U	0.78	HJY	5.2	HY	1.2	U	2.1	Y
ETHYLBENZENE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
GASOLINE	MG/KG	EPA 8015B	NA		NA		NA			U		U		U		U	NA		NA	
METHYLENE CHLORIDE	UG/KG	EPA 8260B	22	U	24	U	21	U	23	U	24	U	22	U	24	U	4.6	U	4.5	U
MOTOR OIL	MG/KG	EPA 8015B	37		89		90		1.9	J	5.4	U	4	J	20		5.8	U	5.8	U
MTBE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
STYRENE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
TETRACHLOROETHENE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
TOLUENE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
TRANS-1,2-DICHLOROETHENE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
TRANS-1,3-DICHLOROPROPENE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
TRICHLOROETHENE	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
VINYL ACETATE	UG/KG	EPA 8260B	56	U	59	U	52	U	58	U	61	U	54	U	60	U	46	U	45	U
VINYL CHLORIDE	UG/KG	EPA 8260B	11	U	12	U	10	U	12	U	12	U	11	U	12	U	9.3	U	9.1	U
XYLENE (TOTAL)	UG/KG	EPA 8260B	5.6	U	5.9	U	5.2	U	5.8	U	6.1	U	5.4	U	6	U	4.6	U	4.5	U
Semivolatiles																				
1,2,4-TRICHLOROBENZENE	UG/KG	EPA 8270C	370	U	380	U	380	U	380	U	360	U	380	U	370	U	380	U	390	U
1,2-DICHLOROBENZENE	UG/KG	EPA 8270C	370	U	380	U	380	U	380	U	360	U	380	U	370	U	380	U	390	U
1,3-DICHLOROBENZENE	UG/KG	EPA 8270C	370	U	380	U	380	U	380	U	360	U	380	U	370	U	380	U	390	U
1,4-DICHLOROBENZENE	UG/KG	EPA 8270C	370	U	380	U	380	U	380	U	360	U	380	U	370	U	380	U	390	U

APPENDIX E

TABLE E-1

BACKFILL SOIL SAMPLING DATA

Sample Number: Location: Sample Date:			72-BACKFILL-010 DEYOUNG/LETTERMAN 4/19/2005	72-BACKFILL-011 DEYOUNG/LETTERMAN 4/19/2005	72-BACKFILL-012 DEYOUNG/LETTERMAN 4/19/2005	72-BACKFILL-013 GELLERT SITE 6/7/2005	72-BACKFILL-014 GELLERT SITE 6/7/2005	72-BACKFILL-015 GELLERT SITE 6/7/2005	72-BACKFILL-016 GELLERT SITE 6/7/2005	84-BACKFILL-001 OAKLAND 2/13/2006	84-BACKFILL-002 OAKLAND 2/13/2006
Analyte	Units	Method									
2,4,5-TRICHLOROPHENOL	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
2,4,6-TRICHLOROPHENOL	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
2,4-DICHLOROPHENOL	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
2,4-DIMETHYLPHENOL	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
2,4-DINITROPHENOL	UG/KG	EPA 8270C	750 U	770 U	760 U	750 U	730 U	750 U	750 U	760 U	780 U
2,4-DINITROTOLUENE	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
2,6-DINITROTOLUENE	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
2-CHLORONAPHTHALENE	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
2-CHLOROPHENOL	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
2-METHYLPHENOL	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
2-NITROANILINE	UG/KG	EPA 8270C	750 U	770 U	760 U	750 U	730 U	750 U	750 U	760 U	780 U
2-NITROPHENOL	UG/KG	EPA 8270C	750 U	770 U	760 U	750 U	730 U	750 U	750 U	760 U	780 U
3,3'-DICHLOROBENZIDINE	UG/KG	EPA 8270C	750 U	770 U	760 U	750 U	730 U	750 U	750 U	760 U	780 U
3-NITROANILINE	UG/KG	EPA 8270C	750 U	770 U	760 U	750 U	730 U	750 U	750 U	760 U	780 U
4,6-DINITRO-2-METHYLPHENOL	UG/KG	EPA 8270C	750 U	770 U	760 U	750 U	730 U	750 U	750 U	760 U	780 U
4-BROMOPHENYL-PHENYL ETHER	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
4-CHLORO-3-METHYLPHENOL	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
4-CHLOROANILINE	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
4-CHLOROPHENYL-PHENYL ETHER	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
4-METHYLPHENOL	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
4-NITROANILINE	UG/KG	EPA 8270C	750 U	770 U	760 U	750 U	730 U	750 U	750 U	760 U	780 U
4-NITROPHENOL	UG/KG	EPA 8270C	750 U	770 U	760 U	750 U	730 U	750 U	750 U	760 U	780 U
ACENAPHTHENE	UG/KG	EPA 8270C	75 U	77 U	76 U	75 U	73 U	75 U	75 U	76 U	78 U
ACENAPHTHYLENE	UG/KG	EPA 8270C	75 U	77 U	76 U	75 U	73 U	75 U	75 U	76 U	78 U
ANTHRACENE	UG/KG	EPA 8270C	75 U	77 U	76 U	75 U	73 U	75 U	75 U	76 U	78 U
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	75 U	77 U	76 U	75 U	73 U	75 U	75 U	76 U	78 U
BENZO(A)PYRENE	UG/KG	EPA 8270C	75 U	77 U	76 U	75 U	73 U	75 U	75 U	76 U	78 U
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	75 U	77 U	76 U	75 U	73 U	75 U	75 U	76 U	78 U
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	75 U	77 U	76 U	75 U	73 U	75 U	75 U	76 U	78 U
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	75 U	77 U	76 U	75 U	73 U	75 U	75 U	76 U	78 U
BIS(2-CHLOROETHOXY)METHANE	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
BIS(2-CHLOROETHYL)ETHER	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	EPA 8270C	65 J	49 J	74 J	320 J	23 J	23 J	27 J	380 U	390 U
BUTYLBENZYLPHTHALATE	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
CHRYSENE	UG/KG	EPA 8270C	75 U	77 U	76 U	75 U	73 U	75 U	75 U	76 U	78 U
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	75 U	77 U	76 U	75 U	73 U	75 U	75 U	76 U	78 U
DIBENZOFURAN	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
DIETHYLPHTHALATE	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
DIMETHYLPHTHALATE	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
DI-N-BUTYLPHTHALATE	UG/KG	EPA 8270C	370 U	39 J	380 U	380 U	360 U	380 U	370 U	380 U	390 U
DI-N-OCTYLPHTHALATE	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
FLUORANTHENE	UG/KG	EPA 8270C	75 U	77 U	76 U	75 U	73 U	75 U	75 U	76 U	78 U
FLUORENE	UG/KG	EPA 8270C	75 U	77 U	76 U	75 U	73 U	75 U	75 U	76 U	78 U

APPENDIX E

TABLE E-1

BACKFILL SOIL SAMPLING DATA

Sample Number:			72-BACKFILL-010	72-BACKFILL-011	72-BACKFILL-012	72-BACKFILL-013	72-BACKFILL-014	72-BACKFILL-015	72-BACKFILL-016	84-BACKFILL-001	84-BACKFILL-002
Location:			DEYOUNG/LETTERMAN	DEYOUNG/LETTERMAN	DEYOUNG/LETTERMAN	GELLERT SITE	GELLERT SITE	GELLERT SITE	GELLERT SITE	OAKLAND	OAKLAND
Sample Date:			4/19/2005	4/19/2005	4/19/2005	6/7/2005	6/7/2005	6/7/2005	6/7/2005	2/13/2006	2/13/2006
Analyte	Units	Method									
HEXACHLOROBENZENE	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
HEXACHLOROBUTADIENE	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
HEXACHLOROCYCLOPENTADIENE	UG/KG	EPA 8270C	750 U	770 U	760 U	750 U	730 U	750 U	750 U	760 U	780 U
HEXACHLOROETHANE	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	75 U	77 U	76 U	75 U	73 U	75 U	75 U	76 U	78 U
NAPHTHALENE	UG/KG	EPA 8270C	75 U	77 U	76 U	75 U	73 U	75 U	75 U	76 U	78 U
NITROBENZENE	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
N-NITROSODIPHENYLAMINE	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
PENTACHLOROPHENOL	UG/KG	EPA 8270C	750 U	770 U	760 U	750 U	730 U	750 U	750 U	760 U	780 U
PHENANTHRENE	UG/KG	EPA 8270C	75 U	77 U	76 U	75 U	73 U	75 U	75 U	76 U	78 U
PHENOL	UG/KG	EPA 8270C	370 U	380 U	380 U	380 U	360 U	380 U	370 U	380 U	390 U
PYRENE	UG/KG	EPA 8270C	75 U	77 U	76 U	75 U	73 U	75 U	75 U	76 U	78 U
PYRIDINE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides											
4,4'-DDD	UG/KG	EPA 8081A	3.6 U	19 U	19 U	3.8 U	3.7 U	3.8 U	3.8 U	3.8 U	3.9 U
4,4'-DDE	UG/KG	EPA 8081A	1.1 J	19 U	19 U	3.8 U	3.7 U	3.8 U	3.8 U	3.8 U	3.9 U
4,4'-DDT	UG/KG	EPA 8081A	3.6 U	19 U	19 U	3.8 U	3.7 U	3.8 U	3.8 U	3.8 U	3.9 U
ALDRIN	UG/KG	EPA 8081A	1.9 U	9.6 U	9.7 U	2 U	1.9 U	1.9 U	2 U	2 U	2 U
ALPHA-BHC	UG/KG	EPA 8081A	1.9 U	9.6 U	9.7 U	2 U	1.9 U	1.9 U	2 U	2 U	2 U
BETA-BHC	UG/KG	EPA 8081A	1.9 U	9.6 U	9.7 U	2 U	1.9 U	1.9 U	2 U	2 U	2 U
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	85	170 U	170 U	34 U	33 U	34 U	35 U	35 U	35 U
DELTA-BHC	UG/KG	EPA 8081A	1.9 U	9.6 U	9.7 U	2 U	1.9 U	1.9 U	2 U	2 U	2 U
DIELDRIN	UG/KG	EPA 8081A	2.9 CJ	19 U	19 U	3.8 U	3.7 U	3.8 U	3.8 U	3.8 U	0.58 J
ENDOSULFAN I	UG/KG	EPA 8081A	1.9 U	9.6 U	9.7 U	2 U	1.9 U	1.9 U	2 U	2 U	2 U
ENDOSULFAN II	UG/KG	EPA 8081A	3.6 U	19 U	19 U	3.8 U	3.7 U	3.8 U	3.8 U	3.8 U	3.9 U
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	3.6 U	19 U	19 U	3.8 U	3.7 U	3.8 U	3.8 U	3.8 U	3.9 U
ENDRIN	UG/KG	EPA 8081A	3.6 U	19 U	19 U	3.8 U	3.7 U	3.8 U	3.8 U	3.8 U	3.9 U
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	3.6 U	19 U	19 U	3.8 U	3.7 U	3.8 U	3.8 U	3.8 U	3.9 U
ENDRIN KETONE	UG/KG	EPA 8081A	3.6 U	19 U	19 U	3.8 U	3.7 U	3.8 U	3.8 U	3.8 U	3.9 U
GAMMA-BHC	UG/KG	EPA 8081A	1.9 U	9.6 U	9.7 U	2 U	1.9 U	1.9 U	2 U	2 U	2 U
HEPTACHLOR	UG/KG	EPA 8081A	1.2 J	9.6 U	9.7 U	2 U	1.9 U	1.9 U	2 U	2 U	2 U
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	1.6 CJ	9.6 U	9.7 U	2 U	1.9 U	1.9 U	2 U	2 U	2 U
METHOXYCHLOR	UG/KG	EPA 8081A	19 U	96 U	97 U	20 U	19 U	19 U	20 U	20 U	20 U
TOXAPHENE	UG/KG	EPA 8081A	66 U	340 U	340 U	69 U	67 U	69 U	69 U	70 U	71 U
PCBs											
AROCLOR-1016	UG/KG	EPA 8082	11 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	11 U
AROCLOR-1221	UG/KG	EPA 8082	21 U	22 U	22 U	22 U	21 U	21 U	22 U	22 U	23 U
AROCLOR-1232	UG/KG	EPA 8082	11 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	11 U
AROCLOR-1242	UG/KG	EPA 8082	11 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	11 U
AROCLOR-1248	UG/KG	EPA 8082	11 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	11 U
AROCLOR-1254	UG/KG	EPA 8082	11 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	11 U
AROCLOR-1260	UG/KG	EPA 8082	11 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	11 U
Metals											

APPENDIX E

TABLE E-1

BACKFILL SOIL SAMPLING DATA

Sample Number: / Location: / Sample Date:			72-BACKFILL-010 DEYOUNG/LETTERMAN 4/19/2005		72-BACKFILL-011 DEYOUNG/LETTERMAN 4/19/2005		72-BACKFILL-012 DEYOUNG/LETTERMAN 4/19/2005		72-BACKFILL-013 GELLERT SITE 6/7/2005		72-BACKFILL-014 GELLERT SITE 6/7/2005		72-BACKFILL-015 GELLERT SITE 6/7/2005		72-BACKFILL-016 GELLERT SITE 6/7/2005		84-BACKFILL-001 OAKLAND 2/13/2006		84-BACKFILL-002 OAKLAND 2/13/2006	
Analyte	**Units**	**Method**																		
ANTIMONY	MG/KG	EPA 6010B	0.97	J	0.87	J	0.89	J	3.7	U	0.26	J	0.33	J	0.46	J	0.3	J	0.13	J
ARSENIC	MG/KG	EPA 6010B	3.3		3.7		3.7		3.5		4.4		5.5		6.2		2.9		3.4	
BARIUM	MG/KG	EPA 6010B	59		58		50		21		17		27		65		110		98	
BERYLLIUM	MG/KG	EPA 6010B	0.33		0.29		0.29		0.23		0.24		0.26		0.37		0.33		0.35	
CADMIUM	MG/KG	EPA 6010B	0.51		0.56		0.48		0.3	J	0.36		0.47		0.84		0.22	J	0.24	J
CHROMIUM	MG/KG	EPA 6010B	78		59		60		39		48		43		67		65		61	
COBALT	MG/KG	EPA 6010B	10		8.8		8.6		4.7		4.9		5.3		7.8		10		8.9	
COPPER	MG/KG	EPA 6010B	8.7		12		9.9		3		3.4		5.5		15		11		11	
LEAD	MG/KG	EPA 6010B	5.2		24		18		2.2		2.7		3.3		5.5		4.6		13	
MANGANESE	MG/KG	EPA 6010B	NA		NA		NA		150		140		140		220		NA		NA	
MERCURY	MG/KG	EPA 7471A	0.021	J	0.04		0.59		0.06		0.093		0.078		0.092		0.017	J	0.04	
MOLYBDENUM	MG/KG	EPA 6010B	0.092	J	0.16	J	0.2	J	0.23	J	0.17	J	0.15	J	3.2		0.23	J	0.29	J
NICKEL	MG/KG	EPA 6010B	53		52		46		36		33		34		62		48		46	
SELENIUM	MG/KG	EPA 6010B	0.46		0.62		0.17	J	0.31	U	0.31		0.19	J	0.67		0.69	U	0.67	
SILVER	MG/KG	EPA 6010B	0.3	U	0.21	U	0.22	U	0.31	U	0.26	U	0.25	U	0.25	U	0.28	U	0.29	U
THALLIUM	MG/KG	EPA 6010B	0.3	U	0.21	U	0.22	U	0.31	U	0.26	U	0.25	U	0.25	U	0.34	U	0.14	J
VANADIUM	MG/KG	EPA 6010B	51		44		43		24		27		27		39		42		44	
ZINC	MG/KG	EPA 6010B	35		46		38		23		24		30		48		30		39	
ASBESTOS	Percent	CARB 435	None	Detected	None	Detected	None	Detected	None	Detected	None	Detected	None	Detected	None	Detected				

Abbreviations and Acronyms:

EPA - Environmental Protection Agency
J-Estimated
NA-Not Analyzed
H-Heavier Hydrocarbons Contributed to the Quantitation
U-Not Detected
Y-Sample Exhibits Chromatographic Pattern Which Does Not Resemble Standard

APPENDIX E

TABLE E-1

BACKFILL SOIL SAMPLING DATA

Sample Number: Location: Sample Date:			84-BACKFILL-003 OAKLAND 2/13/2006		84-BACKFILL-004 OAKLAND 2/13/2006		84-BACKFILL-013 COW PALACE 3/23/2006		84-BACKFILL-014 COW PALACE 3/23/2006		84-BACKFILL-015 COW PALACE 3/23/2006	84-BACKFILL-016 COW PALACE 3/23/2006
Analyte	**Units**	**Method**										
Volatiles												
1,1,1-TRICHLOROETHANE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
1,1,2,2-TETRACHLOROETHANE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
1,1,2-TRICHLOROETHANE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
1,1-DICHLOROETHANE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
1,1-DICHLOROETHENE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
1,2-DICHLOROETHANE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
1,2-DICHLOROPROPANE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
2-BUTANONE	UG/KG	EPA 8260B	9.6	U	8.8	U	9.4	U	10	U	11 U	11 U
2-HEXANONE	UG/KG	EPA 8260B	9.6	U	8.8	U	9.4	U	10	U	11 U	11 U
4-METHYL-2-PENTANONE	UG/KG	EPA 8260B	9.6	U	8.8	U	9.4	U	10	U	11 U	11 U
ACETONE	UG/KG	EPA 8260B	19	U	18	U	19	U	21	U	21 U	21 U
BENZENE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
BROMODICHLOROMETHANE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
BROMOFORM	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
BROMOMETHANE	UG/KG	EPA 8260B	9.6	U	8.8	U	9.4	U	10	U	11 U	11 U
CARBON TETRACHLORIDE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
CHLOROBENZENE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
CHLOROETHANE	UG/KG	EPA 8260B	9.6	U	8.8	U	9.4	U	10	U	11 U	11 U
CHLOROFORM	UG/KG	EPA 8260B	4.8	U	4.4	U	0.49	J	5.2	U	5.3 U	1.1 J
CHLOROMETHANE	UG/KG	EPA 8260B	9.6	U	8.8	U	9.4	U	10	U	11 U	11 U
CIS-1,2-DICHLOROETHENE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
CIS-1,3-DICHLOROPROPENE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
DIBROMOCHLOROMETHANE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
DIESEL	MG/KG	EPA 8015B	1.7	HY	1.1	U	1.4	HY	0.79	JY	0.97 HJY	1.5 HY
ETHYLBENZENE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
GASOLINE	MG/KG	EPA 8015B	NA		NA		NA		NA		NA	NA
METHYLENE CHLORIDE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
MOTOR OIL	MG/KG	EPA 8015B	10		5.7	U	8.5		5.7	U	4.4 J	7.9
MTBE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
STYRENE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
TETRACHLOROETHENE	UG/KG	EPA 8260B	0.58	J	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
TOLUENE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
TRANS-1,2-DICHLOROETHENE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
TRANS-1,3-DICHLOROPROPENE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
TRICHLOROETHENE	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
VINYL ACETATE	UG/KG	EPA 8260B	48	U	44	U	47	U	52	U	53 U	53 U
VINYL CHLORIDE	UG/KG	EPA 8260B	9.6	U	8.8	U	9.4	U	10	U	11 U	11 U
XYLENE (TOTAL)	UG/KG	EPA 8260B	4.8	U	4.4	U	4.7	U	5.2	U	5.3 U	5.3 U
Semivolatiles												
1,2,4-TRICHLOROBENZENE	UG/KG	EPA 8270C	390	U	380	U	370	U	380	U	390 U	380 U
1,2-DICHLOROBENZENE	UG/KG	EPA 8270C	390	U	380	U	370	U	380	U	390 U	380 U
1,3-DICHLOROBENZENE	UG/KG	EPA 8270C	390	U	380	U	370	U	380	U	390 U	380 U
1,4-DICHLOROBENZENE	UG/KG	EPA 8270C	390	U	380	U	370	U	380	U	390 U	380 U

APPENDIX E

TABLE E-1

BACKFILL SOIL SAMPLING DATA

Sample Number:			84-BACKFILL-003	84-BACKFILL-004	84-BACKFILL-013	84-BACKFILL-014	84-BACKFILL-015	84-BACKFILL-016
Location:			OAKLAND	OAKLAND	COW PALACE	COW PALACE	COW PALACE	COW PALACE
Sample Date:			2/13/2006	2/13/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006
Analyte	Units	Method						
2,4,5-TRICHLOROPHENOL	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
2,4,6-TRICHLOROPHENOL	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
2,4-DICHLOROPHENOL	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
2,4-DIMETHYLPHENOL	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
2,4-DINITROPHENOL	UG/KG	EPA 8270C	780 U	760 U	730 U	770 U	780 U	760 U
2,4-DINITROTOLUENE	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
2,6-DINITROTOLUENE	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
2-CHLORONAPHTHALENE	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
2-CHLOROPHENOL	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
2-METHYLPHENOL	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
2-NITROANILINE	UG/KG	EPA 8270C	780 U	760 U	730 U	770 U	780 U	760 U
2-NITROPHENOL	UG/KG	EPA 8270C	780 U	760 U	730 U	770 U	780 U	760 U
3,3'-DICHLOROBENZIDINE	UG/KG	EPA 8270C	780 U	760 U	730 U	770 U	780 U	760 U
3-NITROANILINE	UG/KG	EPA 8270C	780 U	760 U	730 U	770 U	780 U	760 U
4,6-DINITRO-2-METHYLPHENOL	UG/KG	EPA 8270C	780 U	760 U	730 U	770 U	780 U	760 U
4-BROMOPHENYL-PHENYL ETHER	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
4-CHLORO-3-METHYLPHENOL	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
4-CHLOROANILINE	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
4-CHLOROPHENYL-PHENYL ETHER	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
4-METHYLPHENOL	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
4-NITROANILINE	UG/KG	EPA 8270C	780 U	760 U	730 U	770 U	780 U	760 U
4-NITROPHENOL	UG/KG	EPA 8270C	780 U	760 U	730 U	770 U	780 U	760 U
ACENAPHTHENE	UG/KG	EPA 8270C	78 U	76 U	73 U	77 U	78 U	76 U
ACENAPHTHYLENE	UG/KG	EPA 8270C	78 U	76 U	73 U	77 U	78 U	76 U
ANTHRACENE	UG/KG	EPA 8270C	78 U	76 U	73 U	77 U	78 U	76 U
BENZO(A)ANTHRACENE	UG/KG	EPA 8270C	78 U	76 U	73 U	77 U	78 U	76 U
BENZO(A)PYRENE	UG/KG	EPA 8270C	78 U	76 U	73 U	77 U	78 U	76 U
BENZO(B)FLUORANTHENE	UG/KG	EPA 8270C	78 U	76 U	73 U	77 U	78 U	76 U
BENZO(G,H,I)PERYLENE	UG/KG	EPA 8270C	78 U	76 U	73 U	77 U	78 U	76 U
BENZO(K)FLUORANTHENE	UG/KG	EPA 8270C	78 U	76 U	73 U	77 U	78 U	76 U
BIS(2-CHLOROETHOXY)METHANE	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
BIS(2-CHLOROETHYL)ETHER	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
BUTYLBENZYLPHTHALATE	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
CHRYSENE	UG/KG	EPA 8270C	78 U	76 U	73 U	77 U	78 U	76 U
DIBENZ(A,H)ANTHRACENE	UG/KG	EPA 8270C	78 U	76 U	73 U	77 U	78 U	76 U
DIBENZOFURAN	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
DIETHYLPHTHALATE	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
DIMETHYLPHTHALATE	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
DI-N-BUTYLPHTHALATE	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
DI-N-OCTYLPHTHALATE	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
FLUORANTHENE	UG/KG	EPA 8270C	78 U	76 U	73 U	77 U	78 U	76 U
FLUORENE	UG/KG	EPA 8270C	78 U	76 U	73 U	77 U	78 U	76 U

APPENDIX E

TABLE E-1

BACKFILL SOIL SAMPLING DATA

Sample Number: / Location: / Sample Date:			84-BACKFILL-003 OAKLAND 2/13/2006	84-BACKFILL-004 OAKLAND 2/13/2006	84-BACKFILL-013 COW PALACE 3/23/2006	84-BACKFILL-014 COW PALACE 3/23/2006	84-BACKFILL-015 COW PALACE 3/23/2006	84-BACKFILL-016 COW PALACE 3/23/2006
Analyte	**Units**	**Method**						
HEXACHLOROBENZENE	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
HEXACHLOROBUTADIENE	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
HEXACHLOROCYCLOPENTADIENE	UG/KG	EPA 8270C	780 U	760 U	730 U	770 U	780 U	760 U
HEXACHLOROETHANE	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
INDENO(1,2,3-CD)PYRENE	UG/KG	EPA 8270C	78 U	76 U	73 U	77 U	78 U	76 U
NAPHTHALENE	UG/KG	EPA 8270C	78 U	76 U	73 U	77 U	78 U	76 U
NITROBENZENE	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
N-NITROSODIPHENYLAMINE	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
PENTACHLOROPHENOL	UG/KG	EPA 8270C	780 U	760 U	730 U	770 U	780 U	760 U
PHENANTHRENE	UG/KG	EPA 8270C	78 U	76 U	73 U	77 U	78 U	76 U
PHENOL	UG/KG	EPA 8270C	390 U	380 U	370 U	380 U	390 U	380 U
PYRENE	UG/KG	EPA 8270C	40 J	76 U	73 U	77 U	78 U	76 U
PYRIDINE	UG/KG	EPA 8270C	NA	NA	NA	NA	NA	NA
Pesticides								
4,4'-DDD	UG/KG	EPA 8081A	3.9 U	3.8 U	3.6 U	3.8 U	3.9 U	3.7 U
4,4'-DDE	UG/KG	EPA 8081A	3.9 U	3.8 U	0.92 J	3.8 U	3.9 U	3.7 U
4,4'-DDT	UG/KG	EPA 8081A	3.9 U	3.8 U	0.81 J#	3.8 U	3.9 U	3.7 U
ALDRIN	UG/KG	EPA 8081A	2 U	1.9 U	1.9 U	2 U	2 U	1.9 U
ALPHA-BHC	UG/KG	EPA 8081A	2 U	1.9 U	1.9 U	2 U	2 U	1.9 U
BETA-BHC	UG/KG	EPA 8081A	2 U	1.9 U	1.9 U	2 U	2 U	1.9 U
CHLORDANE (TECHNICAL)	UG/KG	EPA 8081A	36 U	34 U	33 U	35 U	35 U	34 U
DELTA-BHC	UG/KG	EPA 8081A	2 U	1.9 U	1.9 U	2 U	2 U	1.9 U
DIELDRIN	UG/KG	EPA 8081A	3.9 U	3.8 U	3.6 U	3.8 U	3.9 U	3.7 U
ENDOSULFAN I	UG/KG	EPA 8081A	2 U	1.9 U	1.9 U	2 U	2 U	1.9 U
ENDOSULFAN II	UG/KG	EPA 8081A	3.9 U	3.8 U	3.6 U	3.8 U	3.9 U	3.7 U
ENDOSULFAN SULFATE	UG/KG	EPA 8081A	3.9 U	3.8 U	3.6 U	3.8 U	3.9 U	3.7 U
ENDRIN	UG/KG	EPA 8081A	3.9 U	3.8 U	3.6 U	3.8 U	3.9 U	3.7 U
ENDRIN ALDEHYDE	UG/KG	EPA 8081A	3.9 U	3.8 U	3.6 U	3.8 U	3.9 U	3.7 U
ENDRIN KETONE	UG/KG	EPA 8081A	3.9 U	3.8 U	3.6 U	3.8 U	3.9 U	3.7 U
GAMMA-BHC	UG/KG	EPA 8081A	2 U	1.9 U	1.9 U	2 U	2 U	1.9 U
HEPTACHLOR	UG/KG	EPA 8081A	2 U	1.9 U	1.9 U	2 U	2 U	1.9 U
HEPTACHLOR EPOXIDE	UG/KG	EPA 8081A	2 U	1.9 U	1.9 U	2 U	2 U	1.9 U
METHOXYCHLOR	UG/KG	EPA 8081A	20 U	19 U	19 U	20 U	20 U	19 U
TOXAPHENE	UG/KG	EPA 8081A	72 U	68 U	66 U	69 U	70 U	68 U
PCBs								
AROCLOR-1016	UG/KG	EPA 8082	11 U	11 U	11 U	11 U	11 U	11 U
AROCLOR-1221	UG/KG	EPA 8082	23 U	22 U	21 U	22 U	22 U	22 U
AROCLOR-1232	UG/KG	EPA 8082	11 U	11 U	11 U	11 U	11 U	11 U
AROCLOR-1242	UG/KG	EPA 8082	11 U	11 U	11 U	11 U	11 U	11 U
AROCLOR-1248	UG/KG	EPA 8082	11 U	11 U	11 U	11 U	11 U	11 U
AROCLOR-1254	UG/KG	EPA 8082	11 U	11 U	11 U	11 U	11 U	11 U
AROCLOR-1260	UG/KG	EPA 8082	11 U	11 U	11 U	11 U	11 U	11 U
Metals								

APPENDIX E

TABLE E-1

BACKFILL SOIL SAMPLING DATA

Sample Number: / Location: / Sample Date:			84-BACKFILL-003 OAKLAND 2/13/2006		84-BACKFILL-004 OAKLAND 2/13/2006		84-BACKFILL-013 COW PALACE 3/23/2006		84-BACKFILL-014 COW PALACE 3/23/2006	84-BACKFILL-015 COW PALACE 3/23/2006	84-BACKFILL-016 COW PALACE 3/23/2006
Analyte	**Units**	**Method**									
ANTIMONY	MG/KG	EPA 6010B	3.3	U	0.31	J	0.66	J	3.3 U	0.18 J	3.6 U
ARSENIC	MG/KG	EPA 6010B	3.5		2.8		3.2		4.1	3.7	3.4
BARIUM	MG/KG	EPA 6010B	90		100		53		53	54	52
BERYLLIUM	MG/KG	EPA 6010B	0.33		0.32		0.25		0.28	0.21	0.21
CADMIUM	MG/KG	EPA 6010B	0.28		0.24	J	0.11	J	0.11 J	0.11 J	0.12 J
CHROMIUM	MG/KG	EPA 6010B	59		61		65		51	55	50
COBALT	MG/KG	EPA 6010B	11		8.8		6.5		9.1	11	8.6
COPPER	MG/KG	EPA 6010B	12		11		5.5		6.2	7.8	5.2
LEAD	MG/KG	EPA 6010B	9.3		4.3		2.9		3.5	2.4	2.8
MANGANESE	MG/KG	EPA 6010B	NA		NA		NA		NA	NA	NA
MERCURY	MG/KG	EPA 7471A	0.042		0.034		0.01	J	0.011 J	0.011 J	0.0092 J
MOLYBDENUM	MG/KG	EPA 6010B	0.32	J	0.23	J	0.33	J	0.25 J	0.13 J	0.2 J
NICKEL	MG/KG	EPA 6010B	56		47		32		45	49	48
SELENIUM	MG/KG	EPA 6010B	1		0.71		0.11	J	0.19 J	0.14 J	0.3 U
SILVER	MG/KG	EPA 6010B	0.28	U	0.28	U	0.25	U	0.27 U	0.26 U	0.3 U
THALLIUM	MG/KG	EPA 6010B	0.28	U	0.24	J	1.3		0.95	0.85	0.14 J
VANADIUM	MG/KG	EPA 6010B	44		41		49		48	47	43
ZINC	MG/KG	EPA 6010B	43		35		20		24	26	25
ASBESTOS	Percent	CARB 435									

Abbreviations and Acronyms:

EPA - Environmental Protection Agency
J-Estimated
NA-Not Analyzed
H-Heavier Hydrocarbons Contributed to the Quantitation
U-Not Detected
Y-Sample Exhibits Chromatographic Pattern Which Does Not Resemble Standard

APPENDIX F

WASTE DATA AND WASTE MANIFESTS

(Bottle Inventory and Drum Log Included)
(Waste Manifests Available on CD only)

APPENDIX F

TABLE F-1

BOTTLES, JARS, AND CONTAINERS LOG

	Container Number	Date of On-Site Chemical Sampling	Container Type	Contents	Sample Number	Significant On-Site Chemical Sampling Results	Radiological Smear No.	Date of Smear	Comments	Final Disposal Group (Proper Shipping Names)
1	CS-002	1/30/2006	small amber glass vial	greenish brown liquid	84-765	pH 9, peroxide +, oxidizer +, inorganic	021	3/6/2006	minute quantity	Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
2	CS-006	1/30/2006	sealed metal can	"creamed corn"	84-771	pH 6, combustible, organic	011	3/6/2006		Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
3	CS-007	1/30/2006	small amber glass vial	dark red/orange powder	84-768	pH 5, combustible, organic	016	3/6/2006	"Sudan Stain & Histology Dye"	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
4	CS-008	1/30/2006	small clear vial	dark amber liquid	84-766	pH 3, FID 500	015	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
5	CS-009	1/30/2006	small amber vial	grey powder	84-770	pH 5, inorganic	018	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
6	CS-011	1/30/2006	small amber glass vial	light grey powder	84-769	pH 7, inorganic	019	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
7	CS-012	1/30/2006	small clear bottle	dark amber vial	84-767	pH 10, combustible, organic	014	3/6/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
8	CS-013	2/14/2006	medium glass	hard white solid	84-819	pH 7, oxidizer +, inorganic	208	3/10/2006		Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
9	CS-014	2/14/2006	small amber vial	tan/gray powder	84-830	pH 5, inorganic	204	3/10/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
10	CS-015	2/15/2006	small amber vial	orange solid	84-851	pH 6, combustible, organic	242	3/13/2006	container emptied during sampling	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
11	CS-016	2/14/2006	small amber vial	dark brown liquid	84-829	pH 7, inorganic	200	3/10/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
12	CS-016-A	N/A	NR	N/A	N/A	N/A	N/A	N/A	uncontainerized or crushed container - return to excavation for bulking	N/A
13	CS-017	2/14/2006	small amber vial	white solid	84-832	pH 5, organic	198	3/10/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
14	CS-019	2/14/2006	medium amber glass	clear crystals	84-824	pH 7, inorganic	202	3/10/2006	container broken to remove material	Non-RCRA Hazardous Waste Liquid, None, None
15	CS-020	2/14/2006	medium amber glass	amber liquid	84-825	pH 7, inorganic	207	3/10/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
16	CS-021	2/14/2006	medium amber glass	yellow/tan solid	84-831	pH 4, peroxide +, oxidizer +, combustible, organic	196	3/10/2006	container emptied during sampling	Waste, Oxidizing, Solids, Flammable, n.o.s., 5.1(4.1), UN3177, PGI
17	CS-022	2/14/2006	small amber glass	amber liquid	84-835	pH 9, FID 8, combustible	223	3/13/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
18	CS-023	2/14/2006	8 ounce amber	amber liquid	84-818	pH 10, FID 15, peroxide +, inorganic	483	6/23/2006		Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
19	CS-024	N/A	NR	empty container	N/A	N/A	197	3/10/2006	empty container	N/A
20	CS-025	2/14/2006	medium amber glas	clear solid	84-820	pH 7, peroxide +, oxidizer +, inorganic	205	3/10/2006	"rock salt" looking crystals	Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
21	CS-026	N/A	8 ounce can	empty container	N/A	N/A	226	3/13/2006	empty container	N/A
22	CS-027	2/15/2006	large amber glass	pink solid	84-853	pH 7, inorganic	220	3/10/2006		Non-RCRA Hazardous Waste Liquid, None, None
23	CS-029	1/27/2006	medium amber glass	orange-tan solid	84-758	pH 5, oxidizer +, inorganic	001	3/6/2006		Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
24	CS-030	1/27/2006	small amber glass	dark red solid	84-759	pH 2, FID 30, inorganic	004	3/6/2006		Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
25	CS-031	N/A	NR	empty container	N/A	N/A	043	3/6/2006	empty container - return to excavation	N/A
26	CS-032	N/A	NR	empty container	N/A	N/A	008	3/6/2006	empty container - return to excavation	N/A
27	CS-033	1/30/2006	medium amber glass	light grey paste	84-773	pH 10, peroxide +, oxidizer +, inorganic	025	3/6/2006		Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
28	CS-034	1/27/2006	amber glass	clear crystals	84-762	pH 2, inorganic	048	3/6/2006		Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
29	CS-035	1/30/2006	medium clear glass	grey liquid	84-772	pH 6, inorganic	017	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
30	CS-036	1/27/2006	medium amber glass	bright orange solid	84-760	pH 5, peroxide +, oxidizer +, inorganic	42	3/6/2006		Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
31	CS-037	1/30/2006	medium amber glass	dark brown liquid	84-777	FID 50, ingitable, organic	028	3/6/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII

APPENDIX F

TABLE F-1

BOTTLES, JARS, AND CONTAINERS LOG

	Container Number	Date of On-Site Chemical Sampling	Container Type	Contents	Sample Number	Significant On-Site Chemical Sampling Results	Radiological Smear No.	Date of Smear	Comments	Final Disposal Group (Proper Shipping Names)
32	CS-038	1/30/2006	small amber glass vial	light grey powder	84-776	pH 5, inorganic	029	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
33	CS-039	1/27/2006	small amber glass	amber liquid	84-763	pH 4, FID 20, combustible, organic	041	3/6/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
34	CS-040	1/30/2006	small amber glass	gray liquid with paste	84-775	FID 200, inorganic	026	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
35	CS-041	1/30/2006	medium amber glass	white crystals	84-774	pH 4	012	3/6/2006	labeled "Sodium Hypophososphite"	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
36	CS-041-A	2/22/2006	amber glass	clear liquid	84-934	pH 8, FID 20, inorganic	556	10/3/2006	labeled "ammonium phosphate". Container emptied.	Non-RCRA Hazardous Waste Liquid, None, None
37	CS-042	1/27/2006	medium amber glass	yellow solid	84-761	pH 9, oxidizer +, inorganic	047	3/6/2006		Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
38	CS-042-A	2/28/2006	large amber w/no cap	dirt, snowy white crystals and purplish stained needle-like crystals	84-983	pH 3, organic	378	4/21/2006	container emptied/excess material transferred to jar (CS-042.1)	Non-RCRA Hazardous Waste Liquid, None, None
39	CS-043	N/A	NR	residue inside ziplok bag	N/A	N/A	277/500	4/4/2006 6/23/06	empty container	N/A
40	CS-044-A	N/A	quart paint can	empty container	N/A	N/A	381	4/21/2006	empty container-returned to stockpile 10-04-06	N/A
41	CS-045	2/28/2006	medium amber widemouth	slushy orange solid	84-984	pH 3, FID 20, organic	380	4/21/2006		Non-RCRA Hazardous Waste Liquid, None, None
42	CS-048	2/28/2006	amber vial	purplish red paste	84-980	pH 7, oxidizer +, inorganic	276	4/4/2006	container emptied during sampling	Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
43	CS-049	2/27/2006	tall clear glass jar	brownish liquid, crystallized material	84-973	pH 5, peroxide +, oxidizer +, inorganic	382/289	4/21/2006	container emptied during sampling	Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
44	CS-049-A	2/28/2006	amber vial	black paste	84-982	FID 20, combustible, organic	436	4/24/2006	container emptied/water soluble	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
45	CS-049-B	2/28/2006	small widemouth amber	purplish grey crystals	84-985	pH 3, combustible, organic	289	4/4/2006	container emptied during sampling	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
46	CS-050	2/21/2006	small clear glass	brown liquid	84-920	pH 7, inorganic	157	3/8/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
47	CS-051	2/28/2006	small amber bottle	dark pink paste	84-988	pH 3, inorganic	315	4/18/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
48	CS-052	3/1/2006	medium tall clear glass	murky brown liquid	84-993	pH 5, inorganic	149	3/8/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
49	CS-053	3/14/2006	medium clear glass	sludgy/slitty white solid & pale brown liquid	84-1046	pH 3, inorganic	303	4/5/2006		Non-RCRA Hazardous Waste Liquid, None, None
50	CS-054	3/1/2006	small amber vial	dark brown liquid	84-995	pH 9, inorganic	150	3/8/2006	minute quantity/container emptied	Non-RCRA Hazardous Waste Liquid, None, None
51	CS-055	2/28/2006	amber vial	purplish red paste	84-987	pH 7, oxidizer +, inorganic	321	4/20/2006	container emptied during sampling	Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
52	CS-056	2/23/2006	medium amber glass	phenol odor/reddish brown liquid	84-944	FID 50, combustible, organic	445	4/24/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
53	CS-057	3/1/2006	clear glass bottle	clear liquid	84-999	pH 0, oxidizer +, inorganic	143	3/8/2006	labeled "Nitric Acid"/container emptied during sampling	Waste, Oxidizing, Liquids, Corrosive, n.o.s., 5.1(8), UN3098, PGII
54	CS-058	2/24/2006	medium amber glass	red liquid	84-952	FID 13, combustible, organic	281	4/4/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
55	CS-059	4/28/2006	large clear glass	grey solid	84-932	pH 4, inorganic	168	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
56	CS-059A	2/28/2006	large amber widemouth	glassy yellow solid	84-981	pH 8	377/496	4/21/2006 6/23/2006	labeled "Sodium Chromate"/contents transferred into CS-059.2/original pieces labeled CS-059.1	Waste, Oxidizing, Solids, Corrosive, n.o.s., 5.1(8), UN3085, PGII
57	CS-060	2/28/2006	small widemouth amber	purplish grey crystals	84-986	pH 3, combustible, organic	278	4/4/2006	container emptied during sampling	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
58	CS-061	2/28/2006	small amber bottle	greyish white paste	84-989	pH 7, combustible, organic	379	4/21/2006	container emptied during sampling	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
59	CS-062	3/1/2006	amber wide mouth bottle	greenish brown liquid with spots of oil	84-1000	pH 7, FID 70, oxidizer +, inorganic/organic	144	3/8/2006	container emptied during sampling	Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
60	CS-063	N/A	NR	empty container	N/A	N/A	287	4/4/2006	empty container	N/A

APPENDIX F

TABLE F-1

BOTTLES, JARS, AND CONTAINERS LOG

	Container Number	Date of On-Site Chemical Sampling	Container Type	Contents	Sample Number	Significant On-Site Chemical Sampling Results	Radiological Smear No.	Date of Smear	Comments	Final Disposal Group (Proper Shipping Names)
61	CS-064	2/14/2006	medium amber glass	clear liquid	84-836	FID 500, ignitable	225	3/13/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
62	CS-065	4/28/2006	large amber bottle	brown liquid	84-935	pH 4, FID 500, flammable, organic	167	3/8/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
63	CS-066	2/27/2006	small, narrow clear glass medicine bottles	gray liquid with hardened material	84-972	pH 7, inorganic	291	4/4/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
64	CS-067	2/27/2006	widemouth glass jar	white crystal	84-961	FID 10, ignitable, organic	301	4/5/2006	container emptied during sampling	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
65	CS-068	2/22/2006	medium amber glass	green/pink liquid	84-937	pH 6, FID 1500, ignitable, inorganic/organic	440	4/24/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
66	CS-069	4/28/2006	medium amber glass	green liquid	84-936	pH 6, inorganic	443	4/24/2006		Non-RCRA Hazardous Waste Liquid, None, None
67	CS-070	2/22/2006	small amber bottle	clear liquid	84-939	pH 7, inorganic	375	4/24/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
68	CS-072	2/23/2006	amber wide mouth bottle	olive green liquid/clear crystallized material/neg peroxide	84-943	pH 14, inorganic	376	4/21/2006	container emptied during sampling	Waste, Corrosive, Liquid, Basic, Inorganic, n.o.s., 8, UN3266, PGII
69	CS-073	2/22/2006	large amber bottle	dark brown liquid	84-938	FID 1500, ignitable, organic	460/441	4/24/2006 6/20/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
70	CS-077	3/14/2006	1 gallon paint can	white crystalline substance	84-1029	FID 10, pH 14	560	10/3/2006	sticky goo in bottom of ziploc bag/soft sticky & curd-like material rather than crystals	Waste, Corrosive, Liquid, Basic, Inorganic, n.o.s., 8, UN3266, PGII
71	CS-078	3/27/2006	medium amber jar	pinkish granules	84-1152	pH 7, inorganic	411/488	4/24/2006 6/23/2006	labeled "DRIONITE"/container emptied/sample #was 84-1139	Non-RCRA Hazardous Waste Liquid, None, None
72	CS-079	3/24/2006	medium glass stopper lab bottle	clear brownish purple liquid	84-1131	pH 0, inorganic	409	4/24/2006	container emptied during sampling	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
73	CS-080	3/24/2006	shouldered amber jar	hard white solid	84-1099	pH 12	472	6/20/2006	original container emptied and broken	Waste, Corrosive, Liquid, Basic, Inorganic, n.o.s., 8, UN3266, PGII
74	CS-081	3/22/2006	tall clear glass jar	fibrous dark yellow crystals	84-1106	pH 3, organic	468	4/20/2006	original container completely emptied	Non-RCRA Hazardous Waste Liquid, None, None
75	CS-082	3/22/2006	amber vial	reddish purple solid	84-1102	FID 20, oxidizer +, organic	458	6/20/2006	container emptied during sampling	Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
76	CS-083	3/22/2006	medium shouldered amber	hardened brown solid	84-1101	pH 11	467	6/20/2006		Waste, Corrosive, Liquid, Basic, Inorganic, n.o.s., 8, UN3266, PGII
77	CS-084	3/21/2006	clear tall widemouth	dark yellow liquid	84-1096	pH 7, peroxide +, oxidizer +, inorganic	374	4/21/2006	container emptied during sampling	Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
78	CS-086	3/22/2006	32 ounce amber	pink granules	84-1098	pH 7, inorganic	478	6/23/2006	contents remaining in original container	Non-RCRA Hazardous Waste Liquid, None, None
79	CS-087	N/A	NR	empty container	N/A	N/A	356	4/20/2006	empty container/marked "Sodium Hypophospha(i)te"	N/A
80	CS-088	N/A	NR	N/A	N/A	N/A	N/A	N/A	uncontainerized material	N/A
81	CS-089	3/21/2006	small clear glass	clear yellow liquid	84-1092	pH 5, peroxide +, inorganic	357	4/20/2006		Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
82	CS-090	N/A	NR	empty container	N/A	N/A	349	4/20/2006	empty container	N/A
83	CS-091	3/21/2006	quart paint can	orange solid	84-1090	FID 200, oxidizer +, combustible, inorganic/organic	350	4/20/2006	contents remaining in original container	Waste, Oxidizing, Solids, Flammable, n.o.s., 5.1(4.1), UN3177, PGI
84	CS-092	N/A	NR	empty container	N/A		352	4/20/2006	empty container	N/A
85	CS-093	3/21/2006	medium amber jar	olive green paste	84-1089	pH 6, inorganic	351	4/20/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
86	CS-094	3/21/2006	medium clear glass bottle	pale, clear amber liquid	84-1095	FID 15, pH 1, inorganic	493	6/23/2006	container emptied during sampling	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
87	CS-095	3/21/2006	small amber jar	greyish tan paste	84-1086	pH 5, inorganic	358	4/20/2006	container emptied and broken	Non-RCRA Hazardous Waste Liquid, None, None
88	CS-096	3/21/2006	small amber jar	bright orange crystals	84-1087	pH 6, peroxide +, oxidizer +, inorganic	404	4/24/2006	strong pos peroxide/container emptied/possibly "Potassium Chromate"	Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
89	CS-096-A	3/24/2006	small clear glass bottle	brown/tan liquid	84-1132	FID 250, pH 1	359	4/20/2006	container emptied during sampling	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
90	CS-097	3/21/2006	small amber	snowy white platy crystals	84-1082	pH 10, ignitable, organic	360	4/20/2006	neg peroxide/container emptied	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII

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BOTTLES, JARS, AND CONTAINERS LOG

	Container Number	Date of On-Site Chemical Sampling	Container Type	Contents	Sample Number	Significant On-Site Chemical Sampling Results	Radiological Smear No.	Date of Smear	Comments	Final Disposal Group (Proper Shipping Names)
91	CS-098	N/A	NR	empty container	N/A	N/A	355	4/20/2006	empty container	N/A
92	CS-099	3/16/2006	medium amber jar	murky brown liquid	84-1078	pH 7, inorganic	361	4/20/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
93	CS-100	3/16/2006	small amber jar	tan liquid	84-1077	FID 20, pH 1, inorganic	353	4/20/2006	neg peroxide/container emptied	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
94	CS-101	3/24/2006	small amber	clear liquid	84-1114	pH 7, FID 200, inorganic	354/520	4/20/2006 6/23/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
95	CS-101A	N/A	NR	empty container	N/A	N/A	354	N/A	return to stockpile	N/A
96	CS-102	3/21/2006	small shouldered amber jar	fluffy white crystals	84-1084	pH 2, combustible, organic	362	4/20/2006	container emptied during sampling	Waste, Corrosive, Solids, Flammable, n.o.s., 8 (4.1), UN2921, PGII
97	CS-102-A	3/21/2006	medium amber	sticky dark amber liquid	84-1093	pH 7, FID 80, organic	371	4/21/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
98	CS-102-B	2/14/2006	small amber glass wide mouth	dark brown solid	84-828	pH 7, inorganic	372	4/21/2006		Non-RCRA Hazardous Waste Liquid, None, None
99	CS-102-C	N/A	open paint can	empty container	N/A	N/A	N/A	N/A	uncontainerized material	N/A
100	CS-102-D	3/22/2006	small shouldered amber jar	tan powder	84-1103	pH 6, combustible, organic	201	3/10/2006	original container completely emptied	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
101	CS-103	3/21/2006	small amber	blue/grey platy crystals	84-1085	pH 2, ignitable, organic	363/474	4/20/2006 6/20/2006	neg peroxide/container emptied	Waste, Corrosive, Solids, Flammable, n.o.s., 8 (4.1), UN2921, PGII
102	CS-104	3/16/2006	small shouldered amber	Murky brown liquid	84-1079	pH 9, inorganic	364	4/21/2006	minute quantity/container emptied	Non-RCRA Hazardous Waste Liquid, None, None
103	CS-104-A	3/21/2006	small amber bottle	amber liquid	84-1094	FID 1500	373	4/21/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
104	CS-105	3/21/2006	small clear jar	slushy white crystals	84-1083	pH 2, organic	365/469	4/21/2006 6/20/2006	neg peroxide/container emptied	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
105	CS-105-A	3/22/2006	tin can	tan fibrous material	84-1104	pH 6, FID 4, organic			contents remaining in original container	Non-RCRA Hazardous Waste Liquid, None, None
106	CS-106	3/16/2006	small amber	murky brown liquid	84-1080	pH 9, peroxide +, oxidizer +, inorganic	366	4/21/2006		Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
107	CS-106-A	3/22/2006	medium shouldered amber	grayish purple crystalline mass	84-1105	pH 2, oxidizer +, peroxide +, organic	506	6/23/2006	contents remaining in original container	Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
108	CS-107	3/16/2006	medium amber screw cap bottle	amber liquid	84-1076	FID 1000, flammable, organic	367	4/21/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
109	CS-108	N/A	paint can fragments	dried paint	N/A	N/A	503	6/23/2006	uncontainerized material	N/A
110	CS-112	N/A	broken bottle	empty container	N/A	N/A	N/A	N/A	uncontainerized material	N/A
111	CS-114	2/8/2006	medium amber glass	yellow bottom, clear top	84-810	pH 5, inorganic	171	3/10/2006	original container emptied	Non-RCRA Hazardous Waste Liquid, None, None
112	CS-115	2/14/2006	small clear glass	amber liquid	84-834	pH 7, inorganic	227	3/13/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
113	CS-116	2/14/2006	small amber glass	tan crystals	84-827	ingnitable, organic	203	3/10/2006		Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
114	CS-117	2/9/2006	square amber glass	bright green liquid	84-811	pH 0, oxidizer +, inorganic	232	3/13/2006	container emptied during sampling	Waste, Oxidizing, Liquids, Corrosive, n.o.s., 5.1(8), UN3098, PGII
115	CS-118	2/14/2006	medium glass	bright yellow liquid	84-817	pH 10, peroxide +, oxidizer +, inorganic	199	3/1/2006	container emptied during sampling	Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
116	CS-119	2/15/2006	amber glass	grey solid	84-854	pH 8, organic	214	3/10/2006		Non-RCRA Hazardous Waste Liquid, None, None
117	CS-120	2/14/2006	small amber glass	irridescent green solid	84-821	FID 20, pH 4, combustible, organic	206	3/10/2006	container broken to remove material	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
118	CS-121	2/20/2006	small amber glass	grey solid	84-897	pH 7, oxidizer +, inorganic	268	3/13/2006	container emptied during sampling	Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
119	CS-122	2/14/2006	medium amber glass	green liquid with clear crystals	84-826	pH 9, inorganic	498	6/23/2006		Non-RCRA Hazardous Waste Liquid, None, None
120	CS-124	2/9/2006	small amber glass	yellow liquid	84-812	pH 1, inorganic	229	3/13/2006	container emptied during sampling	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
121	CS-126	N/A	NR	empty container	N/A	N/A	518	6/23/2006	empty container	N/A
122	CS-128	2/21/2006	small amber vial	amber liquid	84-917	FID 20, ignitable, organic	158	3/8/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII

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TABLE F-1

BOTTLES, JARS, AND CONTAINERS LOG

	Container Number	Date of On-Site Chemical Sampling	Container Type	Contents	Sample Number	Significant On-Site Chemical Sampling Results	Radiological Smear No.	Date of Smear	Comments	Final Disposal Group (Proper Shipping Names)
123	CS-130	2/8/2006	small amber glass vial	dark red solid	84-809	pH 5, organic	432/179	4/24/2006 3/10/2006		Non-RCRA Hazardous Waste Liquid, None, None
124	CS-131	2/14/2006	small amber vial	purple/brown solid	84-833	pH 7, inorganic	235	3/13/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
125	CS-132	2/15/2006	amber glass	orange crystals	84-852	pH 6, peroxide +, oxidizer +, inorganic	218	3/10/2006	container emptied during sampling	Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
126	CS-133	2/20/2006	small amber glass	white solid	84-891	FID 5, pH 4, combustible	270	3/13/2006	container emptied during sampling	Waste, Flammable, Solids, Inorganic, n.o.s. 4.1, UN3178, PGII
127	CS-134	4/1/2706	small amber glass	black solid	84-802	pH 4,combustible, organic	177	3/10/2006	container emptied during sampling	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
128	CS-135	2/8/2006	small clear glass	tank liquid	84-800	oxidizer +, inorganic	174	3/10/2006	container emptied during sampling	Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
129	CS-136	2/21/2006	small amber glass	grey solid	84-909	pH 8, combustible, organic	162	3/8/2006	container emptied during sampling	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
130	CS-137	4/19/2006	small amber vial	brown solid	84-925	pH 7, combustible, organic	145	3/8/2006	container emptied during sampling	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
131	CS-138	N/A	NR	empty container	N/A	N/A	165	3/8/2006	empty container	N/A
132	CS-139	2/20/2006	small clear glass	green liquid	84-887	pH 9, peroxide +, oxidizer +, inorganic	192	3/10/2006		Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
133	CS-140	2/20/2006	small amber vial	purple sludge	84-885	FID 50, inorganic	271	3/13/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
134	CS-141	2/23/2006	clear glass widemouth	murky brown liquid	84-945	pH 9, oxidizer +, inorganic	434	4/24/2006	container emptied during sampling	Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
135	CS-142	2/20/2006	1 quart amber	Pink granular solid	84-893	pH 4, inorganic	479	6/23/2006	container broken and emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
136	CS-143	2/20/2006	amber wide mouth bottle	labeled "ferrous sulfate"	84-895	N/A	504	6/23/2006	original container emptied	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
137	CS-144	3/22/2006	medium shouldered amber	pink granules	84-1100	pH 7, inorganic	489	6/23/2006	contents remaining in original container	Non-RCRA Hazardous Waste Liquid, None, None
138	CS-145	3/22/2006	medium shouldered amber	dark brown paste	84-1097	pH 2, organic	461	6/20/2006	contents remaining in original container	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
139	CS-146	2/24/2006	medium clear glass	dark brown liquid, turbid	84-954	FID 20, pH 11	386	4/21/2006	container emptied during sampling	Waste, Corrosive, Liquid, Basic, Inorganic, n.o.s., 8, UN3266, PGII
140	CS-147	3/24/2006	clear glass	green liquid	84-1133	pH 8, peroxide +, oxidizer +, inorganic	395	4/24/2006	cap marked "Baker"/minute quanity	Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
141	CS-148	N/A	NR	empty container	N/A	N/A	480	6/23/2006	empty container labeled potassium thiocyan…	N/A
142	CS-149	2/20/2006	amber glass	brown liquid	84-888	pH 9, inorganic	267	3/13/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
143	CS-150	4/25/2006	medium amber glass	pink solid	84-804	pH 7, inorganic	389/175	4/21/2006 3/10/2006		Non-RCRA Hazardous Waste Liquid, None, None
144	CS-150-A	3/16/2006	large clear glass bottle screw cap	yellow liquid with feathery white crystals	84-1063	pH 14	389		contents transferred into CS-150.1/some crystalls adhered to jar	Waste, Corrosive, Liquid, Basic, Inorganic, n.o.s., 8, UN3266, PGII
145	CS-152	3/16/2006	clear glass bottle	murky brown liquid	84-1062	pH 1, inorganic	393	4/21/2006	container emptied during sampling	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
146	CS-154	N/A	paint can fragments	dried paint	N/A	N/A	502	6/23/2006	uncontainerized material	N/A
147	CS-155	2/21/2006	small amber glass	white solid	84-908	pH 7, combustible, organic	164	3/8/2006	container emptied during sampling	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
148	CS-156	2/24/2006	medium clear glass	murky brown liquid with some whitish material	84-953	pH 11, oxidizer +, inorganic	383	4/21/2006		Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
149	CS-157	2/20/2006	amber glass	brown liquid	84-882	pH 7, inorganic	273	3/13/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
150	CS-158	2/20/2006	amber glass	amber liquid crystallized solids	84-886	pH 11 neg peroxide	190	3/10/2006		Waste, Corrosive, Liquid, Basic, Inorganic, n.o.s., 8, UN3266, PGII
151	CS-159	2/20/2006	clear glass	brown liquid	84-889	pH 7, peroxide +, oxidizer +, inorganic	191	3/10/2006		Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
152	CS-160	2/20/2006	small amber vial	purple solid	84-890	pH 5, inorganic	269	3/13/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None

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TABLE F-1

BOTTLES, JARS, AND CONTAINERS LOG

	Container Number	Date of On-Site Chemical Sampling	Container Type	Contents	Sample Number	Significant On-Site Chemical Sampling Results	Radiological Smear No.	Date of Smear	Comments	Final Disposal Group (Proper Shipping Names)
153	CS-161	2/20/2006	large amber glass	amber liquid	84-881	FID 10, ignitable, organic	169	3/8/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
154	CS-162	2/20/2006	medium amber glass	orange/brown liquid	84-884	pH 7, inorganic	266	3/13/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
155	CS-163	2/20/2006	medium amber glass	clear liquid	84-880	pH 4, FID 1000, combustible, organic	265	3/13/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
156	CS-164	2/21/2006	small amber glass	white solid	84-910	pH 7, inorganic	154	3/8/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
157	CS-165	2/21/2006	medium amber glass	orange solid	84-907	pH 5, peroxide +, oxidizer +, inorganic	163	3/8/2006	container emptied during sampling	Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
158	CS-166	2/21/2006	medium amber	white solid	84-906	pH 6, inorganic	186	3/10/2006		Non-RCRA Hazardous Waste Liquid, None, None
159	CS-167	2/21/2006	medium amber glass vial	pink solid	84-911	pH 7, inorganic	189	3/10/2006		Non-RCRA Hazardous Waste Liquid, None, None
160	CS-168	2/20/2006	large amber vial	sticky dark blue paste	84-892	pH 5, inorganic	484	6/23/2006	residual contents in original container	Non-RCRA Hazardous Waste Liquid, None, None
161	CS-169	2/20/2006	amber glass	yellow liquid	84-883	FID 400, ignitable, organic	272	4/4/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
162	CS-170	4/25/2006	medium amber glass	green liquid	84-801	pH 1, oxidizer +, inorganic	176	3/10/2006	container emptied during sampling	Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
163	CS-171	4/25/2006	small clear glass	white solid	84-808	inorganic	172	3/10/2006	no pH	Non-RCRA Hazardous Waste Liquid, None, None
164	CS-173	4/26/2006	metal can	yellow/brown solid	84-803	pH 5, inorganic	178	3/10/2006		Non-RCRA Hazardous Waste Liquid, None, None
165	CS-176	4/26/2006	medium amber glass	green liquid with green solid	84-807	pH 7, inorganic	181	3/10/2006		Non-RCRA Hazardous Waste Liquid, None, None
166	CS-177	4/24/2006	medium clear glass	amber liquid	84-806	pH 4, FID 20, organic	180	3/10/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
167	CS-178	4/25/2006	small glass	orange paste	84-805	pH 7, peroxide +, oxidizer +, inorganic	173	3/10/2006		Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
168	CS-179	1/23/2006	small amber glass	pale yellow/green liquid	84-640	pH 7	083	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
169	CS-180	1/23/2006	small amber glass	grey paste	84-654	pH 9, inorganic	103	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
170	CS-181	1/23/2006	small amber glass	green fluid	84-649	pH 7, FID 2	081	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
171	CS-182	1/23/2006	small clear glass	white powder	84-645	pH 3.5, inorganic	080	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
172	CS-183	1/23/2006	small amber glass	orange liquid	84-639	pH 6, peroxide +, oxidizer +, inorganic	088	3/6/2006		Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
173	CS-184	1/23/2006	small amber glass	pink solid	84-650	pH 11, peroxide +, oxidizer +, inorganic	078	3/6/2006		Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
174	CS-186	1/23/2006	small clear glass	fluorescent green liquid	84-653	FID 250, combustible, organic	109	3/8/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
175	CS-187	1/26/2005	small metal paint can	dark brown liquid	84-747	FID 500, inorganic/organic	040	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
176	CS-188	N/A	NR	empty container	N/A	N/A	453	4/24/2006	adhesive can - send back to excavation for bulking	N/A
177	CS-189	1/23/2006	small clear glass	white solid	84-651	pH 5, oxidizer +, inorganic	110	3/8/2006		Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
178	CS-190	1/23/2006	small amber glass	dark amber liquid	84-652	FID 550, combustible, organic	104	3/8/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
179	CS-191	1/23/2006	small glass	fluorescent green	84-643	pH 8, FID 5, inorganic	085	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
180	CS-192	1/23/2006	small amber glass	dark amber and fluorescent green	84-662	FID 250, ignitable, organic	101	3/8/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
181	CS-192.1	1/23/2006	small amber glass	dark amber and fluorescent green	84-662A	pH 6, FID 250, inorganic	101	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None

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BOTTLES, JARS, AND CONTAINERS LOG

	Container Number	Date of On-Site Chemical Sampling	Container Type	Contents	Sample Number	Significant On-Site Chemical Sampling Results	Radiological Smear No.	Date of Smear	Comments	Final Disposal Group (Proper Shipping Names)
182	CS-193	1/23/2006	1/2 gallon	yellow liquid	84-638	pH 0, FID 10, inorganic	077	3/6/2006		Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
183	CS-194	1/23/2006	small clear glass	amber liquid	84-656	pH 3, inorganic	106	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
184	CS-195	1/30/2006	small amber glass	clear liquid	84-781	pH 3, FID 150, organic	027	3/6/2006	acetic acid smell	Non-RCRA Hazardous Waste Liquid, None, None
185	CS-196	1/23/2006	small amber glass	black powder	84-664	FID 15, combustible, organic	102	3/8/2006		Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
186	CS-197	1/23/2006	small amber glass vial	red/brown powder	84-660	inorganic	097	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
187	CS-198	1/23/2006	small amber glass vial	white powder	84-658	pH 5	108	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
188	CS-199	1/23/2006	small amber glass vial	white powder	84-659	pH 5, combustible	105	3/8/2006		Waste, Flammable, Solids, Inorganic, n.o.s. 4.1, UN3178, PGII
189	CS-200	1/23/2006	small amber glass	dark grey liquid	84-665	pH 9, inorganic	098	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
190	CS-201	1/23/2006	small amber glass	black liquid	84-663	pH 5, inorganic	100	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
191	CS-202	N/A	NR	empty container	N/A	N/A	096	3/8/2006	empty container	N/A
192	CS-202-A	2/27/2006	amber vial	white solid	84-968	pH 5, organic	295	4/4/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
193	CS-203	1/23/2006	small amber glass	clear liquid	84-644	pH 5, inorganic	082	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
194	CS-204	1/23/2006	small clear glass	brown liquid	84-646	pH 1, FID 100, inorganic	274	3/13/2006		Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
195	CS-205	1/23/2006	small amber glass	brown liquid	84-647	pH 3, inorganic	086	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
196	CS-206	1/23/2006	small amber glass	brown liquid	84-648	pH 7	084		minimal contents	Non-RCRA Hazardous Waste Liquid, None, None
197	CS-207	2/15/2006	clear glass	clear liquid	84-842	pH 2, FID 5, inorganic	244	3/13/2006	container emptied during sampling	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
198	CS-208	2/15/2006	1/2 gallon	amber liquid with fluorescent green	84-843	pH 4, organic	084/279	3/6/2006 4/4/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
199	CS-209	2/16/2006	large glass	blue-green powder	84-871	pH 7, oxidizer +, inorganic	263	3/13/2006		Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
200	CS-211	2/15/2006	1 gallon	pink solid	84-857	pH 7, inorganic	215	3/10/2006		Non-RCRA Hazardous Waste Liquid, None, None
201	CS-212	2/16/2006	amber glass	liquid w/crystals	84-868	pH 4, inorganic	250	3/13/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
202	CS-213	2/15/2006	medium amber glass	tan solid	84-855	pH 6, organic	240	3/13/2006	container broken to obtain contents	Non-RCRA Hazardous Waste Liquid, None, None
203	CS-214	1/23/2006	small glass	orange-tan solid	84-642	pH 9, oxidizer +, organic	079	3/6/2006		Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
204	CS-215	2/15/2006	small amber glass	brown solid	84-856	FID 20, pH 2, inorganic	221	3/13/2006	container emptied during sampling	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
205	CS-216	2/15/2006	amber glass	amber liquid with fluorescent green	84-841	ignitable, FID 100, organic	246	3/13/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
206	CS-217	2/15/2006	clear glass	clear liquid	84-844	pH 2, inorganic	247	3/13/2006		Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
207	CS-218	1/23/2006	small amber glass	clear liquid	84-641	FID 300, combustible	087	3/6/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
208	CS-219	2/21/2006	amber glass	grey solid	84-902	pH 12, inorganic	188	3/10/2006		Waste, Corrosive, Liquid, Basic, Inorganic, n.o.s., 8, UN3266, PGII
209	CS-221	2/16/2006	small amber vial	tan liquid	84-867	pH 5, inorganic	256	3/13/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
210	CS-222	2/15/2006	small amber glass	green paste and dirt	84-850	pH 8, organic	241	3/13/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
211	CS-223	2/16/2006	clear glass	brown liquid	84-866	FID 400, ignitable, organic	252	3/13/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII

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BOTTLES, JARS, AND CONTAINERS LOG

	Container Number	Date of On-Site Chemical Sampling	Container Type	Contents	Sample Number	Significant On-Site Chemical Sampling Results	Radiological Smear No.	Date of Smear	Comments	Final Disposal Group (Proper Shipping Names)
212	CS-224	1/23/2006	small amber glass	yellow liquid	84-655	pH 2, FID 100, inorganic	107	3/8/2006		Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
213	CS-225	2/15/2006	small clear glass	fluorescent green with amber crystals	84-848	FID 40, flammable, inorganic/organic	219	3/10/2006	camphor odor	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
214	CS-226	1/23/2006	small amber glass	blue liquid	84-661	pH 7, oxidizer +, inorganic	095	3/8/2006		Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
215	CS-227	2/16/2006	amber glass	dark orange solid	84-873	pH 7, peroxide +, oxidizer +, inorganic	259	3/13/2006	container emptied during sampling	Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
216	CS-228	2/15/2006	large amber glass	white solid	84-849	pH 12, oxidizer +, inorganic	217	3/10/2006		Waste, Oxidizing, Solids, Corrosive, n.o.s., 5.1(8), UN3085, PGII
217	CS-229	2/15/2006	medium amber glass	dark orange liquid	84-845	FID 500, ignitable, organic	216	3/10/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
218	CS-230	2/15/2006	large amber glass	flourescent green liquid	84-846	pH 7, inorganic	245	3/13/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
219	CS-231	2/16/2006	medium amber glass	amber liquid	84-862	pH 12, combustible, organic	213	3/10/2006		Waste, Corrosive, Liquid, Flammable, n.o.s., 8(3), UN2920, PGII
220	CS-232	2/16/2006	amber glass	brown liquid	84-863	pH 10, combustible, organic	254	3/13/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
221	CS-233	2/16/2006	large glass	blue-green powder	84-870	pH 7, oxidizer +, inorganic	262	3/13/2006		Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
222	CS-234	4/19/2006	small amber glass	dark green solid	84-923	FID 50, ignitable	155	3/8/2006	"Bakers" container emptied during sampling	Waste, Flammable, Solids, Inorganic, n.o.s, 4.1, UN3178, PGII
223	CS-235	2/16/2006	small glass	orange solid	84-861	pH 10, combustible, organic	255	3/13/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
224	CS-236	2/21/2006	large clear glass	green liquid	84-919	pH 10, FID 50, oxidizer +, inorganic	170	3/8/2006	container emptied during sampling	Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
225	CS-237	2/15/2006	small amber glass	green liquid	84-840	pH 8, inorganic	249	3/13/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
226	CS-238	2/15/2006	medium amber glass	pale orange liquid	84-839	pH 2	248	3/13/2006	container emptied during sampling	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
227	CS-238	1/26/2006	small glass jar	light grey solid	84-756	pH 12, oxidizer +, inorganic	010	3/6/2006	sample number used twice accidentally, see previous entry	Waste, Oxidizing, Solids, Corrosive, n.o.s., 5.1(8), UN3085, PGII
228	CS-239	N/A	NR	empty container	N/A	N/A	239	3/13/2006	empty container	N/A
229	CS-240	4/27/2006	small amber vial	red solid	84-928	pH 7, inorganic	136	3/8/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
230	CS-241	2/21/2006	clear vial	green paste and dirt	84-905	pH 9, inorganic	187	3/10/2006		Non-RCRA Hazardous Waste Liquid, None, None
231	CS-242	2/15/2006	small amber glass	gray liquid with crystals	84-847	pH 10, inorganic	243	3/13/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
232	CS-243	2/20/2006	square amber glass	yellowish paste	84-894	pH 1, inorganic	481	6/23/2006	some contents remain	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
233	CS-244	2/16/2006	clear glass	white solid	84-872	pH 7, inorganic	260	3/13/2006		Non-RCRA Hazardous Waste Liquid, None, None
234	CS-245	2/16/2006	small clear glass	pink liquid	84-869	pH 7, inorganic	251	3/13/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
235	CS-246	2/27/2006	medium amber bottle	pale clear orange liquid	84-974	FID 100, ignitable, organic	384	4/21/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
236	CS-247	4/28/2006	clear glass	grey/white solid	84-931	pH 9, inorganic	194	3/10/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
237	CS-248	2/21/2006	amber glass	grey solid with crystals	84-904	FID 10, combustible, organic	182	3/10/2006		Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
238	CS-249	2/27/2006	widemouth tall clear glass jar	brown solid	84-965	pH 5, oxidizer +, inorganic	296	4/5/2006	container emptied during sampling	Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
239	CS-250	2/14/2006	small clear glass	unknown reactive liquid	84-822	pH 0	224	3/13/2006	neck stopper sealed with putty. Fumed when opened. Spilled drop reacted to a tarry, dark brown-purple solid.	Waste, Oxidizing, Liquid, Corrosive, n.o.s., 5.1(8), UN3098, PGI, Inhalation Hazard
240	CS-251	2/16/2006	small clear glass	clear liquid	84-860	pH 2, inorganic	257	3/13/2006	container emptied during sampling	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII

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BOTTLES, JARS, AND CONTAINERS LOG

	Container Number	Date of On-Site Chemical Sampling	Container Type	Contents	Sample Number	Significant On-Site Chemical Sampling Results	Radiological Smear No.	Date of Smear	Comments	Final Disposal Group (Proper Shipping Names)
241	CS-252	2/16/2006	amber glass	blue liquid with red crystals	84-864	pH 10, oxidizer +, inorganic	253	3/13/2006		Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
242	CS-253	2/27/2006	medium amber screw-cap bottle	fluorescent green liquid with some oil	84-971	pH 7, FID 40, inorganic	298	4/5/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
243	CS-254	2/16/2006	amber glass	yellow liquid	84-865	pH 7, peroxide +, oxidizer +, inorganic	258	3/13/2006	container emptied during sampling	Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
244	CS-255	2/20/2006	small amber vial	black solid	84-899	pH 9, inorganic	183	3/10/2006		Non-RCRA Hazardous Waste Liquid, None, None
245	CS-256	2/27/2006	medium amber widemouth	pale brown slush/wet solid	84-963	pH 4, inorganic	370	4/21/2006	trace amount	Non-RCRA Hazardous Waste Liquid, None, None
246	CS-259	2/16/2006	small clear glass	white solid	84-879	pH 9, inorganic	209	3/10/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
247	CS-260	N/A	NR	empty container	N/A	N/A	299	4/5/2006	empty container	N/A
248	CS-261	2/27/2006	widemouth amber glass stopper bottle	dirty yellow paste	84-967	pH 2, oxidizer +, peroxide +, inorganic/organic	294	4/4/2006	container emptied during sampling	Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
249	CS-263	2/27/2006	amber vial	dark purplish black powder	84-969	FID 200, pH 6, combustible, organic	293	4/4/2006	container emptied during sampling	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
250	CS-264	2/20/2006	small amber vial	green solid	84-898	pH 6, inorganic	153	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
251	CS-265	2/27/2006	clear glass vial	orange liquid with bright orange sludge	84-975	pH 5, peroxide +, oxidizer +, inorganic	292	4/4/2006	container emptied during sampling	Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
252	CS-266	2/27/2006	Amber vial	dark purplish black powder	84-964	pH 6, combustible	300	4/5/2006	container emptied during sampling	Waste, Flammable, Solids, Inorganic, n.o.s, 4.1, UN3178, PGII
253	CS-267	2/28/2006	amber vial	black powder	84-978	FID 10, pH 5, combustible, organic	290	4/4/2006	container emptied during sampling	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
254	CS-268	2/28/2006	amber vial	purplish red paste	84-979	pH 7, oxidizer +, inorganic	280	4/4/2006	container emptied during sampling	Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
255	CS-269	2/27/2006	amber vial	reddish pink sludge	84-970	pH 7, inorganic	297	4/5/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
256	CS-270	1/27/2006	large amber glass	fluffy tan powder	84-755	pH 7, inorganic	009	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
257	CS-271	N/A	NR	empty container	N/A	N/A	032	3/6/2006	no contents - return to excavation for disposal	N/A
258	CS-272	1/30/2006	medium amber glass	dark red/purple powder	84-778	pH 5, inorganic	023	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
259	CS-273	2/27/2006	large amber jar	opaque bright green liquid	84-976	pH 8, inorganic	388	4/21/2006	container has wax lining/contents transferred to sample jar	Non-RCRA Hazardous Waste Liquid, None, None
260	CS-274	1/30/2006	medium clear jar	white paste	84-779	pH 4, oxidizer +, inorganic	022	3/6/2006	trace amount	Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
261	CS-275	N/A	gallon steel can	empty container	N/A	N/A	N/A	N/A	empty and crushed	N/A
262	CS-275A	N/A	NR	empty container	N/A	N/A	286	4/4/2006	empty container	N/A
263	CS-276	2/9/2006	16 ounce	amber liquid	84-813	FID 18, ignitable, organic	228	3/13/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
264	CS-277	1/30/2006	medium amber glass	pale yellow liquid	84-780	FID 20, combustible, organic	063	3/6/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
265	CS-279	1/26/2006	medium clear glass	clear yellow liquid/white solid	84-748	pH 7, inorganic	045	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
266	CS-280	1/30/2006	medium clear bottle	clear orange liquid	84-790	pH 1, FID 75, inorganic	064	3/6/2006	acetic acid odor	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
267	CS-281	N/A	tall narrow steel can	spool of wire	N/A	N/A	499	6/23/2006	not a lab container	N/A
268	CS-282	1/30/2006	small clear glass	dark green liquid	84-782	pH 5, FID 40	065	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
269	CS-283	1/30/2006	small amber glass	dark brown solid	84-783	pH 5, FID 75, combustible	013	3/6/2006		Waste, Flammable, Solids, Inorganic, n.o.s, 4.1, UN3178, PGII
270	CS-284	N/A	NR	empty container	N/A	N/A	236	3/13/2006	empty container - return to excavation for disposal	N/A
271	CS-285	1/30/2006	small amber glass	black powder	84-795	pH 5, FID 20, combustible, organic	231	3/13/2006	container emptied during sampling	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII

APPENDIX F

TABLE F-1

BOTTLES, JARS, AND CONTAINERS LOG

	Container Number	Date of On-Site Chemical Sampling	Container Type	Contents	Sample Number	Significant On-Site Chemical Sampling Results	Radiological Smear No.	Date of Smear	Comments	Final Disposal Group (Proper Shipping Names)
272	CS-286	1/30/2006	small amber glass	orange liquid with oil and white crystals	84-792	pH 7, peroxide +, inorganic	234	3/13/2006		Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
273	CS-287	1/30/2006	small amber glass	black paste	84-794	pH 8, inorganic	238	3/13/2006	small quantity	Non-RCRA Hazardous Waste Liquid, None, None
274	CS-288	1/26/2006	medium clear glass	amber liquid	84-753	pH 4, organic	005	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
275	CS-289	1/30/2006	small amber glass	amber liquid	84-784	pH 4, FID 40, inorganic	020	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
276	CS-290	1/30/2006	small clear glass	white powder	84-791	pH 4, inorganic	233	3/13/2006		Non-RCRA Hazardous Waste Liquid, None, None
277	CS-291	1/30/2006	small clear glass	dark red liquid	84-793	pH 5, inorganic	237	3/13/2006	ortho phanthroline	Non-RCRA Hazardous Waste Liquid, None, None
278	CS-292	1/30/2006	small amber glass	dark yellow liquid	84-786	pH 10, inorganic	003	3/6/2006	unpleasant odor / container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
279	CS-293	1/27/2006	medium clear glass	amber liquid	84-756-A	pH 7, combustible, organic	557	10/3/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
280	CS-294	1/26/2006	medium amber glass	black crystals	84-752	pH 5, combustible	034	3/6/2006		Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
281	CS-295	1/26/2006	large amber glass	amber liquid	84-751	FID 25, ignitable, organic	031	3/6/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
282	CS-296	1/26/2006	medium glass ampule	clear liquid	84-746	pH 2, FID 600	030	3/6/2006	acetic acid odor	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
283	CS-298	1/26/2006	medium amber glass	fluorescent green	84-749	FID 7, inorganic	033	3/6/2006	labeled "Propyl Alcohol"	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
284	CS-299	1/30/2006	medium amber glass	clear liquid	84-788	FID 800, ignitable, organic	002	3/6/2006	1 ounce	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
285	CS-300	1/26/2006	medium amber glass	grey crystal	84-750	pH 2, inorganic	035	3/6/2006		Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
286	CS-301	1/30/2006	small amber glass	fluorescent green with white paste	84-785	pH 5, inorganic	024	3/6/2006	liquid reabsorbed into paste	Non-RCRA Hazardous Waste Liquid, None, None
287	CS-302	2/27/2006	amber vial with glass stopper	liquid with white crystals	84-977	FID 10, pH 2, inorganic	288	4/4/2006	container emptied during sampling	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
288	CS-303	1/30/2006	medium amber glass vial	white powder	84-789	pH 5, combustible, organic	230	3/13/2006		Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
289	CS-304	1/26/2006	large amber glass	green liquid	84-754/757	pH 5, FID 800, ignitable, organic	007	3/6/2006	2 sample numbers b/c container accidentally sampled twice	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
290	CS-305	1/30/2006	medium amber glass	green liquid	84-787	pH 6, inorganic	006	3/6/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
291	CS-306	2/27/2006	gallon paint can	brown solid	84-966	FID 1000, ignitable, copper wire +	387	4/21/2006	water soluble	Waste, Flammable Liquids, Toxic, n.o.s., 3(6.1), UN1992, PGII
292	CS-307	1/24/2006	small amber glass	amber liquid	84-696	pH 4, combustible, organic	125	3/8/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
293	CS-308	1/24/2006	small amber glass	light tan solid	84-694	pH 4, organic	068	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
294	CS-309	1/24/2006	small amber glass	white solid	84-692	pH 7	066	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
295	CS-310	1/25/2006	small amber glass	pink liquid/solid	84-715	pH 7, organic	062	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
296	CS-311	1/25/2006	small amber glass	green liquid	84-716	pH 7, inorganic	061	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
297	CS-312	1/24/2006	small amber glass vial	fluorescent green with crystals	84-701	pH 7, inorganic	070	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
298	CS-313	1/25/2006	small amber glass	gray paste	84-719	pH 7, inorganic	059	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
299	CS-314	1/25/2006	medium amber glass	purple paste and black liquid	84-718	pH 7, inorganic	060	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
300	CS-314A	1/25/2006	small amber glass	pink/orange solid	84-717	pH 5, inorganic/organic	057	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None

APPENDIX F

TABLE F-1

BOTTLES, JARS, AND CONTAINERS LOG

	Container Number	Date of On-Site Chemical Sampling	Container Type	Contents	Sample Number	Significant On-Site Chemical Sampling Results	Radiological Smear No.	Date of Smear	Comments	Final Disposal Group (Proper Shipping Names)
301	CS-315	1/24/2006	small amber glass	red liquid	84-700	pH 2, inorganic	076	3/6/2006	minute quantity	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
302	CS-316	1/24/2006	small amber glass vial	orange liquid	84-703	pH 7, inorganic	067	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
303	CS-317	1/24/2006	small amber glass vial	tan powder	84-697	pH 3, inorganic	118	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
304	CS-318	1/25/2006	small amber glass	amber liquid	84-729	pH 7, inorganic	049	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
305	CS-319	1/24/2006	small amber glass vial	amber liquid with orange paste	84-702	pH 3, inorganic	073	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
306	CS-320	1/25/2006	small amber glass	black liquid/solid	84-720	pH 2, inorganic	052	3/6/2006		Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
307	CS-321	1/25/2006	medium amber glass	green liquid/orange powder	84-727	pH 7, inorganic	123	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
308	CS-322	1/25/2006	small amber glass	brown liquid	84-725	pH 7, inorganic	054	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
309	CS-323	1/24/2006	small amber glass vial	dark blue liquid	84-699	pH 5, inorganic	072	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
310	CS-324	1/25/2006	medium amber glass	dark pink liquid	84-724	pH 7, inorganic	050	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
311	CS-325	1/24/2006	small amber glass	yellow paste	84-693	pH 6	119	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
312	CS-326	1/25/2006	small amber glass	white paste	84-722	pH 5, inorganic	058	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
313	CS-327	1/24/2006	small amber glass	dark brown paste	84-698	pH 5, inorganic	069	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
314	CS-328	1/25/2006	small amber glass	brown liquid	84-723	pH 5, inorganic	056	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
315	CS-329	1/25/2006	medium amber glass	green/grey liquid and gritty solid	84-721	pH 7, combustible, inorganic/organic	055	3/6/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
316	CS-330	1/25/2006	small amber glass	grey green liquid	84-726	pH 5, inorganic	053	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
317	CS-331	1/25/2006	small amber glass	dark brown solid	84-728	pH 6, combustible, organic	051	3/6/2006		Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
318	CS-332	1/24/2006	medium amber glass	yellow liquid	84-679	FID 100, combustible, organic	122	3/8/2006	"turpentine-looking"	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
319	CS-333	1/24/2006	small amber glass	grey solid	84-676	pH 3, organic	127	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
320	CS-334	1/24/2006	small amber glass	grey solid	84-680	combustible, organic	129	3/8/2006		Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
321	CS-335	1/26/2006	medium amber glas	pale green liquid	84-745	pH 7, inorganic	037	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
322	CS-336	1/25/2006	medium amber glass	dark green liquid	84-737	pH 7, peroxide +, oxidizer +, inorganic	113	3/8/2006		Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
323	CS-337	1/25/2006	16 ounce sample jar	amber liquid	84-736	combustible, organic	115	3/8/2006	dispose of original container	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
324	CS-338	1/26/2006	medium amber glass	white crystals	84-744	pH 5, inorganic	044	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
325	CS-339	1/24/2006	small clear glass	black liquid with crystals	84-681	pH 7	147	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
326	CS-340	1/24/2006	small amber glass	brown liquid	84-678	pH 6, inorganic	117	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
327	CS-341	1/26/2006	medium amber glass	amber liquid	84-742	pH 7, FID 100, organic, copper wire +, ignitable	046	3/6/2006		Waste, Flammable Liquids, Toxic, n.o.s., 3(6.1), UN1992, PGII
328	CS-342	1/25/2006	medium amber glass	amber liquid	84-740	pH 11, flammable	112	3/8/2006	labeled "Diisopropanolamine"	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
329	CS-343	N/A	paint can	empty container	N/A	N/A	452	4/24/2006	paint can - send back to excavation for bulking	N/A

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BOTTLES, JARS, AND CONTAINERS LOG

	Container Number	Date of On-Site Chemical Sampling	Container Type	Contents	Sample Number	Significant On-Site Chemical Sampling Results	Radiological Smear No.	Date of Smear	Comments	Final Disposal Group (Proper Shipping Names)
330	CS-344	1/25/2006	medium amber glass	green liquid / white crystal	84-735	pH 7, peroxide +, oxidizer +, inorganic	124	3/8/2006		Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
331	CS-345	1/25/2006	16 ounce sample jar	dark amber with green	84-738	FID 50, combustible, organic	116	3/8/2006	dispose of original container	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
332	CS-346	1/25/2006	medium amber glass	purple liquid	84-739	pH 3, inorganic	089	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
333	CS-347	1/25/2006	medium amber glass	green liquid/ white paste	84-741	pH 4, FID 15, inorganic/organic	114	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
334	CS-348	4/24/2006	small amber vial	white powder	84-927	pH 6, combustible, organic	137	3/8/2006	container emptied during sampling	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
335	CS-349	2/16/2006	large glass	blue-green powder	84-874	pH 7, oxidizer +, inorganic	264	3/13/2006		Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
336	CS-350	2/14/2006	medium clear glass	green liquid	84-837	pH 5, inorganic	222	3/13/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
337	CS-351	2/16/2006	small glass	hardened solid	84-877	pH 11	211	3/10/2006	container broken to remove contents	Waste, Corrosive, Liquid, Basic, Inorganic, n.o.s., 8, UN3266, PGII
338	CS-352	2/22/2006	small clear glass	black solid	84-922	pH 6, inorganic	153	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
339	CS-353	2/27/2006	clear glass bottle, reads "Baker"	brown liquid and clear white cubic crystals	84-962	pH 9, inorganic	385	4/21/2006	container stained	Non-RCRA Hazardous Waste Liquid, None, None
340	CS-354	2/16/2006	large clear glass	white solid	84-875	pH 7, inorganic	261	3/13/2006		Non-RCRA Hazardous Waste Liquid, None, None
341	CS-355	2/16/2006	small amber glass	orange solid	84-876	combustible, organic	212	3/10/2006		Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
342	CS-356	2/20/2006	Amber vial	greenish paste	84-896	pH 7, inorganic	497	6/23/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
343	CS-357	3/27/2006	amber vial	reddish purple paste	84-1140	pH 7, inorganic	368	4/21/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
344	CS-358	2/24/2006	clear glass bottle neck broken	dark green liquid	84-948	pH 0, oxidizer +, inorganic	320	4/18/2006	olive green liquid, solidified material on bottom of bottle	Waste, Oxidizing, Liquids, Corrosive, n.o.s., 5.1(8), UN3098, PGII
345	CS-359	1/24/2006	small amber glass	amber liquid	84-688	combustible, organic	133	3/8/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
346	CS-360	1/26/2006	small amber glass	dark pink paste	84-743	pH 1, FID 30, inorganic	039	3/6/2006		Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
347	CS-361	1/24/2006	small clear glass	dark brown liquid	84-691	pH 0, inorganic	074	3/6/2006		Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
348	CS-362	1/25/2006	medium clear bottle, no lid	white granular	84-733	pH 12, inorganic	036	3/6/2006		Waste, Corrosive, Liquid, Basic, Inorganic, n.o.s., 8, UN3266, PGII
349	CS-363	4/28/2006	large amber glass	green liquid	84-933	pH 14, oxidizer +, inorganic	166	3/8/2006		Waste, Oxidizing, Liquid, Corrosive, n.o.s., 5.1(8), UN3098, PGII
350	CS-364	4/24/2006	small amber vial	grey paste	84-930	pH 7, combustible, organic	195	3/10/2006	container emptied during sampling	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
351	CS-365	2/24/2006	amber vial	red, orange liquid	84-955	pH 7, inorganic	282	4/4/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
352	CS-366	1/24/2006	small amber glass	wet yellow paste	84-695	pH 7	075	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
353	CS-367	1/24/2006	small amber glass	dark brown liquid with yellow crystal	84-677	FID 12	134	3/8/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
354	CS-368	1/25/2006	medium amber glass	brown liquid	84-734	pH 8, inorganic/organic	038	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
355	CS-369	N/A	NR	empty container	N/A	N/A	193	3/10/2006	empty container	N/A
356	CS-370	1/25/2006	medium clear bottle, no lid	white slushy crystal	84-732	pH 4, inorganic	090	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
357	CS-371	2/23/2006	medium amber glass	murky brown liquid	84-941	pH 7, inorganic	439	4/24/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
358	CS-372	1/24/2006	small amber glass	dark blue liquid	84-689	pH 0, inorganic	275	3/13/2006		Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
359	CS-373	2/21/2006	amber glass	organge solid	84-903	pH 8, inorganic	184	3/10/2006		Non-RCRA Hazardous Waste Liquid, None, None

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BOTTLES, JARS, AND CONTAINERS LOG

	Container Number	Date of On-Site Chemical Sampling	Container Type	Contents	Sample Number	Significant On-Site Chemical Sampling Results	Radiological Smear No.	Date of Smear	Comments	Final Disposal Group (Proper Shipping Names)
360	CS-374	1/24/2006	small clear glass	grey-blue liquid	84-690	pH 8, inorganic	071	3/6/2006		Non-RCRA Hazardous Waste Liquid, None, None
361	CS-374-A	2/23/2006	squat clear bottle	dark brown liquid	84-942	pH 9, inorganic	559	10/3/2006		Non-RCRA Hazardous Waste Liquid, None, None
362	CS-375	2/16/2006	amber glass	grey solid	84-878	pH 8, inorganic	210	3/10/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
363	CS-376	3/1/2006	small square amber	amber liquid	84-998	pH 12, FID 10	141	3/8/2006	original container completely emptied	Waste, Corrosive, Liquid, Basic, Inorganic, n.o.s., 8, UN3266, PGII
364	CS-377	3/1/2006	lab bottle	olive green liquid	84-991	FID 3000, flammable	140	3/8/2006	original container completely emptied	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
365	CS-378	2/28/2006	medium clear wide mouth	mucilagenous grey sludge	84-990	pH 7, FID 20, inorganic	442	4/24/2006	trace contents remaining	Non-RCRA Hazardous Waste Liquid, None, None
366	CS-379	3/1/2006	small tall straight-side widemouth jar	pinkish tan liquid	84-994	pH 7, FID 20, inorganic	142	3/8/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
367	CS-380	3/9/2006	small amber bottle	amber liquid	84-1024	FID 700, ignitable, organic	335	4/18/2006	material adhering to container	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
368	CS-381	3/1/2006	small amber screw cap bottle	brownish viscous liquid	84-997	FID 300, combustible, organic	148	3/10/2006	original container completely emptied	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
369	CS-382	2/21/2006	small amber glass bottle	amber/olive liquid (2 phase)	84-914	pH 7, inorganic/organic	515	6/23/2006	original container completely emptied	Non-RCRA Hazardous Waste Liquid, None, None
370	CS-383	2/21/2006	small clear glass	amber liquid	84-916	pH 4, inorganic	135	3/8/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
371	CS-384	2/21/2006	small amber glass	yellow liquid	84-915	pH 3, FID 150, inorganic/organic	159	3/8/2006	container cut to access contents. Container emptied during sampling.	Non-RCRA Hazardous Waste Liquid, None, None
372	CS-385	3/14/2006	small amber screw cap	tan sludge	84-1045	FID 400, flammable, organic	392	4/21/2006	not water soluble/viscous liquid/container emptied	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
373	CS-386	2/24/2006	glass stop bottle	liquid brown turbid	84-947	pH 3, FID 21, inorganic/organic	323	4/18/2006	neck of bottle broken, scum adhering to inside of container	Non-RCRA Hazardous Waste Liquid, None, None
374	CS-387	3/9/2006	clear glass container	brown viscous liquid	84-1022	FID 10, ignitable, organic	456	6/20/2006	cap marked "Baker"/not water soluble	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
375	CS-388	2/21/2006	medium amber glass	green liquid	84-918	pH 7, oxidizer +, inorganic	185	3/10/2006		Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
376	CS-389	2/21/2006	small clear glass	brown liquid	84-912	pH 9, inorganic	161	3/8/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
377	CS-390	3/9/2006	widemouth amber bottle	dark grey slurry liquid	84-1023	pH 8, oxidizer +, inorganic	302	4/5/2006	container emptied during sampling	Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
378	CS-391	3/1/2006	small amber bottle	clear purple liquid	84-996	pH 7, FID 5, inorganic	152	3/8/2006	original container completely emptied	Non-RCRA Hazardous Waste Liquid, None, None
379	CS-392	4/17/2006	medium clear glass	oil dirt	84-924	pH 6, inorganic/organic	139	3/8/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
380	CS-393	3/1/2006	small clear glass with metal screw cap	clear liquid	84-992	pH 6, inorganic	151	3/8/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
381	CS-395	3/16/2006	clear widemouth jar	green slush	84-1071	pH 7, inorganic	412	4/24/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
382	CS-396	2/21/2006	small clear glass	brown liquid and hardened solids	84-921	pH 9, inorganic	156	3/8/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
383	CS-397	3/16/2006	small clear glass bottle	yellow green liquid/hardened puck of white material	84-1075	pH 7, FID 18, inorganic	555	10/3/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
384	CS-398	2/21/2006	small clear glass	blue liquid	84-913	inorganic	160	3/8/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
385	CS-399	3/21/2006	tiny paint can	sticky/tarry solid	84-1091	FID 40, ignitable, organic	369	4/21/2006	trace amount	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
386	CS-400	3/9/2006	small amber bottle	pale brown liquid	84-1025	FID 700, ignitable, organic	334	4/18/2006	not water soluble	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
387	CS-401	4/24/2006	small amber vial	brown solid	84-926	pH 6, combustible, organic	146	3/8/2006	container emptied during sampling	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
388	CS-402	N/A	NR	empty container	N/A	N/A	138	3/8/2006	empty container	N/A
389	CS-403	N/A	paint can	empty container	N/A	N/A	N/A		paint can - send back to excavation for bulking	N/A

APPENDIX F

TABLE F-1

BOTTLES, JARS, AND CONTAINERS LOG

	Container Number	Date of On-Site Chemical Sampling	Container Type	Contents	Sample Number	Significant On-Site Chemical Sampling Results	Radiological Smear No.	Date of Smear	Comments	Final Disposal Group (Proper Shipping Names)
390	CS-404	1/25/2006	16 ounce sample jar	amber liquid	84-731	FID 20, ignitable, organic	111/492	3/8/2006 6/23/2006	large 1 gallon amber glass - need to dispose of empty container, transferred contents to 404A	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
391	CS-405	N/A	gallon can	trace	N/A	N/A	324	4/18/2006	container emptied during sampling	N/A
392	CS-406	3/21/2006	gallon amber bottle	tan powder	84-1088	pH 10, organic	331	4/18/2006	contents remaining in original container	Non-RCRA Hazardous Waste Liquid, None, None
393	CS-407	3/16/2006	gallon paint can	white liquid	84-1060	FID 600, ignitable, organic	454	6/20/2006	oil base paint	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
394	CS-408	2/24/2006	large lab bottle	light yellow liquid	84-951	FID 50, ignitable, organic	284/482	4/4/2006 7/5/2006	original container broken and emptied	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
395	CS-409	3/15/2006	small glass stopper lab bottle	liquid with plug of waxy material at top of jar	84-1054	FID 40, ignitable, organic	390	4/21/2006	trace amount	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
396	CS-410	3/15/2006	small glass stopper lab bottle	light orange liquid	84-1052	pH 1, FID 2, oxidizer +	421	4/24/2006	no visible fuming/vapors darkened chrome/shiny zinc finish/contents were under pressure	Waste, Oxidizing Liquid, Corrosive, n.o.s., 5.1(8), UN3098, PGI, Inhalation Hazard
397	CS-411	3/15/2006	large amber bottle	brown liquid with oil slick	84-1053	pH 5, FID 20, organic/inorganic	465	6/20/2006	contents placed into 16oz to CS-411.1	Non-RCRA Hazardous Waste Liquid, None, None
398	CS-412	1/24/2006	small amber glass	dark orange solid	84-682	pH 7, peroxide +, oxidizer +, inorganic	121	3/8/2006		Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
399	CS-413	1/24/2006	small amber glass	dark blue liquid	84-685	pH 3, oxidizer +, inorganic	132	3/8/2006		Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
400	CS-414	1/23/2006	small amber glass	red liquid	84-657	pH 7, inorganic	099	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
401	CS-415	1/23/2006	small glass	turquoise powder	84-666	pH 6, oxidizer +, inorganic	092	3/8/2006		Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
402	CS-416	1/23/2006	rectangular glass jar	amber liqud and crystals	84-667	pH 7, oxidizer +, inorganic	093	3/8/2006		Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
403	CS-417	1/24/2006	small amber glass	grey liquid	84-683	FID 100, ignitable, copper wire +, organic	126	3/8/2006		Waste, Flammable Liquids, Toxic, n.o.s., 3(6.1), UN1992, PGII
404	CS-418	1/23/2006	small amber glass	clear liquid with crystal	84-670	pH 1, inorganic	120	3/8/2006		Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
405	CS-419	1/23/2006	small amber glass	liquid and crystal	84-669	pH 10, inorganic	091	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
406	CS-420	1/23/2006	small amber glass	wet grey powder	84-668	pH7, inorganic	094	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
407	CS-421	1/24/2006	small clear glass	tan solid	84-687	pH 5, organic	131	3/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
408	CS-422	1/24/2006	small amber glass	brown solid	84-686	pH 4, peroxide +, oxidizing +, inorganic	128	3/8/2006		Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
409	CS-423	1/24/2006	small amber glass	green liquid	84-684	pH 7, FID 500, combustible	130	3/8/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
410	CS-424	2/24/2006	gallon jug of acid	yellow liquid	84-946	pH 2, FID 500, inorganic	322	4/18/2006	neck of bottle broken, material placed into 2X32oz jar, 1X16oz labeled cs-424.1,cs-424.2,cs-424.3	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
411	CS-425	2/24/2006	gallon amber bottle	amber liquid	84-950	pH 3, FID 100, oxidizer +, inorganic	283/491	4/4/2006 6/23/2006	contents placed into 2X32oz jar & 1X16oz Original container completely emptied	Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
412	CS-426	3/14/2006	medium clear screw cap bottle	clear liquid	84-1030	pH 2, inorganic	310	4/5/2006	acetic acid odor, container emptied	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
413	CS-426-A	3/16/2006	medium amber jar	white blocky crystals	84-1067	pH 9	420	4/24/2006	neg peroxide/container emptied	Non-RCRA Hazardous Waste Liquid, None, None
414	CS-427	3/14/2006	medium amber widemouth	clear brownish liquid	84-1031	pH 7, inorganic	513	6/23/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
415	CS-427-A	3/16/2006	amber jar	fine bright purple crystals/grit	84-1068	pH 4, inorganic	304	4/5/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
416	CS-428	3/14/2006	medium clear glass with glass stopper	clear liquid	84-1032	FID 150, pH 0, inorganic	306	4/5/2006	faint acetic acid; container emptied during sampling	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
417	CS-428-A	3/16/2006	small amber widemouth	white crystals	84-1073	pH 9, ignitable, organic	336	4/18/2006	neg peroxide/container emptied	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII

APPENDIX F

TABLE F-1

BOTTLES, JARS, AND CONTAINERS LOG

	Container Number	Date of On-Site Chemical Sampling	Container Type	Contents	Sample Number	Significant On-Site Chemical Sampling Results	Radiological Smear No.	Date of Smear	Comments	Final Disposal Group (Proper Shipping Names)
418	CS-429	3/14/2006	small clear glass	yellow liquid	84-1033	FID 10, ignitable, organic	311	4/5/2006	not soluble container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
419	CS-429-A	3/16/2006	medium amber	white crystals w/dirt	84-1074	pH 4, inorganic	337	4/18/2006	neg peroxide/container emptied	Non-RCRA Hazardous Waste Liquid, None, None
420	CS-430	3/14/2006	medium round amber bottle	dark amber liquid	84-1034	FID 1000, combustible, organic	495	6/23/2006	viscous/product emulsifies in water container emptied	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
421	CS-430-A	3/16/2006	medium amber jar	aqua paste	84-1064	pH 5, inorganic	391	4/21/2006		Non-RCRA Hazardous Waste Liquid, None, None
422	CS-431	3/14/2006	large amber glass	dark amber liquid	84-1035	FID 20, combustible, organic	418/455	4/24/2006 6/20/2006	container emptied/transferred liquid into CS-431.1	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
423	CS-431-A	3/16/2006	medium amber jar	granular clear to white crystals	84-1069	pH 6, inorganic	418	4/24/2006	neg peroxide/container emptied	Non-RCRA Hazardous Waste Liquid, None, None
424	CS-431-B	3/15/2006	medium amber jar	dark grey liquid	84-1058	pH 7, inorganic	413	4/24/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
425	CS-432	3/14/2006	small clear glass with glass stopper	fluorescent green liquid	84-1036	pH 7, inorganic	309	4/5/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
426	CS-433	3/14/2006	medium amber screw cap bottle	purplish grey liquid	84-1037	pH 7, inorganic	313	4/5/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
427	CS-433-A	3/16/2006	medium clear bottle	viscous yellowish tan liquid	84-1066	FID 40, combustible, organic	463	6/20/2006	liquid remaining in original container	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
428	CS-434	3/9/2006	small amber widemouth w/metal cap	bright orange crystals	84-1026	pH 5, peroxide +, oxidizer +, inorganic	403	4/24/2006	positive peroxide test/potassium chromate??	Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
429	CS-434-A	3/14/2006	amber lab bottle with glass stopper	yellow liquid	84-1038	FID 40, ignitable, organic	333/494	4/18/2006 6/23/2006	container emptied/transferred liquid into CS-434.1	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
430	CS-435	3/14/2006	small amber vial	orange liquid	84-1039	pH 6, inorganic	312/415	4/24/2006 4/5/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
431	CS-435-A	3/15/2006	small amber widemouth	dark purple glittery crystals	84-1056	combustible, organic	415		container emptied during sampling	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
432	CS-436	3/14/2006	small clear glass vial	pink paste	84-1040	pH 7, inorganic	308	4/5/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
433	CS-436-A	3/15/2006	medium amber jar	slushy/sludgy crystals and liquid	84-1059	pH 7, organic	414	4/24/2006		Non-RCRA Hazardous Waste Liquid, None, None
434	CS-437	2/24/2006	medium clear glass w/glass stopper	pale yellow liquid	84-949	FID 1500, flammable, organic	285	4/4/2006	material placed into a 16oz sample jar	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
435	CS-438	3/14/2006	medium amber widemouth no cap	friable rubbery solid	84-1041	FID 0, pH 5, combustible, organic	338	4/18/2006	not water soluble at first/in a water solution for a few minutes	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
436	CS-438-A	3/15/2006	pint bottle	curd like white crystals	84-1057	pH 7, organic	422	4/24/2006	neg peroxide/container emptied	Non-RCRA Hazardous Waste Liquid, None, None
437	CS-439	3/14/2006	large amber jar	green tarry solid/bright emerald green w/some liquid	84-1042	inorganic	1042	4/24/2006	small quanity of material transferred into CS-439.1	Non-RCRA Hazardous Waste Liquid, None, None
438	CS-439-A	3/15/2006	small clear glass	yellowish tan wax and dirt	84-1055	pH 7, inorganic	430/512	4/24/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
439	CS-440	3/9/2006	small widemouth amber	white crystals	84-1027	pH 3, combustible, organic	332	4/18/2006	container emptied during sampling	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
440	CS-440-A	N/A	heavily corroded can	greasy substance	N/A	N/A	N/A	N/A	uncontainerized material	N/A
441	CS-441	3/14/2006	amber vial	dark brown liquid	84-1043	pH 7, inorganic	307	4/5/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
442	CS-441-A	3/16/2006	clear glass flask	tan solid	84-1070	pH 6, peroxide +, organic	326	4/18/2006	container emptied during sampling	Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
443	CS-442	3/9/2006	medium amber	dark brown solid	84-1028	pH 8, oxidizer +, inorganic	327	4/18/2006	detected sweet smell in mouth when handling/upgraded to full face respirator	Waste, Oxidizing, Solids, n.o.s., 5.1, UN1479, PGII
444	CS-442-A	3/14/2006	amber vial	dark brown liquid	84-1044	organic	305	4/5/2006		Non-RCRA Hazardous Waste Liquid, None, None
445	CS-443	N/A	ribbed square amber bottle	empty container	N/A	N/A	330	4/18/2006	empty container	N/A
446	CS-443-A	3/16/2006	quart steel paint can	brown sludge	84-1072	organic	328	4/24/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
447	CS-444	3/15/2006	small amber dropper bottle	pale yellow liquid	84-1047	pH 7, inorganic	416	4/24/2006	minute quantity/container emptied	Non-RCRA Hazardous Waste Liquid, None, None

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BOTTLES, JARS, AND CONTAINERS LOG

	Container Number	Date of On-Site Chemical Sampling	Container Type	Contents	Sample Number	Significant On-Site Chemical Sampling Results	Radiological Smear No.	Date of Smear	Comments	Final Disposal Group (Proper Shipping Names)
448	CS-444A	3/16/2006	amber wide mouth bottle	gritty white powder	84-1065	pH 8, inorganic	431	4/24/2006	rubbery shell outside jar	Non-RCRA Hazardous Waste Liquid, None, None
449	CS-445	N/A	square clear glass bottle	empty container	N/A	N/A	462	6/20/2006	empty container	N/A
450	CS-446	N/A	small clear glass vial	empty container	N/A	N/A	417	4/24/2006	empty container	N/A
451	CS-447	N/A	cosmetics bottle	empty container	N/A	N/A	471	6/20/2006	marked "Avon"/empty container	N/A
452	CS-448	3/15/2006	amber vial	white tan solid	84-1048	inorganic	459	6/20/2006	minute quantity/container emptied	Non-RCRA Hazardous Waste Liquid, None, None
453	CS-449	3/15/2006	small clear glass screw cap	amber liquid	84-1049	pH 5, FID 20, ignitable, organic	435	4/24/2006	trace contents remaining	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
454	CS-450	N/A	tiny clear glass vial	empty container	N/A	N/A	423	4/24/2006	empty container	N/A
455	CS-451	3/15/2006	cobalt blue bottle	dark blue liquid	84-1050	inorganic	329	4/18/2006	labeled "Parker Ink Bottle"	Non-RCRA Hazardous Waste Liquid, None, None
456	CS-452	3/15/2006	plastic vial	white soft solid	84-1051	pH 6, inorganic	517/519	6/23/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
457	CS-453	N/A	amber vial	empty container	N/A	N/A	419	4/24/2006	empty container	N/A
458	CS-454	N/A	green glass vial	empty container	N/A	N/A	235	4/18/2006	empty container	N/A
459	CS-455	3/24/2006	medium clear glass	clear liquid	84-1115	pH 0, inorganic	428	4/24/2006	container emptied during sampling	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
460	CS-456	3/24/2006	clear glass	clear liquid	84-1116	pH 0, inorganic	410	4/24/2006	container emptied during sampling	Waste, Corrosive, Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII
461	CS-457	3/24/2006	small clear glass	pale yellow liquid	84-1117	pH 4, FID 40, ignitable, organic	551	10/3/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
462	CS-458	N/A	NR	empty container	N/A	N/A	427	4/24/2006	empty container	N/A
463	CS-459	3/24/2006	small clear bottle	red liquid	84-1118	pH4, inorganic	437	4/24/2006	cap marked "Lavoris"/container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
464	CS-460	N/A	NR	empty container	N/A	N/A	438	4/24/2006	empty container	N/A
465	CS-461	3/24/2006	small clear bottle with long neck and decorations	very dark brown	84-1119	FID 20, inorganic/organic	429	4/24/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
466	CS-462	3/24/2006	small clear glass	pale yellow liquid	84-1120	FID 500, ignitable, organic	397	4/24/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
467	CS-463	3/24/2006	small clear glass	orange/white liquid	84-1121	FID 2000, ignitable, organic	401	4/24/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
468	CS-464	3/24/2006	small clear bottle with long neck and decorations	dark brown liquid	84-1122	FID 20, inorganic/organic	407	4/24/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
469	CS-465	3/24/2006	small clear glass	thick yellowish liquid with white waxy material	84-1123	FID 300, ignitable, organic	406	4/24/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
470	CS-466	3/24/2006	small clear glass	dark orange liquid	84-1124	FID 300, ignitable, organic	396	4/24/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
471	CS-467	3/24/2006	small clear glass	dark orange liquid	84-1125	FID 20, ignitable, organic	400	4/24/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
472	CS-468	3/24/2006	small clear glass bottle	dark orange liquid	84-1126	FID 300, ignitable, organic	402	4/24/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
473	CS-469	3/24/2006	pint liquor bottle	murky liquid w/floating oil	84-1127	pH 7, inorganic/organic	405	4/24/2006		Non-RCRA Hazardous Waste Liquid, None, None
474	CS-470	3/24/2006	1/2 pint liquor bottle	clear liquid	84-1128	pH 7, inorganic	398	4/24/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
475	CS-471	3/24/2006	small clear glass	orange liquid	84-1129	FID 75, ignitable, organic	408	4/24/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
476	CS-472	3/24/2006	medium amber	dark orange liquid	84-1130	pH 5, peroxide +, oxidizer +, inorganic	399	4/24/2006	container emptied during sampling	Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
477	CS-473	3/24/2006	small clear glass	clear yellow liquid	84-1134	pH 4, FID 200, inorganic/organic	342	4/18/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
478	CS-474	3/24/2006	small amber bottle	grey liquid	84-1135	FID 12, combustible, organic	344	4/20/2006	container emptied during sampling	Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
479	CS-475	3/24/2006	clear glass	dark brown liquid	84-1136	FID 20, inorganic/organic	343	4/18/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None

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BOTTLES, JARS, AND CONTAINERS LOG

	Container Number	Date of On-Site Chemical Sampling	Container Type	Contents	Sample Number	Significant On-Site Chemical Sampling Results	Radiological Smear No.	Date of Smear	Comments	Final Disposal Group (Proper Shipping Names)
480	CS-476	3/27/2006	amber septum vial	cloudy whitish yellow liquid	84-1151	pH 7, inorganic	345	4/20/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
481	CS-477	3/27/2006	cylindrical spice bottle	dark brown solid	84-1141	FID 100, pH4, combustible, organic	339	4/18/2006	cap labeled "spice islands"/container emptied	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
482	CS-478	3/27/2006	open glass jar	soldified tarry substance	84-1142	combustible, organic	341	4/18/2006	trace amount	Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
483	CS-479	3/27/2006	large shouldered amber jar	fine white needle like crystals	84-1143	pH 2, combustible, organic	340	4/18/2006		Waste, Corrosive, Solids, Flammable, n.o.s., 8 (4.1), UN2921, PGII
484	CS-480	3/27/2006	small clear glass	white powder/paste	84-1144	pH 7	346	4/20/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
485	CS-481	3/27/2006	graduated glass bottle	liquid	84-1145	pH 7, inorganic	347	4/20/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
486	CS-482	3/27/2006	clear glass vial	brown solid	84-1146	pH 4, inorganic	348	4/20/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
487	CS-483	8/12/2005	1/2 gallon	lemon yellow liquid	84-1147	pH 0, oxidizer +, inorganic, copper wire +	501	6/23/2006		Waste, Oxidizing, Liquid, Corrosive, n.o.s., 5.1(8), UN3098, PGII, Poison
488	CS-484	8/12/2005	1/2 gallon	lemon yellow liquid	84-1148	pH 0, oxidizer +, inorganic, copper wire +	552	10/3/2006		Waste, Oxidizing, Liquid, Corrosive, n.o.s., 5.1(8), UN3098, PGII, Poison
489	CS-485	8/12/2005	16 ounce widemouth amber bottle	gritty paste/dark grey	84-1149	pH 5, inorganic	485	6/23/2006		Non-RCRA Hazardous Waste Liquid, None, None
490	CS-486	8/12/2005	1/2 pint amber widemouth	fine white/tan powder	84-1150	pH 7, combustible, organic	466	6/20/2006		Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
491	CS-487	8/12/2005	pint glass, narrow screw top	dark brown liquid	84-1155	pH 4, inorganic	507	6/23/2006		Non-RCRA Hazardous Waste Liquid, None, None
492	CS-488	N/A	NR	empty container	N/A	N/A	433	4/24/2006	empty container	N/A
493	CS-489	8/12/2005	pint widemouth amber	bright orange powder & paste	84-1154	pH 7, peroxide +	486	6/23/2006		Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
494	CS-490	8/12/2005	16 ounce widemouth amber bottle	fine whitish-tan powder	84-1155	pH 4	505	6/23/2006		Non-RCRA Hazardous Waste Liquid, None, None
495	CS-491	8/12/2005	widemouth amber bottle	greenish yellow paste	84-1156	pH 5, inorganic	558	10/3/2006		Non-RCRA Hazardous Waste Liquid, None, None
496	CS-492	8/12/2005	quart glass bottle	amber clear liquid	84-1157	pH 14	509	6/23/2006		Waste, Corrosive, Liquid, Basic, Inorganic, n.o.s., 8, UN3266, PGII
497	CS-493	8/12/2005	quart paint can	white solid, yellow brownish crust						Non-RCRA Hazardous Waste Liquid, None, None
498	CS-494	8/12/2005	1 quart	murky orange brown liquid	84-1158	pH 6, FID 250, inorganic/organic	508	6/23/2006		Non-RCRA Hazardous Waste Liquid, None, None
499	CS-495	8/12/2005	1/2 pint glass screw cap	yellowish white/moderate turbid	84-1159	FID 20, combustible, organic	487	6/23/2006		Waste, Flammable, Solids, Organic, n.o.s., 4.1, UN1325, PGII
500	CS-496	8/12/2005	1/2 pint amber widemouth	white crystals	84-1160	pH 4, inorganic	510	6/23/2006		Non-RCRA Hazardous Waste Liquid, None, None
501	CS-497	3/28/2006	small clear bottle	orange liquid	84-1161	pH 4, inorganic	316	4/18/2006	container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None
502	CS-498	8/12/2005	1 gallon wide mouth	dark grey liquid/turbid	N/A	pH 10, FID 7	473	6/20/2006		Non-RCRA Hazardous Waste Liquid, None, None
503	CS-499	8/12/2005	1 gallon wide mouth	white paste	84-1162	pH 7, inorganic	477	6/23/2006		Non-RCRA Hazardous Waste Liquid, None, None
504	CS-500	8/12/2005	pint bottle	dirty fibrous paste	84-1163	pH 9-10, inorganic	511	6/23/2006		Non-RCRA Hazardous Waste Liquid, None, None
505	CS-501	8/12/2005	16 ounce widemouth glass	crumbly grey-brown solid	84-1164	organic	514	6/23/2006		Non-RCRA Hazardous Waste Liquid, None, None
506	CS-502	8/12/2005	1/2 pint glass screw cap	yellowish white/moderate turbid	84-1165	FID 14, combustible, organic	553	10/3/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
507	CS-503	8/12/2005	ounce-sized jar	black turbid	84-1166	pH 9-10, inorganic	490	6/23/2006		Non-RCRA Hazardous Waste Liquid, None, None
508	CS-504	3/28/2006	plastic pill bottle	mercury and glass	84-1167		317	4/18/2006	incorporated into CTO84waste/container emptied	N/A
509	CS-505	3/28/2006	preservative container	large metallic chunks in pale yellow liquid	84-1168	inorganic	314	4/18/2006	not reactive/container emptied during sampling	Non-RCRA Hazardous Waste Liquid, None, None

APPENDIX F

TABLE F-1

BOTTLES, JARS, AND CONTAINERS LOG

	Container Number	Date of On-Site Chemical Sampling	Container Type	Contents	Sample Number	Significant On-Site Chemical Sampling Results	Radiological Smear No.	Date of Smear	Comments	Final Disposal Group (Proper Shipping Names)
510	CS-509	8/3/2006	"Revlon" square clear glass	clear liquid	84-1427	inert	545	9/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
511	CS-510	8/4/2006	quart shouldered amber with liquid	orange-brown liquid	84-1429	inert, unknown inorganic in H_2O	533	9/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
512	CS-511	8/3/2006	clear glass bottle with liquid	pale yellow liquid	84-1422	inert	540	9/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
513	CS-512	8/3/2006	square amber bottle with liquid	amber liquid	84-1424	pH 9	539	9/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
514	CS-513	N/A	mimeograph correction fluid?	trace solids	N/A	N/A	526	9/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
515	CS-514	8/3/2006	tall narrow clear glass bottle	liquid	84-1419	inert	542	9/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
516	CS-515	8/3/2006	aftershave bottle	liquid	84-1420	pH 10, FID 2.2 ppm, positive oxidizer	541	9/8/2006		Waste, Oxidizing, Liquids, n.o.s., 5.1, UN3139, PGII
517	CS-516	8/4/2006	shouldered amber with liquid and solid	unknown white solid	84-1433	inert, possibly alkali salt, possibly potassium compound	522	9/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
518	CS-517	8/4/2006	screw cap amber bottle "Adolph's"	brown liquid	84-1435	inert, unknown inorganic in H_2O	527	9/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
519	CS-518	N/A	square amber screw-cap	open dirt filled container	N/A	N/A	546	9/8/2006		N/A
520	CS-519	8/3/2006	clear glass bottle with liquid	liquid polish/wax?	84-1423	FID 30 ppm, combustible liquid	544	9/8/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
521	CS-520	8/4/2006	small amber bottle	tan powder	84-1434	inert, pH 6	549	9/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
522	CS-521	8/4/2006	clear glass bottle with liquid	polish/wax?	84-1428	combustible, FID 30	534	9/8/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
523	CS-522	8/4/2006	small wide-mouth amber	black powder	84-1431	combustible	535	9/8/2006		Waste, Flammable, Solids, Inorganic, n.o.s. 4.1, UN3178, PGII
524	CS-524	8/3/2006	small wide-mouth amber w/solids	Black liquid	84-1421	India Ink	547	9/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
525	CS-525	8/4/2006	4 ounce wide-mouth clear sample jar	greenish solid/paste	84-1437	unknown inorganic material	525	9/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
526	CS-526	8/4/2006	squat clear wide-mouth with solid	reddish brown solid	84-1436	ignitable, possibly shoe polish	528	9/8/2006		Waste, Flammable, Solids, Inorganic, n.o.s. 4.1, UN3178, PGII
527	CS-527	9/8/2006	small clear glass bottle w/taped lid		84-1481	Flammable liquid, FID 300	521	9/8/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
528	CS-528	8/3/2006	narrow mouth amber bottle	unknown liquid	84-1418	FID 4 ppm, pH 6, unknown orgainic liquid	538	9/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
529	CS-529	8/3/2006	clear glass gallon jug	amber liquid	84-1426	combustible, FID 30, possibly hydraulic oil	536	9/8/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
530	CS-530	8/3/2006	quart amber bottle with liquid, "Not to be re-filled"	grey liquid	84-1425	pH 7	554	10/3/2006		Non-RCRA Hazardous Waste Liquid, None, None
531	CS-531	8/4/2006	small clear glass with white solid	white solid	84-1432	inert	529	9/8/2006		Non-RCRA Hazardous Waste Liquid, None, None
532	CS-532	N/A	small clear bottle	empty container	N/A	N/A	530	9/8/2006	empty container	N/A
533	CS-533	8/4/2006	Squat ink bottle	viscous blue liquid mimeograph correction fluid?	84-1430	combustible, FID 30, possibly hydraulic oil	531	9/8/2006		Waste, Flammable Liquids, n.o.s., 3, UN1993, PGII
534	CS-534	N/A	small amber bottle	empty container	N/A	N/A	524	9/8/2006	empty container	N/A
535	CS-535	N/A	NR	empty container	N/A	N/A	548	9/8/2006	empty container	N/A
536	CS-536	N/A	amber screw cap, empty	empty container	N/A	N/A	550	9/8/2006	empty container	N/A
537	CS-537	9/8/2006	clear screw cap bottle	1 ounce liquid	84-1482	inert, H_2O	523	9/8/2006		Non-RCRA Hazardous Waste Liquid, None, None

Abbreviations and Acronyms:
Container numbers (CS-xxx) are not sequential

APPENDIX F

TABLE F-1

BOTTLES, JARS, AND CONTAINERS LOG

	Container Number	Date of On-Site Chemical Sampling	Container Type	Contents	Sample Number	Significant On-Site Chemical Sampling Results	Radiological Smear No.	Date of Smear	Comments	Final Disposal Group (Proper Shipping Names)

Recovered empty bottles, jars and containers that were not laboratory waste were returned to the excavation for disposal as excavated debris. The container types were not recorded (NR).

FID - flame ionization detector
N/A - not applicable
NR - not recorded
RCRA - Resource Conservation and Recovery and Act

APPENDIX F

TABLE F-2

OVERPACK DRUM LOG

Drum	Accumulation Start Date	Disposal Date	Storage Location	Contents	Waste Designation	Sample I.D.	Sample Date	Disposal Facility	Profile	Proper Shipping Name	EPA/DTSC Codes	Label Info	Manifest Type/ Number	Comments
PCB-001	08/19/05	11/18/05	Disposed	Brown grease and silver mastic, dirt, twigs, no apparent drum.	TSCA/RCRA	84-326 (chem) 84-430 (RAD)	8/24/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-002	08/19/05	11/18/05	Disposed	Brown grease, grey dirt, steel drum	TSCA/RCRA	84-327 (chem) 84-405 (RAD)	8/24/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-004 **	08/19/05	06/13/06	Disposed	Brown grease, dirt, no drum.	TSCA/RCRA	84-329 (chem) 84-411 (RAD)	8/24/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 315	12/12/2005 - Radiological results being reviewed by RASO. 2/2006 Gross alpha 11.1 pCi/g, Pu <MDA, Th <MDA, U <MDA. Need Np-237, Ac 227 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
PCB-005	08/19/05	11/18/05	Disposed	Dark brown grease, dirt, steel drum.	TSCA/RCRA	84-330 (chem) 84-417 (RAD)	8/24/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	12/17/2005 - Sr analysis requested.
PCB-006	08/19/05	11/18/05	Disposed	Dark brown grease, dirt, steel drum.	TSCA/RCRA	84-331 (chem) 84-410 (RAD)	8/24/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-007	08/19/05	11/18/05	Disposed	Silver mastic, trace brown grease, dirt, steel drum.	TSCA/RCRA	84-332 (chem) 84-416 (RAD)	8/24/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-008	08/19/05	11/18/05	Disposed	Brown grease, silver mastic, dirt, rock, steel drum.	TSCA/RCRA	84-333 (chem) 84-409 (RAD)	8/24/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-009	08/19/05	11/18/05	Disposed	Brown grease, trace silver mastic, dirt, no apparent drum.	TSCA/RCRA	84-334 (chem) 84-432 (RAD)	8/24/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-010	08/19/05	11/18/05	Disposed	Brown grease, silver mastic, dirt, no apparent drum.	TSCA/RCRA	84-335 (chem) 84-413 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-011	08/19/05	11/18/05	Disposed	Brown grease, silver mastic, paper, dirt, no apparent drum.	TSCA/RCRA	84-336 (chem) 84-406 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-012	08/19/05	11/18/05	Disposed	Dark brown grease, silver mastic, dirt, orange rock, steel drum.	TSCA/RCRA	84-337 (chem) 84-429 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-013	08/19/05	11/18/05	Disposed	Brown grease, trace silver mastic, dirt, gunny sac, no drum.	TSCA/RCRA	84-338 (chem) 84-423 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-014	08/19/05	11/18/05	Disposed	Brown grease, silver mastic, dirt, steel drum.	TSCA/RCRA	84-339 (chem) 84-434 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-015	08/19/05	11/18/05	Disposed	Brown grease, dirt steel drum.	TSCA/RCRA	84-340 (chem) 84-435 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-016	08/19/05	11/18/05	Disposed	Brown grease, silver mastic, dirt, steel drum.	TSCA/RCRA	84-341 (chem) 84-433 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-017	08/19/05	11/18/05	Disposed	Brown grease, silver mastic, dirt, steel drum.	TSCA/RCRA	84-342 (chem) 84-414 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-018	08/19/05	11/18/05	Disposed	Brown grease, dirt, steel drum.	TSCA/RCRA	84-343 (chem) 84-407 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	

APPENDIX F

TABLE F-2

OVERPACK DRUM LOG

Drum	Accumulation Start Date	Disposal Date	Storage Location	Contents	Waste Designation	Sample I.D.	Sample Date	Disposal Facility	Profile	Proper Shipping Name	EPA/DTSC Codes	Label Info	Manifest Type/ Number	Comments
PCB-019	08/19/05	11/18/05	Disposed	Brown grease, silver mastic, dirt, empty plastic jug, steel drum.	TSCA/RCRA	84-344 (chem) 84-428 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7271	RQ, UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-020	08/19/05	11/18/05	Disposed	Brown grease, dirt, steel drum.	TSCA/RCRA	84-345 (chem) 84-422 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-021	08/20/05	11/18/05	Disposed	Brown grease, dirt, steel drum.	TSCA/RCRA	84-346 (chem) 84-415 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-022	08/20/05	11/18/05	Disposed	Brown grease, dirt, steel drum.	TSCA/RCRA	84-347 (chem) 84-408 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-023	08/20/05	11/18/05	Disposed	Silver mastic, dirt, steel drum.	TSCA/RCRA	84-348 (chem) 84-426 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-024	08/20/05	11/18/05	Disposed	Roll of rubber/foam in synthetic drum	TSCA/RCRA	84-349 (chem) 84-427 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-025	08/22/05	11/18/05	Disposed	Brown grease, asphalt, silver mastic, with drum	TSCA/RCRA	84-350 (chem) 84-420 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7271	RQ, UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-026	08/22/05	11/18/05	Disposed	Visquene, PPE, brown grease, silver mastic, no drum	TSCA/RCRA	84-351 (chem) 84-421 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-027	08/25/05	11/18/05	Disposed	Brown grease, steel drum, some asphalt	TSCA/RCRA	84-352 (chem) 84-425 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-028	08/25/05	11/18/05	Disposed	Brown grease, asphalt, dirt, steel drum	TSCA/RCRA	84-353 (chem) 84-438 (RAD)	8/25/05 10/19/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-029	08/25/05	11/18/05	Disposed	Dark brown grease, dirt, corroded steel drum	TSCA/RCRA	84-354 (chem) 84-419 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-030	08/25/05	11/18/05	Disposed	Brown grease, smashed drum, dirt, in steel drum	TSCA/RCRA	84-355 (chem) 84-424 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-031	08/25/05	11/18/05	Disposed	Silver mastic, grease, dirt, couple 25 gallon steel drums	TSCA/RCRA	84-356 (chem) 84-418 (RAD)	8/25/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-003	08/19/05	11/18/05	Disposed	Brown grease, silver mastic, dirt, reddish-grime with crystalline, & steel drum	TSCA/RCRA	84-328 (chem) 84-412 (RAD)	8/24/05 10/18/05	Kettleman City to Port Arthur for disposal by incineration	EC7271	RQ, UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-033	08/25/05	11/18/05	Disposed	Dark red/brown grease in steel drum	TSCA/RCRA	84-358 (chem) 84-436 (RAD)	8/25/05 10/19/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-034	08/25/05	11/18/05	Disposed	Dark brown grease, dirt, steel drum.	TSCA/RCRA	84-359 (chem) 84-437 (RAD)	8/25/05 10/19/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-035	10/14/05	11/18/05	Disposed	Black liquid-soaked dirt with steel drum, plastic sheet, PPE	TSCA/RCRA	HazCat 84-439 (RAD)	10/19/05 10/19/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
PCB-036	10/14/05	11/18/05	Disposed	Black liquid-soaked dirt with steel drum, plastic sheet, PPE	TSCA/RCRA	HazCat 84-440 (RAD)	10/19/05 10/19/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	

APPENDIX F

TABLE F-2

OVERPACK DRUM LOG

Drum	Accumulation Start Date	Disposal Date	Storage Location	Contents	Waste Designation	Sample I.D.	Sample Date	Disposal Facility	Profile	Proper Shipping Name	EPA/DTSC Codes	Label Info	Manifest Type/ Number	Comments
PCB-037	10/14/05	11/18/05	Disposed	Black liquid-soaked dirt with steel drum, plastic sheet, PPE	TSCA/RCRA	HazCat 84-441 (RAD)	10/19/05 10/19/05	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW / 33326	
D84-038	10/21/05	06/13/06	Disposed	Black tar/oily substance with steel drum	TSCA/RCRA	HazCat 84-465 (RAD)	10/28/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/17/2205 Sr analysis requested. 2/2006 Gross beta 14.6 pCi/g, Sr-90 <MDA. Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-039	10/21/05	07/26/06	Disposed	Steel drum with hole on top. Contains grease, upside down in overpack. Added 25 lbs of sorbent as a precaution.	TSCA/RCRA	HazCat 84-461 (RAD)	10/28/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 316	12/17/2005 Sr, istopic uranium, thorium, plutonium analyses requested. 2/2006 Gross alpha 8.51 pCi/g, Gross beta 20.3 pCi/g, Sr-90 <MDA, Pu <MDA, Th 0.6, U 0.37 Need I-129, Cl-36, C-14, Np-237, Ac-227 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-040	10/21/05	06/13/06	Disposed	Steel drum with contents resembling paint chips. Upside down crushed/dented drum. Minimal soil at bottom. Pooled liquid on top of drum. Liquid, probably (water) at bottom of overpack. Added 25 lbs of sorbent as a precaution.	TSCA/RCRA	HazCat 84-462 (RAD)	10/28/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/17/2005 Sr analysis requested. 2/2006 Gross beta 17.8 pCi/g, Sr-90 <MDA. Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-041	10/21/05	06/13/06	Disposed	Crushed steel drum with hardened foam-looking material. Soil.	TSCA/RCRA	HazCat 84-452 (RAD)	10/28/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/17/2005 Sr analyses requested. 2/2006 Gross beta 17.8 pCi/g, Sr-90 <MDA. Need I-129, Cl-36, C-14 Analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-042	10/21/05	06/13/06	Disposed	Crushed drum with impacted soil, brick pieces, rags, PPE, solvent odor.	TSCA/RCRA	HazCat 84-456 (RAD)	10/28/05 10/28/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/17/2005 Sr analysis requested. 2/2006 Gross beta 9.51 pCi/g, Sr-90 <MDA. Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-043	10/21/05	00/00/05	Transferred to Army contractor, Building 406, 12/20/05	Crushed steel drum with hardened foam-looking material. Soil. No condensation.	Mixed Waste - TSCA/ RCRA/ RAD	HazCat 84-451 (RAD)	10/28/05 10/28/05		N/A	N/A	N/A	N/A	N/A	Elevated levels of Co-60, Cs-137, and americium. Drum is radiologically impacted due to Co and Cs and was transferred to Building 406 on 12/20/05. 2/2006 Determined Mixed Waste: Co-60 = 5.24, Cs-137 = 2.34.
D84-044	10/24/05	06/13/06	Disposed	Crushed steel drum with unknown liquid and impacted soil. Excess material transferred to D84-107	TSCA/RCRA	HazCat 84-589 (RAD)	12/15/05 12/15/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	5/15/2006 RASO approved for offsite transportation and disposal.
D84-045	10/24/05	06/13/06	Disposed	Crushed steel drum with hardened foam-looking material. Soil. FILLED WITH SAND, SOLVENT ODOR	TSCA/RCRA	HazCat 84-453 (RAD)	10/28/05 10/28/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/17/2005 Sr analysis requested. 2/2006 Gross beta 15.6 pCi/g, Sr-90 <MDA. Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-046	10/24/05	06/13/06	Disposed	Crushed drum, impacted soil, resin material, soil concrete, clumps of grease. Noticeable PCB odor.	TSCA/RCRA	HazCat 84-467 (RAD)	10/28/05 10/28/05	Kettleman City to Port Arthur for disposal by incineration	EC7271	RQ, Environmentally Hazardous Substances, Solid, n.o.s. (polychlorinated biphenyls), 9, UN 3077, III (RQ PCB's)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 315	12/22/2005 Sr analysis requested. 2/2006 Gross beta 17.2 pCi/g Sr-90 <MDA Need I-129, Cl-36, C-14 Analysis 5/15/2006 RASO approved for offsite transportation and disposal.
D84-047	10/24/05	06/13/06	Disposed	Open, jagged, smashed drum with adhered soil and resin. Viscous resin or liquid in bottom of drum. Added 25lbs of sorbent as a precaution.	TSCA/RCRA	HazCat 84-466 (RAD)	10/28/05 10/28/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/22/2005 Sr analysis requested. 2/2006 Gross beta 18.7 pCi/g Sr-90 <MDA Need I-129, Cl-36, C-14 Analysis 5/15/2005 RASO approved for offsite transportation and disposal.

APPENDIX F

TABLE F-2

OVERPACK DRUM LOG

Drum	Accumulation Start Date	Disposal Date	Storage Location	Contents	Waste Designation	Sample I.D.	Sample Date	Disposal Facility	Profile	Proper Shipping Name	EPA/DTSC Codes	Label Info	Manifest Type/ Number	Comments
D84-048	10/24/05	06/13/06	Disposed	Crushed steel drum with carbon-like material and soil	TSCA/RCRA	HazCat 84-449 (RAD)	10/28/05 10/28/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/17/2005 Sr analysis requested. 2/2006 Gross beta 11.8 pCi/g Sr-90 <MDA Need I-129, Cl-36, C-14 Analysis 5/15/2006 RASO approved for offsite transportation and disposal.
D84-049	10/24/05	10/11/06	Disposed	Crushed steel drum with oily-glue like substance and soil	TSCA/RCRA	HazCat 84-593 (RAD)	12/15/05 12/15/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/00005 5758VES	7/21/06 RASO release requested. 9/22/06 RASO approved for offsite transportation and disposal.
D84-050	10/24/05	02/03/06	Disposed	Soil, steel drum and 5 gallon can fragments, wood, dried paint, solvent odor, added 25lbs sorbent as a precaution	TSCA/RCRA	HazCat 84-460 (RAD)	10/28/05 10/28/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label		12/17/2005 Release from RASO requested. 3/9/2006 RASO approved for offsite transportation and disposal.
D84-051	10/24/05	02/03/06	Disposed	T5 gallon steel buckets, white grease, soil. Added 25lbs of sorbent as a precaution.	TSCA/RCRA	HazCat 84-447(RAD)	10/28/05 10/28/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label		12/17/2005 Release from RASO requested. 3/9/2006 RASO approved for offsite transportation and disposal.
D84-052	10/24/05	06/13/06	Disposed	Partial steel drum and 5-gallon pails with grease, oily substance and impacted soil	TSCA/RCRA	HazCat 84-455 (RAD)	10/28/05 10/28/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	hw/227333 13	12/17/2005 Sr analysis requested. 2/2006 Gross beta 21.3 pCi/g, Sr-90 <MDA. Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-053	10/24/05	02/03/06	Disposed	Crushed steel drum, 5 gallon pails, grease, soil, wood, solvent odor. Added 25lbs of sorbent as precaution.	TSCA/RCRA	HazCat 84-446 (RAD)	10/28/05 10/28/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label		12/17/2005 Release from RASO requested. 3/9/2006 RASO approved for offsite transportation and disposal.
D84-054	10/24/05	07/26/06	Disposed	Partial steel drum and 5-gallon pails with grease, oily substance and impacted soil	TSCA/RCRA	HazCat 84-459 (RAD)	10/28/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 316	12/17/2005 Sr analysis requested. 2/2006 Gross beta 14.4 pCi/g, Sr-90 <MDA. Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-055	10/24/05	06/13/06	Disposed	Two partial steel drums, 5-gallon pails with grease, oily substance and impacted soil	TSCA/RCRA	HazCat 84-457 (RAD)	10/28/05 10/28/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/17/2005 Sr analysis requested. 3/9/2006 Gross beta 16.8 pCi/g, Sr-90<MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-056	10/24/05	06/13/06	Disposed	Partial steel drum and 5-gallon pails with grease, oily substance and impacted soil (1 5-gallon bucket, bay mud, and soil)	TSCA/RCRA	HazCat 84-592 (RAD)	12/15/04 12/15/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	Gross beta 15.7 pCi/g, Sr-90<MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-057	10/24/05	06/13/06	Disposed	Crushed drum, 5-gallon pails with grease, and impacted soil	TSCA/RCRA	HazCat 84-458 (RAD)	10/28/05 10/28/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/17/2005 Sr analysis requested. Gross beta 11.3 pCi/g, Sr-90 <MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-058	10/24/05	06/13/06	Disposed	5-gallon pails with grease, oily substance and impacted soil	TSCA/RCRA	HazCat 84-448 (RAD)	10/28/05 10/28/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/17/2005 Sr analysis requested. Gross beta 12.2 pCi/g, Sr-90 <MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-059	10/24/05	10/11/06	Disposed	Steel drum, overpack 2/3 full of water with oil slick. Added 75 lbs of sorbent to stabilize free liquids in overpack.	TSCA/RCRA	HazCat 84-515 (RAD)	11/17/20010/24/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/00005 5758VES	7/21/06 RASO release requested. 9/22/06 RASO approved for offsite transportation and disposal.

APPENDIX F

TABLE F-2

OVERPACK DRUM LOG

Drum	Accumulation Start Date	Disposal Date	Storage Location	Contents	Waste Designation	Sample I.D.	Sample Date	Disposal Facility	Profile	Proper Shipping Name	EPA/DTSC Codes	Label Info	Manifest Type/ Number	Comments
D84-060	10/25/05	06/13/06	Disposed	Sealed old drum, empty, some grease residue.	TSCA/RCRA	HazCat 84-450 (RAD)	10/28/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/17/2005 Release from RASO requested. 3/9/2006 Gross beta 15.6 pCi/g Sr-90<MDA Need I-129, CI-36, C-14 Analysis 5/15/2006 RASO approved for offsite transportation and disposal.
D84-061	10/25/05	06/13/06	Disposed	Crushed drum, with impacted soil.	TSCA/RCRA	HazCat 84-454 (RAD)	10/28/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/17/2005 Sr analysis requested. Gross beta 25.1 pCi/g, Sr-90<MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-062	10/26/05	07/26/06	Disposed	Crushed drum, sand with chemical (resin) odor. Added 25lbs of sorbent to capture condensation pooled on top of drum.	TSCA/RCRA	HazCat 84-464 (RAD)	10/28/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 316	12/17/2005 Sr analysis requested. Gross beta 18.2 pCi/g, Sr-90<MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-063	10/28/05	06/13/06	Disposed	Crushed soil, impacted soil. Paint-like odor. Excess material transferred to D84-105.	TSCA/RCRA	HazCat 84-463 (RAD)	10/28/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/17/2005 Sr analysis requested. Gross beta 16.8 pCi/g Sr-90<MDA Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-065	10/31/05	06/13/06	Disposed	Contains empty steel drum with adhered soil. About 1 gallon of liquid in bottom of overpack. Added 25lbs of sorbent to abosorb free liquid.	TSCA/RCRA	HazCat 84-518 RAD	11/17/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/14/2005Sr analysis requested. Exterior dirty, sitting on spill pallet. Gross beta 15.1 pCi/g, Sr-90<MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-066	10/31/05	06/13/06	Disposed	Crushed drum. Soil with solvent odor. Excess contents transferred to D84-106.	TSCA/RCRA	HazCat 84-517 (RAD)	11/17/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/22/2005 - Release from RASO requested. 3/9/2006 Gross beta 26.8 pCi/g, Sr-90<MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
PCB-067	11/02/05	12/15/05	Consolidated with decontamination water	Corroded steel drum, with liquid (H_20) in bottom. FID = 0. Emptied H_20 into D84-100, crushed drum, re-used overpack.	N/A	N/A	N/A	Kettleman City to Port Arthur for disposal by incineration	N/A	N/A	N/A	N/A	N/A	
PCB-068	11/02/05	06/13/06	Disposed	Old steel drum, withliquid, impacted soil used PPE was added 10- 15lb 2/28/06	TSCA/RCRA	HazCat 84-519 (RAD)	11/17/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/14/2005 Sr analysis requested. 3/9/2006 Gross beta 22.3 pCi/g, Sr-90<MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
PCB-069	11/02/05	07/26/06	Disposed	Smashed steel drum with liner, liquid, impacted soil. FID = 100+	TSCA/RCRA	HazCat 84-474 (RAD)	11/9/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 316	12/22/2005 - Release from RASO requested. 3/9/2006 Gross beta 19.4 pCi/g, Sr-90<MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-070	11/02/05	06/13/06	Disposed	Smashed steel drumwith liner & impacted soil. FID = 0	TSCA/RCRA	HazCat 84-475 (RAD)	11/9/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/22/2005 - Release from RASO requested. 3/9/2006 Gross beta 19.3 pCi/g, Sr-90<MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-071	11/02/05	07/26/06	Disposed	Smashed steel drum with liner and impacted soil, plastic. FID = 0	TSCA/RCRA	HazCat 84-476 (RAD)	11/9/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 316	12/22/2005 - Release from RASO requested. 3/9/2006 Gross beta 12.4 pCi/g, Sr-90<MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.

APPENDIX F

TABLE F-2

OVERPACK DRUM LOG

Drum	Accumulation Start Date	Disposal Date	Storage Location	Contents	Waste Designation	Sample I.D.	Sample Date	Disposal Facility	Profile	Proper Shipping Name	EPA/DTSC Codes	Label Info	Manifest Type/ Number	Comments
D84-072	11/03/05	07/26/06	Disposed	Corroded steel drum with liner, liquid inside, impacted. PID = 0; pH = 3	TSCA/RCRA	HazCat 84-477 (RAD)	11/9/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 316	12/22/2005 - Release from RASO requested. 3/9/2006 Gross beta 18.6 pCi/g, Sr-90<MDA. Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
PCB-073	11/03/05	07/26/06	Disposed	Corroded steel drum with saturated dirt inside, impacted soil PID = 0	TSCA/RCRA	HazCat 84-478 (RAD)	11/9/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 316	12/22/2005 - Release from RASO requested. 3/9/2006 Gross beta 21.1 pCi/g, Sr-90<MDA. Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-074	11/03/05	07/26/06	Disposed	Corroded drum with sat dirt inside, impacted soil. PID = 0	TSCA/RCRA	HazCat 84-479 (RAD)	11/9/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 316	12/22/2005 - Release from RASO requested. 3/9/2006 Gross beta 16.8 pCi/g, Sr-90<MDA. Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
PCB-075	11/03/05	07/26/06	Disposed	Liquid filled with liner, impacted soil, corroded. PID = 0	TSCA/RCRA	HazCat 84-480 (RAD)	11/9/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 316	12/22/2005 - Release from RASO requested. 3/9/2006 Gross beta 18.3 pCi/g, Sr-90<MDA. Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
PCB-076	11/03/05	07/26/06	Disposed	Corroded drum with liner, liquid filled impacted soil. PID = 0	TSCA/RCRA	HazCat 84-481 (RAD)	11/9/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 316	12/22/2005 - Release from RASO requested. 3/9/2006 Gross beta 12.2 pCi/g, Sr-90<MDA. Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-077	11/03/05	07/26/06	Disposed	Corroded drum with liner, liquid filled impacted soil. PID = 0	TSCA/RCRA	HazCat 84-482 (RAD)	11/9/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 316	12/22/2005 - Release from RASO requested. 3/9/2006 Gross beta 17 pCi/g, Sr-90<MDA. Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
PCB-078	11/03/05	06/13/06	Disposed	Corroded drum with glittery metallic slime, impacted soil,sampling waste. PID = 0	TSCA/RCRA	84-324 84-591 (RAD)	8/2/05 12/15/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/22/2005 - Release from RASO requested. 3/9/2006 Gross beta 26.6 pCi/g, Sr-90<MDA. Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
PCB-079	11/03/05	06/13/06	Disposed	Corroded steel drum with contents, closed, not leaking, impacted soil. PID = 0	TSCA/RCRA	HazCat 84-483 (RAD)	11/9/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	3/9/2006 Gross beta 24.8 pCi/g Sr-90<MDA Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
PCB-080	11/03/05	06/13/06	Disposed	Corroded steel drum with contents and liquid, impacted soil. PID = 0	TSCA/RCRA	HazCat 84-484 (RAD)	11/9/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/22/2005 - Release from RASO requested. 3/9/2006 Gross beta 10.4 pCi/g, Sr-90<MDA. Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D084-081	11/04/05	07/26/06	Disposed	Corroded drum with liner, leaking oily liquid, impacted soil. FID = 0	TSCA/RCRA	HazCat 84-485(RAD)	11/9/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 316	12/22/2005 - Release from RASO requested. 3/9/2006 Gross beta 25.4 pCi/g, Sr-90<MDA. Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
PCB-082	11/04/05	10/11/06	Disposed	Corroded drum with holes, intact, liquid filled , impacted soil. FID = 0	TSCA/RCRA	HazCat 84-486 (RAD)	11/9/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/00005 5758VES	7/21/06 Release from RASO requested. 9/22/06 RASO approved for offsite transportation and disposal.

APPENDIX F

TABLE F-2

OVERPACK DRUM LOG

Drum	Accumulation Start Date	Disposal Date	Storage Location	Contents	Waste Designation	Sample I.D.	Sample Date	Disposal Facility	Profile	Proper Shipping Name	EPA/DTSC Codes	Label Info	Manifest Type/ Number	Comments
PCB-083	11/04/05	06/13/06	Disposed	Very corroded drum with solids, plastic, impacted soil. FID = 0	TSCA/RCRA	HazCat 84-487 (RAD)	11/9/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/22/2005 - Release from RASO requested. 3/9/2006 Gross beta 12.8 pCi/g, Sr-90<MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-084	11/04/05	07/26/06	Disposed	Very corroded drum with dirt inside, visqueen, impacted soil. FID = 0	TSCA/RCRA	HazCat 84-488 (RAD)	11/9/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 316	12/22/2005 - Release from RASO requested. 3/9/2006 Gross beta 20.8 pCi/g, Sr-90<MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
PCB-085	11/07/05	06/13/06	Disposed	Corroded drum with dirt & oily substance, impacted soil. Used PPE was added 10-15lb 2/28/06	TSCA/RCRA	HazCat 84-489 (RAD)	11/10/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/17/2005 Sr analysis requested. 3/9/2006 Gross beta 20.9 pCi/g, Sr-90<MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
PCB-086	11/07/05	06/13/06	Disposed	Smashed drum with oily substance, impacted soil, plastic sheet. Used PPE was added 15-15lb 2/28/06	TSCA/RCRA	HazCat 84-490 (RAD)	11/10/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/17/2005 Sr analysis requested. 3/9/2006 Gross beta 10.5 pCi/g, Sr-90<MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
PCB-087	11/07/05	06/13/06	Disposed	Corroded drum, smashed with caramel like substance, impacted soil	TSCA/RCRA	HazCat 84-491(RAD)	11/10/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/17/2005 Sr analysis requested. 3/9/2006 Gross beta 28.2 pCi/g, Sr-90<MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
PCB-088	11/07/05	02/03/06	Disposed	Corroded crushed drum with white grease, oily substance, impacted soil	TSCA/RCRA	HazCat 84-492 (RAD)	11/10/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label		12/17/2005 - Release from RASO requested. 3/9/2006 RASO approved for offsite transportation and disposal.
PCB-089	11/07/05	02/03/06	Disposed	corroded crushed drum w/ black oily substance, impacted soil, plastic sheeting	TSCA/RCRA	HazCat 84-493 (RAD)	11/10/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label		12/17/2005 - Release from RASO requested. 3/9/2006 RASO approved for offsite transportation and disposal.
PCB-090	11/07/05	02/03/06	Disposed	Crushed drum with bulk oily substance, impacted plastic sheet	TSCA/RCRA	HazCat 84-494 (RAD)	11/10/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label		12/17/2005 - Release from RASO requested. 3/9/2006 RASO approved for offsite transportation and disposal.
PCB-091	11/07/05	06/13/06	Disposed	Crushed drum with impacted soil, blk substance, impacted plastic	TSCA/RCRA	HazCat 81-495 (RAD)	11/10/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/17/2005 Sr analysis requested. 3/9/2006 Gross beta 14.7 pCi/g, Sr-90<MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
PCB-092	11/07/05	06/13/06	Disposed	Corroded drum with bulk oily soil, impacted plastic sheet	TSCA/RCRA	HazCat 84-496 (RAD)	11/10/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/17/2005 Sr analysis requested. 3/9/2006 Gross beta 14.7 pCi/g, Sr-90<MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
PCB-093	11/07/05	02/03/06	Disposed	Corroded drum with white grease, impacted soil, bulk oily substance, plastic sheet	TSCA/RCRA	HazCat 84-497 (RAD)	11/10/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label		12/17/2005 - Release from RASO requested. 3/9/2006 RASO approved for offsite transportation and disposal.
PCB-094	11/07/05	06/13/06	Disposed	Corroded drum with impacted soil, impacted plastic sheet	TSCA/RCRA	HazCat 84-498 (RAD)	11/10/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/17/2005 Sr analysis requested. 3/9/2006 Gross beta 12.9 pCi/g, Sr-90<MDA. Need I-129, CI-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.

APPENDIX F

TABLE F-2

OVERPACK DRUM LOG

Drum	Accumulation Start Date	Disposal Date	Storage Location	Contents	Waste Designation	Sample I.D.	Sample Date	Disposal Facility	Profile	Proper Shipping Name	EPA/DTSC Codes	Label Info	Manifest Type/ Number	Comments
D84-095 IMPACTED	11/07/05	00/00/05	Transferred to Army contractor, Building 406, 12/20/05	No Drum inside overpack. Red hardened primer/plastic in shape of decayed fiber drum.	Mixed Waste-TSCA/ RCRA/ RAD	HazCat 84-516 (RAD)	11/17/2005		N/A	N/A	N/A	N/A	N/A	Radium is above limit, drum material is rad impacted- transferred to Building 406 12-20-05 3/9/2006 Gross beta 11.4 pCi/g, Ra-226 6.06 pCi/g Sr-90<MDA. Need I-129, Cl-36, C-14 Anaylsis. Determined **Mixed Waste: Ra-226 = 6.06 pCi/g**
PCB-096	11/07/05	06/13/06	Disposed	Corroded oily drum with impacted soil, blk oily liquid, plastic sheeting. FID = MAX 5	TSCA/RCRA	HazCat 84-499 (RAD)		Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	12/17/2005 Sr analysis requested. 3/9/2006 Gross beta 15.6 pCi/g, Sr-90<MDA. Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-097	10/24/05	10/11/06	Disposed	Overpacked drum and water with oil slick. Added 25 lbs sorbent to stabilize free liquid in drum	TSCA/RCRA	HazCat 84-514 (RAD)	11/17/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/00005 5758VES	7/21/06 Release from RASO requested. 9/22/06 RASO approved for offsite transportation and disposal.
84-99 **	11/21/05	02/03/06	Building 704	Truck Incident clean-up materials	TSCA/RCRA	Based on Overpack results	N/A	Kettleman City to Port Arthur for disposal by incineration	EC7270			Hazardous waste label, PCB mark, class 9 label		Radiological analysis not required, spill cleanup from drum that was previously released.
D84-101 **	10/24/05	06/13/06	Disposed	One 5 gallon bucket, bay mud, and soil originally in overweight drum D84-056	TSCA/RCRA	HazCat 84-592 (RAD)	12/15/05 12/15/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	1/4/2006 Sr analysis requested. Damaged drum D84-056 repacked into D84-056 and this drum. 3/9/2006 Gross beta 15.7 pCi/g, Sr-90<MDA Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and
D84-102	10/24/05	06/13/06	Disposed	Soil and sticky resinous substance originally from overweight drum D84-049. Steel Drum.	TSCA/RCRA	HazCat 84-593 (RAD)	12/15/05 12/15/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	1/4/2006 - Sr analysis requested. 3/9/2006 Gross beta 26.2 pCi/g, Sr-90<MDA. Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-105 **	10/28/05	06/13/06	Disposed	Crushed soil, impacted soil. Paint like odor. Excess material transferred from D84-063	TSCA/RCRA	HazCat 84-463 (RAD)	10/28/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	Base release on results from originating drum. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-106	10/28/05	06/13/06	Disposed	Soil with solvent odor. Excess contents transferred from D84-066	TSCA/RCRA	HazCat 84-517 (RAD)	11/17/2005	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	Base release on results from originating drum. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-107	10/24/05	06/13/06	Disposed	Excess material from D84-044. Added bagged oil spill clean up material. 1/27/06	TSCA/RCRA	HazCat 84-589 (RAD)	12/15/05 12/15/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	Base release on results from originating drum. 3/9/2006 Gross beta 22.2 pCi/g, Sr-90<MDA. Need I-129, Cl-36, C-14 analyses. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-108	10/24/05	06/13/06	Disposed	Excess material from D84-045	TSCA/RCRA	HazCat 84-443 (RAD)	10/28/05 10/28/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	Base release on results from originating drum. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-109	10/24/05	06/13/06	Disposed	Excess Material from D84-052	TSCA/RCRA	HazCat 84-455 (RAD)	10/28/05 10/28/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	Base release on results from originating drum. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-110	10/21/05	06/13/06	Disposed	Excess material from D84-042	TSCA/RCRA	HazCat 84-456 (RAD)	10/28/05 10/28/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	Base release on results from originating drum. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-111	10/24/05	06/13/06	Disposed	Excess material from D84-058	TSCA/RCRA	HazCat 84-448 (RAD)	10/28/05 10/28/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	Base release on results from originating drum. 5/15/2006 RASO approved for offsite transportation and disposal.
D84-112	10/24/05	06/13/06	Disposed	Excess Material from D84-046	TSCA/RCRA	HazCat 84-467 (RAD)	10/28/05 10/28/05	Kettleman City to Port Arthur for disposal by incineration	EC7652	RQ, Hazardous Waste, Liquid, n.o.s. (grease, soil, sand) 9, NA 3082, III (RQ D006, D019)	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	Hazardous waste label, PCB mark, class 9 label	HW/22733 313	Base release on results from originating drum. 5/15/2006 RASO approved for offsite transportation and disposal.

APPENDIX F

TABLE F-2

OVERPACK DRUM LOG

Drum	Accumulation Start Date	Disposal Date	Storage Location	Contents	Waste Designation	Sample I.D.	Sample Date	Disposal Facility	Profile	Proper Shipping Name	EPA/DTSC Codes	Label Info	Manifest Type/ Number	Comments
D-407 **	02/22/06	10/11/06	Disposed	Foam	TSCA/RCRA	84-929 (RAD)	2/22/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	HW, class 9, PCB mark	HW/00005 5758VES	7/21/06 Release from RASO requested. 9/22/06 RASO approved for offsite transportation and disposal.
D-408	02/22/06	10/11/06	Disposed	Foam	TSCA/RCRA	84-929 (RAD)	2/22/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	HW, class 9, PCB mark	HW/00005 5758VES	7/21/06 Release from RASO requested. 9/22/06 RASO approved for offsite transportation and disposal.
D-409	02/22/06	10/11/06	Disposed	Foam	TSCA/RCRA	84-929 (RAD)	2/22/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	HW, class 9, PCB mark	HW/00005 5758VES	7/21/06 Release from RASO requested. 9/22/06 RASO approved for offsite transportation and disposal.
D-410	02/22/06	10/11/06	Disposed	Foam	TSCA/RCRA	84-929 (RAD)	2/22/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	HW, class 9, PCB mark	HW/00005 5758VES	7/21/06 Release from RASO requested. 9/22/06 RASO approved for offsite transportation and disposal.
D-411	02/22/06	10/11/06	Disposed	Foam	TSCA/RCRA	84-929 (RAD)	2/22/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	HW, class 9, PCB mark	HW/00005 5758VES	7/21/06 Release from RASO requested. 9/22/06 RASO approved for offsite transportation and disposal.
D-412	02/22/06	10/11/06	Disposed	Foam	TSCA/RCRA	84-929 (RAD)	2/22/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	HW, class 9, PCB mark	HW/00005 5758VES	7/21/06 Release from RASO requested. 9/22/06 RASO approved for offsite transportation and disposal.
D-413	02/22/06	10/11/06	Disposed	Foam	TSCA/RCRA	84-929 (RAD)	2/22/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	HW, class 9, PCB mark	HW/00005 5758VES	7/21/06 Release from RASO requested. 9/22/06 RASO approved for offsite transportation and disposal.
D-414	02/22/06	10/11/06	Disposed	Foam	TSCA/RCRA	84-929 (RAD)	2/22/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	HW, class 9, PCB mark	HW/00005 5758VES	7/21/06 Release from RASO requested. 9/22/06 RASO approved for offsite transportation and disposal.
D-415	02/22/06	10/11/06	Disposed	Foam	TSCA/RCRA	84-929 (RAD)	2/22/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally hazardous substances, solid, nos (polychlorinated biphenyls), 9, PG III	EPA: D006-008, D012, D015, D018-019, D027, D030-034, D036-037, D040, D042-043; State: 751, 223, 261, 611	HW, class 9, PCB mark	HW/00005 5758VES	7/21/06 Release from RASO requested. 9/22/06 RASO approved for offsite transportation and disposal.
D-586 **	09/12/06	10/11/06	Disposed	Overpacked greasy stainless steel drum, PPE	TSCA/RCRA	HazCat 84NPCBD-586-001 (RAD)	9/12/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally Hazardous Substances, Solid, nos (Polychlorinated Biphenyls), 9, PG III	EPA: D006-D008, D012, D015, D018, D019, D027, D030-34, D036, D037, D040, D042, D043; State: 751, 223, 261,	Hazardous waste label, Class 9, PCB	HW/00005 5758VES	10/4/2006 RASO approved for offsite transportation and disposal.
D-587	09/12/06	10/11/06	Disposed	Greasy steel drum fragments, debris, PPE	TSCA/RCRA	HazCat 84NPCBD-587-001(RAD)	9/12/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally Hazardous Substances, Solid, nos (Polychlorinated Biphenyls), 9, PG III	EPA: D006-D008, D012, D015, D018, D019, D027, D030-34, D036, D037, D040, D042, D043; State: 751, 223, 261,	Hazardous waste label, Class 9, PCB	HW/00005 5758VES	10/4/2006 RASO approved for offsite transportation and disposal.
D-588	09/12/06	10/11/06	Disposed	Overpacked corroded drum of trash(?), PPE	TSCA/RCRA	HazCat 84NPCBD-588-001(RAD)	9/12/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally Hazardous Substances, Solid, nos (Polychlorinated Biphenyls), 9, PG III	EPA: D006-D008, D012, D015, D018, D019, D027, D030-34, D036, D037, D040, D042, D043; State: 751, 223, 261,	Hazardous waste label, Class 9, PCB	HW/00005 5758VES	10/4/2006 RASO approved for offsite transportation and disposal.
D-589	09/12/06	10/11/06	Disposed	Overpacked greasy drum and PPE	TSCA/RCRA	HazCat 84NPCBD-589-001(RAD)	9/12/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally Hazardous Substances, Solid, nos (Polychlorinated Biphenyls), 9, PG III	EPA: D006-D008, D012, D015, D018, D019, D027, D030-34, D036, D037, D040, D042, D043; State: 751, 223, 261,	Hazardous waste label, Class 9, PCB	HW/00005 5758VES	10/4/2006 RASO approved for offsite transportation and disposal.
D-590	09/12/06	10/11/06	Disposed	Overpacked greasy drum and PPE	TSCA/RCRA	HazCat 84NPCBD-590-001(RAD)	9/12/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally Hazardous Substances, Solid, nos (Polychlorinated Biphenyls), 9, PG III	EPA: D006-D008, D012, D015, D018, D019, D027, D030-34, D036, D037, D040, D042, D043; State: 751, 223, 261,	Hazardous waste label, Class 9, PCB	HW/00005 5758VES	10/4/2006 RASO approved for offsite transportation and disposal.
D-591	09/12/06	10/11/06	Disposed	Overpacked drum of grease/sealant and PPE	TSCA/RCRA	HazCat 84NPCBD-591-001(RAD)	9/12/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally Hazardous Substances, Solid, nos (Polychlorinated Biphenyls), 9, PG III	EPA: D006-D008, D012, D015, D018, D019, D027, D030-34, D036, D037, D040, D042, D043; State: 751, 223, 261,	Hazardous waste label, Class 9, PCB	HW/00005 5758VES	10/4/2006 RASO approved for offsite transportation and disposal.
D-592	09/12/06	10/11/06	Disposed	Drum fragments and greasy solid	TSCA/RCRA	HazCat 84NPCBD-592-001(RAD)	9/12/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally Hazardous Substances, Solid, nos (Polychlorinated Biphenyls), 9, PG III	EPA: D006-D008, D012, D015, D018, D019, D027, D030-34, D036, D037, D040, D042, D043; State: 751, 223, 261,	Hazardous waste label, Class 9, PCB	HW/00005 5758VES	10/4/2006 RASO approved for offsite transportation and disposal.
D-593	09/12/06	10/11/06	Disposed	Drum fragments and greasy solid	TSCA/RCRA	HazCat 84-NPCBD-593-001(RAD)	9/12/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally Hazardous Substances, Solid, nos (Polychlorinated Biphenyls), 9, PG III	EPA: D006-D008, D012, D015, D018, D019, D027, D030-34, D036, D037, D040, D042, D043; State: 751, 223, 261,	Hazardous waste label, Class 9, PCB	HW/00005 5758VES	10/4/2006 RASO approved for offsite transportation and disposal.
D-594	09/12/06	10/11/06	Disposed	Overpacked corroded drum fragments and white grease	TSCA/RCRA	HazCat 84NPCBD-594-001(RAD)	9/12/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally Hazardous Substances, Solid, nos (Polychlorinated Biphenyls), 9, PG III	EPA: D006-D008, D012, D015, D018, D019, D027, D030-34, D036, D037, D040, D042, D043; State: 751, 223, 261,	Hazardous waste label, Class 9, PCB	HW/00005 5758VES	10/4/2006 RASO approved for offsite transportation and disposal.

APPENDIX F

TABLE F-2

OVERPACK DRUM LOG

Drum	Accumulation Start Date	Disposal Date	Storage Location	Contents	Waste Designation	Sample I.D.	Sample Date	Disposal Facility	Profile	Proper Shipping Name	EPA/DTSC Codes	Label Info	Manifest Type/ Number	Comments
D-595	09/12/06	10/11/06	Disposed	Overpacked corroded drum fragments and white grease	TSCA/RCRA	HazCat 84NPCBD-595-001(RAD)	9/12/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally Hazardous Substances, Solid, nos (Polychlorinated Biphenyls), 9, PG III	EPA: D006-D008, D012, D015, D018, D019, D027, D030-34, D036, D037, D040, D042, D043; State: 751, 223, 261, 611	Hazardous waste label, Class 9, PCB	HW/00005 5758VES	10/4/2006 RASO approved for offsite transportation and disposal.
D-596	09/12/06	10/11/06	Disposed	Overpacked corroded drum fragments, concrete and greasy material	TSCA/RCRA	HazCat 84NPCBD-596-001(RAD)	9/12/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally Hazardous Substances, Solid, nos (Polychlorinated Biphenyls), 9, PG III	EPA: D006-D008, D012, D015, D018, D019, D027, D030-34, D036, D037, D040, D042, D043; State: 751, 223, 261, 611	Hazardous waste label, Class 9, PCB	HW/00005 5758VES	10/4/2006 RASO approved for offsite transportation and disposal.
D-597	09/12/06	10/11/06	Disposed	Greasy drum fragments, grease, concrete	TSCA/RCRA	HazCat 84NPCBD-597-001(RAD)	9/12/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally Hazardous Substances, Solid, nos (Polychlorinated Biphenyls), 9, PG III	EPA: D006-D008, D012, D015, D018, D019, D027, D030-34, D036, D037, D040, D042, D043; State: 751, 223, 261,	Hazardous waste label, Class 9, PCB	HW/00005 5758VES	10/4/2006 RASO approved for offsite transportation and disposal.
D-598	09/12/06	10/11/06	Disposed	Greasy drum fragments, grease, concrete	TSCA/RCRA	HazCat 84NPCBD-598-001(RAD)	9/12/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally Hazardous Substances, Solid, nos (Polychlorinated Biphenyls), 9, PG III	EPA: D006-D008, D012, D015, D018, D019, D027, D030-34, D036, D037, D040, D042, D043; State: 751, 223, 261	Hazardous waste label, Class 9, PCB	HW/00005 5758VES	10/4/2006 RASO approved for offsite transportation and disposal.
D-599**	09/12/06	10/11/06	Disposed	Greasy drum fragments, grease, concrete	TSCA/RCRA	HazCat 84NPCBD-599-001(RAD)	9/12/2006	Kettleman City to Port Arthur for disposal by incineration	EC7270	UN 3077, Environmentally Hazardous Substances, Solid, nos (Polychlorinated Biphenyls), 9, PG III	EPA: D006-D008, D012, D015, D018, D019, D027, D030-34, D036, D037, D040, D042, D043; State: 751, 223, 261,	Hazardous waste label, Class 9, PCB	HW/00005 5758VES	10/4/2006 RASO approved for offsite transportation and disposal.

Abbreviations and Acronyms:

**Drum numbers are not sequential since all site drummed waste is logged into one spreadsheet
chem - sample for chemical analysis
FID - flame ionizing detector
HazCat - Hazardous Categorization
lb - pound
N/A - not applicable
Non-Haz - non-hazardous
HW - hazardous waste
PCB - polychlorinated biphenyl
PID - photoionization detector
PPE - personal protective equipment
RAD - sample for radiological analysis
RASO - Radiological Affairs Support Office
RCRA - Resource Conservation and Recovery Act
TSCA - Toxic Substances Control Act

[redacted] Drum contains mixed waste. Transferred to Army contractor and not disposed under this project.

Kettleman City refers to the Chemical Waste Management Inc. Kettleman Hills Facility located in Kettleman City, California.
Port Arthur refers to the Onyx Environmental Services Port Arthur Treatment Facility located in Port Arthur, Texas.

APPENDIX F

TABLE F-3

CHEMPACK DRUM LOG

Drum	Accumulation Start Date	Disposal Date	Storage Location	Contents	Waste Designation	Sample I.D.	Disposal Facility	Profile	Proper Shipping Name	EPA/DTSC Codes	Label Info	Manifest Type/ Number	Comments
D-600	11/27/06	11/30/06	Disposed	Laboratory bottles - acids	RCRA	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0020	RQ, Waste Corrosive Liquid, Acidic, Inorganic, n.o.s., 8, UN3264, PGII (RQ-D002)	EPA: D002; State: 551	Hazardous waste label, Corrosive	HW/000055759 VES	All containers were swiped individually. No additional radiological samples necessary.
D-601	11/27/06	11/30/06	Disposed	Laboratory bottles - bases	RCRA	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0020	Waste, Corrosive Liquid, Basic, Inorganic, n.o.s., 8 UN 3266, PGII	EPA: D002; State: 551	Hazardous waste label, Corrosive	HW/000055759 VES	All containers were swiped individually. No additional radiological samples necessary.
D-602	11/27/06	11/30/06	Disposed	Laboratory bottles - flammable solids, organic	RCRA	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0020	Waste, Flammable Solids, Organic, n.o.s., 4.1, UN 1325, PGII	EPA: D001; State: 551	Hazardous waste label, Flammable Solid	HW/000055759 VES	All containers were swiped individually. No additional radiological samples necessary.
D-603	11/27/06	11/30/06	Disposed	Laboratory bottles - flammable solids, inorganic	RCRA	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0020	Waste, Flammable Solids, Inorganic, n.o.s., 4.1, UN 3178, PGII	EPA: D001; State: 551	Hazardous waste label, Flammable Solid	HW/000055759 VES	All containers were swiped individually. No additional radiological samples necessary.
D-604	11/27/06	11/30/06	Disposed	Laboratory bottles - flammable liquids	TSCA/RCRA	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0020	RQ, Waste Flammable Liquids, n.o.s., 3, UN1993, PGII (RQ-D001)	EPA: D001; State: 551	Hazardous waste label, Flammable Liquids	HW/000055759 VES	All containers were swiped individually. No additional radiological samples necessary.
D-605	02/05/07	02/15/07	Disposed	Laboratory bottles - oxidizers, solids	RCRA	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0163	Waste, Oxidizing Solid, n.o.s., 5.1, UN1479, PGII	EPA: D001; State:551	Hazardous waste label, Oxidizer	HW/000055762 VES	All containers were swiped individually. No additional radiological samples necessary.
D-606	02/05/07	02/15/07	Disposed	Laboratory bottles - oxidizers, liquids	RCRA	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0163	Waste, Oxidizing Liquid, n.o.s., 5.1, UN3139, PGII	EPA: D001; State:551	Hazardous waste label, Oxidizer	HW/000055762 VES	All containers were swiped individually. No additional radiological samples necessary.
D-607	11/27/06	11/30/06	Disposed	Laboratory bottles - Non-RCRA	Non-Haz	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0020	Non-RCRA, Hazardous Waste Liquid, NONE, NONE	State: 551	Hazardous waste label,	HW/000055759 VES	All containers were swiped individually. No additional radiological samples necessary.
D-608	11/27/06	11/30/06	Disposed	Laboratory bottles - Non-RCRA	Non-Haz	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0020	Non-RCRA, Hazardous Waste Liquid, NONE, NONE	State: 551	Hazardous waste label,	HW/000055759 VES	All containers were swiped individually. No additional radiological samples necessary.
D-609	11/27/06	11/30/06	Disposed	Laboratory bottles - Non-RCRA	Non-Haz	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0020	Non-RCRA, Hazardous Waste Liquid, NONE, NONE	State: 551	Hazardous waste label,	HW/000055759 VES	All containers were swiped individually. No additional radiological samples necessary.
D-610	02/05/07	02/15/07	Disposed	Laboratory bottles - oxidizer solid, corrosive	RCRA	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0163	Waste, Oxidizing Solid, Corrosive, n.o.s., 5.1(8), UN3085, PGII	EPA: D001, D002; State: 551	Hazardous waste label, Oxidizer, Corrosive	HW/000055762 VES	All containers were swiped individually. No additional radiological samples necessary.
D-611	02/05/07	02/15/07	Disposed	Laboratory bottles - oxidizer liquid, corrosive	RCRA	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0163	Waste, Oxidizing Liquid, Corrosive, n.o.s., 5.1(8), UN3098, PGII	EPA: D001, D002; State: 551	Hazardous waste label, Oxidizer, Corrosive	HW/000055762 VES	All containers were swiped individually. No additional radiological samples necessary.
D-612	11/27/06	11/30/06	Disposed	Laboratory bottles - corrosive solids, flammable	RCRA	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0020	Waste, Corrosive Solids, Flammable, n.o.s., 8(4.1), UN2921, PGII	EPA: D002, D001; State: 551	Hazardous waste label, corrosive, flammable solids	HW/000055759 VES	All containers were swiped individually. No additional radiological samples necessary.

APPENDIX F

TABLE F-3

CHEMPACK DRUM LOG

Drum	Accumulation Start Date	Disposal Date	Storage Location	Contents	Waste Designation	Sample I.D.	Disposal Facility	Profile	Proper Shipping Name	EPA/DTSC Codes	Label Info	Manifest Type/ Number	Comments
D-613	02/05/07	02/15/07	Disposed	Laboratory bottles - oxidizers solids, flammable	RCRA	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0163	Waste, Oxidizing Solid, Flammable, n.o.s., 5.1(4.1), UN3137, PGI	EPA: D001; State: 551	Hazardous waste, Oxidizer, Flammable	HW/000055762 VES	All containers were swiped individually. No additional radiological samples necessary.
D-614	02/05/07	02/15/07	Disposed	Laboratory bottles - oxidizers liquid, corrosive	RCRA	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0163	Waste, Oxidizing Liquid, Corrosive, n.o.s., 5.1(8), UN3098, PGII	EPA: D001, D002; State: 551	Hazardous waste label, Oxidizer, Corrosive	HW/000055762 VES	All containers were swiped individually. No additional radiological samples necessary.
D-615	02/05/07	02/15/07	Disposed	Laboratory bottles - oxidizers liquid, corrosive, fuming	RCRA	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0163	Waste, Oxidizing Liquid, Corrosive, n.o.s., 5.1(8), UN3098, PGI, Inhalation Hazard	EPA: D001, D002; State: 551	Hazardous waste label,	HW/000055762 VES	All containers were swiped individually. No additional radiological samples necessary.
D-616	02/05/07	02/15/07	Disposed	Laboratory bottles - oxidizers liquid, corrosive, poison	RCRA	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0163	Waste, Oxidizing Liquid, Corrosive, n.o.s., 5.1(8), UN3098, PGII, Poison	EPA: D001, D002; State: 551	Hazardous waste label, Oxidizer, Corrosive, Poison	HW/000055762 VES	All containers were swiped individually. No additional radiological samples necessary.
D-617	11/27/06	11/30/06	Disposed	Laboratory bottles - flammable liquids, toxic	RCRA	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0020	Waste, Flammable Liquids, Toxic, n.o.s., 3(6.1), UN1992, PGII	EPA: D001; State:551	Hazardous waste label, Flammable liquids, Toxic	HW/000055759 VES	All containers were swiped individually. No additional radiological samples necessary.
D-618**	11/27/06	11/30/06	Disposed	Laboratory bottles - corrosive liquids, flammable	RCRA	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0020	Waste, Corrosive Liquid, Flammable, n.o.s., 8(3), UN2920, PGII	EPA: D002, D001; State: 551	Hazardous waste label, Corrosive, Flammable Liquids	HW/000055759 VES	All containers were swiped individually. No additional radiological samples necessary.
D-623**	11/27/06	11/30/06	Disposed	Laboratory bottles - flammable liquids. (Second drum)	RCRA	HazCat	Kettleman City to Port Arthur for disposal by incineration	EH0020	RQ, Waste Flammable Liquids, n.o.s., 3, UN1993, PG II, (RQ- D001)	EPA: D001; State: 551	Hazardous waste label, Flammable Liquids	HW/000055759 VES	All containers were swiped individually. No additional radiological samples necessary.
D-628	11/27/06	02/15/07	Disposed	Laboratory bottles - oxidizing liquid, corrosive, fuming	RCRA	HazCat (84-1052)	Kettleman City to Port Arthur for disposal by incineration	EH0163	Waste, Oxidizing Liquid, Corrosive, n.o.s., 5.1(8), UN3098, PGI, Inhalation Hazard	EPA: D001, D002; State: 551	Hazardous waste label	HW/000055762 VES	All containers were swiped individually. No additional radiological samples necessary.
D-648**	02/05/07	02/15/07	Disposed	Laboratory bottles - organic peroxide solid	RCRA	HazCat (84-1070 & 84-831)	Kettleman City to Port Arthur for disposal by incineration	EH0163	Waste, Organic Peroxide, Type F, Solid, 5.2, UN3110, PGII	EPA: D001, D007; State: 551	Hazardous waste label, Organic Peroxide	HW/000055762 VES	All containers were swiped individually. No additional radiological samples necessary.

Abbreviations and Acronyms:

**Drum numbers are not sequential since all site drummed waste is logged into one spreadsheet
chem - sample for chemical analysis
DTSC - Department of Toxic Substances Control
EPA - U.S. Environmental Protection Agency
FID - flame ionizing detector
HazCat - Hazardous Categorization
lb - pound
N/A - not applicable
Non-Haz - non-hazardous
HW - hazardous waste
PCB - polychlorinated biphenyl
PID - photoionization detector
PPE - personal protective equipment
RAD - sample for radiological analysis
RASO - Radiological Affairs Support Office
RCRA - Resource Conservation and Recovery Act
RQ - reportable quantity
TSCA - Toxic Substances Control Act

Kettleman City refers to the Chemical Waste Management Inc. Kettleman Hills Facility located in Kettleman City, California.
Port Arthur refers to the Onyx Environmental Services Port Arthur Treatment Facility located in Port Arthur, Texas.

APPENDIX G

GAMMA SCAN DATA OF FINAL EXCAVATION BOUNDARY

(Available on CD only)

APPENDIX H

SURVEY REPORTS

(Available on CD only)

APPENDIX I

PROJECT PHOTOGRAPHS

APPENDIX I

TABLE I-1

PCB HOT SPOT PHOTO LOG

Photo Number	Description
I-1	PCB Hot Spot prior to Removal Action - site utilities.
I-2	PCB Hot Spot prior to Removal Action.
I-3	PCB Hot Spot prior to Removal Action.
I-4	Initial radiological surface scan surveying of PCB Hot Spot.
I-5	Aerial view - construction of lined stockpile containment area.
I-6	Construction of lined containment pad areas.
I-7	Waste water collection tank for decontamination activities.
I-8	Construction of lined containment pad areas.
I-9	Protection of existing monitoring wells and utilities.
I-10	Construction of lined equipment decontamination pad.
I-11	Set-up of secondary soil screening conveyor system.
I-12	Grizzly feeder and hopper of secondary screening conveyor system.
I-13	Employee shelter for operation of radiological secondary screening instrumentation.
I-14	Laptop computer connected to secondary screening conveyor system instrumentation.
I-15	Secondary screening conveyor system detector array instrumentation.
I-16	Construction of low level radiological waste (LLRW) / low level mixed waste (LLMW) temporary staging area.
I-17	Excavation of initial 12-inch soil lift at PCB Hot Spot.

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PCB HOT SPOT PHOTO LOG

Photo Number	Description
I-18	Loading excavated soil into haul truck for transport to conveyor system.
I-19	Air monitoring sampling equipment for excavation activities.
I-20	Collection of air monitoring samples.
I-21	Application of water for dust suppression during excavation.
I-22	Radiological surface surveying following excavation of 12-inch lift.
I-23	Identification and removal of radioactive material following excavation of 12-inch lift.
I-24	Excavated soils staged on dewatering pad awaiting conveyor processing.
I-25	Loading excavated soils into grizzly feeder for conveyor processing.
I-26	Processing excavated soils through conveyor system detector array.
I-27	Processing excavated soils to lined stockpile containment area.
I-28	Processing excavated soils into 100 cy units on lined stockpile containment area.
I-29	Excavation of 12-inch lifts.
I-30	Dust suppression and soil excavation.
I-31	Stockpiling of processed soils within the lined containment area.
I-32	Small debris collected during conveyor processing of soils.
I-33	Large debris from excavation staged at the large debris storage pad.
I-34	Pre-excavation sampling activities to further delineate PCB Hot Spot excavation boundary.

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PCB HOT SPOT PHOTO LOG

Photo Number	Description
I-35	Radiological surface surveying following excavation of 12-inch lift.
I-36	Trained spotter overseeing soil excavation.
I-37	Personnel surveys of people exiting PCB Hot Spot exclusion zone.
I-38	Personnel surveys of people exiting PCB Hot Spot exclusion zone.
I-39	Covering stockpiled soils with 10-mil liner for erosion control.
I-40	PCB Hot Spot excavation area.
I-41	Preparing to load excavated soils into secondary screening conveyor system.
I-42	Processing excavated soils to lined stockpile containment area.
I-43	Radiological surface surveying using the towed array unit.
I-44	PCB Hot Spot excavation.
I-45	Soils surrounding buried containers with unknown contents.
I-46	Bottle with unknown contents discovered during excavation.
I-47	Buried corrugated pipe section containing oil-stained soils.
I-48	Waste soils stockpiled following secondary screening through conveyor system.
I-49	Corroded drums unearthed during excavation of PCB Hot Spot.
I-50	Buried corrugated pipe section containing oil-stained soils.
I-51	Buried container with unknown contents discovered during excavation.

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PCB HOT SPOT PHOTO LOG

Photo Number	Description
I-52	Free-phase product discovered during excavation.
I-53	Aerial view of PCB Hot Spot excavation activities.
I-54	Buried containers with unknown contents discovered during excavation.
I-55	Corroded drum shells and debris encountered during excavation of PCB Hot Spot.
I-56	Aerial view of PCB Hot Spot conveyor system and stockpiled waste soils.
I-57	Waste characterization sampling of radiologically impacted soils within roll-off bins.
I-58	Waste characterization sampling of radiologically impacted soils within roll-off bins.
I-59	Waste characterization sampling of radiologically impacted soils within roll-off bins.
I-60	A series of concrete support columns discovered during excavation.
I-61	Munitions and Explosives of Concern (MEC) item found at PCB Hot Spot.
I-62	Munitions and Explosives of Concern (MEC) item found at PCB Hot Spot.
I-63	Munitions and Explosives of Concern (MEC) item found at PCB Hot Spot.
I-64	Munitions and Explosives of Concern (MEC) item found at PCB Hot Spot.
I-65	Corroded drums unearthed during excavation of PCB Hot Spot.
I-66	Geophysical survey of PCB Hot Spot.
I-67	Drums and debris encountered during excavation of PCB Hot Spot.
I-68	Geophysical survey of shoreline adjacent to PCB Hot Spot.

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PCB HOT SPOT PHOTO LOG

Photo Number	Description
I-69	Sampling of drums encountered during excavation.
I-70	Drums and debris encountered during excavation of PCB Hot Spot.
I-71	Destruction of existing monitoring wells.
I-72	Aerial view of PCB Hot Spot.
I-73	Delivery of roll-off bin for LLRW.
I-74	Large debris encountered during excavation activities.
I-75	Excavation of grid to the Bay Mud geologic unit.
I-76	Drum encountered during excavation of PCB Hot Spot.
I-77	Wire rope encountered during excavation.
I-78	Metal debris encountered during excavation activities.
I-79	Excavation of grid below standing groundwater.
I-80	Debris encountered during excavation activities.
I-81	Sheet-pile wall exposed following excavation.
I-82	Potential sandblast grit discovered within excavation sidewall.
I-83	Mobilization of recovery team for evaluation of exposed drums.
I-84	Aerial view of PCB Hot Spot conveyor system and stockpiled waste soils.
I-85	Radiological scanning of soil during drum recovery operations.

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PCB HOT SPOT PHOTO LOG

Photo Number	Description
I-86	Overpacking of recovered product-containing drums.
I-87	Tires and rubber debris encountered during excavation.
I-88	Stormwater collected in excavation area following heavy rainfall.
I-89	Treatment system for removal of standing water from excavation area.
I-90	Aerial view of PCB Hot Spot following severe precipitation events.
I-91	Treatment system components for removal of standing water from excavation area.
I-92	Pumping of standing water from excavation for treatment.
I-93	Stormwater collected in excavation area following severe precipitation.
I-94	Water pumping efforts lowering the water level to allow for excavation activities to resume.
I-95	Staging of metal debris encountered during excavation.
I-96	Backfilling of the excavation along the sheet-pile wall in the northern finger area.
I-97	8 ounce geotextile layer placed along excavation bottom and sidewalls prior to backfilling along the Parcel E-2 Landfill.
I-98	Water from groundwater collected in southwestern grids.
I-99	Sandbag dike utilized to isolate grids during water pumping activities.
I-100	Overexcavation of the sidewall along the western excavation boundary.
I-101	Exposed debris within the sidewall at the western excavation boundary.
I-102	Placement of small rock in grids with groundwater prior to backfilling operations.

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PCB HOT SPOT PHOTO LOG

Photo Number	Description
I-103	Placement of small rock in grids with groundwater prior to backfilling operations.
I-104	Placement of small rock in grids with groundwater prior to backfilling operations.
I-105	Placement of backfill material over geotextile.
I-106	Ponded water in excavation following precipitation event.
I-107	Destruction of existing monitoring wells and piezometers.
I-108	Excavation activities during inclement weather.
I-109	Ponded water in excavation following precipitation event.
I-110	Backfilling grids in the southwestern portion of the excavation area.
I-111	Backfilling and compaction of grids.
I-112	Backfilling of PCB Hot Spot.
I-113	Placement of backfill material.
I-114	Reaching Bay Mud geologic unit during grid excavation.
I-115	Placement of geotextile in grid prior to backfilling.
I-116	Collection of random post-excavation bottom grid sample.
I-117	Locating random post-excavation bottom sampling point.
I-118	Radiological scanning of soil prior to post-B135excavation sample collection.
I-119	Locating random post-excavation bottom sampling point.

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PCB HOT SPOT PHOTO LOG

Photo Number	Description
I-120	Ponded water in excavation following precipitation event.
I-121	Backfilling and compaction of grids.
I-122	Placement of backfill material within grid.
I-123	Grid excavated to clean soil is reached.
I-124	Free-phase product present along grid bottom.
I-125	Bottles and jars encountered during excavation.
I-126	Collection of random post-excavation bottom grid sample.
I-127	Excavation of grid to clean soil is reached.
I-128	Placement of geotextile in grid prior to backfilling.
I-129	Manual radiological scanning of excavated high clay content soils.
I-130	Excavation of 12-inch lift within grid.
I-131	Overexcavation of grid bottom and sidewall.
I-132	Free-phase product observed along grid bottom.
I-133	Segregation of debris materials for radiological free-release surveying.
I-134	Metal drums and debris encountered during excavation activities.
I-135	Excavation of soils along sheet pile wall.
I-136	Flooding of grid along western excavation boundary.

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PCB HOT SPOT PHOTO LOG

Photo Number	Description
I-137	Saturated excavated soils placed on lined dewatering pad.
I-138	Saturated soils in grids adjacent to sheet pile wall.
I-139	Overexcavation of the sidewall along the eastern excavation boundary.
I-140	Removal of free-phase product utilizing absorbent materials n the grid 57 area.
I-141	Sidewall overexcavation adjacent to Parcel E-2 Landfill.
I-142	Sidewall overexcavation adjacent to Parcel E-2 Landfill.
I-143	Sidewall overexcavation adjacent to Parcel E-2 Landfill.
I-144	Sidewall overexcavation adjacent to Parcel E-2 Landfill.
I-145	Sidewall overexcavation adjacent to Parcel E-2 Landfill.
I-146	Compaction of backfill material within grids.
I-147	Compaction of backfill material within grids.
I-148	Backfill and compaction of grids.
I-149	Operation of secondary screening conveyor system.
I-150	Removal of bin container filled with radiological material from conveyor belt.
I-151	Additional lined laydown area for manual scanning of high clay content soils.
I-152	Delivery of approved backfill material.
I-153	Northern portion of PCB Hot Spot following completion of backfill and compaction activities.

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PCB HOT SPOT PHOTO LOG

Photo Number	Description
I-154	Rock debris segregated from excavated soils.
I-155	Backfill and compaction of overexcavated grid.
I-156	Backfill and compaction of overexcavated grid.
I-157	Aerial view of backfilled PCB Hot Spot.
I-158	Aerial view of PCB Hot Spot excavation area and stockpile containment area.
I-159	Stockpiling of waste soils following secondary screening through conveyor system.
I-160	Aerial view of stockpile containment area.
I-161	Lined laydown area for manual scanning of high clay content soils.
I-162	Entrance to lined laydown area for manual scanning of high clay content soils.
I-163	Soil binder additive used for site restoration (hydro-seeding) at PCB Hot Spot
I-164	Fertilizer used for site restoration (hydro-seeding) at PCB Hot Spot.
I-165	Seed mix used for site restoration (hydro-seeding) of PCB Hot Spot.
I-166	Fiber material used for site restoration (hydro-seeding) at PCB Hot Spot.
I-167	Mixing turbine in loading hopper of hydro-seed sprayer.
I-168	Hydro-seeding vehicle being loaded with seed mixture.
I-169	First phase of hydro-seeding; spraying seed mixture.
I-170	First phase of hydro-seeding; spraying seed mixture

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PCB HOT SPOT PHOTO LOG

Photo Number	Description
I-171	Second phase of hydro-seeding; spraying straw.
I-172	Spraying seed mixture during hydro-seeding.
I-173	Second phase of hydro-seeding; spraying straw.
I-174	Second phase of hydro-seeding; spraying straw.
I-175	PCB Hot Spot following site restoration (hydro-seeding).
I-176	PCB Hot Spot following site restoration (hydro-seeding).
I-177	Decontamination pad covered with liner for erosion control in preparation for the winter season.
I-178	TtEC and DON personnel conducting PCB Hot Spot Completion Inspection.
I-179	Wildlife utilizing restored site.
I-180	PCB Hot Spot following site restoration.
I-181	Stockpile containment area covered with liner for winter keeping and erosion control.
I-182	Stockpile containment area covered with liner for winter keeping and erosion control.
I-183	PCB Hot Spot following site restoration (section of stormwater swale showing on the right).
I-184	PCB Hot Spot following site restoration.

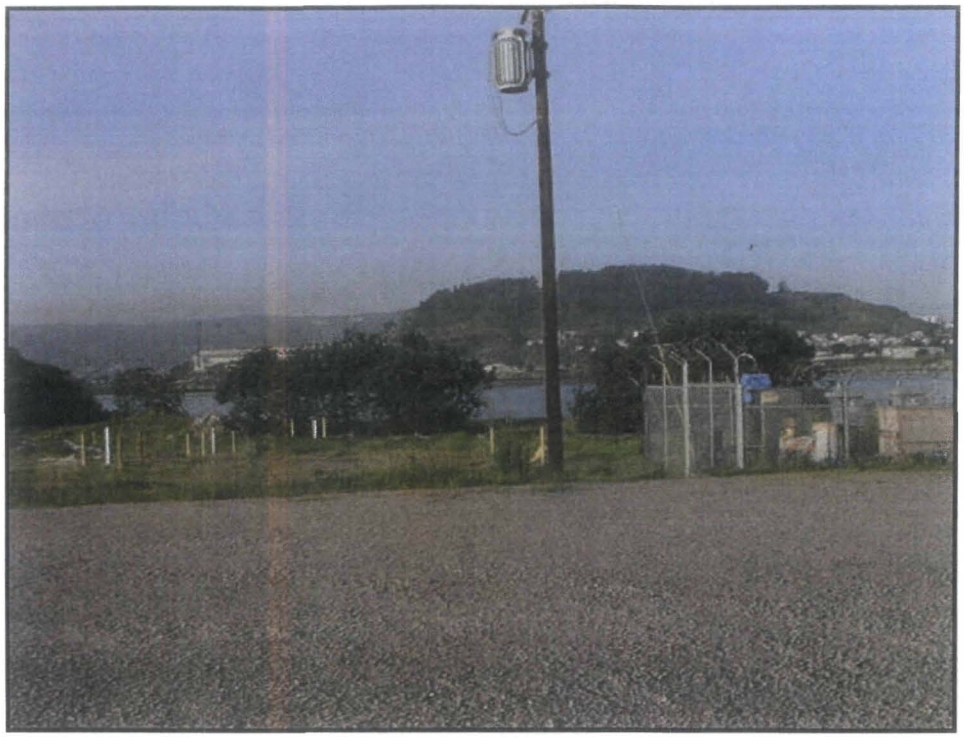
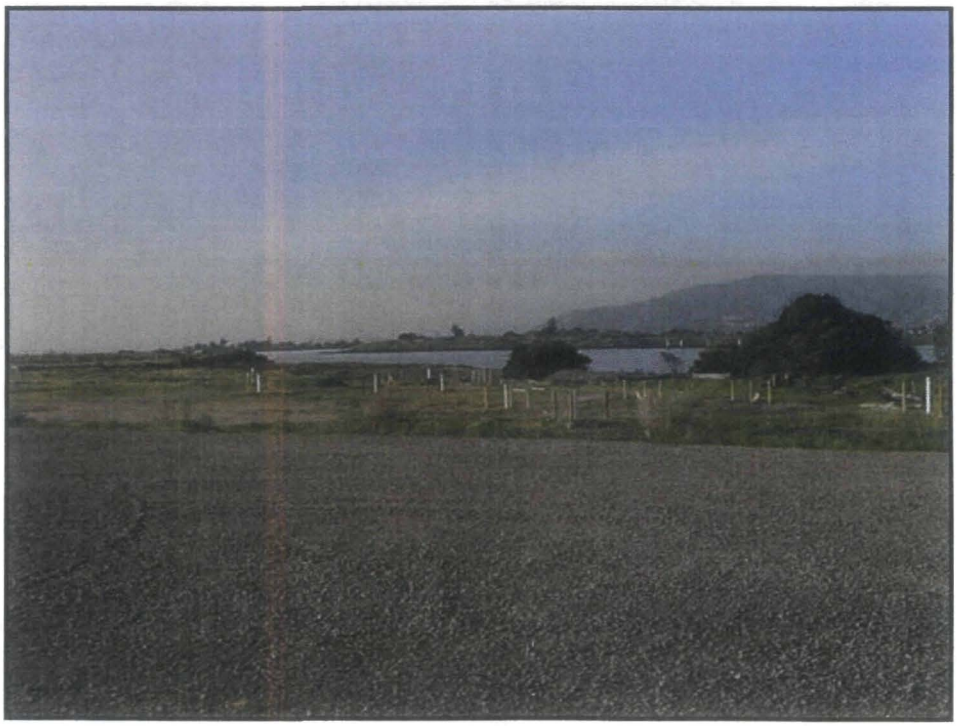


Photo I-1



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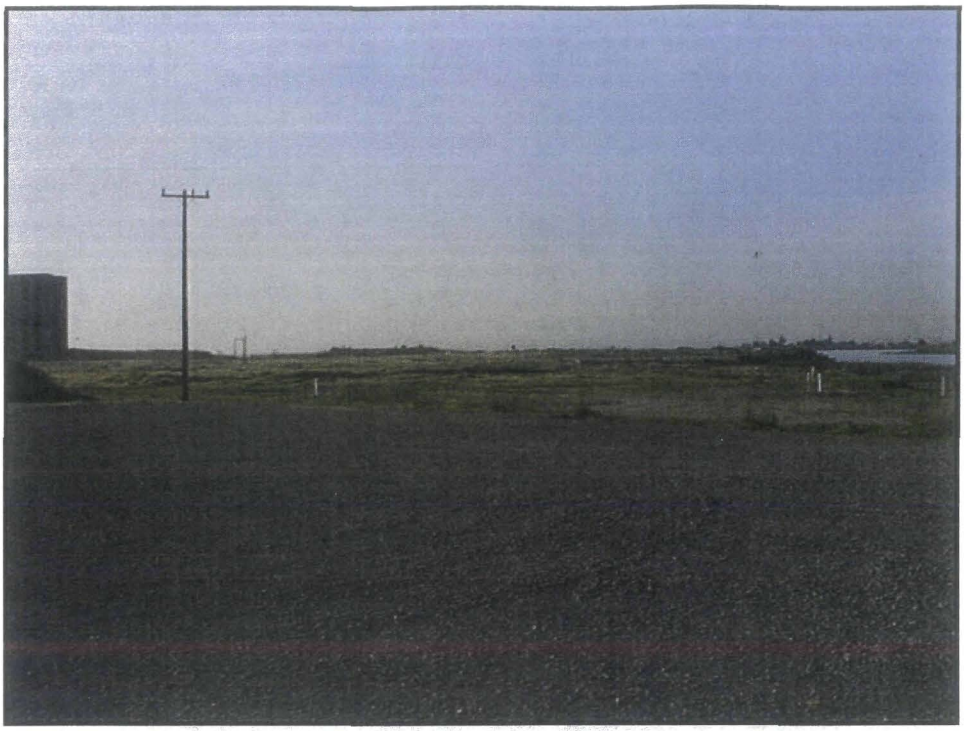


Photo I-3

Photo I-4

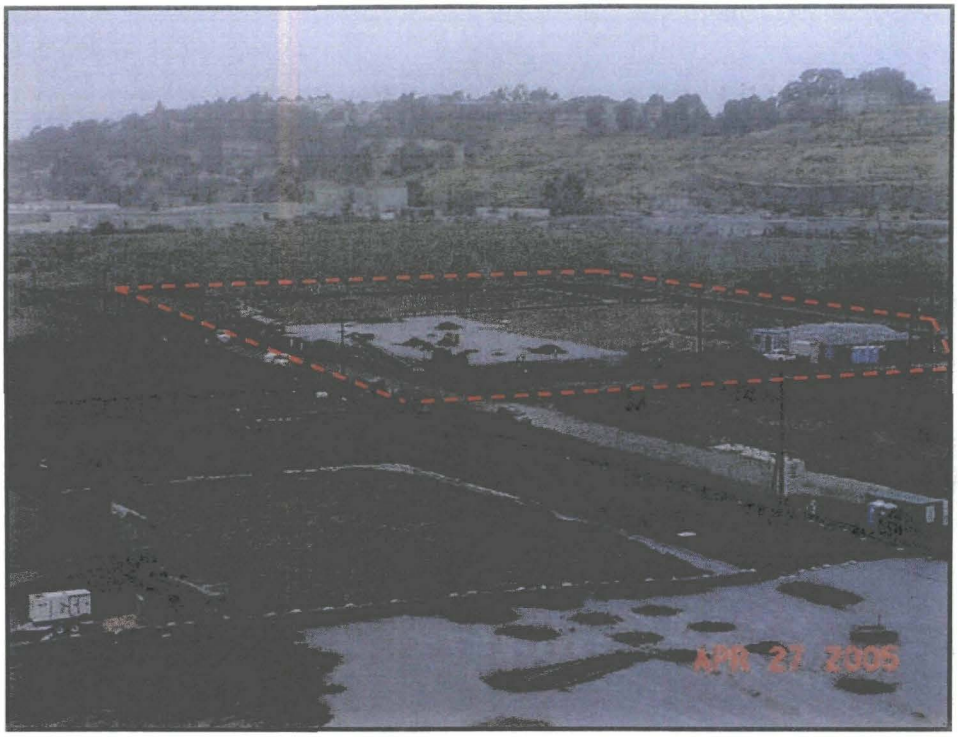
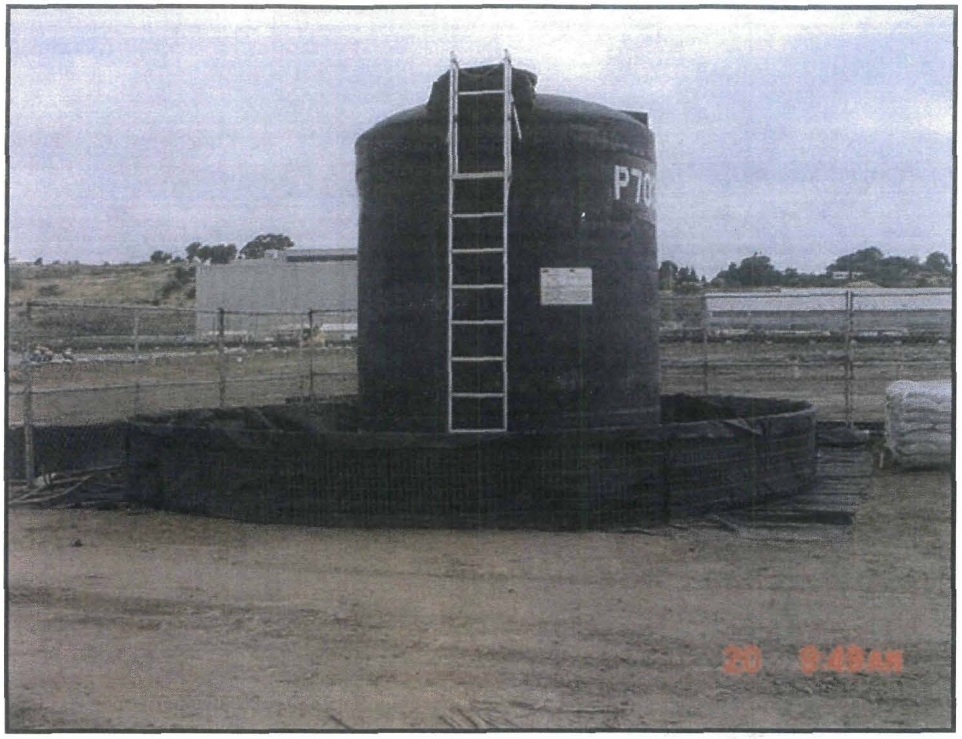


Photo I-5

Photo I-6



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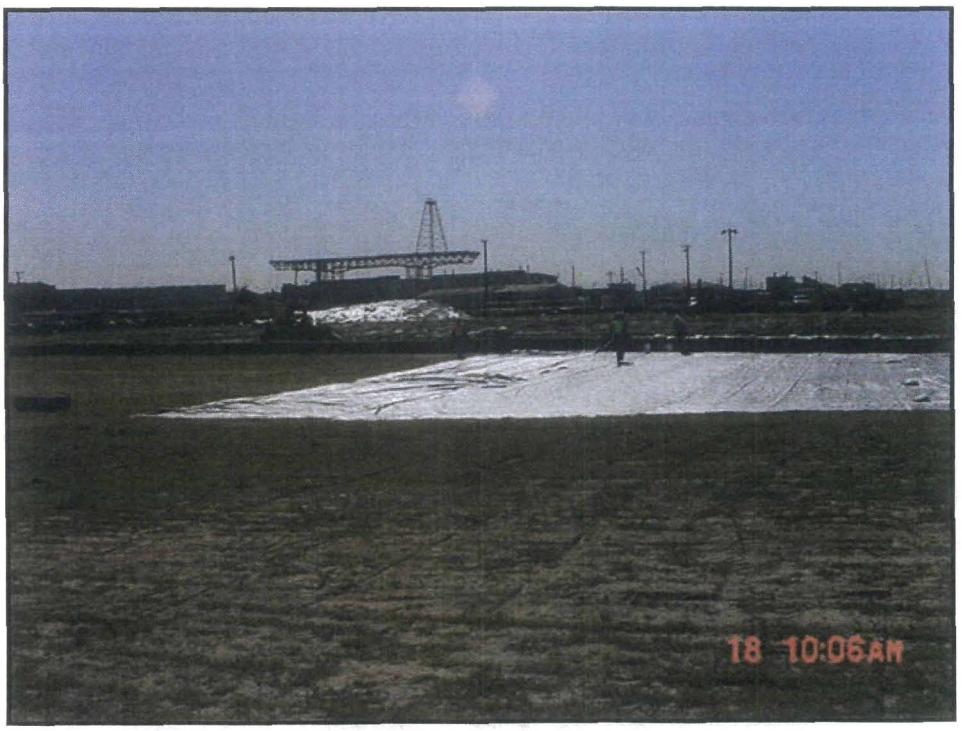


Photo I-8

Photo I-9

Photo I-10

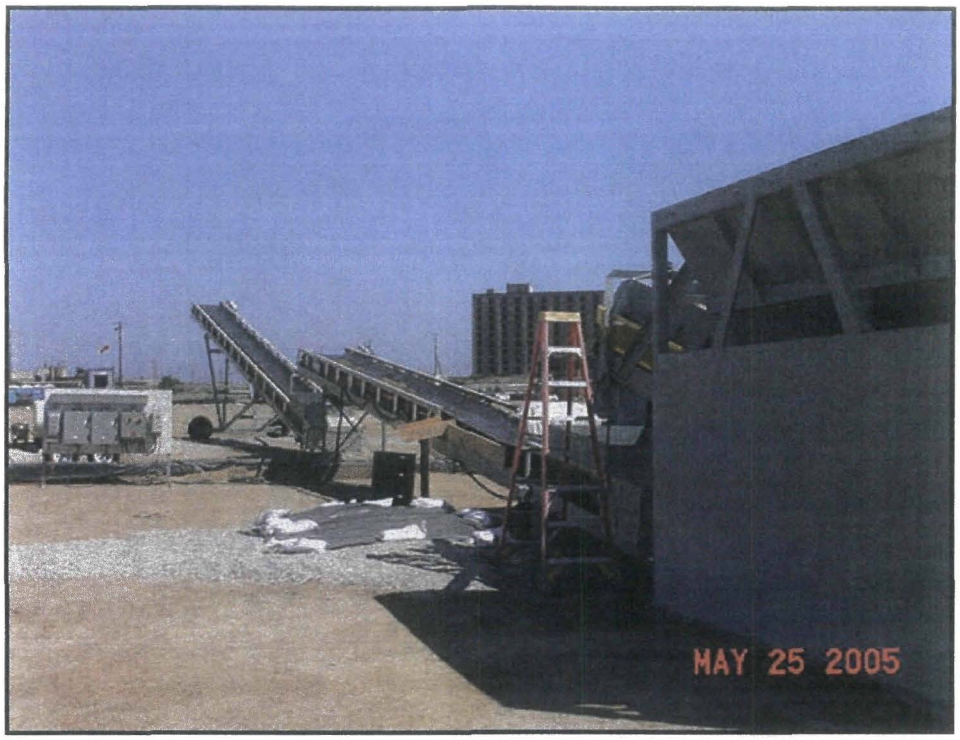
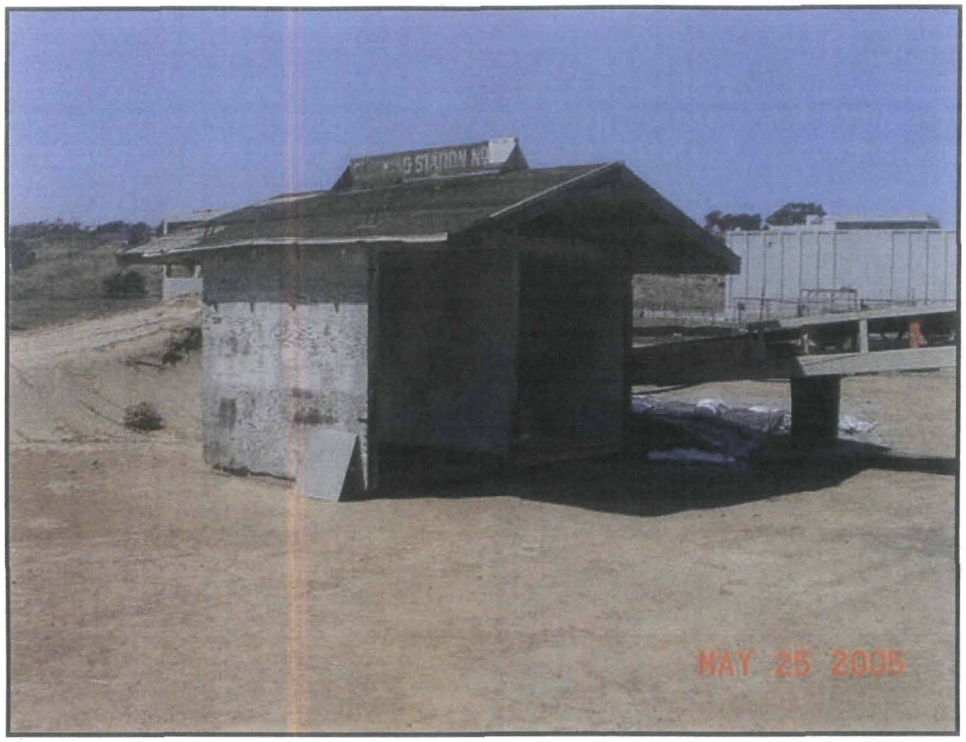


Photo I-11

Photo I-12



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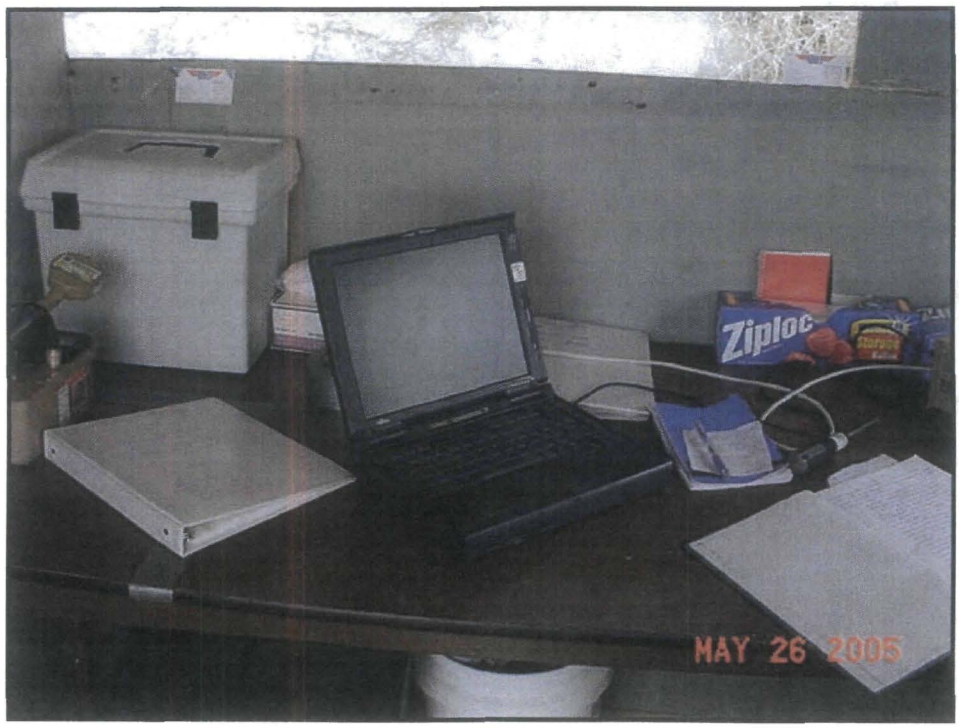

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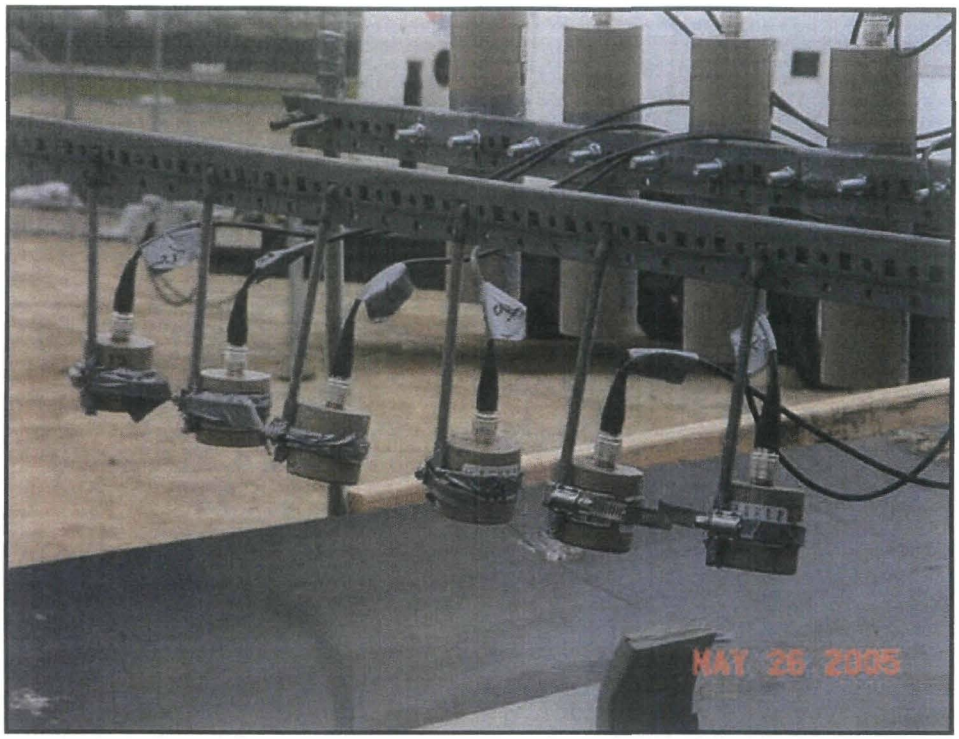


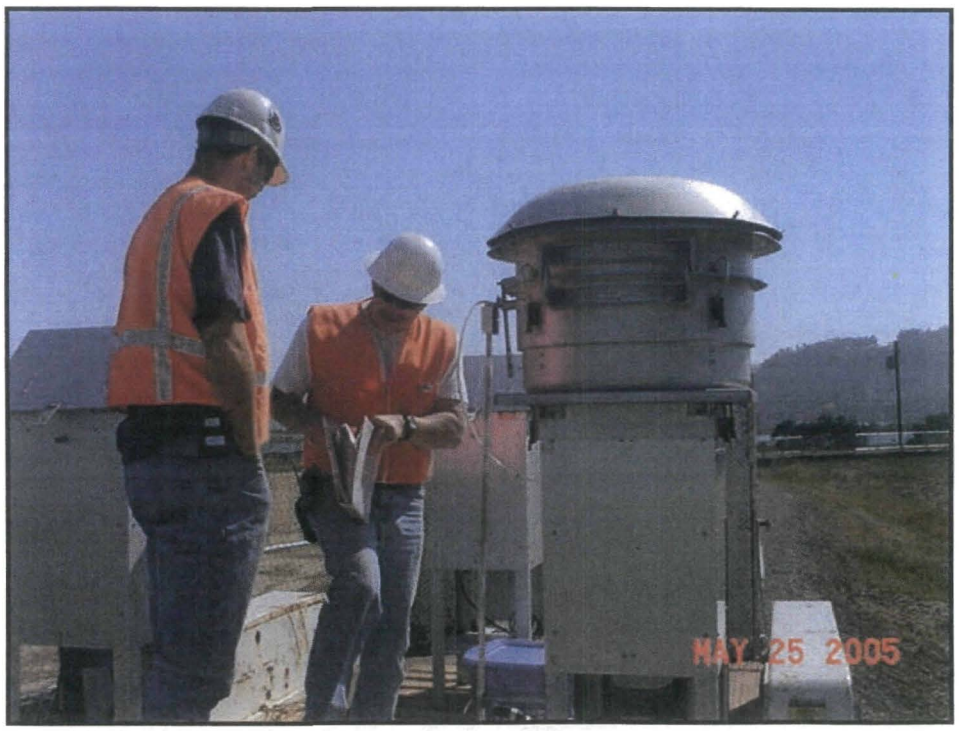
Photo I-15

Photo I-16

Photo I-17

Photo I-18

Photo I-19



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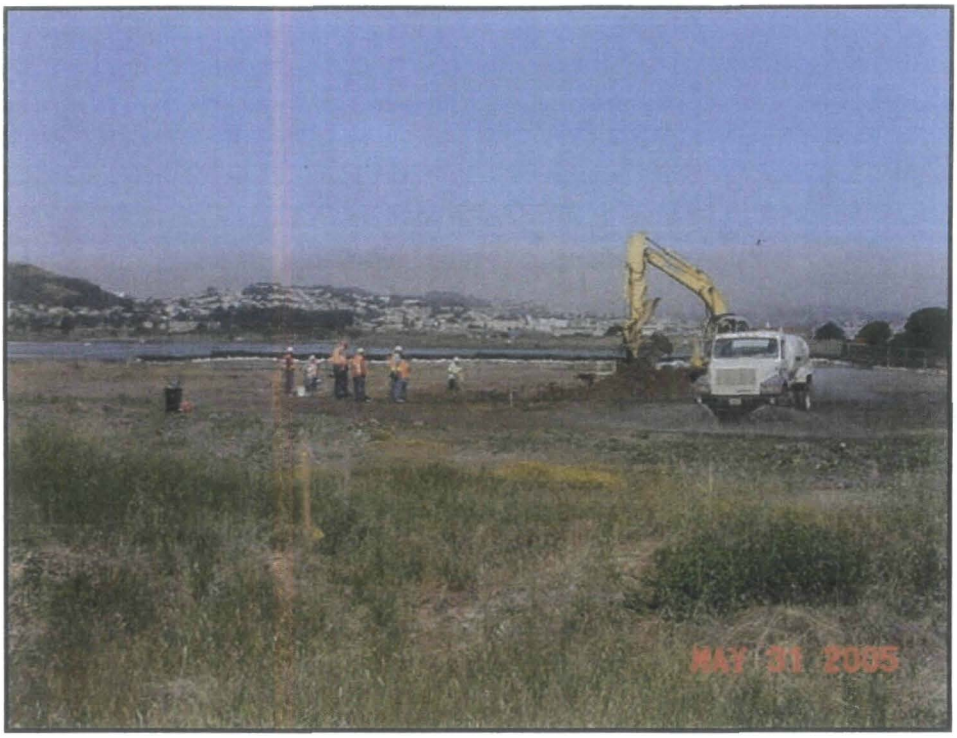


Photo I-21

Photo I-22

Photo I-23

Photo I-24

Photo I-25

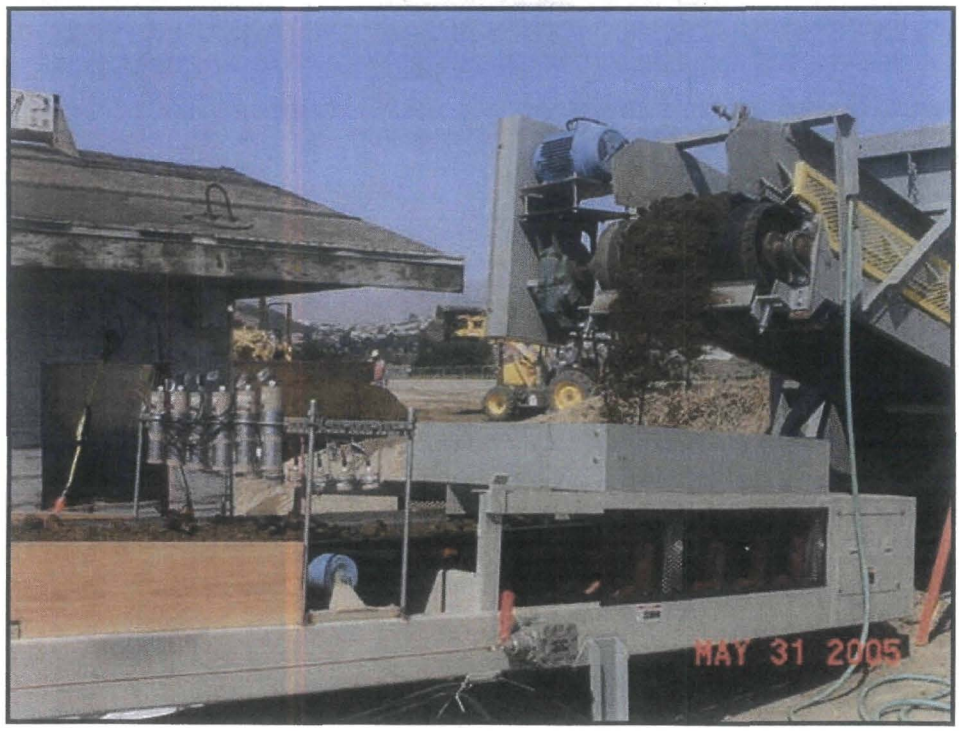


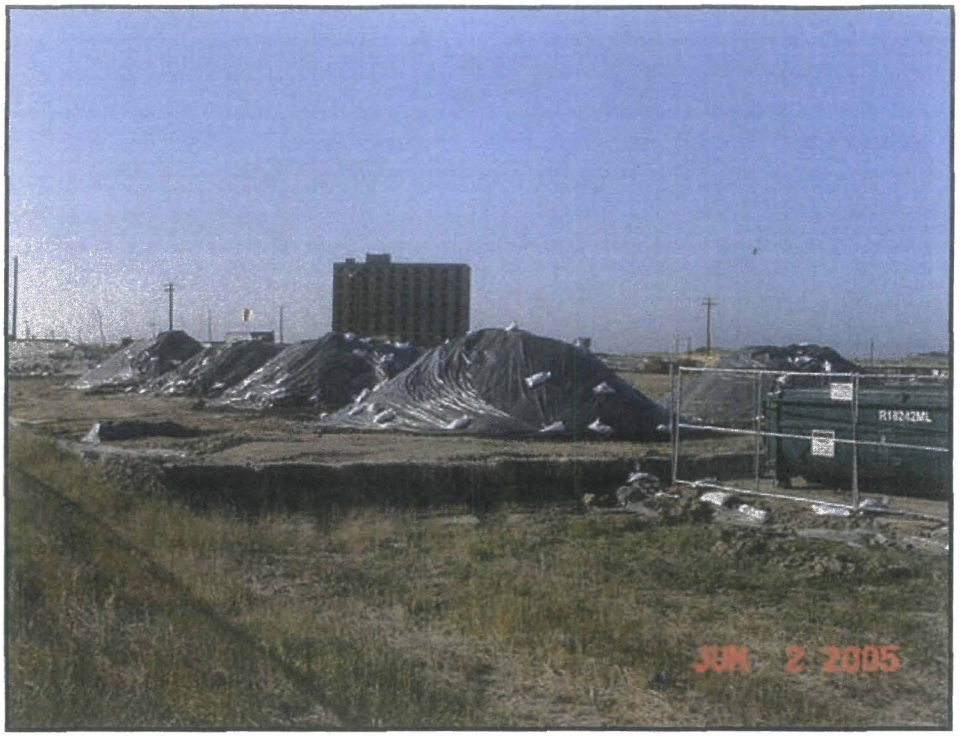
Photo I-26

Photo I-27

Photo I-28

Photo I-29

Photo I-30



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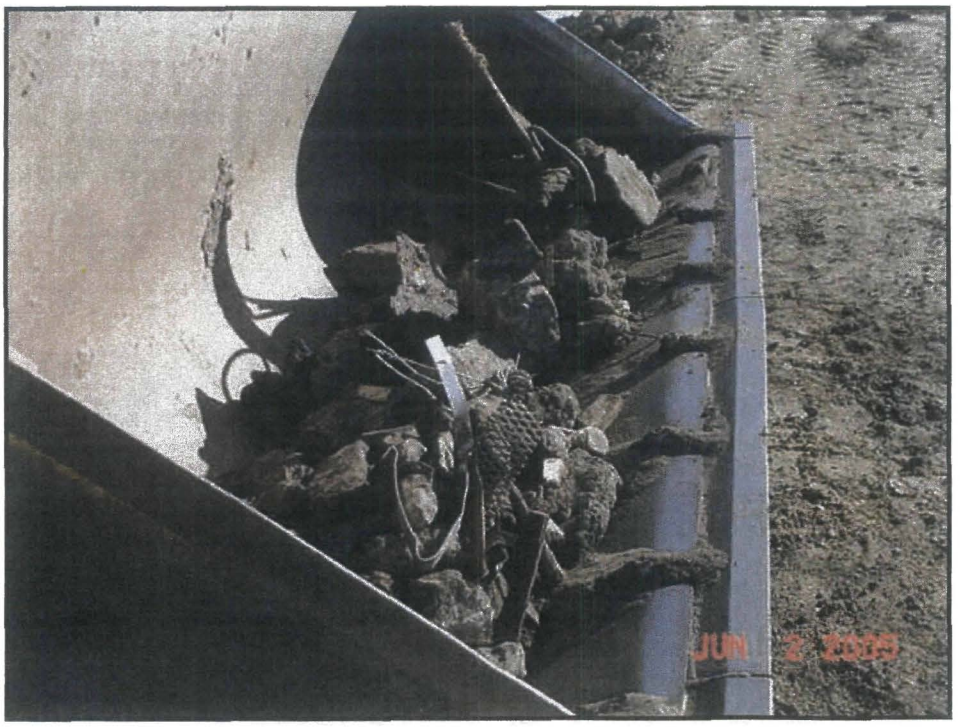

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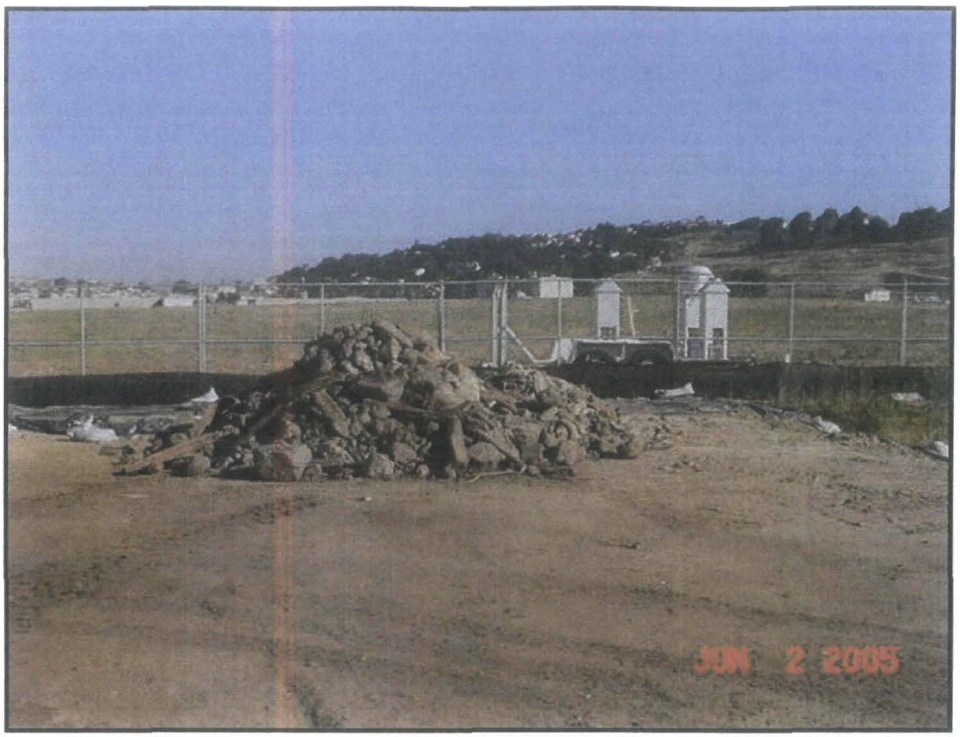

Photo I-33

Photo I-34

Photo I-35

Photo I-36

Photo I-37

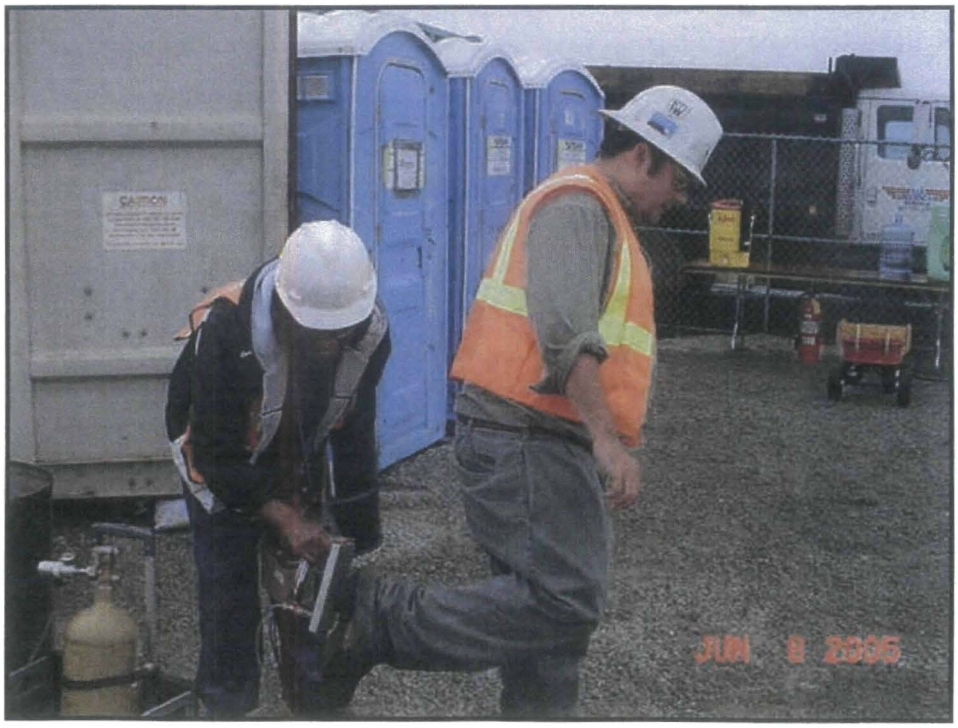

Photo I-38

Photo I-39

Photo I-40

Photo I-41

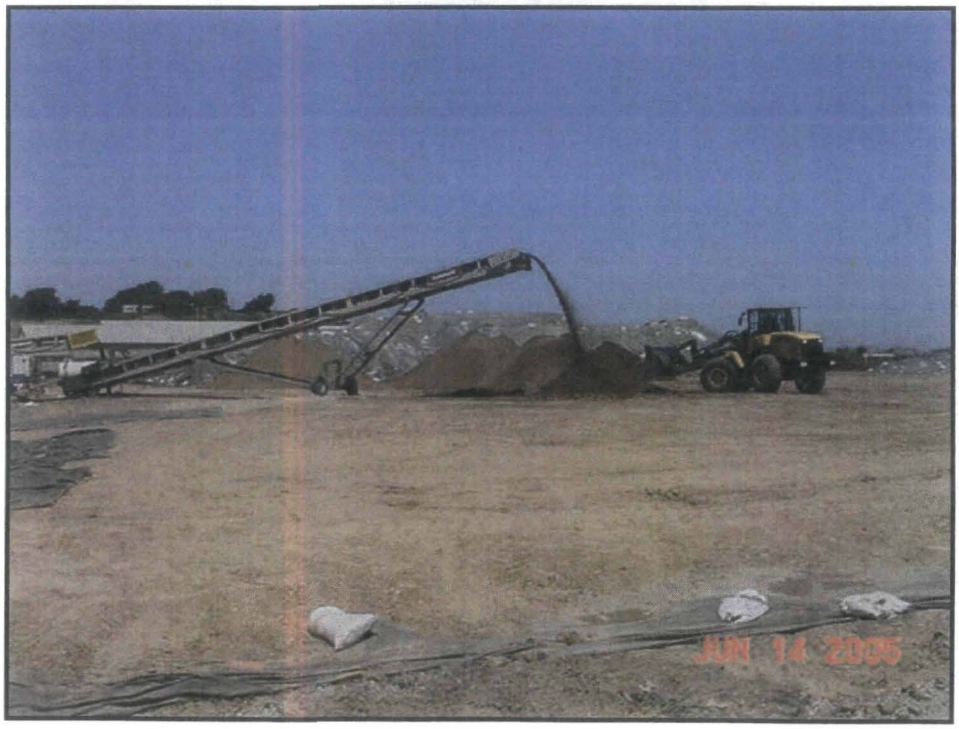

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Photo I-43

Photo I-44

Photo I-45

Photo I-46

Photo I-47

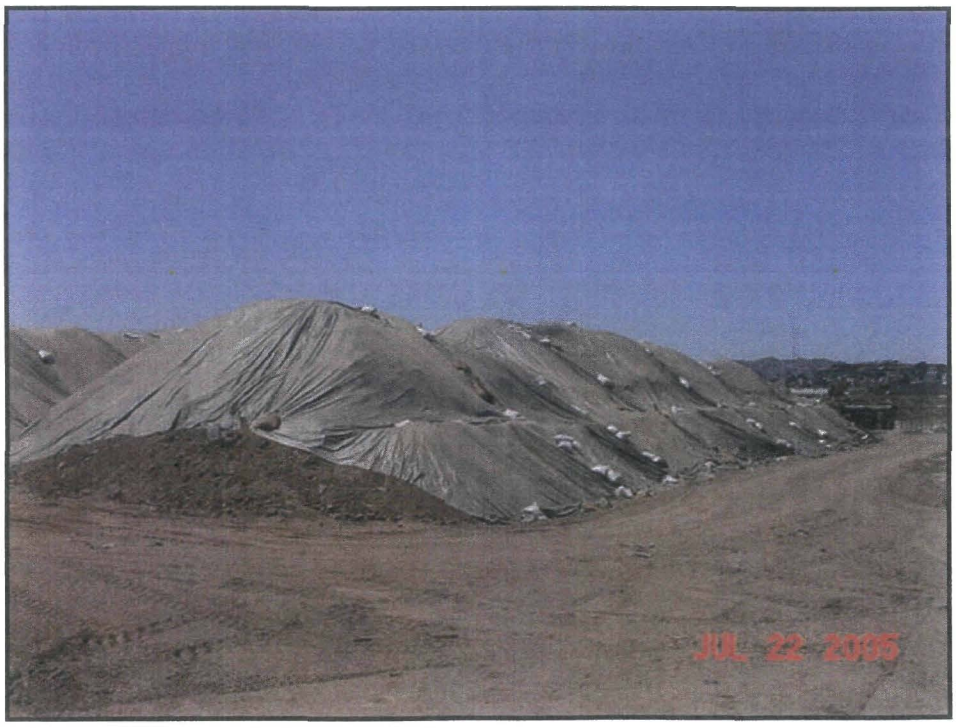


Photo I-48

Photo I-49

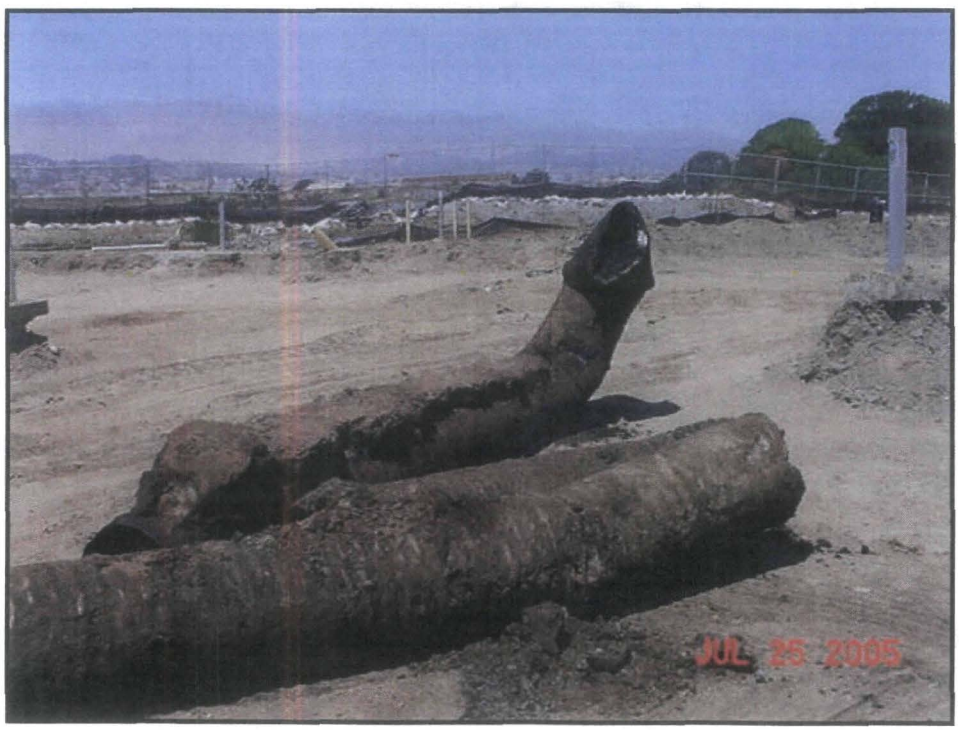


Photo I-50

Photo I-51

Photo I-52

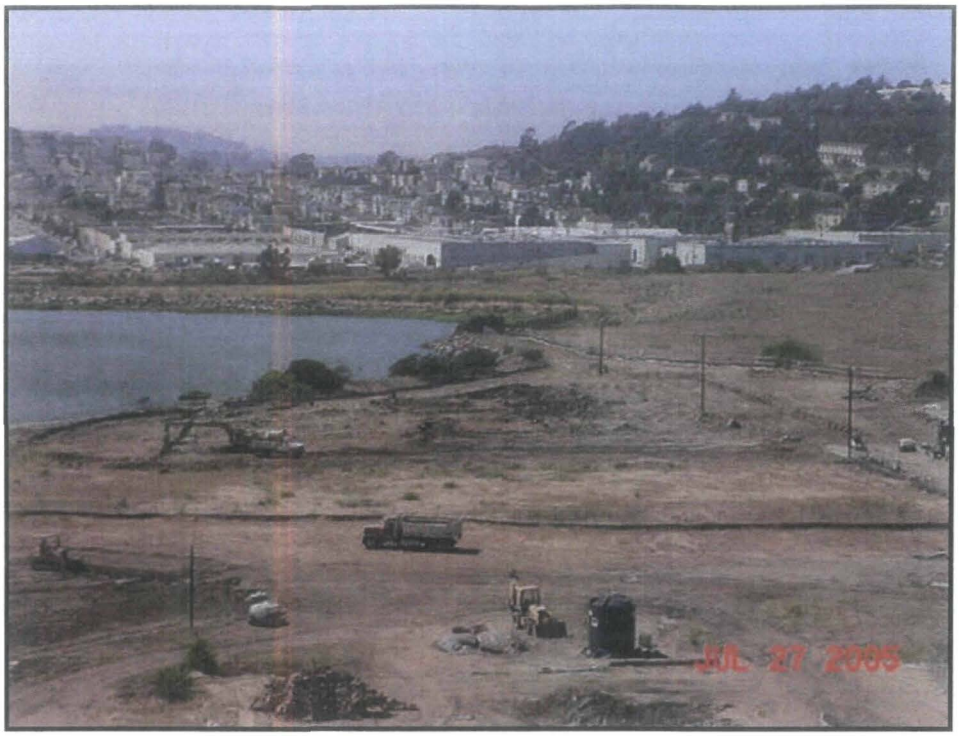
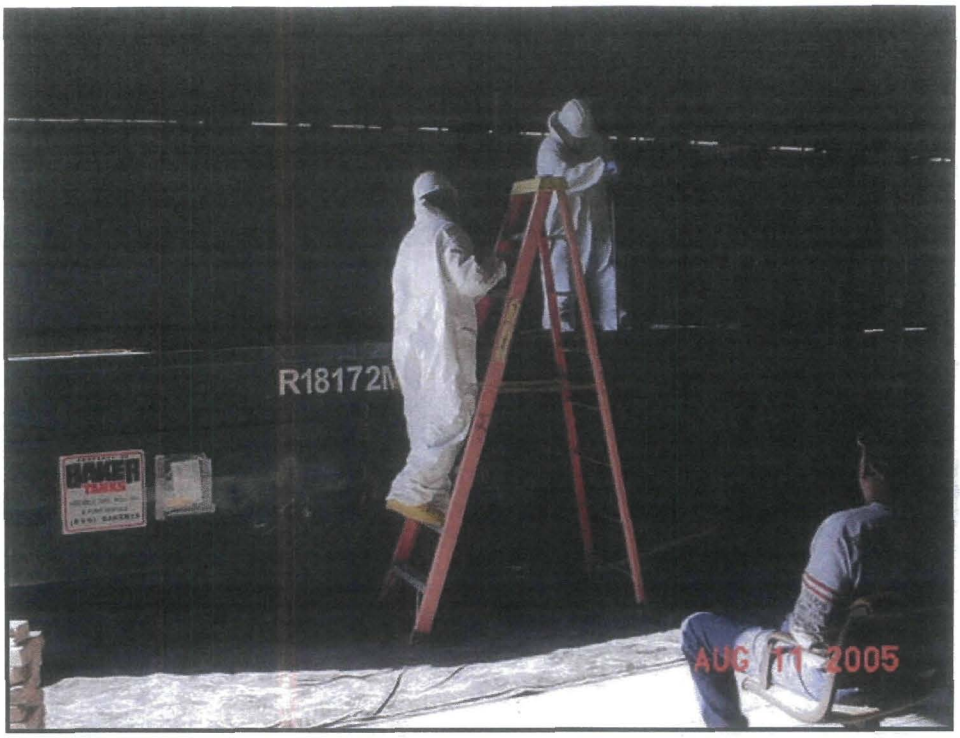


Photo I-53

Photo I-54

Photo I-55

Photo I-56



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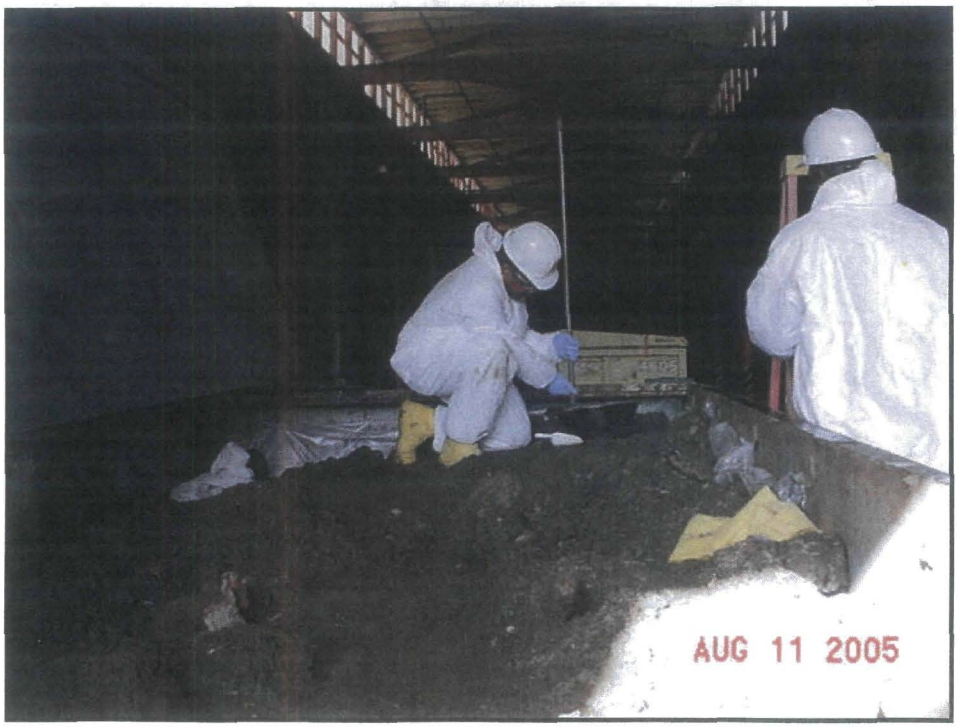

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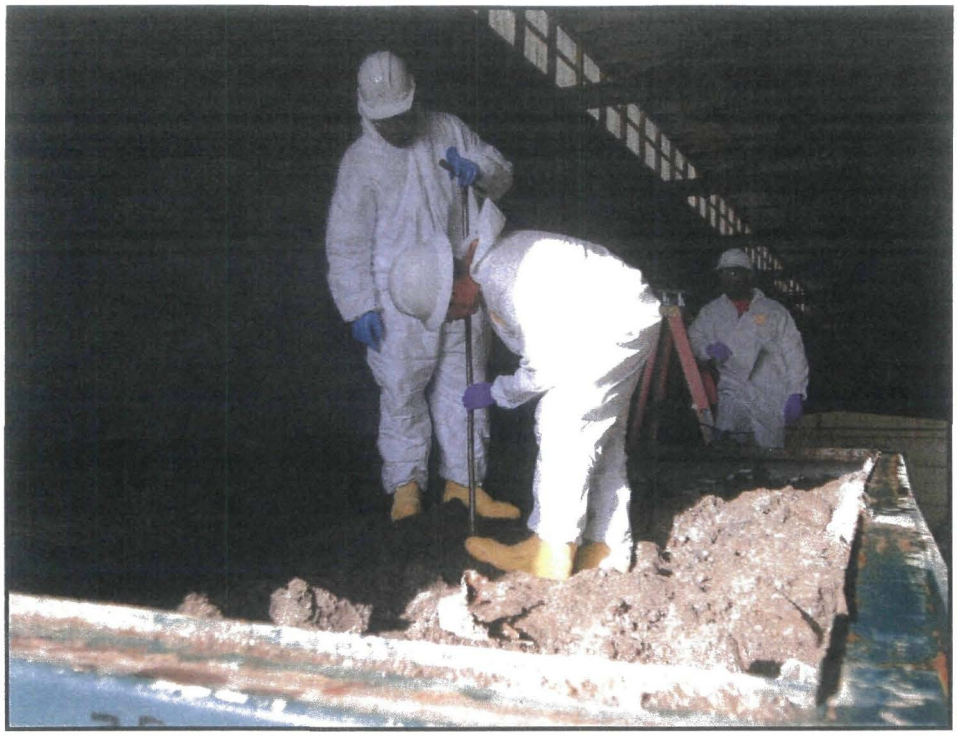

Photo I-59

Photo I-60

Photo I-61

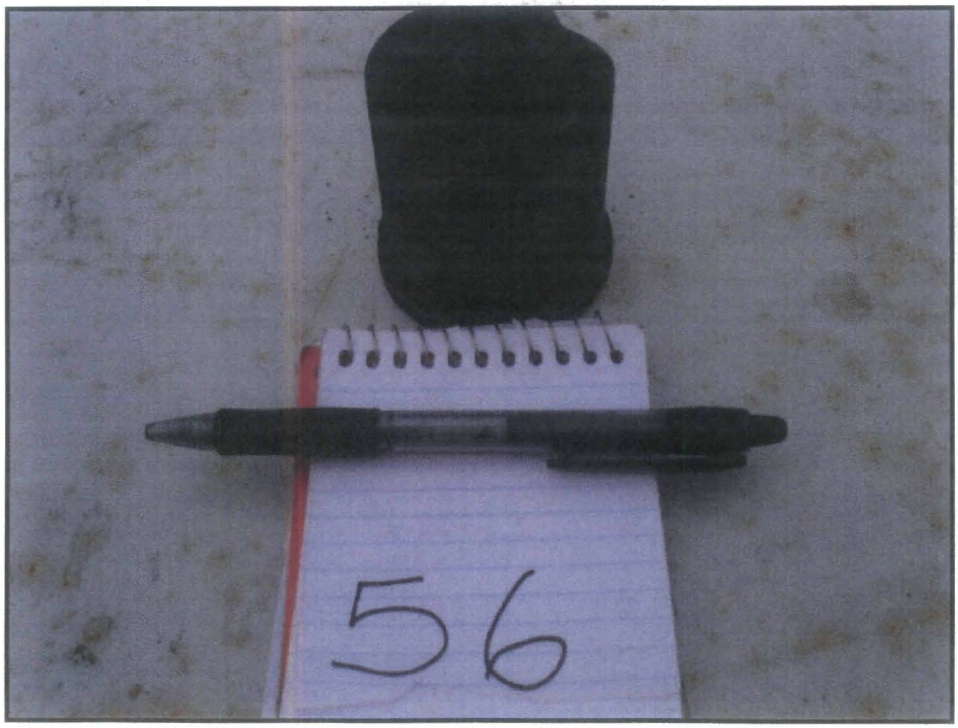

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Photo I-63

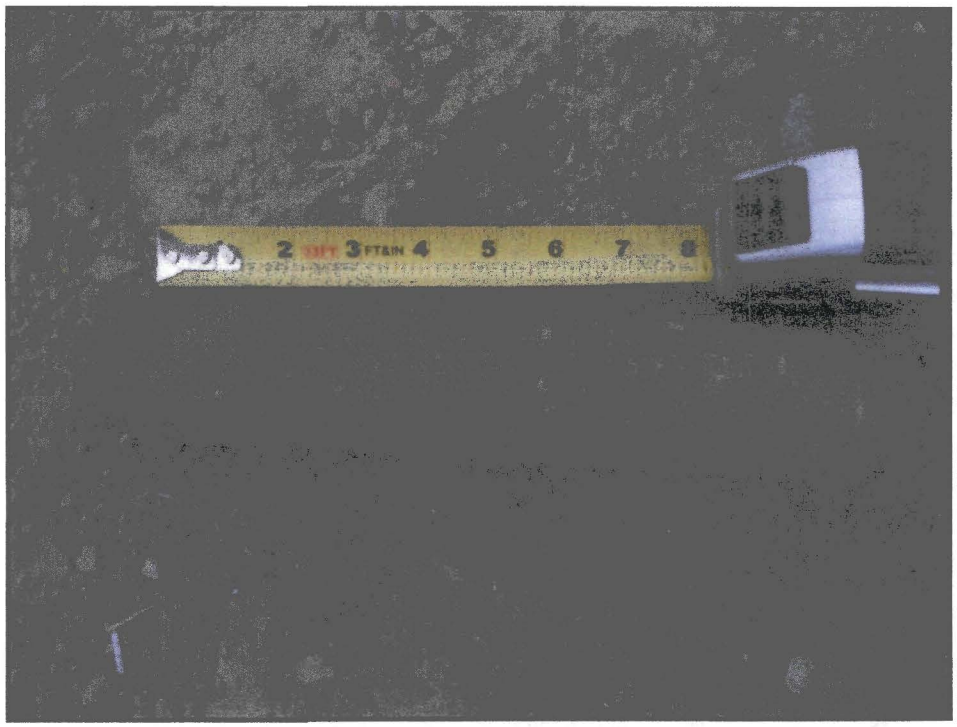
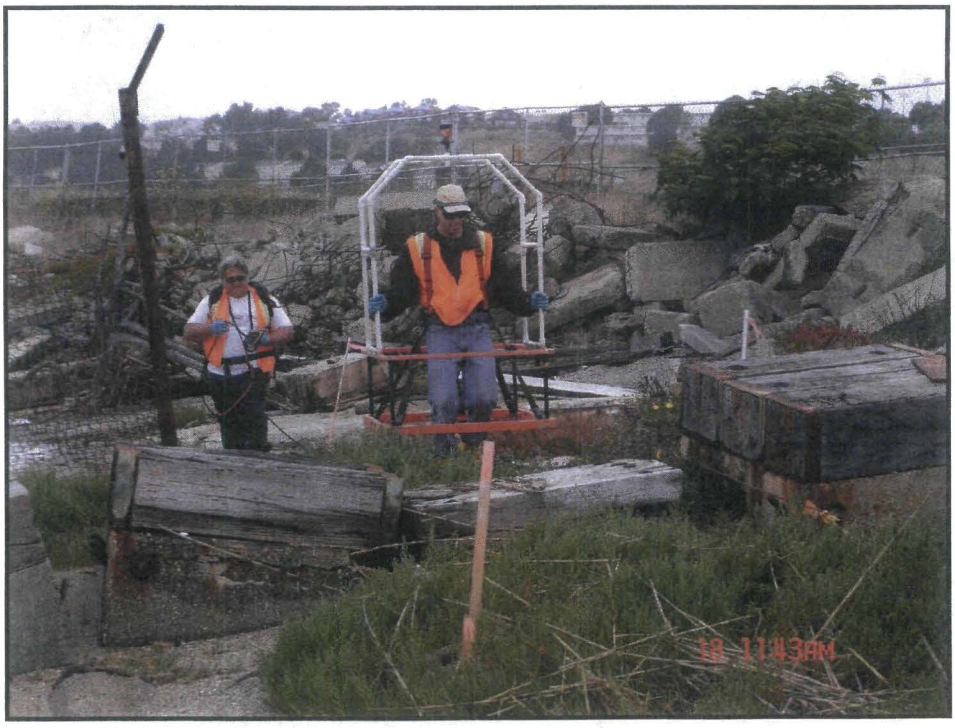


Photo I-64

Photo I-65

Photo I-66

Photo I-67



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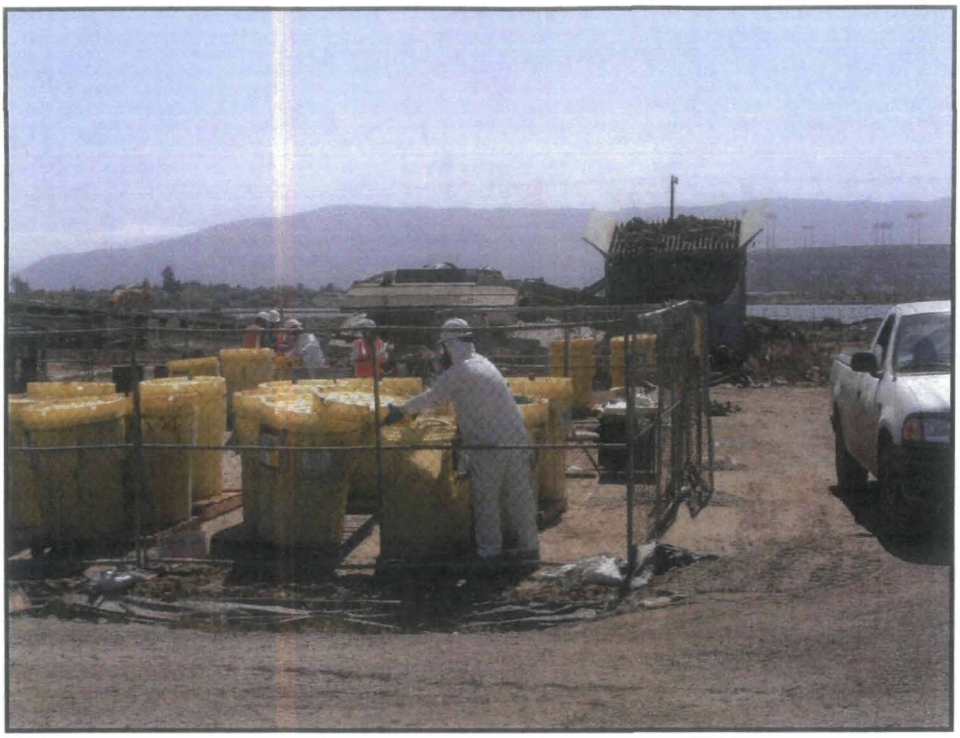


Photo I-69

Photo I-70

Photo I-71

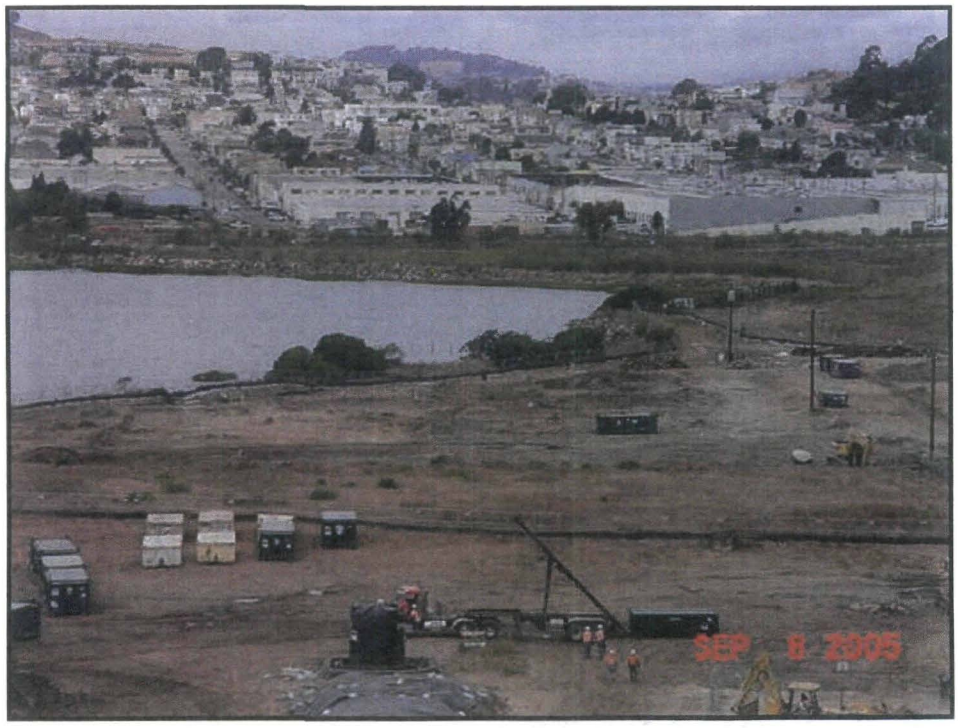


Photo I-72

Photo I-73

Photo I-74

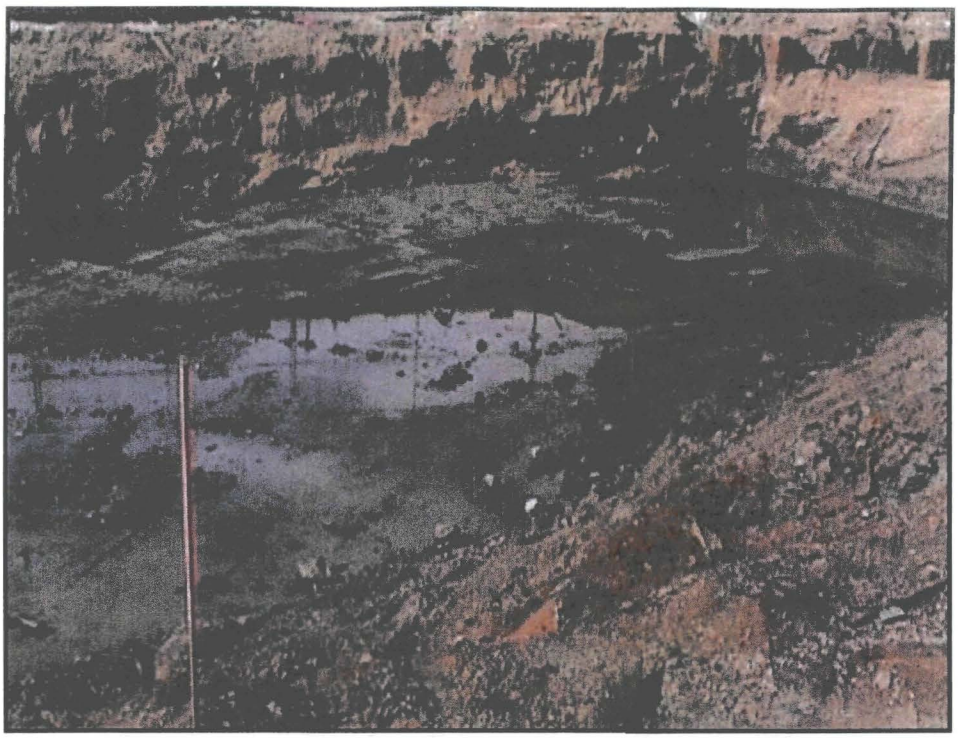


Photo I-75

Photo I-76

Photo I-77

Photo I-78

Photo I-79

Photo I-80

Photo I-81

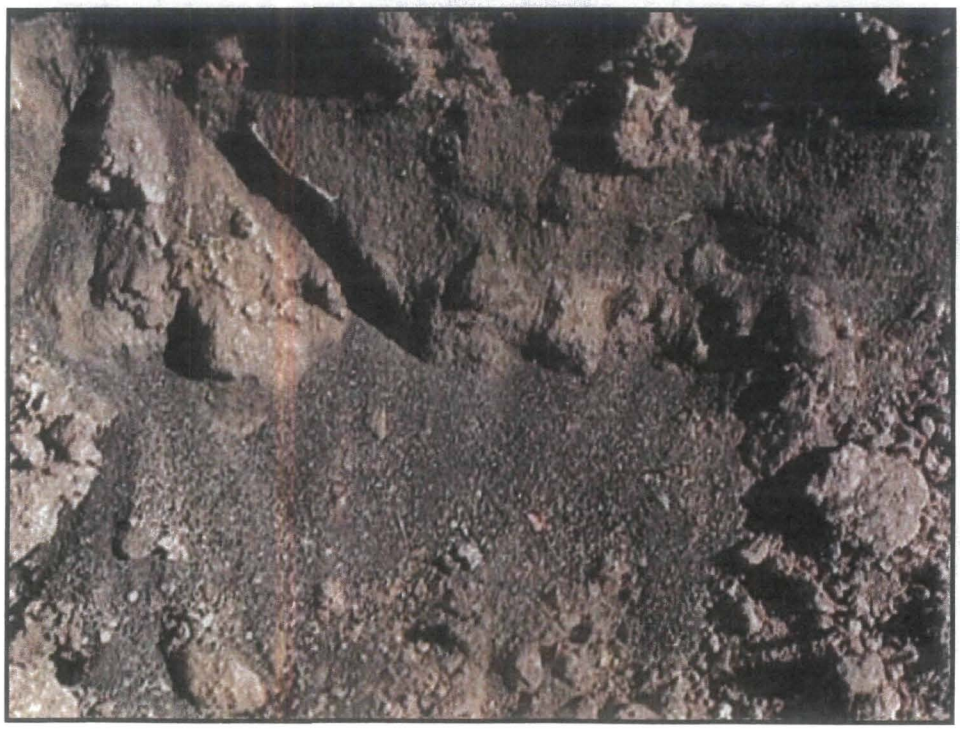


Photo I-82

Photo I-83

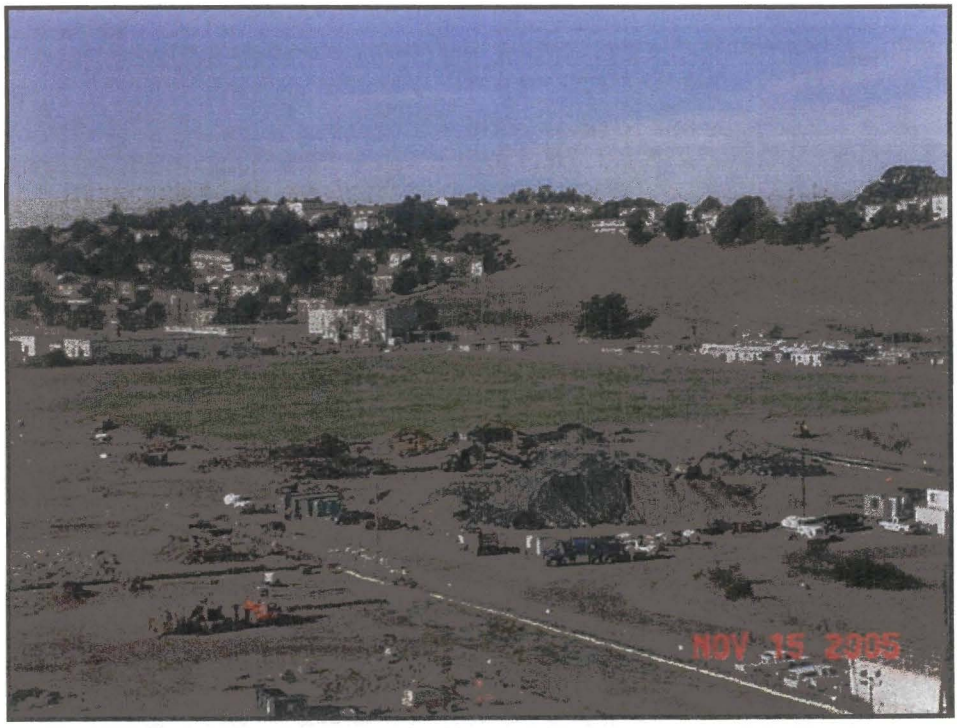
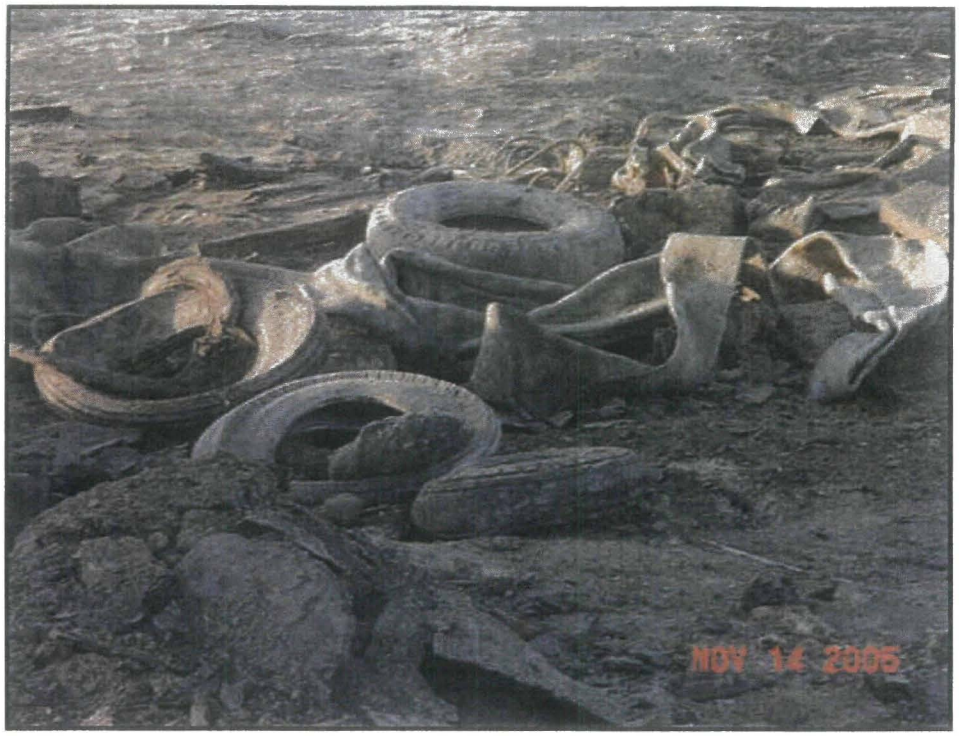


Photo I-84

Photo I-85

Photo I-86



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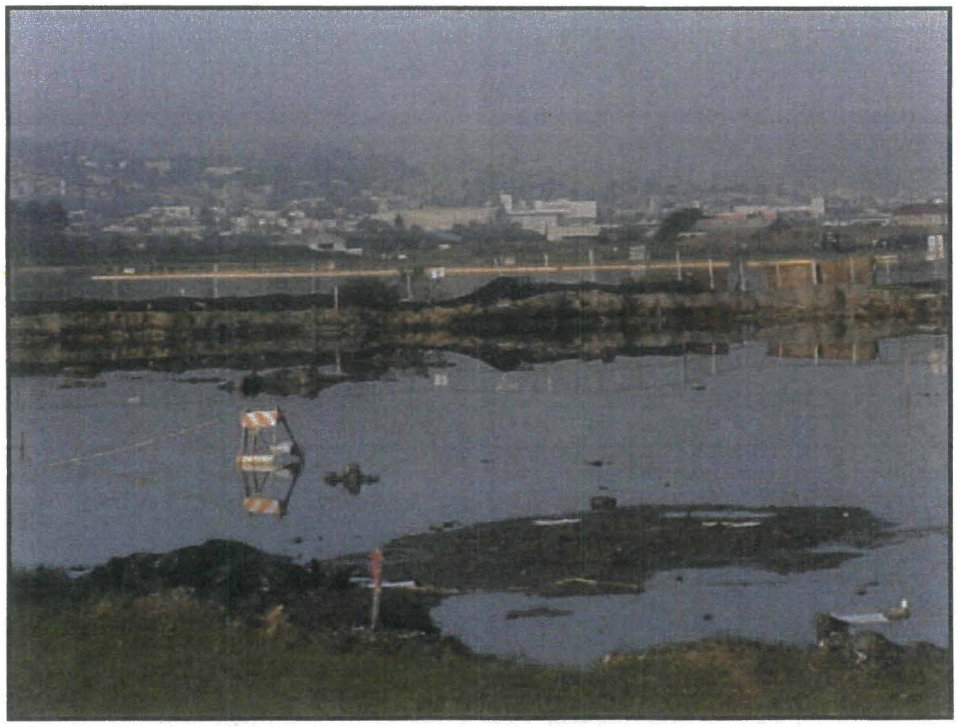

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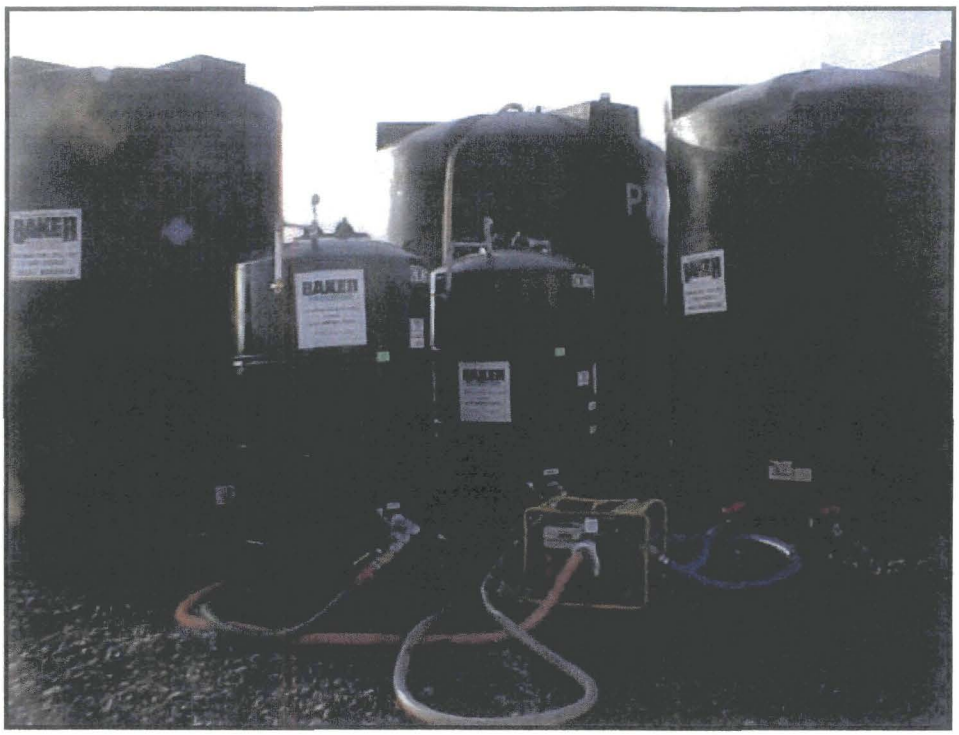


Photo I-89

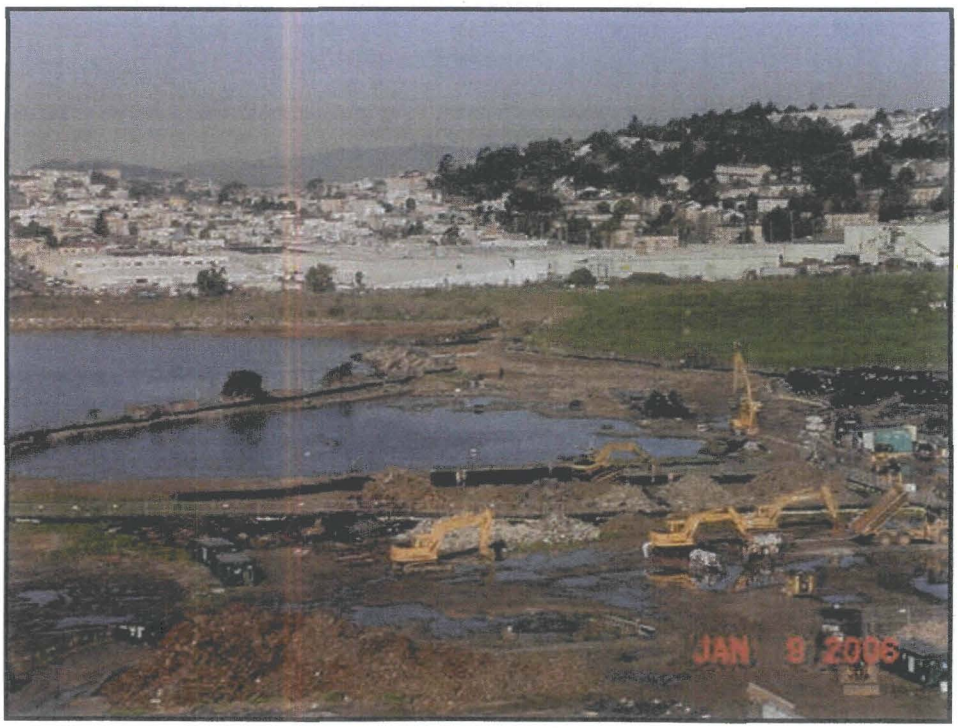
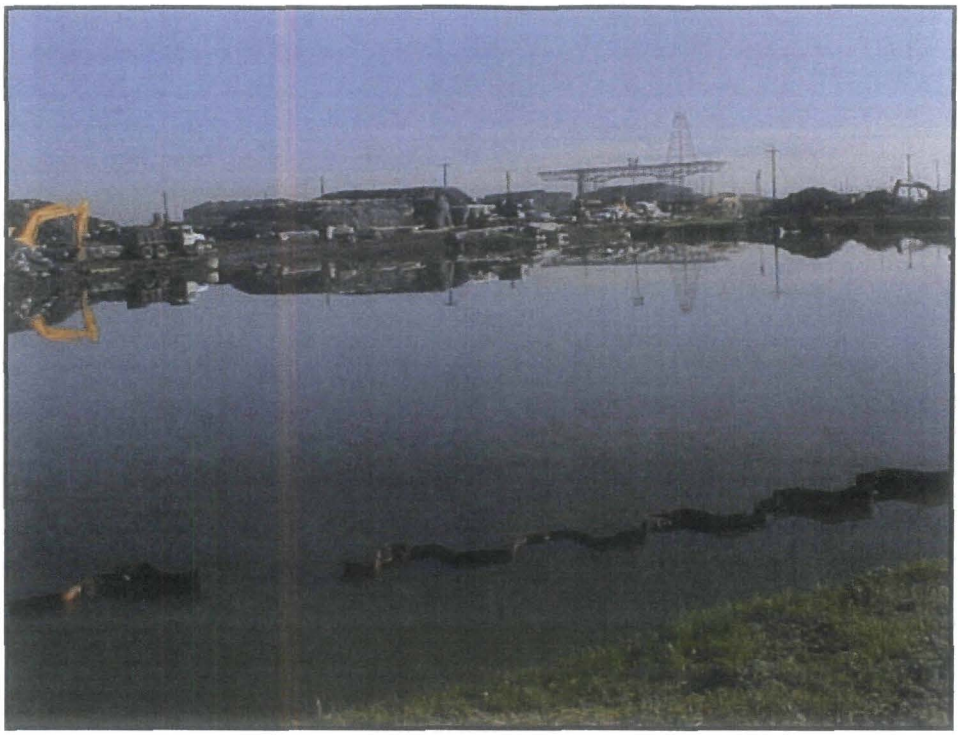


Photo I-90

Photo I-91

Photo I-92



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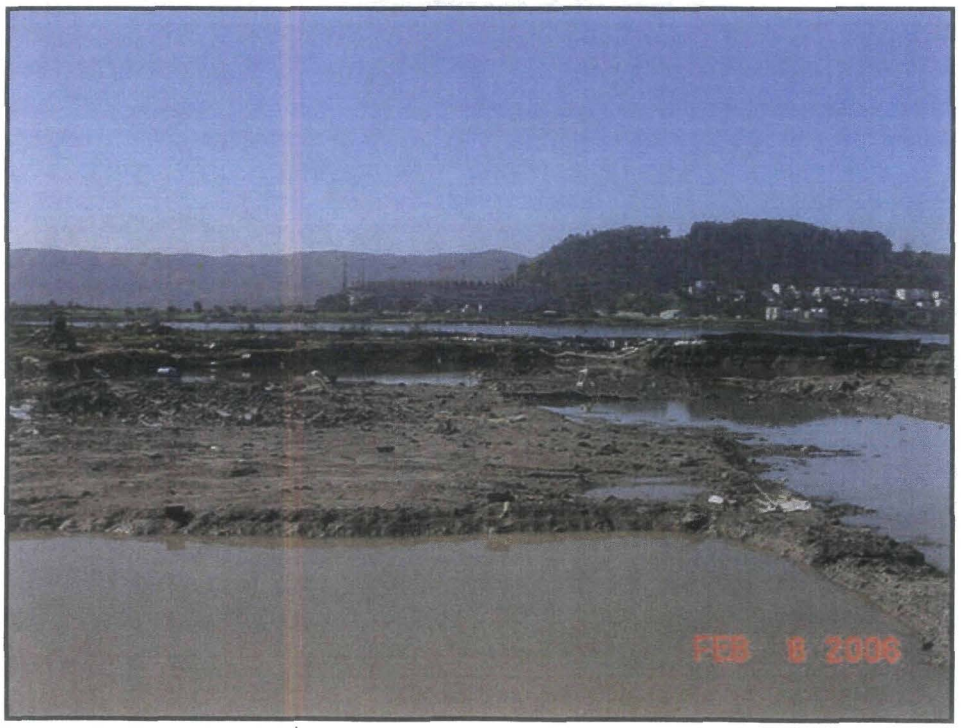


Photo I-94

Photo I-95

Photo I-96

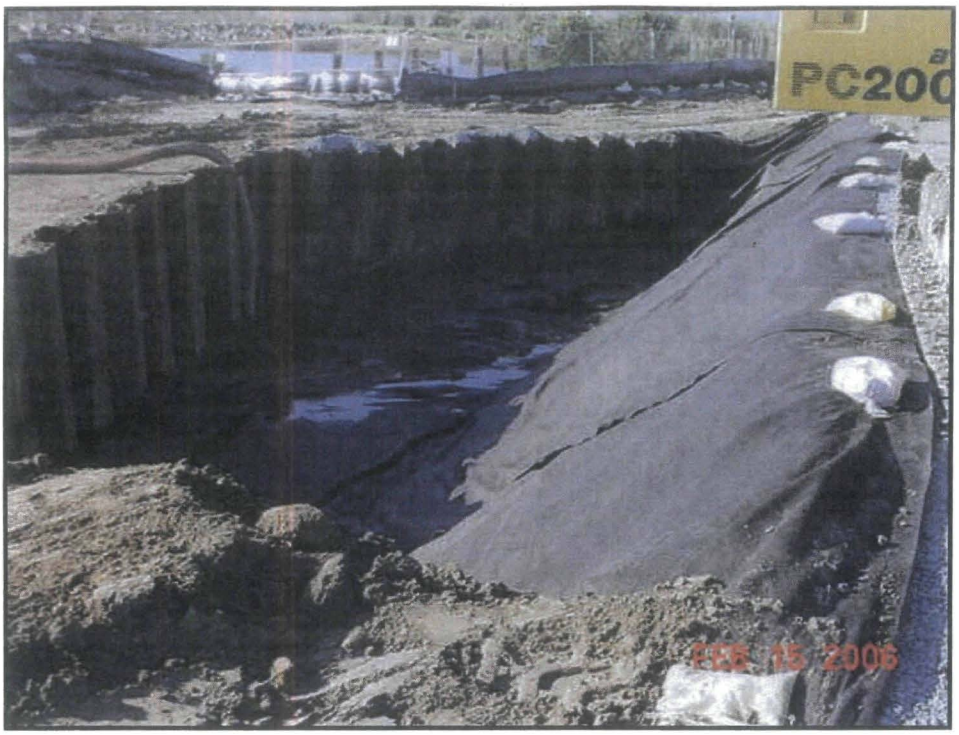


Photo I-97

Photo I-98

Photo I-99

Photo I-100

Photo I-101

Photo I-102

Photo I-103

Photo I-104

Photo I-105

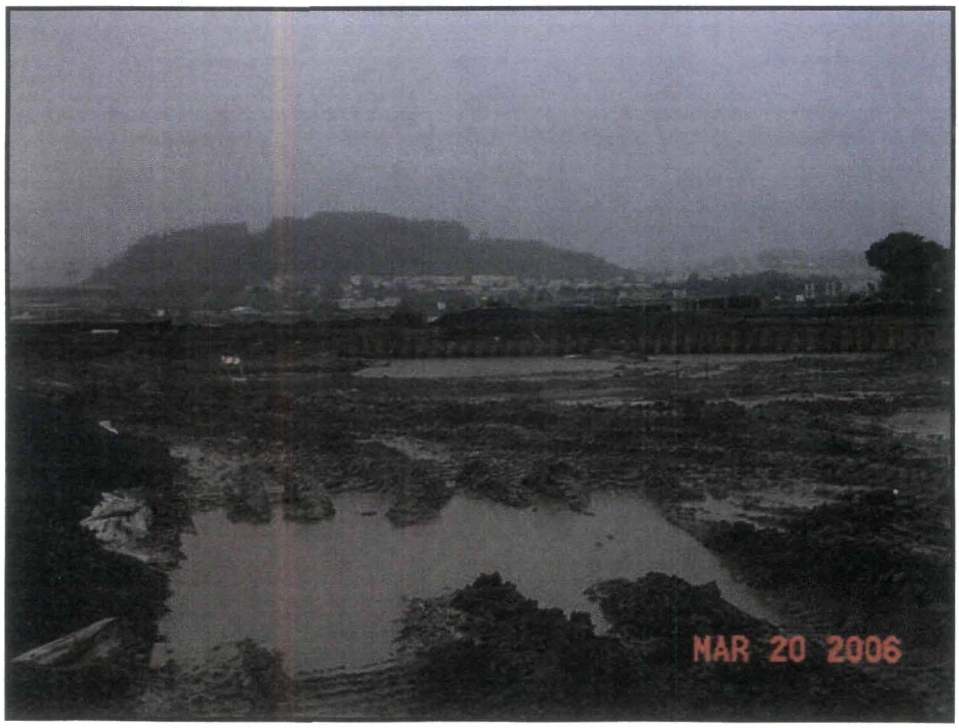
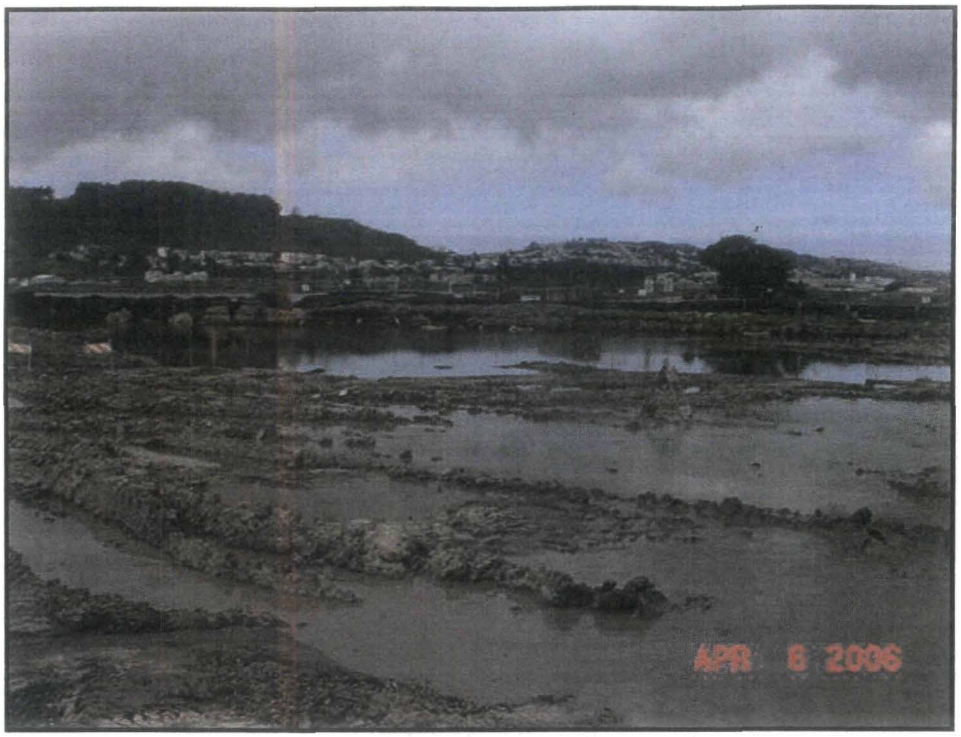


Photo I-106

Photo I-107

Photo I-108



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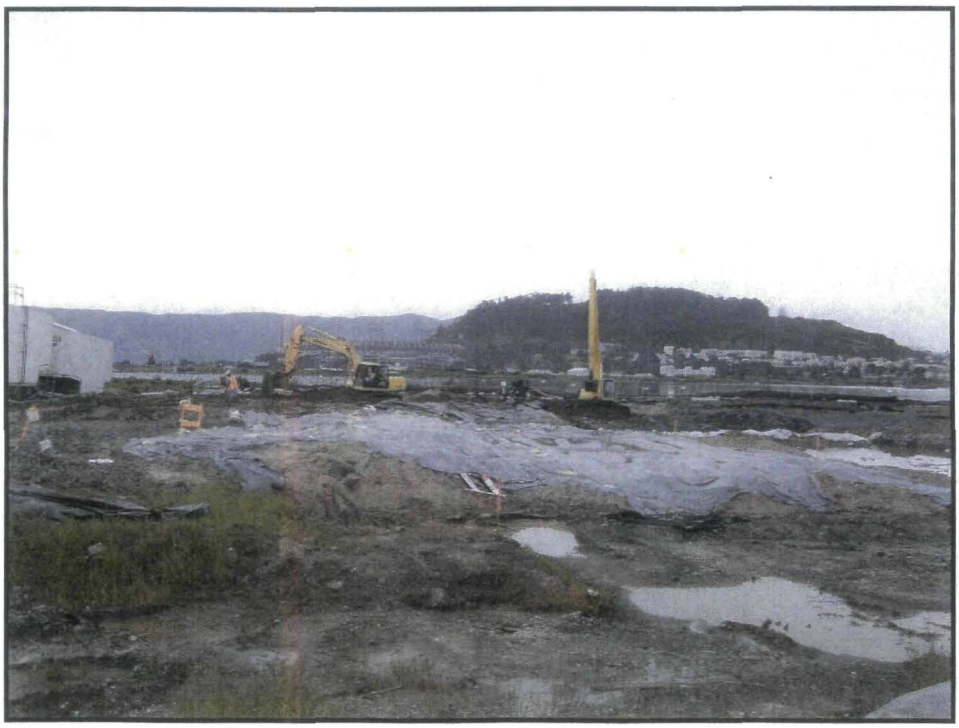

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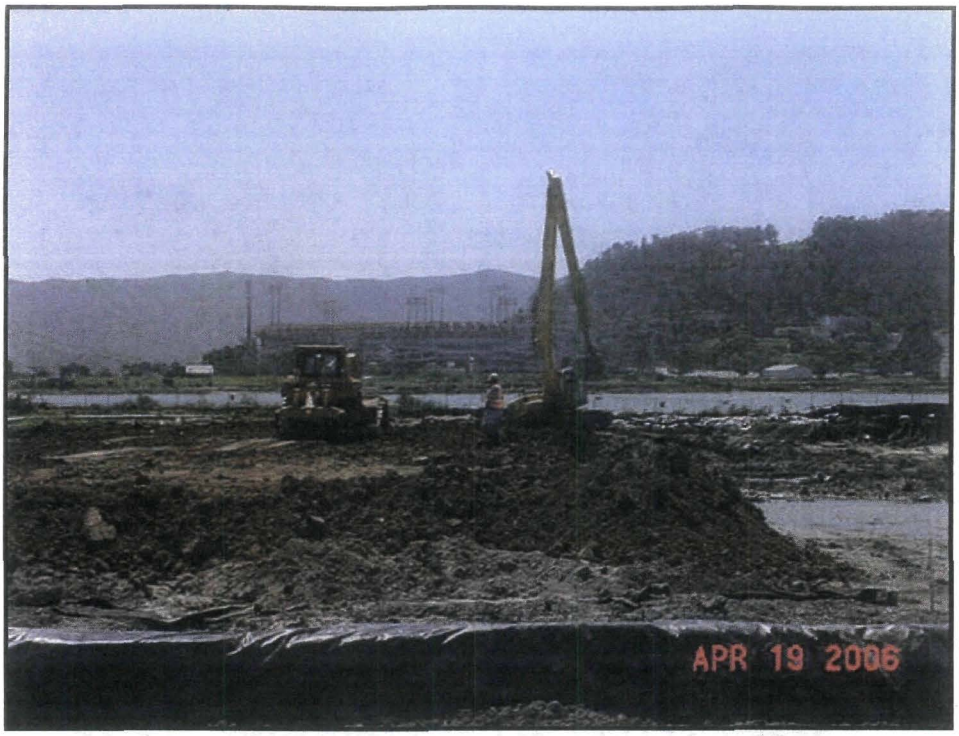


Photo I-111

Photo I-112

Photo I-113

Photo I-114

Photo I-115

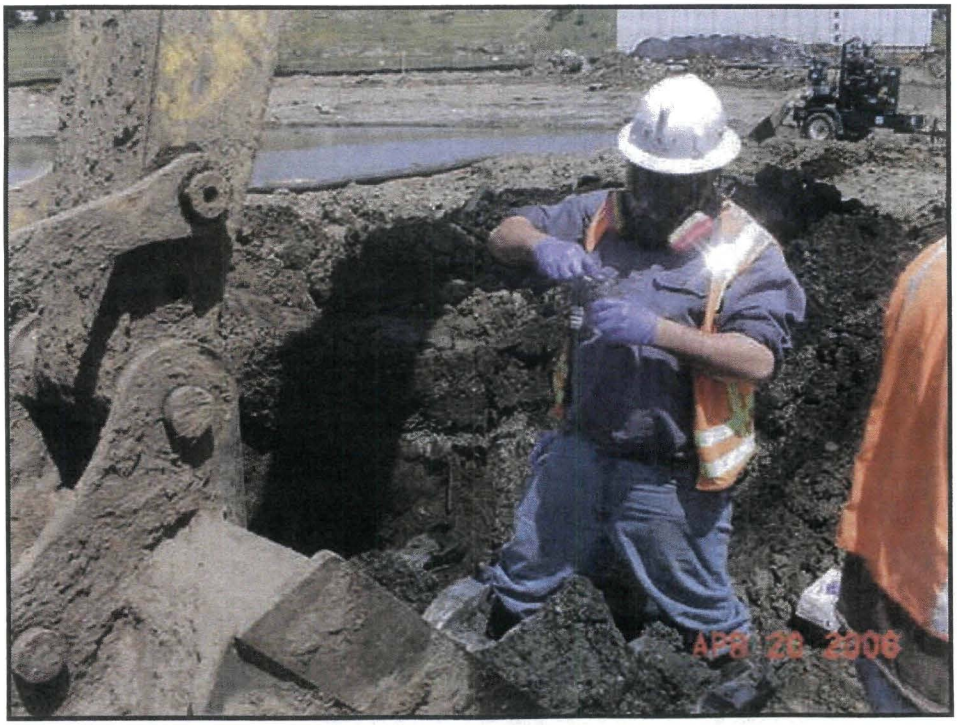


Photo I-116

Photo I-117

Photo I-118

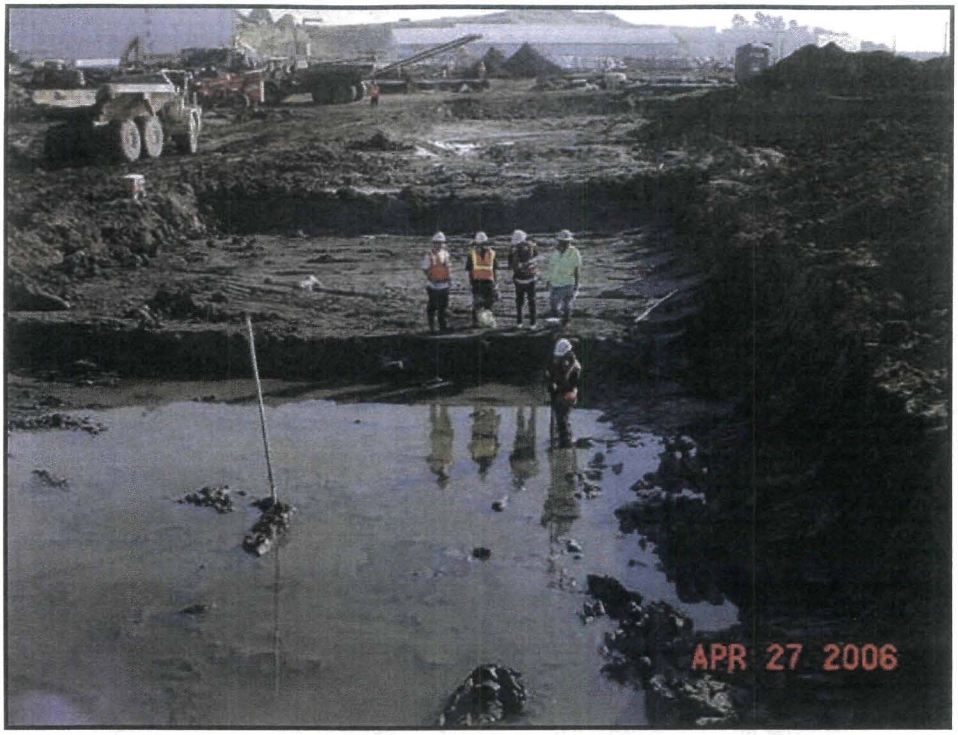


Photo I-119

Photo I-120

Photo I-121

Photo I-122

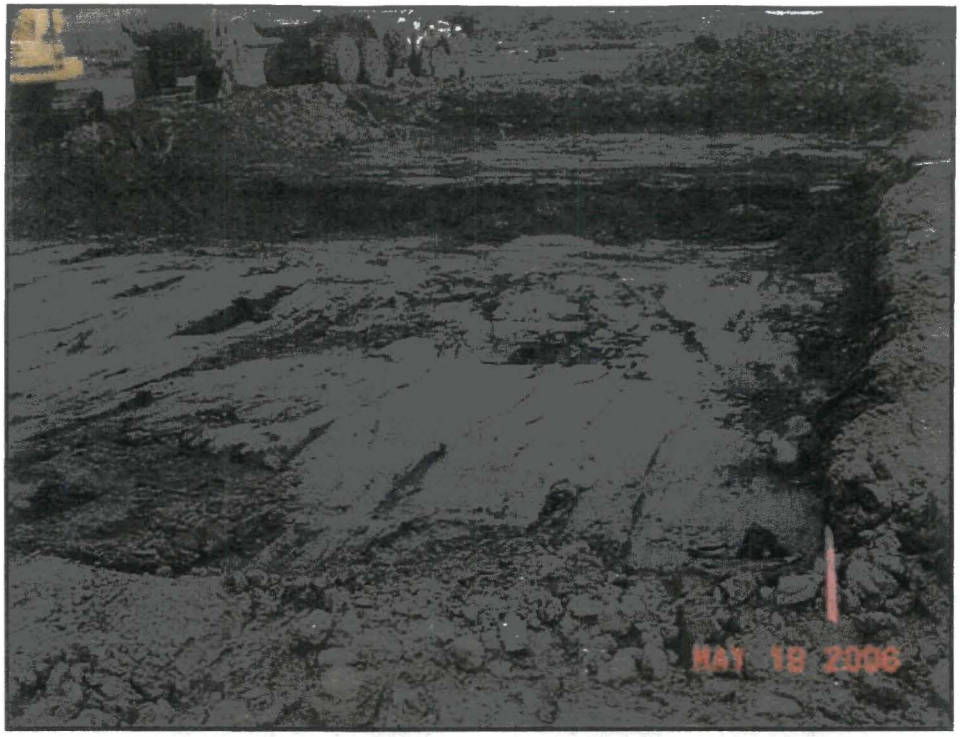


Photo I-123

Photo I-124

Photo I-129

Photo I-130

Photo I-131

Photo I-132

Photo I-133

Photo I-134

Photo I-135

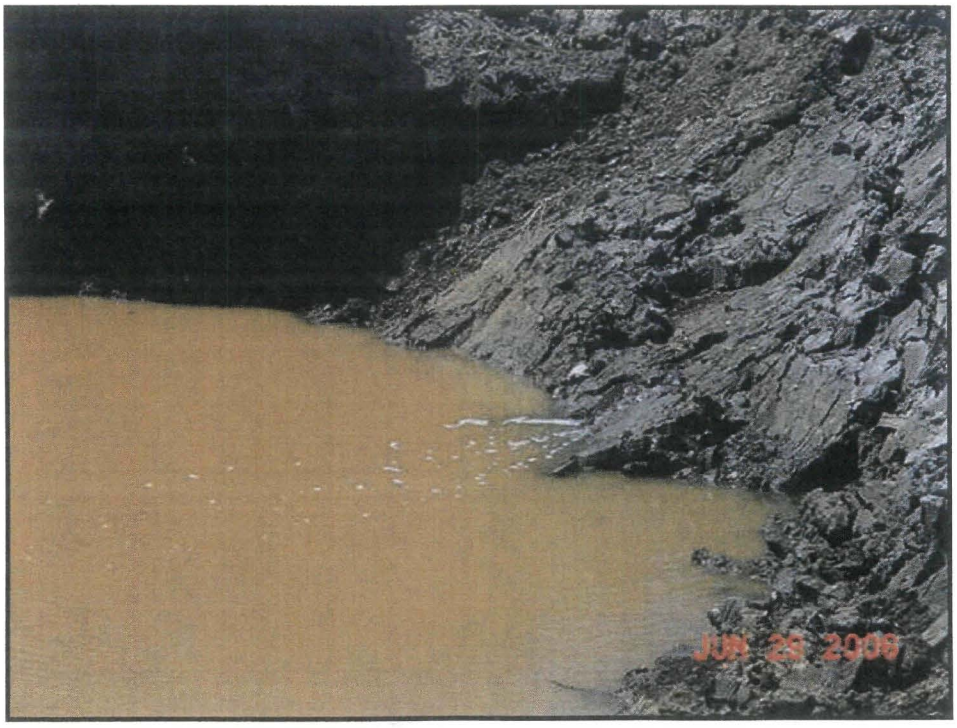


Photo I-136

Photo I-137

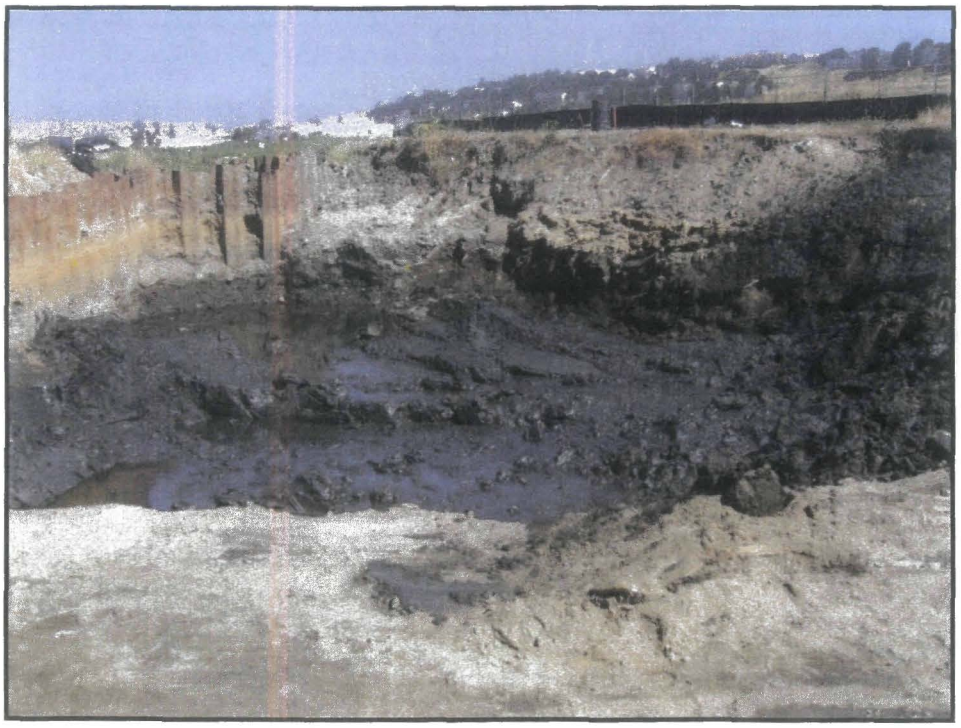


Photo I-138

Photo I-139

Photo I-140

Photo I-141

Photo I-142

Photo I-143

Photo I-144

Photo I-145

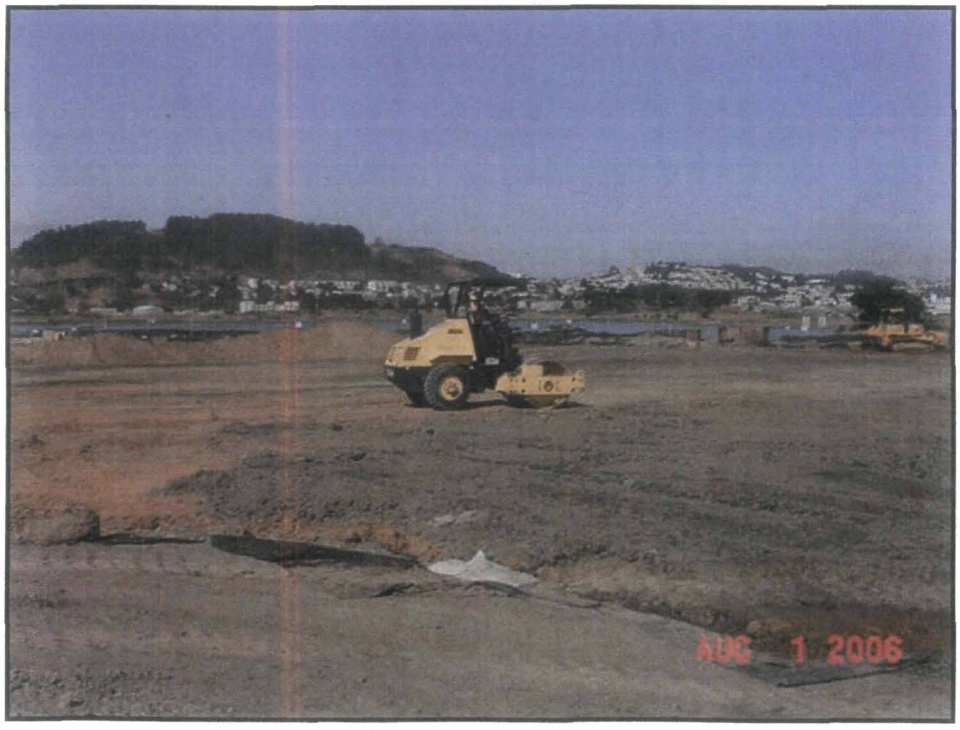
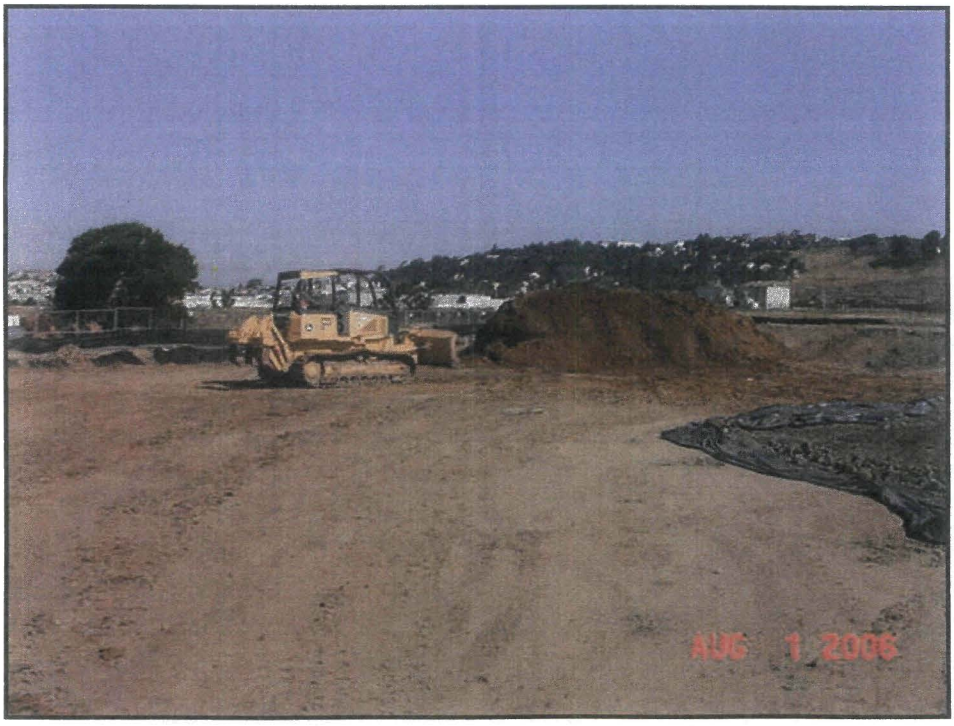


Photo I-146

Photo I-147



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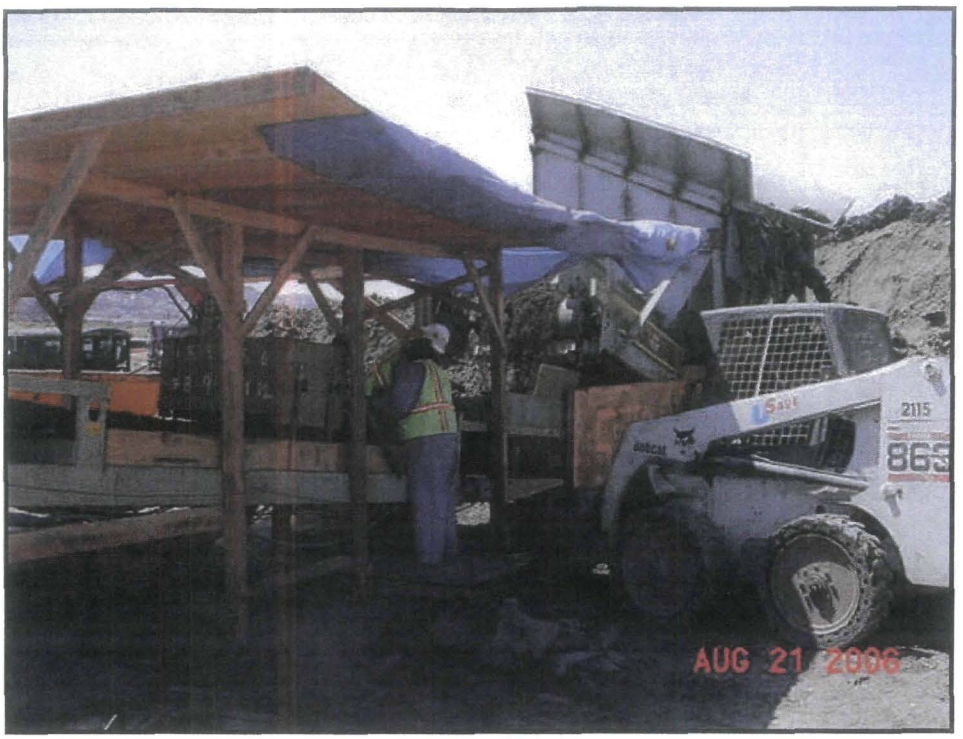
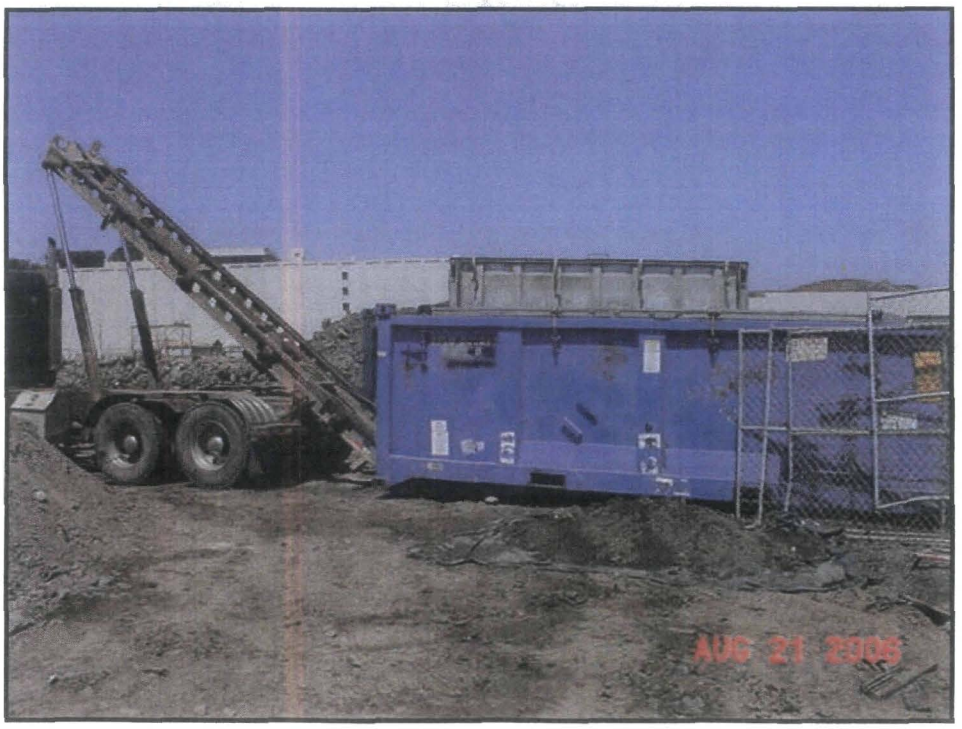


Photo I-149



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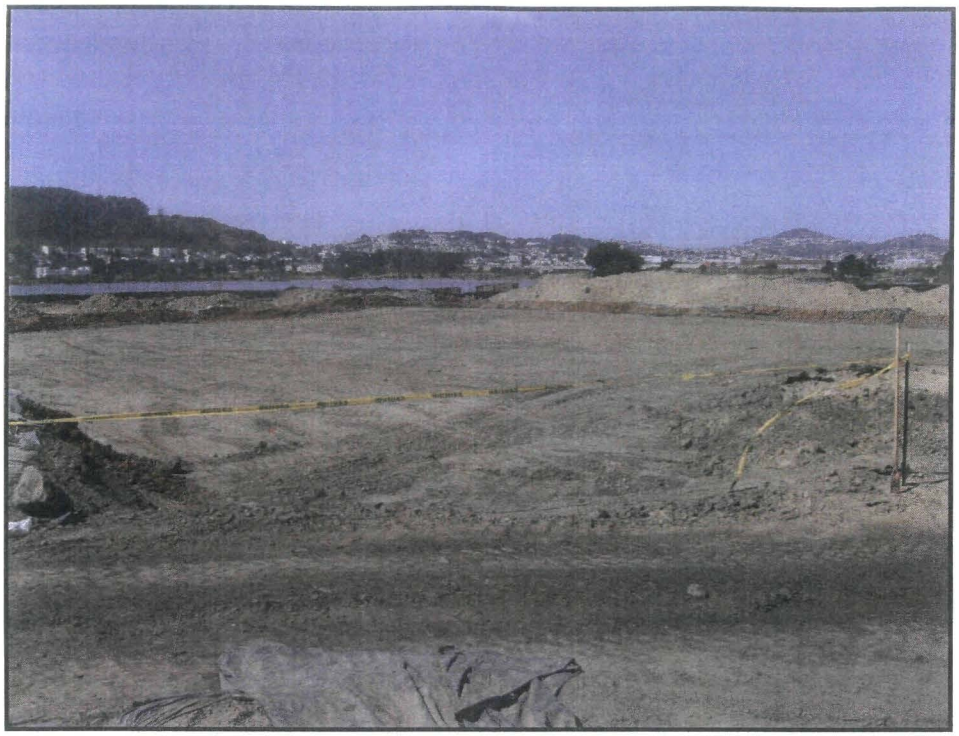

Photo I-151

Photo I-152

Photo I-153

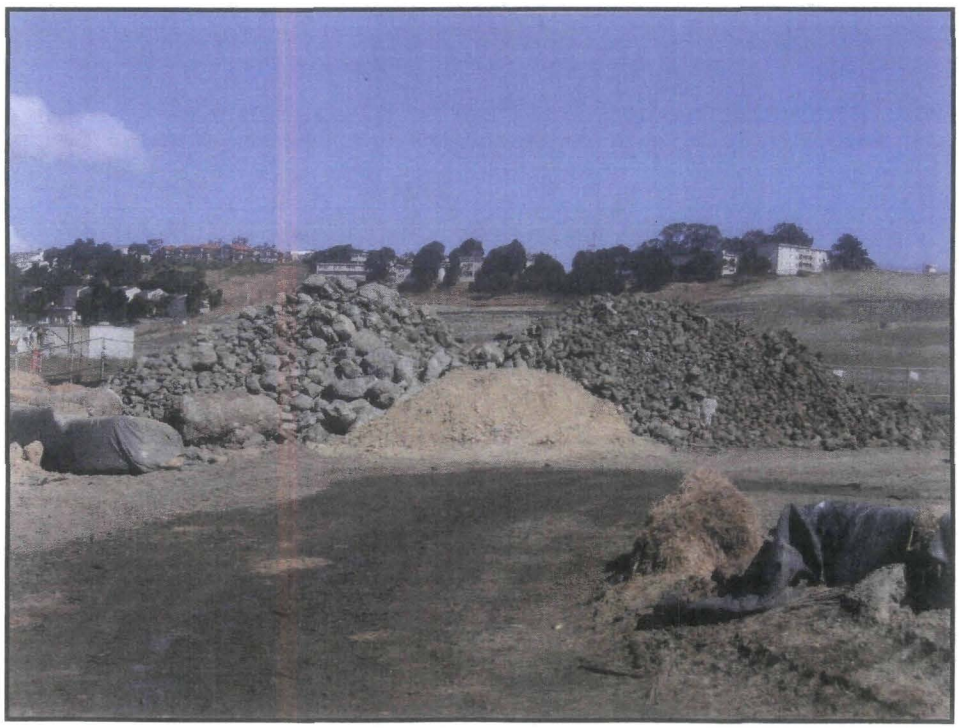

Photo I-154

Photo I-155

Photo I-156

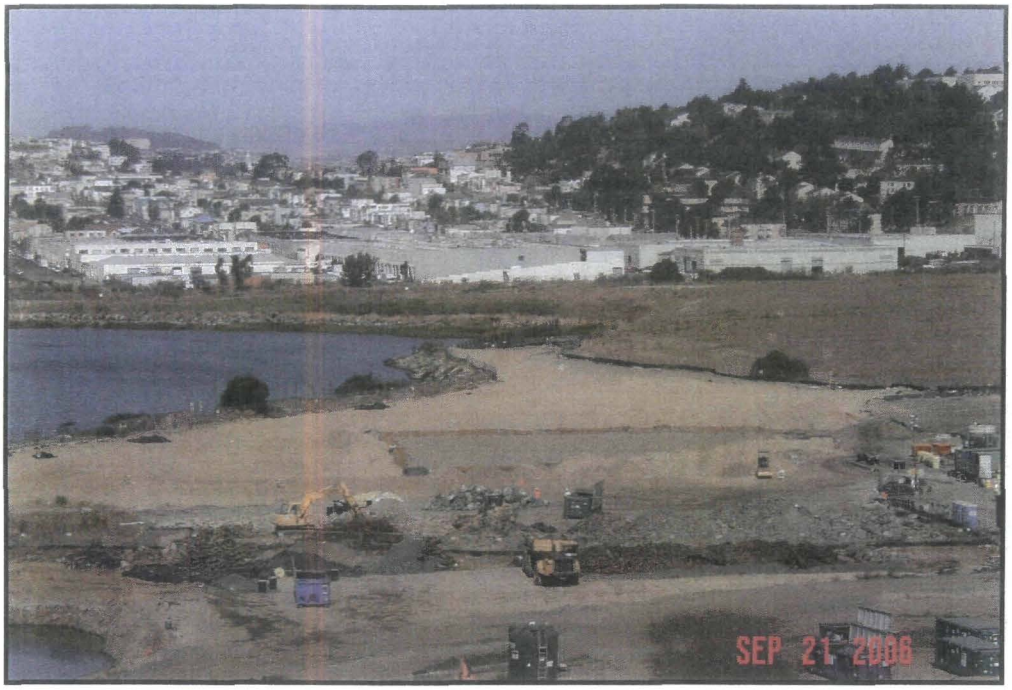

Photo I-157

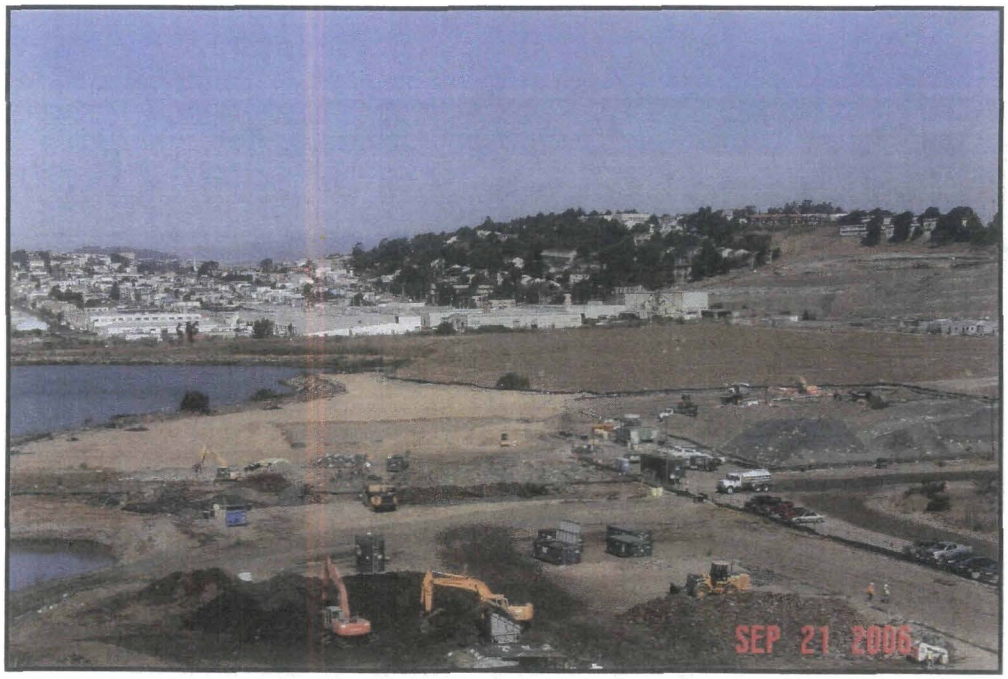

Photo I-158

Photo I-159

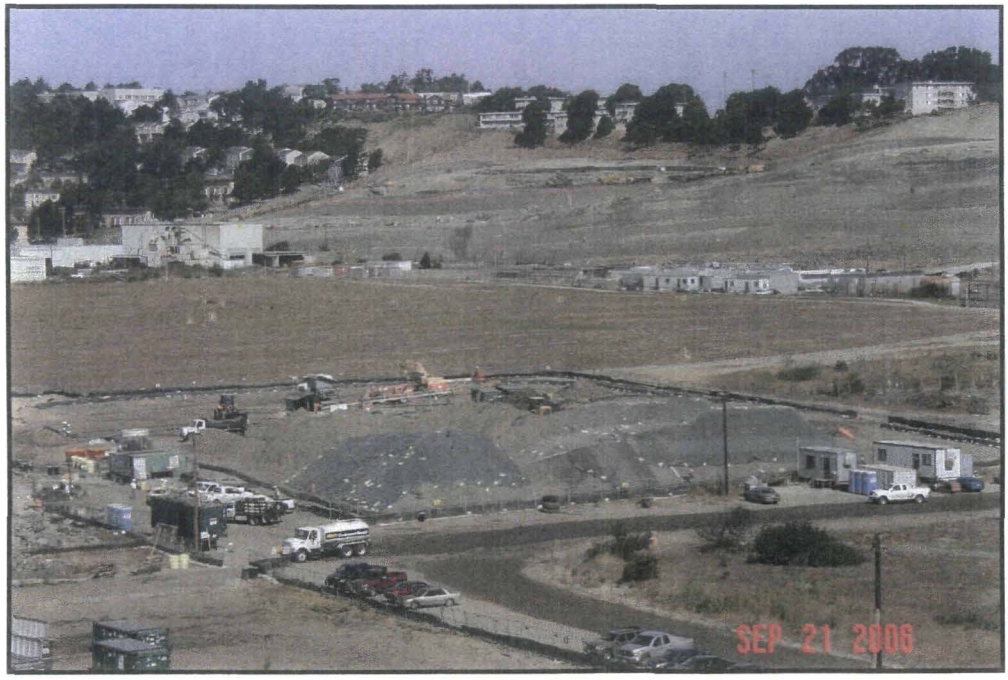

Photo I-160

Photo I-161

Photo I-162

Photo I-163

Photo I-164

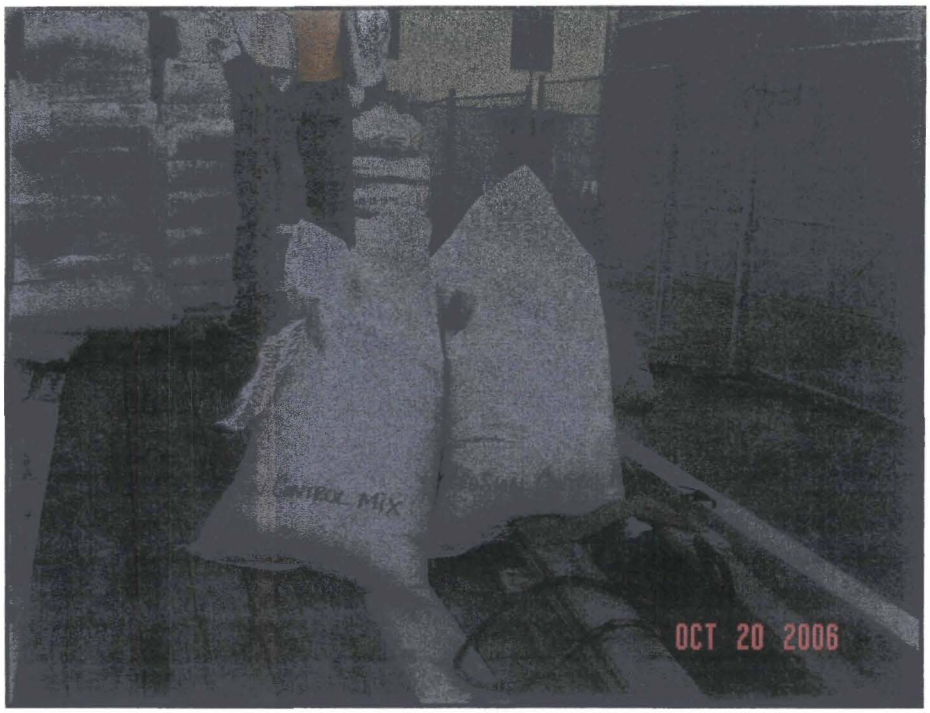

Photo I-165

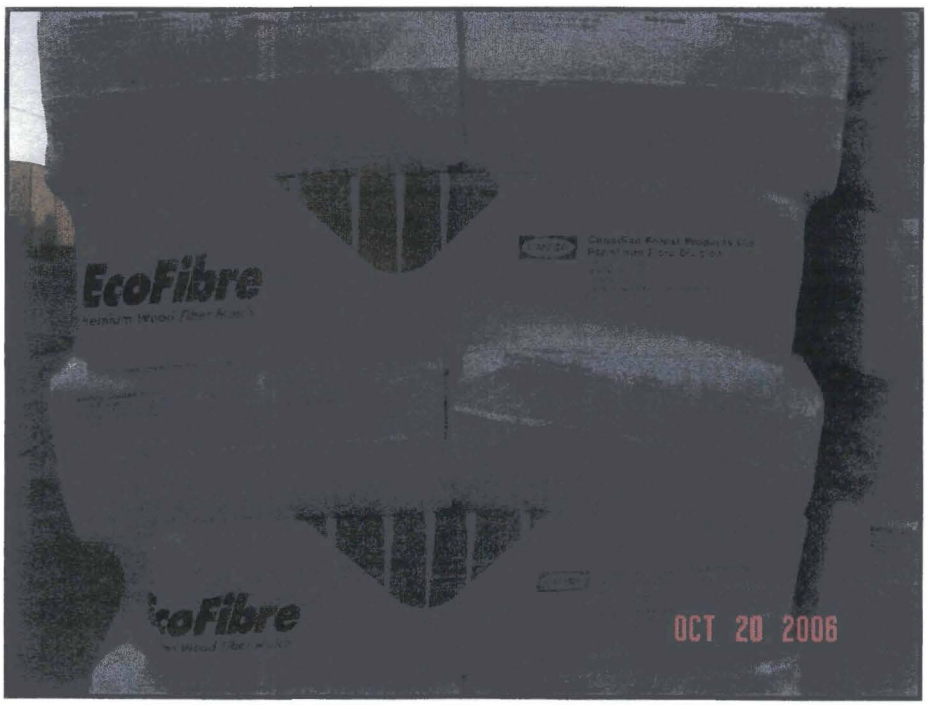

Photo I-166

Photo I-167

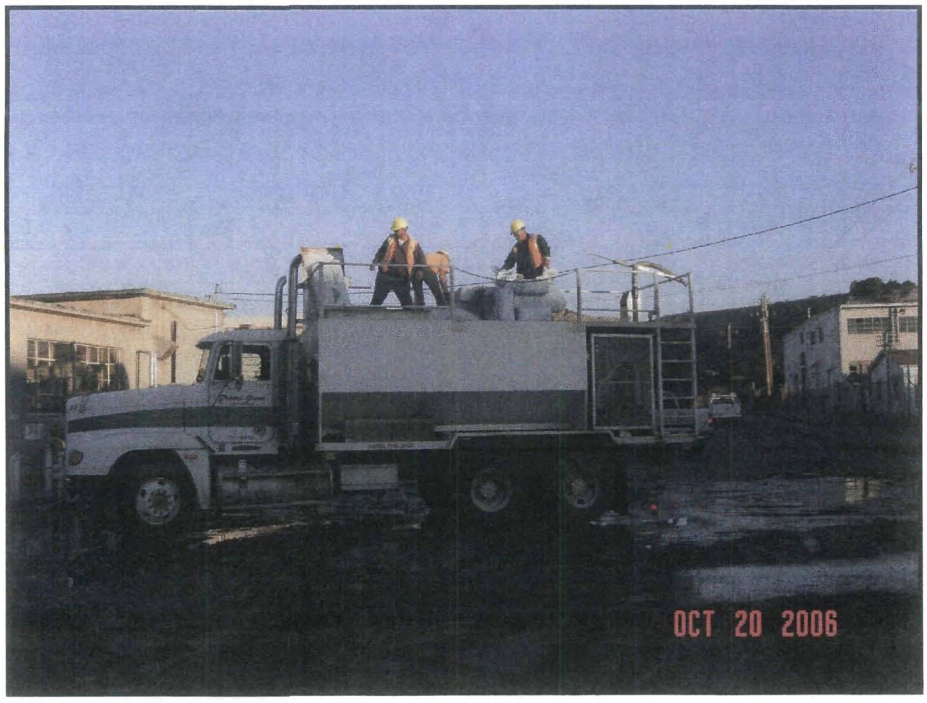

Photo I-168

Photo I-169

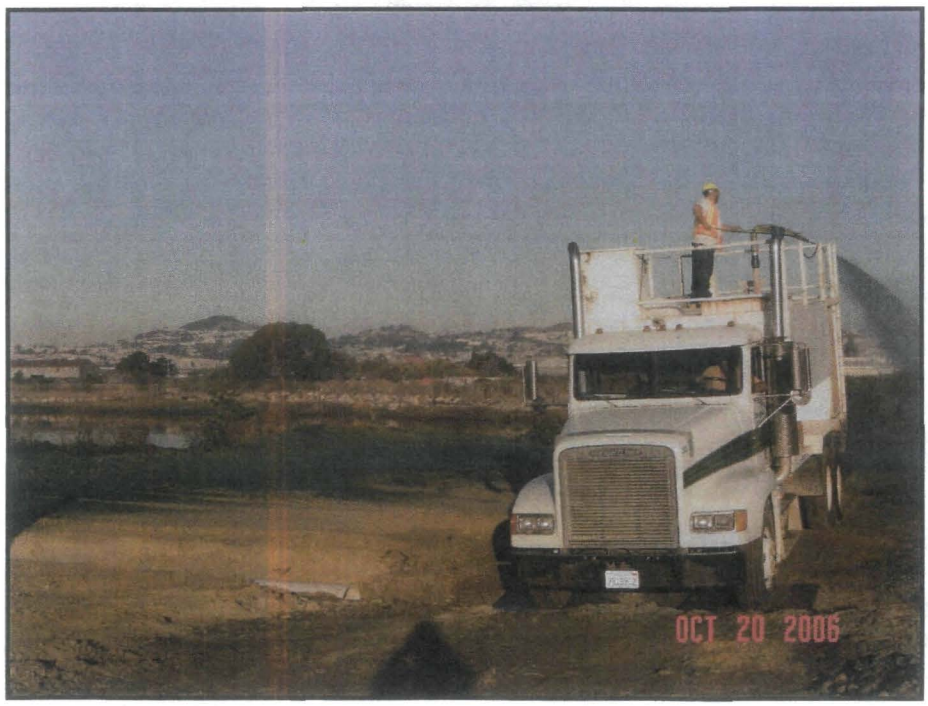

Photo I-170

Photo I-171

Photo I-172

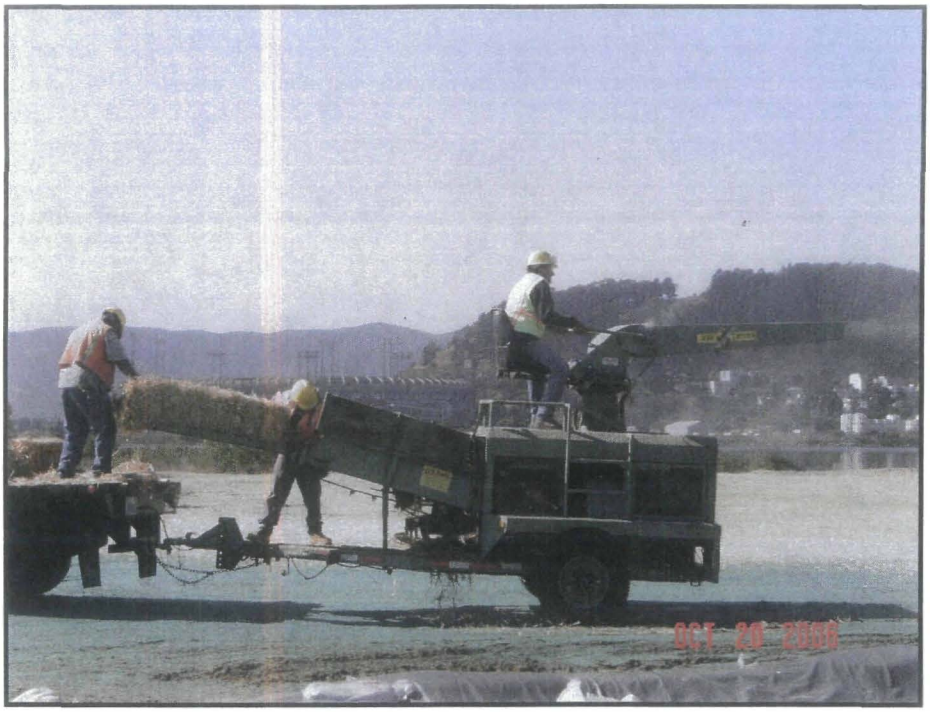

Photo I-173

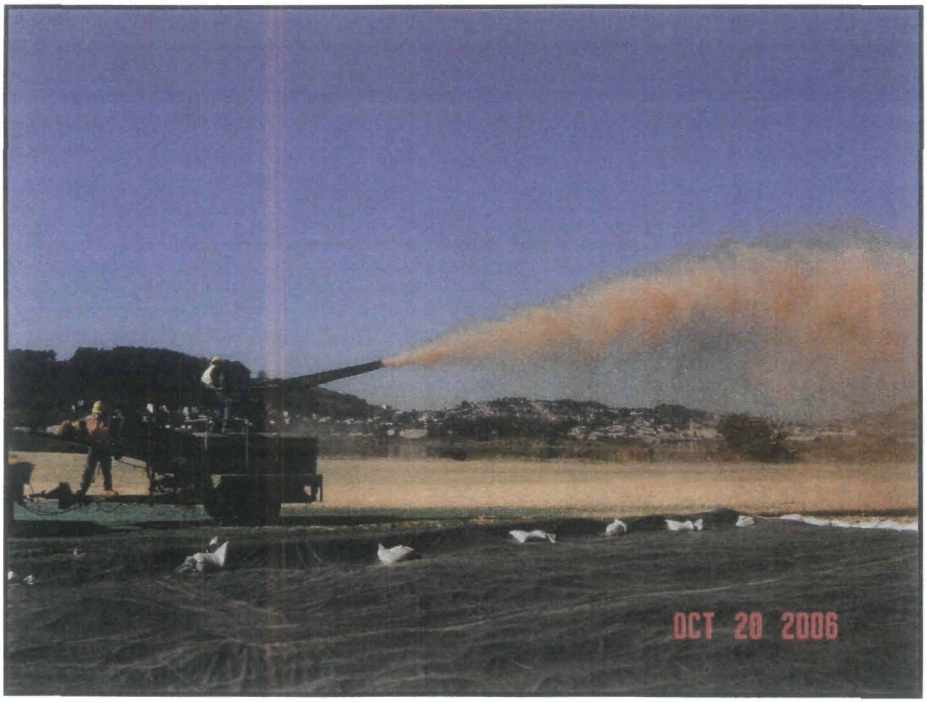

Photo I-174

Photo I-175

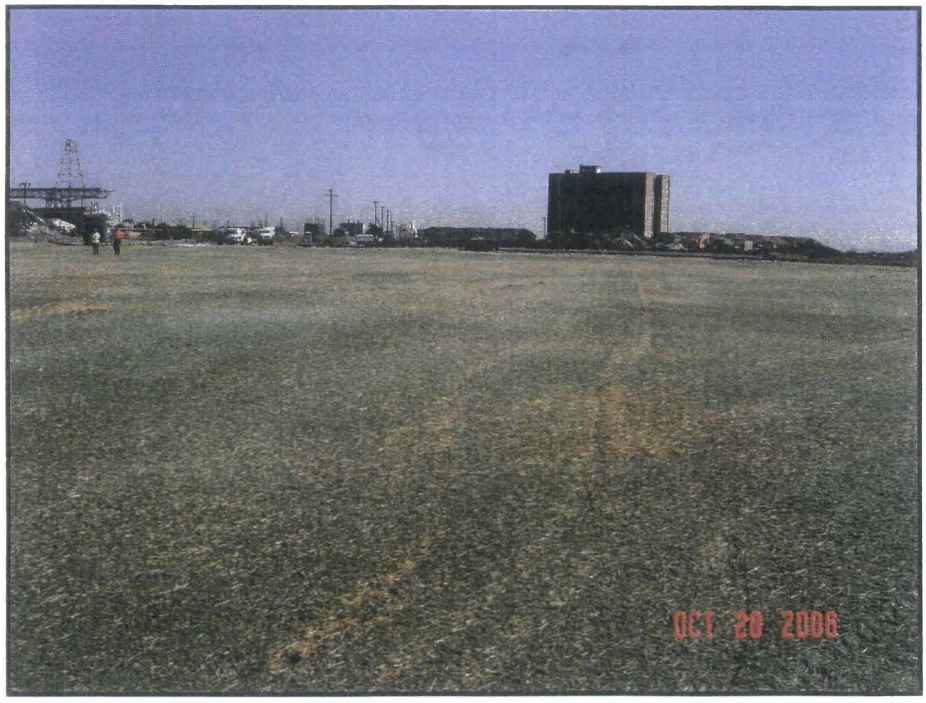

Photo I-176

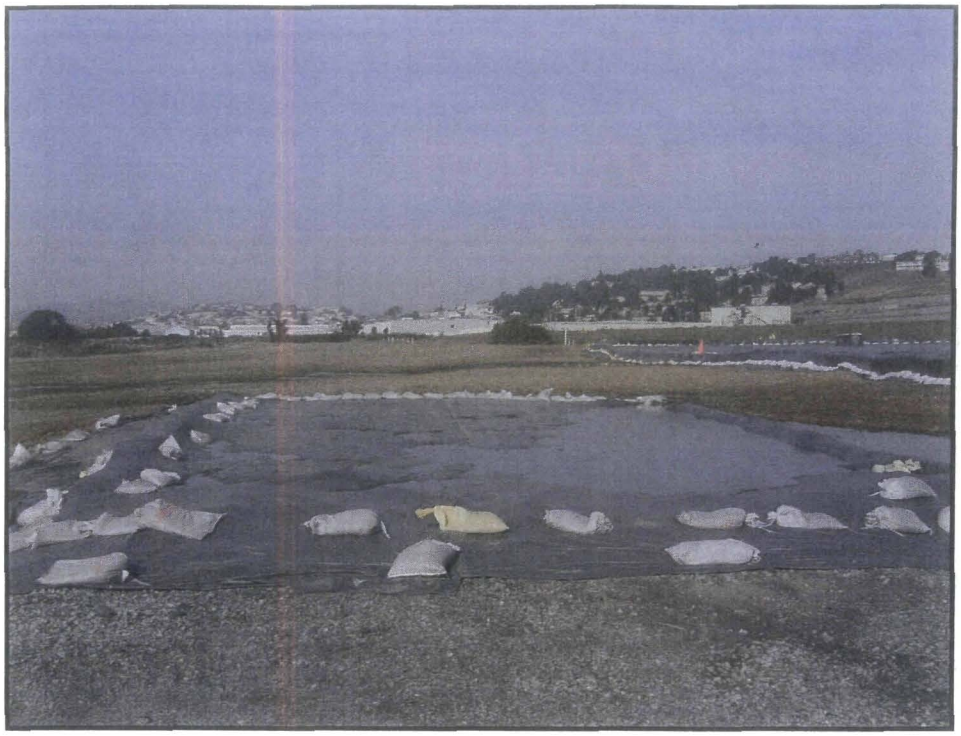

Photo I-177

Photo I-178

Photo I-179

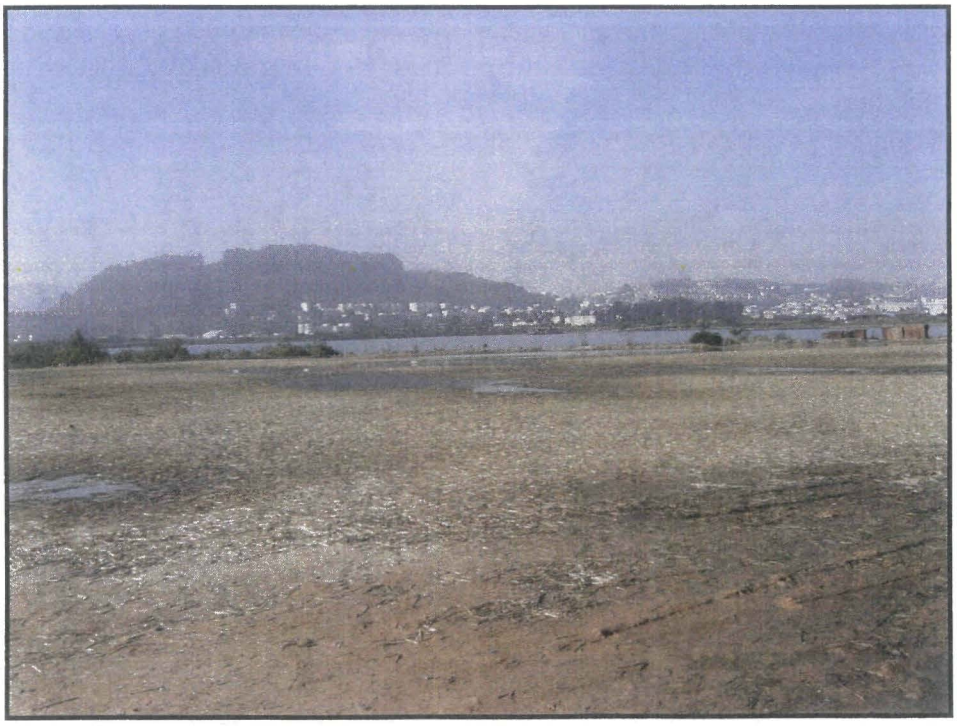

Photo I-180

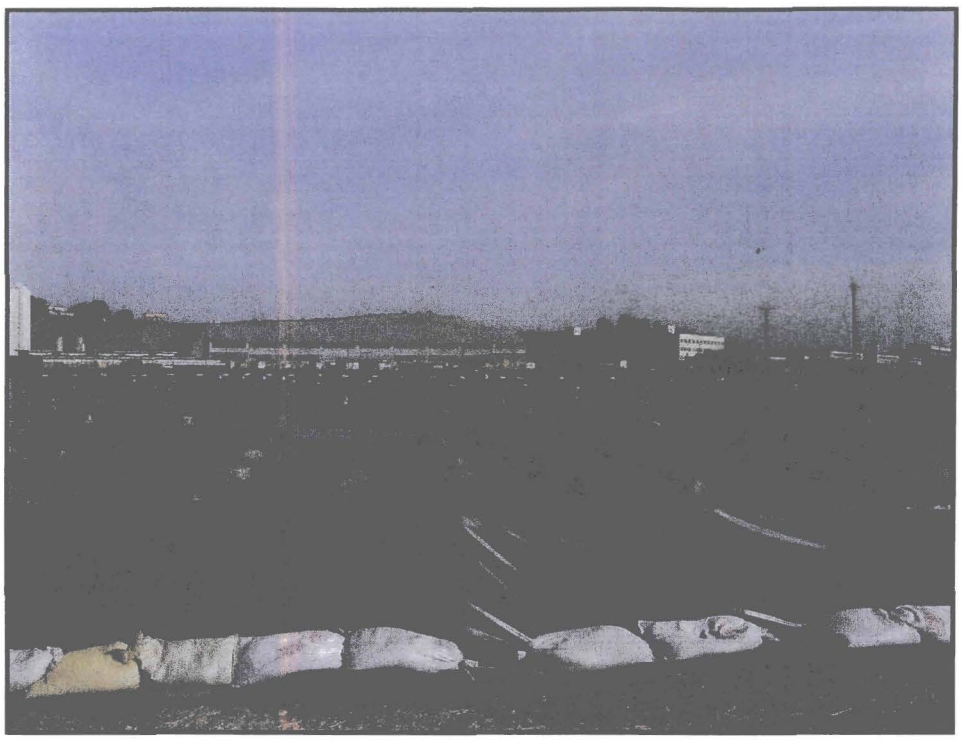

Photo I-181

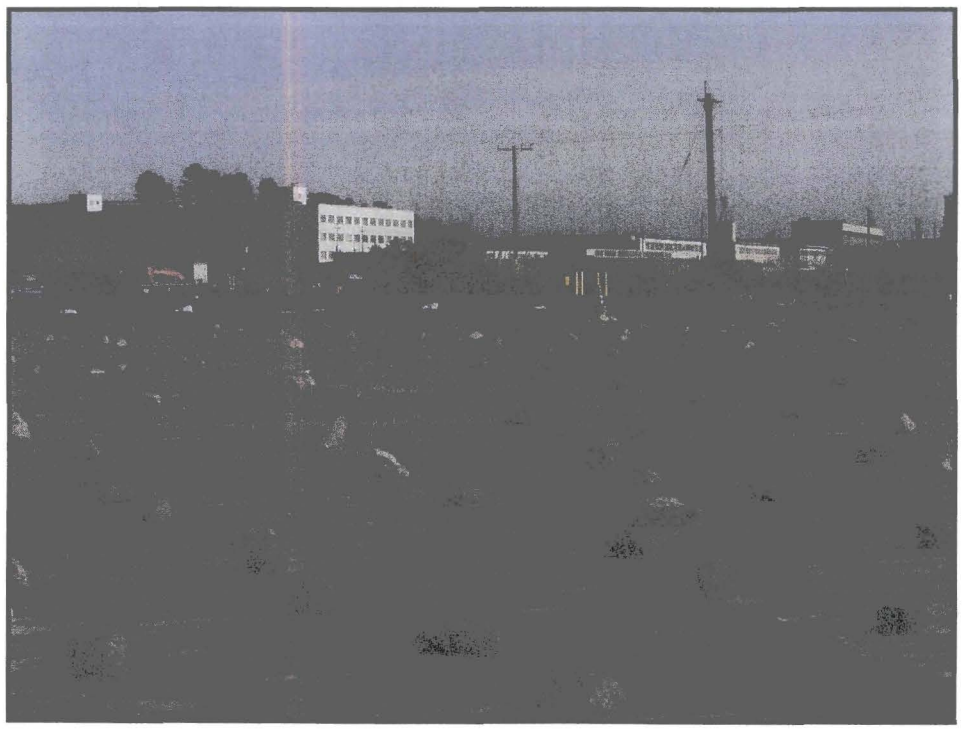

Photo I-182

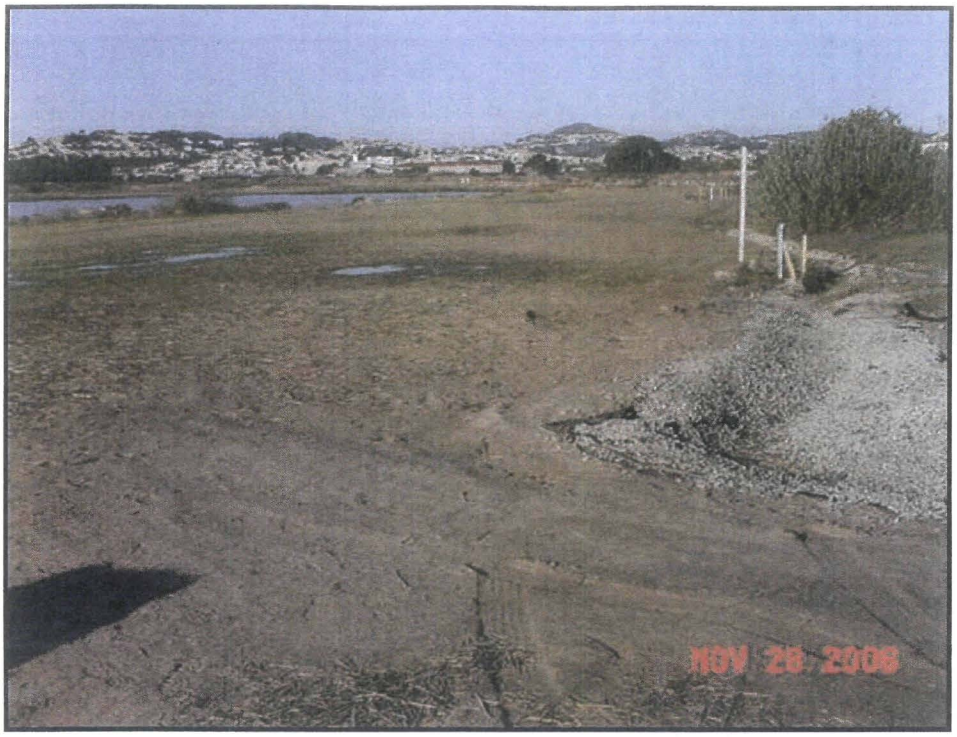

Photo I-183

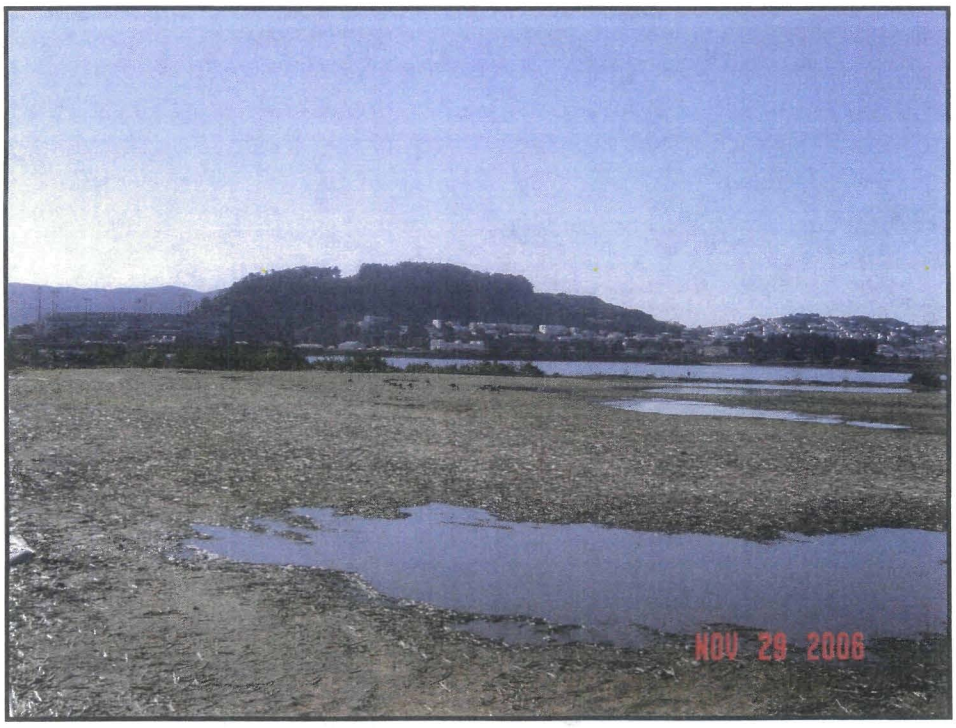

Photo I-184

APPENDIX J

FIELD CHANGE REQUEST (FCR) LOG AND FCRs

APPENDIX J

TCRA FCR LOG

FCR NUMBER	SUBJECT	DOCUMENTS AFFECTED
FCR-MR/MS-01	Dosimetry	MR/MS Final Char. Work Plan app. D Rev. 0
FCR-819-002	Bldg 819 Disposition Survey	Bldg 819 Disposition Survey Work Plan
FCR-MR/MS-003	Clarification to Sampling and Analysis Plan	MR/MS SAP and Table A.5-1
FCR-MR/MS-004	Dioxin	MR/MS Final Char. Work Plan Rev. 0
FCR-PCQCP-005	Removal of individual names from Section 2.0 of Document	Final Project Contractor Quality Control Plan, Rev. 0
FCR-Bldg322-006	Removal of individual names from Section 2.0 of CQCP Addendum	Building 322 Demolition Work Plan, Rev. 0
FCR-MRMS-007	Changing individual names based on changes in job titles in the Work Plan and Removal of individual names from Section 2.0 of the PCQCP Rev. 0	Final Characterization Work Plan Rev. 0 & Appendix B "Final Project Contractor Quality Control Plan" Rev. 0
FCR-MRMS-008	Revisions to Work Plan and statements regarding sampling interval, number of boreholes, and borehole depths.	Final Characterization Work Plan, Rev. 0, DCN 04-1970, Date 06/18/04
FCR-MRMS-009	Revision to Sampling and Analysis Plan (Appendix A of Work Plan) regarding characterization of soil cuttings	Final Characterization Work Plan, Rev. 0, DCN 04-1970, Date 06/18/04
FCR-Bldg253-10	Characterization survey of 2 additional rooms	Final Radiological Characterization Work Plan For Building 253, Rev. 0, DCN 04-2552, Date 08/11/04
FCR-SAP-11	Change text within Base-wide Radiological Work Plan Rev 0, Appendix B, SAP, Section 6.2. (Table E-1-1 should read Table B-6-1.)	Base-wide Radiological Work Plan Rev 0, Appendix B, Sampling and Analysis Plan DCN: FWSD-RAC-05-0165
FCR-MRMS-12	Upland Excavation at MSA	Draft Final Removal & Implementation Work Plan, MDR/MSA, Rev 0, DCN: 05-0991, 5/20/05
FCR-MRMS-13	CANCELLED	
FCR-IR02-14	Change from 12" lifts to 6" lifts	Draft Final Work Plan IR-02, Rev 0, DCN: 05-0990, 5/27/05
FCR-3TCRA-15	Revise LLRW/LLMW sampling requirements	IR-02, PCB Hot Spot, MDR/MSA Draft Final Work Plan, applicable sections.
FCR-MRMS-16	Water Quality Monitoring inside the Silt Curtain	Draft Final Removal & Implementation Work Plan, MDR/MSA, Rev 0, DCN: 05-0991, 5/20/05

APPENDIX J

TCRA FCR LOG

FCR NUMBER	SUBJECT	DOCUMENTS AFFECTED
FCR-MRMS-17	Gradation of backfill material.	Draft Final Removal Action Design and Implementation Work Plan, Rev. 0, DCN 05-0991, Date 05/20/05
FCR-IR02-018	Bucket Scans and/or 12" Lift Surveys	Draft Final Work Plan IR-02, Rev 0, DCN: 05-0990, 5/27/05, Section 5.11
FCR-3TCRA-019	UXO Work Instruction	Draft Final Work Plans, DCN: 05-0990, -0991, -0992
FCR-MRMS-020	Supersede FCR-MRMS-017 Gradation of backfill material.	Draft Final Removal Action Design and Implementation Work Plan, Rev. 0, DCN 05-0991, Date 05/20/05
FCR-MRMS-021	Decontamination of Sampling Equipment	Draft Final Removal Action Design and Implementation Work Plan, Rev. 0, DCN 05-0991, Date 05/20/05 (SAP)
FCR-PCBHS-022	Decontamination of Equipment	Draft Final Work Plan, PCB Hot Spot, Rev. 0, DCN: 05-0992, dated 5/17/05
FCR-MRMS-023	Installation of Geotextile Material	Draft Final Removal Action Design and Implementation Work Plan, Rev. 0, DCN 05-0991, Dated 05/20/05
FCR-PCBHS-024	Manual Screening of Saturated Soil	Draft Final Work Plan, PCB Hot Spot, Rev. 0, DCN: 05-0992, dated 5/17/05
FCR-MRMS-025	Surveying of soils in 6" or 12" lifts	Draft Final Removal Action Design and Implementation Work Plan, Rev. 0, DCN 05-0991, Dated 05/20/05
FCR-3TCRA-026	Air Sampling for Lead Analysis	Dust Control and Asbestos Mitigation Plan, Rev 0, DCN: 05-1279, dated 6/9/05
FCR-MSA-027	Additional Excavation at MSA	Draft Final Removal Action Design and Implementation Work Plan, Rev. 0, DCN 05-0991, Dated 05/20/05
FCR-MRMS-028	Revision per EPAs Review	Draft Final Removal Action Design and Implementation Work Plan, Rev. 0, DCN 05-0991, Dated 05/20/05
FCR-MRMS-029	CANCELLED	
FCR-PCBHS-030	Additional excavation area (PCBs in IR-02 Grids 69 & 103)	Draft Final Work Plan, PCB Hot Spot, Rev. 0, DCN: 05-0992, dated 5/17/05
FCR-2TCRA-031	CANCELLED	

APPENDIX J

TCRA FCR LOG

FCR NUMBER	SUBJECT	DOCUMENTS AFFECTED
FCR-IR02-032	Construction of additional conveyor and dewatering pad	Draft Final Project Work Plan, Time Critical Removal Action for IR-02 NW & Central Parcel E, Rev. 0, DCN 05-0990, Date 05/27/05
FCR-Bldg146-033	Addition of 6th survey unit to the high bay.	Final TSP for Bldg 146 Characterization Survey, Rev 0, DCN FWSD-RAC-05-1144
FCR-3TCRA-034	Revision of Sample ID #s in SAP	Draft Final Work Plans, DCN: 05-0990, -0991; -0992
FCR-PCBHS-035	Drums and Containers with Unknown Content	Draft Final Work Plan, PCB Hot Spot, Rev. 0, DCN: 05-0992, dated 5/17/05
FCR-IR02-036	Drums and containers with unknown chemical content	Draft Final Project Work Plan, Time Critical Removal Action for IR-02 NW & Central Parcel E, Rev. 0, DCN 05-0990, Date 05/27/05
FCR-MRMS-037	Drums and containers with unknown chemical content	Draft Final Project Work Plan for MDR/MSA Rev. 0, DCN 05-0991, Date 05/20/05
FCR-2TCRA-038	Radiological surveys of soils below groundwater.	Draft Final Project Work Plan for IR-02 and PCB Hot Spot, Rev. 0, DCNs 05-0990 and 05-0992
FCR-3TCRA-039	Radioactive Waste Storage Areas	Draft Final Project Work Plan for IR-02, PCB Hot Spot, and MDR/MSA, Rev. 0, DCNs 05-0990,05-0992, and 05-0991 respectively.
FCR-PCBHS-040	Potholing	Final Work Plan, PCB Hot Spot, Rev. 0, DCN: 05-1442, dated 11/10/05
FCR-PCBHS-041	Free Product Removal from Groundwater	Final Project Work Plan for PCB Hot Spot, Rev 0, DCN 05-1442
FCR-MRMS-042	Well Destruction at MDR	Final Project Work Plan for MDR/MSA Rev. 0, DCN 05-1443, Date 11/10/05
FCR-PCBHS-043	(CANCELLED)	
FCR-MRMS-044	Change in shoreline slope at MDR.	Final Project Work Plan for MDR/MSA Rev. 0, DCN 05-1443, Date 11/10/05

APPENDIX J

TCRA FCR LOG

FCR NUMBER	SUBJECT	DOCUMENTS AFFECTED
FCR-3TCRA-045	(CANCELLED)	
FCR-IR02-046	30% Strontium Analysis	Draft Final Work Plan for IR-02, DCN-05-1441
FCR-MDR-047	Rat Rock Specification	Final Project Work Plan for MDR/MSA Rev. 0, DCN 05-1443, Date 11/10/05
FCR-PCBHS-048	Manual Screening of Soils with high clay content	Final Project Work Plan for PCB Hot Spot, Rev 0, DCN 05-1442
FCR-3TCRA-049	Drum labeling	Final Project Work Plan for IR-02, PCB Hot Spot, and MDR/MSA, Rev. 0, DCNs 05-1441, 05-1442, and 05-1443 respectively.
FCR-PCBHS-050	Additional Waste Water Sampling	Final Project Work Plan for PCB Hot Spot, Rev 0, DCN 05-1442
FCR-PCBHS-051	Change to Final Work Plan Section 5.12 regarding use of Tremie Pipe during groundwater monitoring well abandonment activities.	Final Project Work Plan for PCB Hot Spot, Rev 0, DCN 05-1442
FCR-PCBHS-052	As built condition noted where stone used under geotex liner to resolve tidal and runoff water ponding.	Final Project Work Plan for PCB Hot Spots rev 0
FCR-PCBHS-053	Well abandonment revision	Pending submittal of DRAFT FCR by Lisa Bercik
FCR-MR/MS-054	Additional Excavation, Key Installation, Revsied backfill Material Reqs.	Draft Final Removal & Implementation Work Plan, MDR/MSA, Rev 0
FCR-PCBHS-055	Potholing for early excavation sampling	Final Project Work Plan for PCB Hot Spots rev 0
FCR-3TCRA-056	Air monitoring during rain events	CTO 72 work plan
FCR-CTO6-057	Revised drawing for survey units 4 thru 20	Final TSP for 813
FCR-CTO6-058	Revise TSP to change survey equipment to be used by NWT for building 813	TSP for Building 813
FCR-CTO6-059	Revise TSP to change survey equipment to be used by NWT for building 142	TSP for building 142
FCR-MRMS-060	Pad Construction	MS/MR Work Plan
FCR-MRMS-061	Sediment control	MS/MR Work Plan

APPENDIX J

TCRA FCR LOG

FCR NUMBER	SUBJECT	DOCUMENTS AFFECTED
FCR-PCBHS-062	Samplers not using field test kits at PCB HS	PCB HS Work Plan section 5.15
FCR-3TCRA-063	Air monitoring periods revised	Dust control and Asbestos Mitigation plan
FCR-CTO6-064	813 TSP to change survey units and drawings	Revise 813 TSP
FCR-PCBHS-065	Addition of Temporary Laydown Area for excavated materials at PCB Hots Spots.	Revise PCB HS Work Plan
FCR-CTO6-066	Removal or replacement of outfalls in Parcel B, C, D, E and E2	Revision to Storm Drain and Sanitary Sewer removal: 0675
FCR-CTO6-067	CTO 06 CERCLA storage area	Final SAP for Basewide Sewer Appendix A
FCR-CTO06-068	Field Change for removal of the surface concrete pad at the Building 142 site and for the surface survey of the subsurface structure.	Final Task Specific Plan for the Building 142 Scoping Survey, DCN: FWSD-RAC-05-1449
FCR-3TCRA-069	Work Plan and SAP do not address chemical requirements for demob of dewatering/screening pads and the need to address rad survey for gamma emitting radionuclides of the pads.	All work and sampling plans for PCBHS/IR-02/MDR/MSA

Abbreviations and Acronyms:

DCN - Document Control Number
FCR - Field Change Request
SAP - Sampling and Analysis Plan
TCRA - time-critical removal action

Shading indicates FCR pertains to the PCB Hot Spot TCRA only. The FCR is included in the report.
Shading indicates FCR pertains to all the TCRAs. The FCR is included in the report.

TETRA TECH

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0072/0084	FCR-3TCRA-015
Location		Date
PCB Hot Spot; MDR/MSA; IR-02		7/18/05

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Draft Final Project Work Plans for PCB Hot Spot DCN: FWSD-RAC-05-0991; MDR/MSA DCN: FWSD-RAC-05-0992; IR-02 DCN: FWSD-RAC-05-0990

Revise LLRW/LLMW Sampling Requirements

Description (items involved, submit sketch, if applicable)

PCB Hot Spot Work Plan Appendix A, Sampling and Analysis Plan, Section 4.4 Waste Characterization Sampling, 4th paragraph, and
MDR/MSA Work Plan, Appendix E, Sampling and Analysis Plan, Section 4.4 Waste Characterization Sampling, 3rd paragraph, and
IR-02 Work Plan, Appendix A, Sampling and Analysis Plan, Section 4.3 Waste Characterization Sampling, 3rd paragraph, all state:

"Soil that is identified as radioactively contaminated (including LLMW) will be stored in B-25 boxes or bins that are up to approximately 20 cubic yards in size and sampled to characterize the soil for disposal. Samples will be collected from the containers at a frequency of two samples per container. The samples will be analyzed for chemical analyses to meet the requirements of the disposal facility. These analyses may include VOCs; SVOCs, including PAHs; pesticides; PCBs; Title 22 metals; TPH; and ROCs as well as asbestos, STLC, and TCLP. ROC analysis will be performed by the on-site radiological laboratory."

Reason for Change

As requested by EMS, samples for waste characterization will be collected consistent with the requirements for the expected licensed Low-Level Radioactive Waste Landfill that will receive the waste for disposal and/or treatment.

In addition, to assist in the waste characterization, it has become apparent that dispersed areas of radioactive materials may be encountered. If these dispersed areas are not associated with point source material, the material may be excavated directly into a low-level radioactive waste container. To provide sufficient waste characterization information, RASO suggested that samples be collected from the excavator bucket to identify the source and activity associated with the contents of the bin the material is placed into.

TETRA TECH FW, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0072/0064	FCR-3TCRA-015
Location		Date
PCB Hot Spot; MDR/MSA; IR-02		7/18/05

Recommended Disposition (submit sketch, if applicable):

A five point composite sample will be collected from each bin instead of two discrete samples. Off-site analyses will remain the same and include the radiological analyses for gamma spectroscopy and Strontium-90. On-site radiological analyses will not be required. In addition, since VOCs will be analyzed for the bin samples, EnCore samplers will be collected at the first location of the five point composite since VOC samples cannot be composited. This will be the procedure when the bin is full.

In addition, a sample may be collected for on-site radiological analyses while material is placed into the bin if the material is identified as radioactive (by on-site field instruments) but a point source was not located and removed. This data will be used in conjunction with the five point composite data to fully characterize the bin. This will be the procedure as the bin is being filled.

It is recommended to accept the proposed changes requested by EMS and RASO to better understand the constituents of the radioactive or mixed wastes generated during excavation activities.

Additional Details

None

Will this change result in a contract cost or time change? ☐ Yes ☒ No

Estimate of contract cost or time change (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
	7/19/05	PQCM		7/19/05

Disposition

☒ Approved.

☐ Not approved (give reason). _____

TtFW Engineer (signature) (if engineering related) ☐ Comments (attached) ☒ No Comments	Date 7/19/05	TtFW Project Manager (signature) ☐ Comments (attached) ☒ No Comments	Date 7/19/05
TtFW PESM (signature) (if health and safety related) ☐ Comments (attached) ☐ No Comments	Date	TtFW Scientist (signature) (if science related) ☐ Comments (attached) ☒ No Comments	Date 7/20/05
TtFW QC Program Manager (signature) ☐ Comments (attached) ☒ No Comments	Date 7/20/05		

Distribution: Original to Project File, Copy to Site File, Project Manager, DON RPM, DON RDICC, PQCM, QCM, Site Superintendent

TETRA TECH FW, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0072/84	FCR-3TCRA-019
Location: IR-02 Northwest and Central Parcel E; Metal Debris Reef; Metal Slag Area; PCB Hot Spot		Date: 7/12/05

RE: Drawing No.: N/A — Title: N/A

Specification Section: N/A — Title: N/A

Other: Draft Final Project Work Plan, TCRA for IR-02 Northwest and Central Parcel E, Rev 0, dated May 27, 2005 DCN: FWSD-RAC-05-0990; Draft Final Work Plan MDR/MSA Revision 0 , May 20, 2005 DCN: FWSD-RAC-05-0991; Draft Final Work Plan PCB Hot Spot, Revision 0, May 17, 2005 DCN: FWSD-RAC-05-0992

Subject: Implementation of UXO Work Instruction

Description (Items involved, submit sketch, if applicable)

The TCRA site work plans do not currently include any reference or procedures that govern munitions and explosives of concern, munitions constituents and munitions debris recovery, storage, and disposition.

Reason for Change

UXO has been identified during excavation activities at the TCRA locations. A work instruction has been prepared to describe munitions and explosive of concern, munitions constituents and munitions debris recovery, storage, and disposition. The three TCRA work plans need to be changed to assure that the work instruction is clearly referenced within each work plan.

Recommended **Disposition** (submit sketch, if applicable)

Each TCRA work plan will be revised to state, "If at any time during project activities UXO or suspected UXO is encountered the UXO specialist will be notified. Any subsequent actions in the area will be completed in accordance with the approved Work Instruction Munitions and Explosives of Concern, Munitions Constituents and Munitions Debris Recovery, Storage, and Disposition and associated activity hazard analyses."

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TETRA TECH FW, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No	Field Change Request Form No.
N68711-98-D-5713	0072/84	PCR-3TCRA-019

Location	Date
IR-02 Northwest and Central Parcel E; Metal Debris Reef; Metal Slag Area; PCB Hot Spot	7/11/05

Recommended Disposition (cont.)

The preceding requirements will be incorporated in the following sections of the TCRA work plans:

- Draft Final Project Work Plan, TCRA for IR-02 Northwest and Central Parcel E, Rev 0, dated May 27, 2005 DCN: FWSD-RAC-05-0990; Section 1.0, paragraph 1.3
- Draft Final Work Plan MDR/MSA Revision 0, May 20, 2005 DCN: FWSD-RAC-05-0991; Section 1.0, paragraph 1.4
- Draft Final Work Plan PCB Hot Spot, Revision 0, May 17, 2005 DCN: FWSD-RAC-05-0992; Section 1.0, paragraph 1.3. Note: Although the PCB Hot Spot is not specifically mentioned in the Work Instruction, if UXO or suspected UXO is identified, the work instruction will be implemented consistent with the requirements specified for the Metal Slag Area.

Additional Details

None

Will this change result in a contract cost or time change? ☐ Yes ☒ No

Estimate of contract cost or time change (if any)

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
Chuck Holman	7/11/05	Senior Tech Manager		7/13/05

Disposition

☒ Approved.

☐ Not approved (give reason).

TtFW Engineer (signature) (if engineering related)	Date	TtFW Project Manager (signature)	Date
Bart Devine, UXO Specialist ☐ Comments (attached) ☒ No Comments	7/13/05	☐ Comments (attached) ☒ No Comments	7/13/05
TtFW FESM (signature) (if health and safety related)	**Date**	**TtFW Scientist (signature) (if science related)**	**Date**
☐ Comments (attached) ☐ No Comments		N/A ☐ Comments (attached) ☐ No Comments	
TtFW QC Program Manager (signature)	**Date**		
Mary Schmidt ☐ Comments (attached) ☒ No Comments	7/14/05		

Distribution: Original to Project File. Copy to Site File.
Project Manager, DON RPM, DON ROICE, PQCM, QCM, Site Superintendent

-5013449

TETRA TECH FW, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0084	FCR-PCBHS-022
Location		Date
PCB Hot Spot		7/20/05

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Draft Final Project Work Plan, PCB Hot Spot Soil Excavation, Rev 0, dated 5/17/05, DCN FWSD-RAC-05-0992; Final Site Specific Health & Safety Plan, PCB Hot Spot Soil Excavation, Rev 0, dated 5/17/05, DCN FWSD-RAC-05-1163

Other

Subject: Decontamination of Equipment

Description (items involved, submit sketch, if applicable)

Draft Final Project Work Plan PCB Hot Spot Soil Excavation, Section 5.17 Decontamination of Equipment and Free-Release Surveying, 1st paragraph states, in part, "Heavy equipment will be decontaminated over a lined area prior to exiting the site. Heavy brushes will be used to remove soil and dirt attached to the equipment surfaces. If dry practices are not sufficient, the soil residue will be removed using a water pressure washer."

However, Final Site Specific Health & Safety Plan PCB Hot Spot Soil Excavation, Section 8.2 Equipment Decontamination, 1st paragraph states, in part, "Pressure washing of equipment contaminated with PCBs should be avoided to prevent aerosolization of the PCBs."

Reason for Change

The change presented in this document is to correct the conflict between the PCB Hot Spot Draft Final Work Plan and the PCB Hot Spot Final Site Specific Health & Safety Plan.

Recommended Disposition (submit sketch, if applicable)

Revise the last sentence above from Section 5.17 of the PCB Hot Spot Draft Final Work Plan to read, "If dry practices are not sufficient, the soil residue may be removed by washing with water, but not with high pressure."

TETRA TECH FW, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0084	FCR-PCBHS-022
Location: PCB Hot Spot		Date: 7/20/05

Additional Details

None

Will this change result in a contract cost or time change? ☐ Yes ☒ No

Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
	7/25/05	PQCM		7/25/05

Disposition

☒ Approved.

☐ Not approved (give reason). _____

TtFW Engineer (signature) (if engineering related) ☐ Comments (attached) ☒ No Comments	Date	TtFW Project Manager (signature) ☐ Comments (attached) ☒ No Comments	Date 7/26/05
TtFW PESM (signature) (if health and safety related) Roger N Mangotte ☐ Comments (attached) ☒ No Comments	Date 8/2/05	TtFW Scientist (signature) (if science related) ☐ Comments (attached) ☐ No Comments	Date
TtFW QC Program Manager (signature) Mary Schneider ☐ Comments (attached) ☒ No Comments	Date 8/2/05		

Distribution: Original to Project File, Copy to Site File,
Project Manager, DON RPM, DON ROICC, PQCM, QCM, Site Superintendent

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0084	FCR-PCBHS-024
Location		Date
PCB Hot Spot Soil Excavation Site		07/25/05

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Draft Final Project Work Plan, Rev. 0, DCN 05-0992, Date 05/17/05

Description (items involved, submit sketch, if applicable)

Revisions to Work Plan Section 5.13 regarding radiological screening of free-phase product-saturated soils.

Reason for Change

Soils saturated with free-phase product have been unearthed during the excavation activities at PCB Hot Spot. This material is not appropriate to process through the conveyor system and must therefore first be spread out on a pad and then manually screened for radioactive material.

Recommended Disposition (submit sketch, if applicable)

Revisions to the Work Plan

Section 5.13, add the following paragraph as the seventh paragraph of the section:

Materials saturated with free-phase product will be placed on the dewatering pad and spread out in lifts not to exceed 6 inches for scanning. Radiological surveys will be performed manually for beta/gamma emitters as detailed in Section 4.0 of this Work Plan. Radioactive material that is identified during screening activities will be collected, segregated and stored in appropriate containers for subsequent packaging and disposal by a certified Waste Broker under the direction of the DON LLRW Disposal Program. A minimum of one solid sample will be collected for each 14 cy of material placed on the screening pad. The sample will be collected at the location exhibiting the highest gamma radiation measurement. Additional samples will be collected at locations where the investigation level of 3 sigma is exceeded. The samples will be analyzed at the on-site radiological laboratory by gamma spectroscopy prior to moving the surveyed soil. Radiologically contaminated material identified during surveys or sample analysis will be placed in storage containers pending disposal. Any liquids that have accumulated on the pad will be collected, characterized for chemical and radiological constituents, and properly disposed. Radioactive Material Management will be performed in accordance with the requirements of NWT's NRC license.

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-5713
CTO No.072
Field Change Request Form No. FCR-PCBHS-024

Additional Details
N/A

Will this change result in a contract cost or time change? ☐ Yes ☒ No
Estimate of contract cost or time charge (if any)

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
	7/25/2005	Asst. Engineer		7/26/05

Disposition
☒ Approved.
☐ Not approved (give reason).

TtFW Engineer (signature) (if engineering related) Not applicable	Date	TtFW Project Manager (signature)	Date
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☒ No Comments	7/28/05
TtFW PESM (signature)	**Date**	**TtFW Scientist (signature) (if science related)**	**Date**
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☒ No Comments	7/26/05
TtFW QC Program Manager (signature)	**Date**		
☐ Comments (attached) ☐ No Comments			

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TETRATECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-5713
CTO No.072
Field Change Request Form No. FCR-PCBHS-024

Additional Details
N/A

Will this change result in a contract cost or time change? ☐ Yes ☒ No
Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
Rose Bencik	7/25/2005	Asst. Engineer		

Disposition
☐ Approved.
☐ Not approved (give reason). _____

TtFW Engineer (signature) (if engineering related) Not applicable ☐ Comments (attached) ☐ No Comments	Date	TtFW Project Manager (signature) ☐ Comments (attached) ☐ No Comments	Date
TtFW PESM (signature) Roger N Margotto, CIH ☐ Comments (attached) ☒ No Comments	Date 07/29/2005	TtFW Scientist (signature) (if science related) ☐ Comments (attached) ☐ No Comments	Date
TtFW QC Program Manager (signature) Mary Schmidt ☐ Comments (attached) ☒ No Comments	Date 7/29/05		

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TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	072 & ~~084~~	FCR-3TCRA-026
Location		Date
Hunters Point Shipyard		08/01/05

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Dust Control Plan and Asbestos Mitigation Plan, Revision 0, DCN FWSD-RAC-05-1279, Date 06/09/2005 Subject: Air Sampling for Lead Analysis

Description (items involved, submit sketch, if applicable)

Revisions to Dust Control Plan and Asbestos Mitigation Plan Appendix A sections 1.1, 3.1, 3.1.1, 3.1.6, and Table A.3-1 adding lead analysis to contaminants of concern and modifying table to reflect current work schedule.

Reason for Change

Request of the Navy.

Recommended Disposition (submit sketch, if applicable)

Revisions to the Dust Control Plan and Asbestos Mitigation Plan

Appendix A section 1.1, change the second sentence of the first paragraph to read "...which include total suspended particulates (TSP), including manganese (Mn) *and lead (Pb)*,..."

Appendix A section 3.1 change the first sentence to read "...: one each for TSP (that will be analyzed for Mn *and Pb*)..."

Appendix A section 3.1.1 change the title to read "TSP, *Manganese and Lead*." Change the third sentence to read "..., the sample will be analyzed for: Mn in accordance ... (EPA, 1999a); *and Pb in accordance with a modified EPA method 12*.

Appendix A section 3.1.6 change the second sentence to read ..., manganese, *lead*,..."

Table A.3-1 Change No. of Samples cells in the Excavation and soil handling section to read "*20 x 6 x 5*" to reflect extended work schedule and additional monitoring unit.

Table A.3-1 Change No. of Samples cells in the Backfill and site restoration section to read "*20 x 6 x 5*" to reflect extended work schedule and additional monitoring unit.

Table A.3-1 Change Frequency cells in the Excavation and soil handling section to read "1 sample per workday".

Table A.3-1 Change Frequency cells in the Backfill and site restoration section to read "1 sample per workday".

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-5713
CTO No.072 & 84
Field Change Request Form No. FCR-3TCRA-026

Additional Details
N/A

Will this change result in a contract cost or time change? ☒ Yes ☐ No

Estimate of contract cost or time charge (if any): Increase of approximately $7,500.00

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
	8/1/2005	RSO		8/1/2005

Disposition

☒ Approved.

☐ Not approved (give reason). _____

TtFW Engineer (signature) (if engineering related) Not applicable	Date	TtFW Project Manager (signature)	Date
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☒ No Comments	8/2/05
TtFW PESM (signature)	Date	TtFW Scientist (signature) (if science related)	Date
☐ Comments (attached) ☒ No Comments	8/2/05	☐ Comments (attached) ☒ No Comments	8/1/05
TtFW QC Program Manager (signature)	Date		
☐ Comments (attached) ☒ No Comments	8/2/05		

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TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0084	FCR-PCBHS-030
Location		Date
PCB Hot Spot Soil Excavation Site		08/24/05

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Draft Final Project Work Plan, Rev. 0, DCN 05-0992, Date 05/17/05 Subject: Additional Excavation Area

Description (items involved, submit sketch, if applicable)

Excavation will be expanded to include two polychlorinated biphenyl (PCB) hot spots located in the current IR-02 Northwest and Central excavation boundary grid numbers 69 and 103. Assuming an average depth of contamination of 3 feet for both spots, plus over-excavation of contaminated soil within one foot, the total volume of soil in a 10-ft radius for both grids is approximately 95 CY.

Reason for Change

The PCB Hot Spot Soil Excavation Site project (CTO 84) includes removal of PCB contaminated soil to defined lateral and vertical removal action objectives. According to historical data, the PCB concentration in the grid 69 boring in IR-02 Northwest and Central is 110 ppm at 3.00 feet (ft) below ground surface (bgs), and in grid 103 490 ppm at 2.75 ft bgs. Both borings contain PCB concentrations greater than 100 ppm and will therefore be removed to comply with Code of Federal Regulations, Part 761, Disposal of Polychlorinated Biphenyls (PCBs); Final Rule. PCB Hot Spot excavation activities will be expanded to include removal of the PCB hot spots within the IR-02 Northwest and Central excavation boundary as it is set up to survey, handle and dispose of PCB contaminated soils. The soil will be scanned for radioactive contamination per FCR-IR02-018 (covering the surveying of soils directly in the excavator bucket prior to being removed from the excavation location), analyzed, processed and disposed of as outlined the PCB Hot Spot Soil Excavation Site Work Plan.

Recommended Disposition (submit sketch, if applicable)
See the removal area delineated in the attached drawing.

Change to Work Plan Section 5.13 to include the following at the end of the fourth paragraph, which starts with, "After the surface screen is complete..."

"In addition, an estimated volume of 95 CY of soil within the IR-02 Northwest and Central Excavation Boundary (see Figure 1 attached) will be excavated based on historical data showing presence of PCB concentrations above 100 ppm at two locations. The soil will be excavated and radiologically screened. The screened non-radiologically impacted soil will be placed in dump trucks and transported to the PCB Hot Spot conveyor area where it will be processed as part of the other soils from the PCB Hot Spot excavation boundary. The dump trucks will be scanned for radioactivity prior to leaving the IR-02 Northwest and Central site. Post-excavation samples will be collected from the hot spot removal in IR-02 Northwest and Central and analyzed via field test kit and off-site laboratory for PCB (only) as per the Work Plan SAP, with the exception that there will be no post-excavation sample collected at 8 feet bgs". Any PCB concentrations greater than 100 ppm will be over-excavated in 1-foot increments laterally and vertically."

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-571
CTO No.084
Field Change Request Form No. FCR-PCBHS-030

Additional Details
N/A

Will this change result in a contract cost or time change? ☐ Yes ☒ No
Estimate of contract cost or time charge (if any)

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
	8/24/2005	Task Manager		10/6/05

Disposition
☐ Approved.
☐ Not approved (give reason).

TtEC Engineer (signature) (if engineering related)	Date	TtEC Project Manager (signature)	Date
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☒ No Comments	10/6/05
TtEC PESM (signature)	**Date**	**TtEC Scientist (signature) (if science related)**	**Date**
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☒ No Comments	8/24/05
TtEC QC Program Manager (signature)	**Date**		
☐ Comments (attached) ☐ No Comments			

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TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-571
CTO No.084
Field Change Request Form No. PCR-PCBHS-030

Additional Details
N/A

Will this change result in a contract cost or time change? ☐ Yes ☒ No
Estimate of contract cost or time charge (if any)

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
	8/24/2005	Task Manager		

Disposition
☐ Approved.
☐ Not approved (give reason).

TtEC Engineer (signature) (if engineering related)	Date	TtEC Project Manager (signature)	Date
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☐ No Comments	
TtEC PESM (signature)	Date	TtEC Scientist (signature) (if science related)	Date
☐ Comments (attached) ☒ No Comments	9/6/05	☐ Comments (attached) ☒ No Comments	8/24/05
TtEC QC Program Manager (signature) Lisa Burkowski for Mary Schneider	Date		
☐ Comments (attached) ☒ No Comments	10/13/05		

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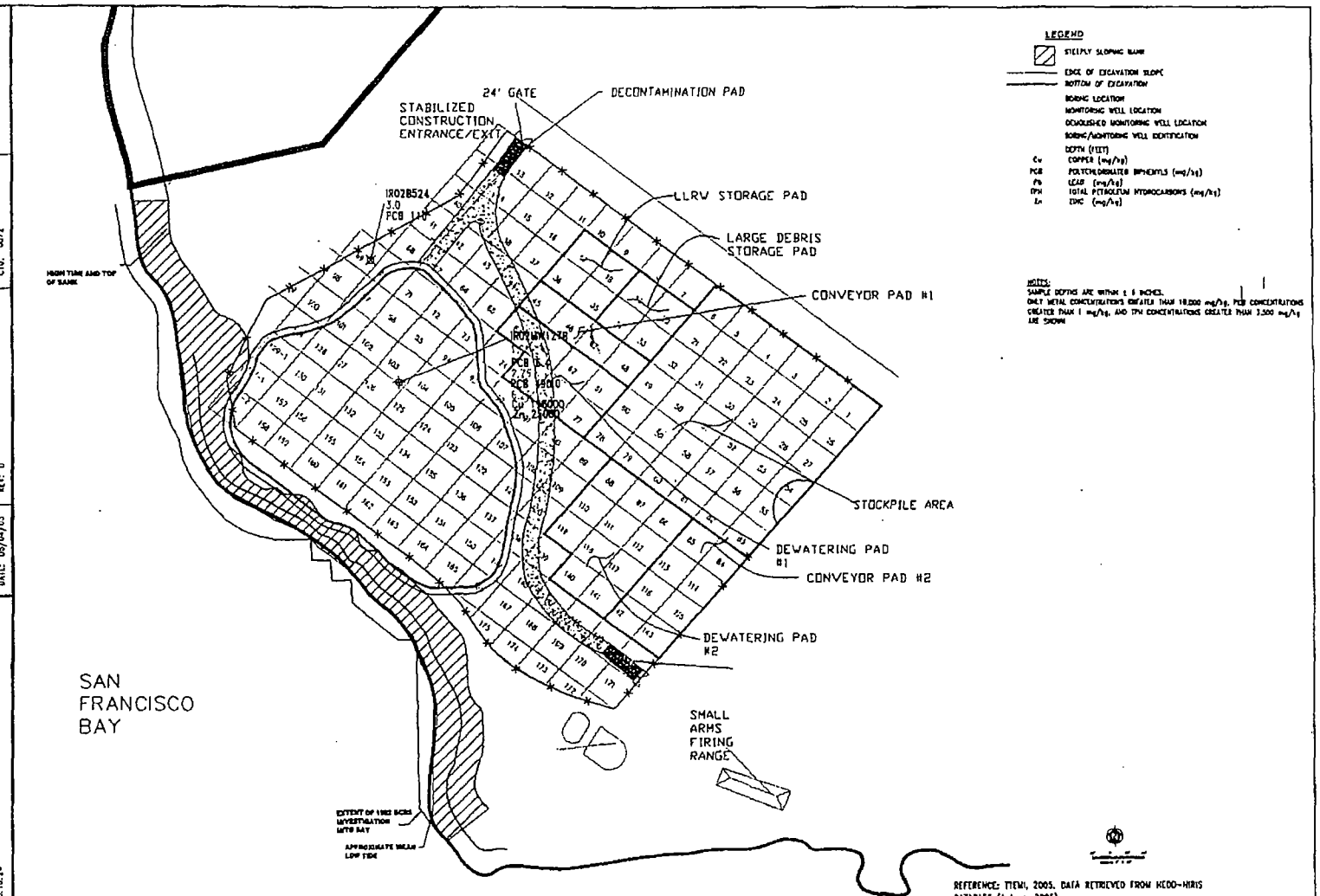

WORKING DRAFT
AUGUST 04, 2005

IR-02 NORTHWEST AND CENTRAL EXCAVATION SITE- PCB HOT SPOTS

HUNTERS POINT SHIPYARD, SAN FRANCISCO

TETRA TECH FW, INC.

DRAWN BY: KLD | DATE: 08/04/05 | CHECKED BY: BW | REV: 0 | APPROVED BY: GS | DCN: FWSD-RAC-00-0000 | CTO: 0072 | DRAWING NO: FIGURE1.DWG

I:\1999-RAC\CTO-0072\DWG\TTHPD\PRESENTATION\6-17-05\IR-02 PCB HOT SPOTS.DWG
PLOT/UPDATE: AUG 04 2005 15:18:24

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0072/84	FCR-3TCRA-034
Location		Date
IR-02; PCB Hot Spot; Metal Debris Reef and Metal Slag Areas		09/01/05

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Draft Final Work Plans for IR-02, PCB Hot Spot, and MDR/MSA, DCNs: 05-0990, -0992; -0991 Subject: Revision of Sample ID #s in SAP

Description (items involved, submit sketch, if applicable)

Revision of Sample ID #s in the SAP Appendix of each Draft Final Work Plan, as described in the Recommended Disposition section below.

Reason for Change

The revisions are implemented to enhance the current sample identification numbering system.

Recommended Disposition (submit sketch, if applicable)

Revisions to the SAP Appendices of each Draft Final Work Plan as follows:

Draft Final Work Plan for IR-02 (DCN: FWSD-RAC-05-0990), Appendix A Sampling and Analysis Plan, Section 6.7 Sample Number- Replace the first 4 paragraphs with the following sentence: "Each sample collected for chemical or radiological analyses will be identified as described in the attached matrix."

Draft Final Work Plan for PCB Hot Spot (DCN: FWSD-RAC-05-0992), Appendix A Sampling and Analysis Plan, Section 6.8 Sample Number- Replace the first 4 paragraphs with the following sentence: "Each sample collected for chemical or radiological analyses will be identified as described in the attached matrix."

Draft Final Work Plan for Metal Debris Reef/Metal Slag Areas (DCN: FWSD-RAC-05-0991), Appendix A Sampling and Analysis Plan, Section 6.8 Sample Number- Replace the first 4 paragraphs with the following sentence: "Each sample collected for chemical or radiological analyses will be identified as described in the attached matrix."

TETRA TECH

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-5713
CTO No.072/84
Field Change Request Form No. FCR-3TCRA-034

Additional Details
None

Will this change result in a contract cost or time change? ☐ Yes ☒ No
Estimate of contract cost or time charge (if any)

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
	9/13/05	PQCM		9/13/05

Disposition

☒ Approved.
☐ Not approved (give reason).

TtEC Engineer (signature) (if engineering related)	Date	TtEC Project Manager (signature)	Date
N/A ☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☒ No Comments	9/13/05
TtEC PESM (signature)	**Date**	**TtEC Scientist (signature) (if science related)**	**Date**
Roger N Maggetto ☐ Comments (attached) ☒ No Comments	9/21/05	Not applicable ☐ Comments (attached) ☒ No Comments	9-13-05
TtEC QC Program Manager (signature)	**Date**		
☐ Comments (attached) ☒ No Comments	9/13/05		

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Project Manager, DON RPM, DON ROICC, PQCM, QCM, Site Superintendent

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FCR-PCBHS-035

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0084	FCR-PCBHS-035
Location		Date
HPS TCRA Excavation Sites		08/25/05

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Draft Final Project Work Plan, Rev. 0, DCN 05-0992, Date 05/17/05 Subject: Drums and containers with unknown chemical content

Description (items involved, submit sketch, if applicable)

Revisions to Project Work Plan, including new Section 5.14 regarding procedures for handling of buried drums, bottles, jars and containers with unknown content. With the inclusion of a new section, prior section 5.14 (Post-Excavation Sampling) now becomes 5.15, prior 5.15 (Backfill Placement and Compaction) becomes 5.16 and so on.

Reason for Change

Drums, bottles, jars and small containers with unknown chemical substances have been unearthed during the excavation activities at PCB Hot Spot. Due to the contents being unknown, additional safety measures and procedures need to be implemented to facilitate their inspection, handling, removal, sampling and disposal.

Recommended Disposition (submit sketch, if applicable)

Revisions to the Project Work Plans

Include new Section 5.14, "Buried Drums, Bottles, Jars and Containers with Unknown Content" as shown below, renumber old 5.14 to 5.15 and so on:

5.14 BURIED DRUMS, BOTTLES, JARS AND CONTAINERS WITH UNKNOWN CONTENT

The following sections outline the procedures for handling and removal of buried drums, bottles, jars and/or containers (containers) unearthed during excavation of the PCB Hot Spot Soil Excavation Site. The procedure addresses the identification and inspection of buried containers, their recovery and removal from the excavation, HazCat, waste categorization sampling, temporary staging on-site and disposal.

Specialized equipment, tools, and supplies that may be required for container removal activities include (the need for the specialized equipment will be evaluated on a case-to-case basis):

- Excavator equipped with drum grappler, bladed bucket (demolition grading)
- Loader/backhoe
  Shovels
  Blast shields for personnel protection
- Non-sparking/brass hand tools
- Remote drum opener/punch

- Air monitoring equipment, flame ionization detector (FID), PID, radiation meter, combustible gas indicator/oxygen meter or similar
- Level B PPE to include: saranax suits, silvershield gloves, supplied air respirators
- Over-pack containers
- Spill containment kit (pads, oil dry, etc.)
- ABC fire extinguisher
- Clean sand
- Air/water hoses
- Pumping equipment
- Radiation detection instrumentation
- Sampling and characterization kit
- Camera
- Labeling equipment

The following sequence will be followed once a container is encountered during the excavation activities (see also Figure FCR-1):

- Uncovering chemical or unknown containers
- Review previous site characterization data (see Work Plan and geophysical survey results)
  Mobilize Recovery Team for evaluation/inspection of exposed containers
- Establish work zones/containment
- Rad screening of containers
- Material excavation and transfer
- Container sampling
- Waste compatibility screening/"HazCat"
- Over-packing or lab-packing (container selection conducted following HazCat analysis)
- Segregation, sampling and containerization of soil impacted with chemicals from the unknown containers
- Labeling of all containers with preliminary determination and accumulation start date and staging of all containers within the 90-day accumulation area
- Pre-disposal analysis and authorization for disposal
- Final labeling of containers based on analytical results
- Preparation of manifests
- Loading, transportation and disposal

Weather conditions will be considered prior to excavation of containers. Primary weather concerns are wind direction/velocity and precipitation. Wind direction will be considered and a safe distance during the removal of unknown contaminants will be established to ensure that workers downwind are not at risk. Airborne releases may be controlled by water mists, foam blankets, airtight enclosures, covering the container with earthen materials, or other suitable means. Precipitation is a concern due to the potential for contaminant migration (including inadvertent discharge, overflow, etc.), cross contamination, and chemical reactions. The potential for cross contamination and materials migration can be controlled by berms, trenches, covers, and/or sumps.

5.14.1 Excavation of Containers and Soil

Once a container with unknown content has been uncovered, all nonessential personnel will remain at a minimum 25 feet away from the excavation area. When possible, personnel should be upwind of the excavation and behind a solid barrier such as a berm, vehicle or heavy equipment. A Recovery Team (team leader, technician, Radiation Control Technician, stand-by health and safety support personnel) in Level B PPE will be deployed to inspect the container and/or area with unknown chemicals and together with the Project Site-superintendent determine the approach for the removal.

The excavation area will be examined to determine the general condition and burial depth of the containers. Air monitoring will be performed to determine if contaminant concentrations within the excavation exceeds background readings. If radioactive materials are encountered, work will not proceed until the radiation safety officer has inspected and evaluated the situation. Removal of radioactive material and mixed waste will be carried out in accordance with the Work Plan.

Once an area with containers of unknown materials is uncovered, and after air monitoring has been conducted, the recovery team will inspect for external markings that may reveal the drum or container content and/or generator. If the container is a drum, the feasibility of using a mechanical grappler will be evaluated. If the burial site is severely decayed, the appropriateness for mass excavation of the site will also be evaluated.

Prior to physically handling any container, the following checklist will be applied:

Is the container radioactively contaminated?
2. Does the container appear to be intact or open/damaged? Does the container exhibit leakage or deterioration (i.e. is it unsound)?
3. Does the container exhibit apparent internal pressure?
4. Is the container empty?
5. Does the container contain markings that would indicate that the contents are potentially explosive or reactive?
6. If the container is open or broken, does the container contain radioactive material(s)?

Specific items to look for when evaluating the integrity of buried containers include corrosion, rust, scaling, leakage, crystallization, bulging, smoking, hissing, fuming, unusual discoloration, etc. If compressed gas cylinders are discovered, they will be inspected thoroughly by a competent employee prior to movement.

The primary requirement for successful movement of a container is the integrity of the container shell; if the walls or ends are decayed, lifting of the container safely may not be possible.

After the exposed face of the burial site has been examined and the approach determined, the equipment operator can begin removing the containers.

5.14.2 Mass Excavation

Mass excavation is usually performed when containers containing solid matter are in a serious state of decay, indistinguishable from one another, the contents are compatible, and the issue of ownership has been determined or there is little possibility of finding meaningful evidence of origin or prior use.

Prior to excavation, the area will be surveyed for radioactive material as per Section 4.0, as well as inspected for

compressed gas cylinders or other similar pressurized containers or surficial large containers with contents. The burial area will be excavated or removed in an orderly manner. Once the area to be excavated has been evaluated to be safe for mass excavation and clearly delineated, the removal activities can start. The excavated soil and container materials will be spread out at a temporary lay-down area consisting of two 20-mil layers of HDPE, PVC liner or solid polyethylene trays as appropriate located next to the identified burial site. A Recovery Team in level B PPE will go through and remove containers from the excavated material. Liners will be inspected for evidence of breaches (including breaks, bubbles or distortion) on a frequent basis. If liner breaches are observed, the field team will evaluate substitution to solid trays. The excavated soil will be segregated for separate waste profile sampling and disposal. Each waste container will be sampled and analyzed for radioactive material and waste compatibility screened (HazCat). The excavated material will also be isolated from any potential source of run-on from surface water or other liquids. Areas with pooled liquids will be pumped dry and the liquids contained.

5.14.3 Container Identification Numbers

Prior to removal of the container, a unique container identification number will be assigned to each buried container in accordance with an established numbering system for the project. The identification number will be marked on the exterior of the container with fluorescent paint or a grease stick, by application of a label, or by other approved means. The expected duration of any anticipated temporary storage will be considered when determining the type of marking/labeling system to be employed. Some markings, such as grease pencils and fluorescent paints, may become illegible after relatively short exposures to the environment.

The following information will be recorded in the field logbook:

- Container number
- Name of person logging data
- Date and time of container removal
- Container type
- Location where container was found
- Container condition
- Container size
- Labels and markings
- Disposition of container
- Photo documentation

Once the condition of a container has been determined, it will be removed from the excavation either individually or by mass excavation. If necessary, containers will be transferred into an over-pack container prior to removal from the excavation. Each container or over-pack will be assigned a unique number which will be marked on the exterior using either fluorescent paint or a grease stick. The drum number will also be recorded in the TtEC site drum log. If there is evidence of container breakage or leaking, soil associated generated and associated with mass-excavation of small containers or bottles will be segregated, analyzed and profiled for disposal.

14.4 Handling of Containers

Moving and transporting containers will be accomplished with the use of mechanical equipment. Manual handling of containers will be kept to a minimum and only used should mechanical equipment not be practical.

Remote container handling equipment may consist of a grappler-equipped backhoe or front-end loader. Container transportation will be with front-end loaders or fork lifts with modified carrying platforms. Handling and transport equipment will be equipped with full frontal and side splash shields as appropriate. Container handling equipment will be fitted with a Class ABC fire extinguisher that is immediately accessible to the operator. The size and number of extinguishers will be determined by the Site Health and Safety Specialist (SHSS).

5.14.5 Special Handling

Containers exhibiting the following characteristics require special treatment in handling and sampling:

- Leaking or deteriorated drums
- Bulging drums
- Drums containing explosive or shock-sensitive waste
- Drums containing or contaminated with radioactive waste
- Packaged laboratory wastes (Lab-packs)
- Air reactive waste

When containers are moved, they will be taken to a upwind staging and sampling area located upwind of the burial site. This area will be away from other drums on the site until HazCat analysis to prevent a chain reaction from occurring between incompatible materials.

5.14.5.1 Leaking or Deteriorated Containers

If containers exhibit leakage or apparent deterioration such that movement may cause rupture (determined by the SHSS or Recovery Team Lead), they will immediately be inspected and, if deemed appropriate, transferred to an over-pack drum.

5.14.5.2 Bulging Containers

Containers that potentially may be under internal pressure as evidenced by bulging will be sampled and scanned for radioactive material in place. Extreme care will be exercised when working with and adjacent to potentially pressurized containers. Should movement of a pressurized drum be unavoidable, they will be handled only by a grappler unit constructed for explosive containment. The bulging container will be moved only as far as necessary to allow seating on firm ground or it will be carefully over-packed.

Any open bungs or drill openings in pressurized containers will be plugged with pressure-venting caps set to a 5 pounds per square inch (psi) release to allow venting of vapor pressure as outlined in the Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (www.osha.gov/Publications/complinks/OSHG-HazWaste/4agency.html). Creation of explosive conditions will be avoided.

If intact compressed gas cylinders are encountered, they will not be handled until a competent person has conducted an inspection and determined that the cylinder(s) can be safely removed from the excavation. If a cylinder cannot be moved safely, it will be roped off at a 50-foot radius. Removed cylinders will be staged at an appropriate location awaiting neutralization and disposal. Cylinders that cannot be removed will be neutralized in place. Neutralization and disposal will be executed by a specialized gas cylinder disposal

subcontractor.

5.14.5.3 Containers Containing Explosive or Shock-Sensitive Waste

If containers are found containing wastes that have been identified by prior sampling, or are suspected by visual examination to be explosive in nature, the Project Superintendent and SHSS will be notified immediately, before the drums are handled in any way. If the Project Superintendent and/or SHSS approve handling of these drums, they will be handled with extreme caution. Initial handling will be by a grappler unit constructed for explosive containment. Containers will be palletized prior to transport to a hazardous waste interim storage area prior to disposal.

If at any time during remedial activities, an explosive, pursuant to provisions of Title 18, US Code, Chapter 40 (Importation, Manufacture, Distribution, and Storage of Explosive Materials, 1975 Explosives List) is identified, it will be secured and the appropriate state and federal agencies notified. Identification of an explosive substance will be done by experienced on-site personnel. Potentially explosive materials usually may be identified by their physical characteristics (texture, color, density, etc.), as well as the way they are packaged or labeled. Most explosives are solids. In some cases they are packaged in water-tight containers to exclude water, while in other cases they are packaged wet to preclude explosion.

Prior to handling or transporting containers containing explosive wastes, personnel working in the area will be removed to a safe distance (as determined by the SHSS). Continuous contact between handlers and the Project Superintendent and the SHSS will be maintained until handling or transporting operations are complete. An audible siren signal system, similar to that employed in conventional blasting operations, will be used to signify the commencement and completion of explosive waste handling or transporting activities.

5.14.5.4 Containers Containing Radioactive Waste and Mixed Waste

Containers containing radioactive or mixed wastes may be encountered at the site; however, no container will be handled until radiation and contamination levels have been determined by an initial field survey. The survey will include direct radiation and contamination measurements, as detailed in the Standard Operating Procedure (SOP) HPO0-Tt-006, Radiation and Contamination Surveys and SOP HPO-Tt-009, Sampling Procedures for Radiological Surveys.

5.14.5.5 Packaged Laboratory Wastes

If individual containers suspected of containing discarded laboratory chemicals, reagents or other potentially dangerous materials in small volume are found, the Project Superintendent and SHSS will be notified immediately, prior to any removal or opening of the containers or bottles. If the Project Superintendent and/or SHSS approve the handling or these containers, they will be handled with extreme caution. Until otherwise identified or categorized, they will be considered explosive or shock sensitive wastes and will be handled as described in the section above.

5.14.5.6 Air Reactive Wastes

If the presence of an air reactive substance is verified or suspected as concluded by a competent person, the material will be immediately segregated and transported to a separate hazardous waste interim storage and disposal area.

Air reactive wastes may be discovered during opening or sampling operations. Air reactive substances normally require special packaging. They may be stored under water or some other liquid to minimize air contact. They may also be found in sealed ampules, corrugated drums, stainless steel canisters, or specially lined drums. If conditions become reactive, clean sand can be used to smother flammable materials.

5.14.6 Over-packing of Drums

An over-packing station will be constructed adjacent to the burial site in the temporary lay-down area. Straw bales, 20-mil HDPE, PCV liner and/or solid polyethylene trays may be used for construction of this station. In situations where over-packing needs to take place outside the excavation boundary, it will be done carried out on top of already existing pads. Only materials screened for radioactive materials may be over-packed.

When using mechanical equipment, the equipment operator will pick up a container from the burial area, move to the over-pack station and gently slide the container into the over-pack. When handling a container, whether by mechanical means or by hand, the container will be examined for any sign of collapse or excessive leaking prior to lifting. The container will only be lifted as high as necessary to clear obstacles between the point of removal and the staging/over-pack area. Safe lifting practices will be observed at all times.

After the container has been screened for radioactive materials, it can be placed into the over-pack and the lid of the defective container can be pierced with a brass punch. The brass punch is attached to the bucket of a backhoe, or other remotely operated device. The brass punch will be surveyed for radioactive contamination after piercing the container. The purpose of this operation is to provide an access port for sampling. Following this operation, the drum is either sampled or prepared for movement to the sampling area. Preparation for movement includes placing a stopper in the access port and securely installing the over-pack drum lid.

5.14.7 Container Sample Collection Procedures

Sampling activities will be coordinated with the over-packing operations or container HazCat analysis. Sampling protocols are established in the Work Plan Sampling and Analysis Plan. All containers will be sampled and analyzed for the presence of radioactive materials. Samples collected for radiological analyses will be collected using SOP HPO-Tt-009. Samples will be analyzed by gamma spectroscopy and for gross alpha/beta. Additional analysis may be requested based upon sample results. Smaller containers and bottles will be transported in a safe manner (see AHA - Container Removal) to the hazcat area in Building 271 for individual categorization. The term "waste compatibility screening" or "HazCat" as used in this document refers to a series of rapid, qualitative chemical and physical tests conducted to determine potential hazards, handling precautions, storage criteria and disposal classification of the material in question. Container sample material will not be shipped until waste compatibility results have been reviewed and rad screening complete.

5.14.7.1 Container Sampling for Waste Compatibility Screening / HazCat Analysis

All containers or over-packs will be kept sealed, and resealed after sampling, to prevent the escape of vapors and possible reactions from intrusion of rainwater, air, etc.

No container sampling may be performed until the drum has been examined from a health and safety stand point. If radioactivity greater than 3 sigma above background radiation levels are not detected, the RSO in conjunction with the SHSS may then, at their discretion, issue clearance to begin field sampling of inspected drums. If containers are deemed non-radioactive sampling can take place.

Containers identified as containing radioactive material (radioactivity greater than 3 sigma above background) will require a radiation work permit to be in place prior to opening or sampling.

The SHSS will continuously monitor the atmosphere around the work area before and during sample collection to ensure that sampling personnel employ an appropriate level of respiratory protection. Air sampling for radioactive particulates will also be performed.

During sampling, a thorough qualitative visual description of the contents of each container will be obtained and recorded in the Container Removal Inventory Log book. This initial visual characterization includes noting the following:

- Any and all exterior markings (photographing if practical)
- Any unique or unusual container conditions (e.g., reinforced, lined, exotic construction materials, etc.) and the type of opening(s)
- The approximate amount of material contained in the container
- Physical state, color, clarity, viscosity, number and relative estimated volume of each identified discrete layer or phase
- Readings from real-time monitors.

For liquids, samples will be extracted through the bung hole if there is one on the container. If the container contains mostly solid material rather than liquids, the entire top of the container will be removed and the contents will be sampled for chemicals in a star pattern. Sampling for radiological material will be executed in accordance with SOP HP-Tt-009, Sampling Procedures for Radiological Surveys. Using the appropriate sampling device or a combination of devices several representative grab samples with a combined volume of approximately 250 ml will be withdrawn and carefully placed into a labeled, clean clear glass sampling container with a Teflon-lined plastic lid. If a container contains more than one phase (e.g., solids and liquids or multi-phase liquids), separate samples are to be taken from each phase. If the volume of any individual phase is so small as to preclude recovery of a sufficient sample, a remark to this effect will be recorded in the Container Removal Inventory Log.

Information to be entered into the field logbook during sampling activities may also include the following:

- Container Contents
- Physical State
- pH
- Air Monitoring Results
- Color
- Clarity
- Thickness of layers
- Radiological monitoring results
- Other observations

The log should be photocopied, a chain of custody completed, and samples delivered to a State of California certified analytical laboratory.

Used disposable sampling equipment, paper towels or waste rags used to wipe up spills will be placed into an empty metal container for subsequent disposal. If glass tubing is used, it may be broken and left inside the

container being sampled.

The bung or covers on containers will be replaced and the top of the over-pack secured, if used. Two custody seals will be affixed to opposite sides of the outermost cover, lid or across the bung opening.

The outside surface of the sample containers will be thoroughly cleaned then transferred to the HazCat area (Building 271) where the HazCat Technician(s) will carry out waste compatibility screening. The waste compatibility screening tests include:

- Water Reactivity (air or water reactive)
- Miscibility (aqueous vs. organic solubility)
- Flammability and Explosivity
- pH
- Presence of Sulfide and Cyanide
- Presence of Significant Halogen Content
- Presence of Oxidizers and Peroxides
- Field Compatibility for Uncharacterized Wastes.

5.14.7.2 Sampling of Intact Excavated Drums and Large Containers

The required method of opening drums is by remote means. Three types of equipment for opening drums motely are available: the bung spinner, the remote-controlled drill, and the hydraulic or pneumatic drum piercer. When any of these pieces of equipment are used, the opening device is attached to the drum and the control lines are extended to their maximum length (typically 100 feet). Drum-opening personnel will operate the controls from behind sandbags, a concrete or brick structure, or other solid barriers. The contact surfaces of the drum opening equipment will be decontaminated after each use. The drum opening equipment will be surveyed for radioactive contamination prior to chemical decontamination.

5.14.7.3 Resealing Containers

All containers opened during the sampling investigation need to be resealed to prevent the escape of vapors and any possible reactions with rainwater, air, etc. The resealing methods will depend on the opening methods used and will include the following:

- Replacing the bung, screw cap, etc.
- Replacing the lid and retaining ring
- Placing the container in an over-pack
- Using a non-reactive special rubber or plastic plug if a hole was drilled. If utilized, these plugs will be checked periodically for soundness since material within the drum may react with the plug and cause it to corrode/leak. A drum bonnet will also be used to ensure that rainwater does not seep around the plug.

It is important to note that these sealing methods are for the purpose of preventing leakage from containers while in storage on-site. If a container is moved off-site, DOT drum sealing requirements must be met. DOT regulations generally have more rigorous sealing procedures than the sealing methods listed above.

Once containers are sampled and resealed, they will be placed where they cannot react with other containers on the site. Slowly progressing chemical reactions can start when a container is moved and/or opened, as the

contents have been exposed to air and/or have been disturbed by handling the drum. Such a reaction could take hours or even days to occur. Segregation of the containers will be carried out according to hazard class, to prevent any potential chemical reactions between containers. For a small number of containers, the storage area(s) may be the staging and opening area. Mixed waste will be transferred and stored in the mixed waste storage area.

Sample identification, packaging, shipment and analytical protocols are provided in the site drum log.

5.14.7.4 Staging

Containers will be stored in a secure area according to compatibility grouping. The staging area will be located in a remote or controlled environment area away from other operations. Staging area construction usually includes: an impermeable liner, secondary containment, run-on collection systems, a roof, and a location above the floodplain. The minimum requirements may be met with double 20-mil liners, straw bales for sidewalls, a tarp cover, and caution tape.

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-5713
CTO No.024
Field Change Request Form No. FCR-PCBHS-035

Additional Details

N/A

Will this change result in a contract cost or time change? ☒ Yes ☐ No
Estimate of contract cost or time change (if any)

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
	9/28/2005	Assistant PM		9/28/05

Disposition

☒ Approved.
☐ Not approved (give reason).

TtEC Engineer (signature) (if engineering related) Not applicable (N/A) ☐ Comments (attached) ☐ No Comments	Date	TtEC Project Manager (signature) ☐ Comments (attached) ☒ No Comments	Date 9/28/05
TtEC PESM (signature) Roger N Mazzotta ☐ Comments (attached) ☒ No Comments	Date 9/28/05	TtEC Scientist (signature) (if science related) (N/A) ☐ Comments (attached) ☐ No Comments	Date
TtEC QC Program Manager (signature) ☐ Comments (attached) ☒ No Comments	Date 9/28/05		

Distribution: Original to Project File, Copy to Site File, RASO
Project Manager, DON RPM, DON ROICC, PQCM, QCM, Site Superintendent

TETRA TECH

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0072/0084	FCR-2TCRA-038
Location		Date
IR-02 and PCB Hot Spot Excavation Areas		12/2/05

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Final Project Work Plans for IR-02 and PCB Hot Spot, Rev. 0, DCNs FWSD-RAC-05-1441 and FWSD-RAC-05-1442 respectively — Radiological surveys of soils below groundwater

Description (items involved, submit sketch, if applicable)

The IR-02 Final Project Work Plan section 5.11 and PCB Hot Spot Final Project Work Plan section 5.13 describe excavation and in-situ radiological surveys of soils following successive 12 inch lifts to prescribed depths. However, the work plans do not address radiological surveys of in-situ soils below groundwater.

Reason for Change

This change is initiated to provide guidance on performing radiological surveys of soils that are below groundwater. The work plans will be revised to state that below groundwater, the entire soil/debris column will be removed to the bottom of the excavation without surveying individual lifts since surveying below the water surface is not effective.

Recommended Disposition (submit sketch, if applicable)

Final Project Work Plan TCRA for IR-02 Northwest and Central Parcel E, Rev 0, Section 5.11, 3rd paragraph, add the following sentence after the 2nd sentence- "Below groundwater, the entire soil/debris column will be removed to the bottom of the excavation without surveying individual lifts since surveying below the water surface is not effective."

Final Project Work Plan PCB Hot Spot Soil Excavation Site Parcels E and E-2, Rev 0, Section 5.13, 4th paragraph, add the following sentence after the 4th sentence- "If groundwater is encountered prior to reaching the excavation bottom (based on the excavation process described above), the entire soil/debris column will be removed to the bottom of the excavation without surveying individual lifts since surveying below the water surface is not effective."

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N6871-98-D-5713	0072/0084	FCR-2TCRA-038
Location		Date
IR-02 and PCB Hot Spot Excavation Areas		12/2/05

Additional Details

None

Will this change result in a contract cost or time change? ☐ Yes ☒ No

Estimate of contract cost or time charge (if any)

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
[signature]	12/2/05	PQCM	[signature]	12/2/05

Disposition

☒ Approved

☐ Not approved (give reason).

TtEC Engineer (signature) (if engineering related)	Date	TtEC Project Manager (signature)	Date
Not applicable ☐ Comments (attached) ☐ No Comments		[signature] ☐ Comments (attached) ☒ No Comments	12/2/05
TtEC PESM (signature)	Date	TtEC Scientist (signature) (if science related)	Date
[signature] ☐ Comments (attached) ☒ No Comments	12/6/05	[signature] ☐ Comments (attached) ☒ No Comments	12/02/05
TtEC QC Program Manager (signature)	Date		
[signature] ☐ Comments (attached) ☒ No Comments	12/7/05		

Distribution: Original to Project File, Copy to Site File, RASO
Project Manager, DON RPM, DON ROICC, PQCM, QCM, Site Superintendent

TETRA TECH

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0072/0084	FCR-3TCRA-039
Location		Date
HPS Radioactive Waste Storage Areas		12/2/05

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Final Work Plans for IR-02, PCB Hot Spot, and MDR/MSA, Rev. 0, DCNs FWSD-RAC-05-1441, FWSD-RAC-05-1442, and FWSD-RAC-05-1443 respectively Radioactive Waste Storage Areas

Description (items involved, submit sketch, if applicable)

The IR-02, PCB Hot Spot, and MDR/MSA Work Plans all specify storage areas for LLMW and LLRW as 1) the site where the waste originated, or 2) Building 406. However, due to the current volume of LLRW, other storage areas are being used.

Reason for Change

This change is initiated to add "other approved storage areas" to the specified storage areas for LLMW and LLRW designated in the Work Plans to provide for adequate storage for the volumes of LLMW and LLRW being generated.

Recommended Disposition (submit sketch, if applicable)

Final Project Work Plan TCRA for IR-02 Northwest and Central Parcel E, Rev 0, Section 7.3.2, *Waste Accumulation and Storage*, 3rd paragraph, 2nd sentence, and Section 7.3.6, *Waste Accumulation Areas*, 2nd paragraph, add "and other approved storage areas" to the specified storage areas.

Final Project Work Plan PCB Hot Spot Soil Excavation Site Parcels E and E-2, Rev 0, Section 7.3.2, *Waste Accumulation and Storage*, 3rd paragraph, 2nd sentence, and Section 7.3.6, *Waste Accumulation Areas*, 2nd paragraph, add "and other approved storage areas" to the specified storage areas.

Final Removal Action Design and Implementation Work Plan Metal Debris Reef and Metal Slag., Rev 0, Appendix A, Environmental Protection Plan, Section 5.3.2 *Waste Accumulation and Storage*, 3rd paragraph, 2nd sentence, and Section 5.3.6, *Waste Accumulation Areas*, 2nd paragraph add "and other approved storage areas" to the specified storage areas.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0072/0084	FCR-3TCRA-039
Location		Date
HPS Radioactive Waste Storage Areas		12/2/05

Additional Details

None

Will this change result in a contract cost or time change? ☐ Yes ☒ No

Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
[signature]	12/2/05	PQCM	[signature]	12/2/05

Disposition

☒ Approved.

☐ Not approved (give reason). _____

TtEC Engineer (signature) (if engineering related)	Date	TtEC Project Manager (signature)	Date
Not applicable ☐ Comments (attached) ☐ No Comments		[signature] ☐ Comments (attached) ☒ No Comments	12/2/05
TtEC PESM (signature)	**Date**	**TtEC Scientist (signature) (if science related)**	**Date**
[signature] ☐ Comments (attached) ☒ No Comments	12/06/05	[signature] ☐ Comments (attached) ☐ No Comments	12/6/05
TtEC QC Program Manager (signature)	**Date**		
[signature] ☐ Comments (attached) ☒ No Comments	12/7/05		

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Project Manager, DON RPM, DON ROICC, PQCM, QCM, Site Superintendent

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0084	FCR-PCBHS-040
Location		Date
PCB Hot Spot Soil Excavation Site		11/11/05

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Final Project Work Plan, Rev. 0, DCN 05-1442, Date 11/10/05 Subject: Pothole Excavations Along Shoreline

Description (items involved, submit sketch, if applicable)

A series of eight (8) potholes are planned for excavation within or along grid numbers 130, 129, 128, 153, 127-1, 156, 111 and 159. The potholes will used to evaluate the horizontal and vertical extent of subterranean contamination, particularly PCB and TPH contamination. This work will constitute a revision to the Project Work Plan Section 5.10.

Reason for Change

Pothole excavations are proposed to investigate and further delineate contamination at PCB Hot Spot, particularly PCB and TPH contamination. The area under investigation is west of the excavation boundary, towards the shoreline and will assist in evaluating the extent of contamination near the Parcel E2/F boundary.

Recommended Disposition (submit sketch, if applicable)

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Revisions to the Work Plan

Include new Section 5.10.1 Pothole Excavations, as shown below:

5.10.1 POTHOLE EXCAVATION

Eight potholes are planned to evaluate the horizontal and vertical extent of contamination at PCB Hot Spot on the western boundary of the excavation site, near the Parcel E2/F boundary. (With input/approval from the DON, the number and/or location of potholes may vary based on actual conditions encountered in the field.) The purpose of the potholes will be to evaluate the presence of PCB and TPH outside the current southwestern boundary of the PCB Hot Spot excavation. The potholes will be excavated within or along grids 129, 128, 153, 127-1, 156, 111 and 159, or others as applicable. Using a backhoe or excavator, the potholes will be excavated to a maximum depth of 10 feet bgs or Bay Mud, whichever is reached first. (The excavation may extend into the Bay Mud if visual evidence of contamination within the Bay Mud is observed.

A radiological surface survey will be conducted of the grids selected for potholing prior to beginning excavation activities. The radiological surface survey will consist of a high-density gamma scan performed over the 50-foot by 50-foot grid system as outlined in Section 5.7. If radioactive materials are encountered, they will be removed in accordance with Section 5.8 of work plan. The soil generated during the potholing activities will be segregated for each hole, placed on a temporary liner consisting of 20 mil plastic sheeting and scanned for radiological material. A minimum of one solid sample will be collected for each 14 cy of material placed on the sheet. The sample will be collected at the location exhibiting the highest gamma radiation measurement. Additional samples will be collected at locations where the investigation level of 3 sigma is exceeded. The samples will be analyzed at the on-site radiological laboratory by gamma spectroscopy.

At depth, the potholes will be visually inspected for presence of contaminants and debris. Samples will be collected from each pothole for field test-kit analysis and/or offsite analysis in accordance with the Sampling and Analysis Plan (SAP) Section 4.2 and 4.2 (Appendix A). Field test-kit samples will be collected and analyzed on-site. The extent to which confirmation of such field test-kit results are needed by off-site lab analysis will be determined based on the anticipated reliability of field test-kit result and in conjunction with the Navy. When sampling is complete, the potholes will be backfilled with the exhumed material from each particular pothole excavation. The data collected will be used to evaluate the extent contamination near the Parcel E2/F boundary.

The planned locations of the potholes are depicted in the attached drawing (Figure 1). These locations have been selected based on a combination of visual inspection, historical information and professional judgment. As noted previously, actual location may vary based on field conditions as determined by the Site Superintendent, and approved by the Project Manager in consultation with the DON. The times of pothole excavations will be dictated by tidal fluctuations. Pothole excavations may commence in areas immediately outside the fence line at times of high tides and progress toward the tidal zone as the tide ebbs. Excavations in the tidal zone will not be prosecuted during periods of tidal flood.

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-5713
CTO No.084
Field Change Request Form No. FCR-PCBHS-040

Additional Details
N/A

Will this change result in a contract cost or time change? ☐ Yes ☒ No

Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
for Lisa Barbik	12/14/2005	Field Engineer		5-9-06

Disposition

☐ Approved.

☐ Not approved (give reason). _____

TtEC Engineer (signature) (if engineering related)	Date	TtEC Project Manager (signature)	Date
N/A ☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☑ No Comments	5/9/06
TtEC PESM (signature) ☐ Comments (attached) ☐ No Comments	Date 5/9/06	TtEC Scientist (signature) (if science related) ☐ Comments (attached) ☐ No Comments	Date 8/2/06
TtEC QC Program Manager (signature) ☐ Comments (attached) ☒ No Comments	Date 5/3/06		

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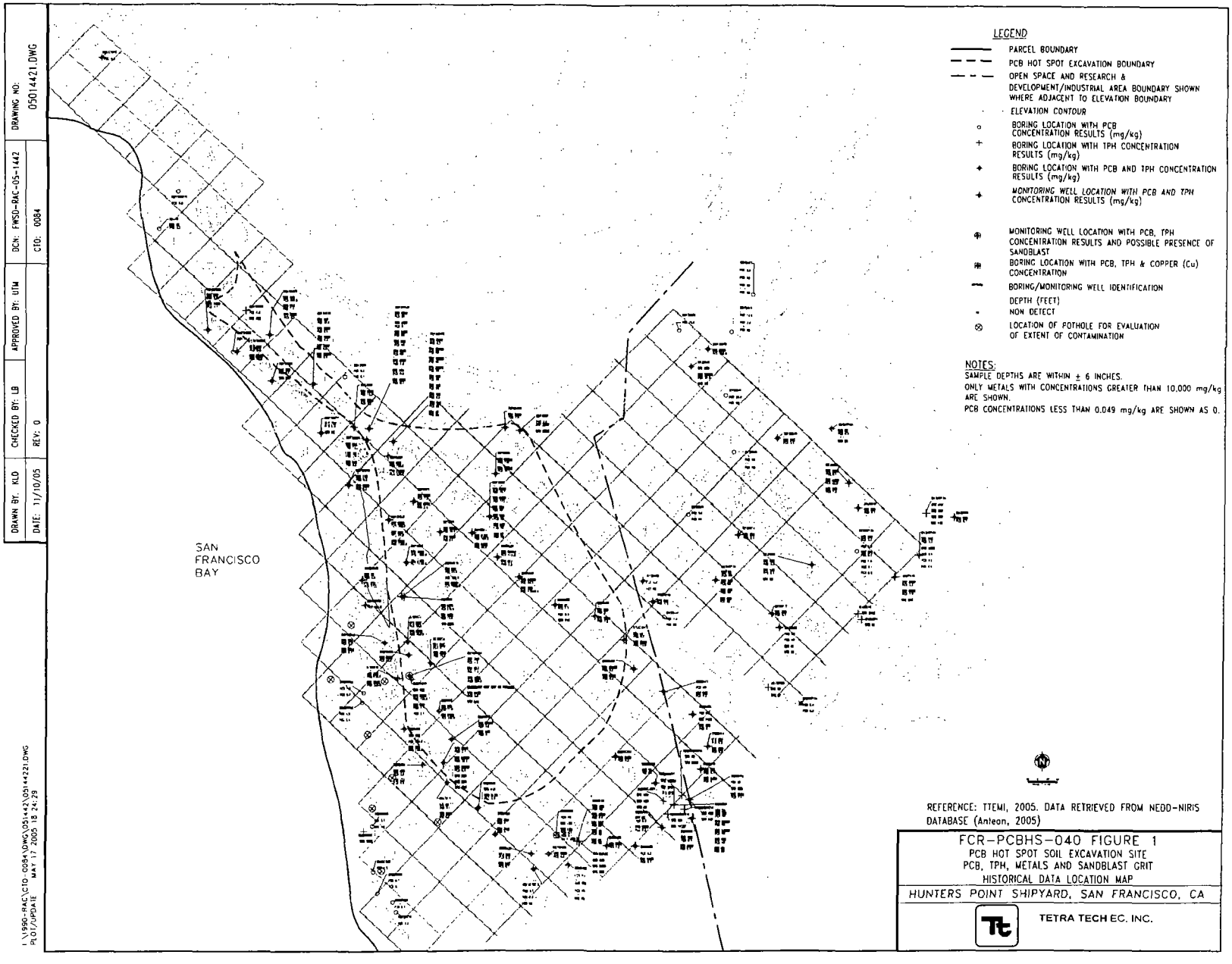
SAN
FRANCISCO
BAY
LEGEND
PARCEL BOUNDARY
PCB HOT SPOT EXCAVATION BOUNDARY
OPEN SPACE AND RESEARCH & DEVELOPMENT/INDUSTRIAL AREA BOUNDARY SHOWN WHERE ADJACENT TO ELEVATION BOUNDARY
ELEVATION CONTOUR
BORING LOCATION WITH PCB CONCENTRATION RESULTS (mg/kg)
BORING LOCATION WITH TPH CONCENTRATION RESULTS (mg/kg)
BORING LOCATION WITH PCB AND TPH CONCENTRATION RESULTS (mg/kg)
MONITORING WELL LOCATION WITH PCB AND TPH CONCENTRATION RESULTS (mg/kg)
MONITORING WELL LOCATION WITH PCB, TPH CONCENTRATION RESULTS AND POSSIBLE PRESENCE OF SANDBLAST
BORING LOCATION WITH PCB, TPH & COPPER (Cu) CONCENTRATION
BORING/MONITORING WELL IDENTIFICATION
DEPTH (FEET)
NON DETECT
LOCATION OF POTHOLE FOR EVALUATION OF EXTENT OF CONTAMINATION
NOTES:
SAMPLE DEPTHS ARE WITHIN ± 6 INCHES.
ONLY METALS WITH CONCENTRATIONS GREATER THAN 10,000 mg/kg ARE SHOWN.
PCB CONCENTRATIONS LESS THAN 0.049 mg/kg ARE SHOWN AS 0.
N
REFERENCE: TTEMI, 2005. DATA RETRIEVED FROM NEDD-NIRIS DATABASE (Anteon, 2005)
DRAWN BY: KLD
CHECKED BY: LB
APPROVED BY: UTM
DCN: FWSD-RAC-05-1442
DRAWING NO: 05014421.DWG
DATE: 11/10/05
REV: 0
CTO: 0084
FCR-PCBHS-040 FIGURE 1
PCB HOT SPOT SOIL EXCAVATION SITE
PCB, TPH, METALS AND SANDBLAST GRIT
HISTORICAL DATA LOCATION MAP
HUNTERS POINT SHIPYARD, SAN FRANCISCO, CA
TETRA TECH EC, INC.
I:\990-RAC\CTO-0084\DWG\05144221\05144221.DWG
PLOTDATE: MAY 17 2005 18:24:29

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0084	FCR-PCBHS-041
Location		Date
PCB Hot Spot Soil Excavation Site		11/29/05

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Final Project Work Plan, Rev. 0, DCN 05-1442, Date 11/10/05 Subject: Free-Product Removal from Groundwater

Description (items involved, submit sketch, if applicable)

Free-phase product will be collected from contaminated groundwater encountered during excavation activities. Excavation will continue below an estimated maximum of 10 feet below ground surface (bsg) at PCB Hot Spot.

Reason for Change

During excavation activities at PCB Hot Spot, groundwater contaminated with free-phase product has been encountered. The Work Plan called for the use of absorbent booms and/or pads to collect the majority of the free-phase. However, in some areas, this protocol is not sufficient to remove all visible free-phase product. It is also clear that free-phase product is present and therefore will have to be excavated and removed from depths greater than an estimated maximum of 10 feet bgs.

Recommended Disposition (submit sketch, if applicable)

Revisions to the Work Plan

Replace Executive Summary page ES-1, paragraph 2, bullet 4, first sentence:
"To continue excavating the excavation bottom within the proposed lateral excavation boundary below 3 feet bgs, if post-excavation samples indicate …."

Replace Executive Summary page ES-4, paragraph 1, last sentence:
"If post-excavation samples from the excavation bottom indicate polychlorinated biphenyl concentrations greater than 100 milligrams per kilogram, radioactive material exceeding the radiological remedial objectives, and/or total petroleum hydrocarbon concentrations greater than 3,500 milligrams per kilogram, additional excavation will be performed."

Replace Section 5.13, Paragraph 2, last sentence with the following:
"Excavation beyond 3 feet bgs will occur in the following circumstances;"

Replace Section 5.13, Paragraph 4, 4th sentence with the following:
"The protocol for removing the remaining contaminated materials from the excavation area consists of conducting radiological surveys of each 12-inch lift surface and removing the surveyed radioactive materials (Section 5.8) prior to excavation of each lift, until the excavation reaches the final depth of 3 feet (unless the above stated circumstances call for excavation beyond 3 feet bgs)"

Replace Section 5.13, Paragraph 7 with the following:
"If free-phase product is encountered during excavation activities, absorbent booms and/or pads will be used to collect the majority of the free-phase product to the extent practical. If absorbent booms/pads are not sufficient, free-phase product will be skimmed/pumped from the groundwater surface until visible free-phase product is removed, or to the extent practical. The removed groundwater may be treated prior to disposal. Excavation activities will cease when conditions are no longer safe or practical, as determined by the Site Superintendent, or his/her deputy. Should the bottom or sidewall of the excavation still exhibit visual staining at that point, the condition will be documented and the DON will be notified."

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0084	FCR-PCBHS-041
Location		Date
PCB Hot Spot Soil Excavation Site		11/29/05

Additional Details
N/A

Will this change result in a contract cost or time change? ☐ Yes ☐ No

Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
Raghu Rachakonda	1-5-06	Field Engineer		1/9/06

Disposition

☒ Approved.

☐ Not approved (give reason). _____

TtEC Engineer (signature) (if engineering related)	Date	TtEC Project Manager (signature)	Date
☐ Comments (attached) ☒ No Comments	1/17/06	☐ Comments (attached) ☒ No Comments	1-21-05
TtEC PESM (signature)	Date	TtEC Scientist (signature) (if science related)	Date
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☐ No Comments	
TtEC QC Program Manager (signature)	Date		
☐ Comments (attached) ☐ No Comments			

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TETRA TECH

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0084	FCR-PCBHS-041
Location		Date
PCB Hot Spot Soil Excavation Site		11/29/05

Additional Details
N/A

Will this change result in a contract cost or time change? ☐ Yes ☐ No

Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
Raymond Rachal	1-5-06	Field Engineer		1/5/06

Disposition

☒ Approved.

☐ Not approved (give reason). _____

TtEC Engineer (signature) (if engineering related)	Date	TtEC Project Manager (signature)	Date
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☒ No Comments	12-21-05
TtEC PESM (signature)	Date	TtEC Scientist (signature) (if science related)	Date
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☒ No Comments	1/18/05
TtEC QC Program Manager (signature)	Date		
☐ Comments (attached) ☐ No Comments			

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TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0084	FCR-PCBHS-041
Location		Date
PCB Hot Spot Soil Excavation Site		11/29/05

Additional Details
N/A

Will this change result in a contract cost or time change? ☐ Yes ☐ No

Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
Roger N Margotto Rachel	1-5-06	Field Engineer		1/9/06

Disposition

☒ Approved.

☐ Not approved (give reason). _____

TtEC Engineer (signature) (if engineering related)	Date	TtEC Project Manager (signature)	Date
Roger N Margotto Rachel AHA regarding entry into excavations ☒ Comments (attached) ☐ No Comments		☐ Comments (attached) ☒ No Comments	1-21-05
TtEC PESM (signature) Roger N Margotto Rachel AHA Regarding entry into excavations ☒ Comments (attached) ☐ No Comments	Date 01/11/06	TtEC Scientist (signature) (if science related) ☐ Comments (attached) ☐ No Comments	Date
TtEC QC Program Manager (signature) ☐ Comments (attached) ☐ No Comments	Date		

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TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0084	FCR-PCBHS-041
Location		Date
PCB Hot Spot Soil Excavation Site		11/29/05

Additional Details
N/A

Will this change result in a contract cost or time change? ☐ Yes ☐ No

Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
Rachel	1-5-06	Field Engineer		1/5/06

Disposition

☒ Approved.

☐ Not approved (give reason). _____

TtEC Engineer (signature) (if engineering related)	Date	TtEC Project Manager (signature)	Date
☐ Comments (attached) ☒ No Comments	1/17/06	☐ Comments (attached) ☒ No Comments	1-20-06
TtEC PESM (signature)	Date	TtEC Scientist (signature) (if science related)	Date
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☐ No Comments	
TtEC QC Program Manager (signature)	Date		
☐ Comments (attached) ☒ No Comments	1/18/06		

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TETRA TECH FW, INC

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0084	FCR-PCBHS-048
Location		Date
PCB Hot Spot Soil Excavation Site		03/21/06

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Final Project Work Plan, Rev. 0, DCN 05-1442, Date 11/10/05

Description (items involved, submit sketch, if applicable)

Revisions to Work Plan Section 5.13 regarding radiological screening of soils with high clay content.

Reason for Change

Soils exhibiting high clay content have been unearthed during the excavation activities at PCB Hot Spot area. These materials are not appropriate to process through the conveyor system due to the high clay content and must therefore first be spread out on a pad and then manually screened and sampled for radioactive material. These soils will inadvertently clog the conveyor system preventing proper operation.

Recommended Disposition (submit sketch, if applicable)

Revisions to the Work Plan

Section 5.13, the following paragraph needs to be added to the section as the seventh paragraph:

Soils exhibiting high clay content are not appropriate to process through the conveyor system as they will inadvertently clog the conveyor system and consequently prevent proper operation. These soils must therefore first be spread out and then manually screened and sampled for radioactive material. The high clay-content soils will be placed in 14 cubic yard piles on the dewatering pad and spread out in lifts not to exceed 6 inches for scanning. Radiological surveys will be performed manually for beta/gamma emitters as detailed in Section 4.0 of this Work Plan. The clay material will then be turned and resurveyed for beta/gamma emitters. Radioactive material that is identified during screening activities will be collected, segregated and stored in appropriate containers for subsequent packaging and disposal by a certified Waste Broker under the direction of the DON LLRW Disposal Program. A minimum of two solid sample will be collected for 14 cy of material placed on the screening pad. The sample will be collected at the location exhibiting the highest gamma radiation measurement. Additional samples will be collected at locations where the investigation level of 3 sigma is exceeded. The samples will be analyzed at the on-site radiological laboratory by gamma spectroscopy prior to moving the surveyed soil. Radiologically contaminated material identified during surveys or sample analysis will be placed in storage containers pending disposal. Any liquids that have accumulated on the pad will be collected, characterized for chemical and radiological constituents, and properly disposed. Radioactive Material Management will be performed in accordance with the requirements of NWT's NRC license.

TETRA TECH FW, INC.

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-5713
CTO No.084
Field Change Request Form No. FCR-PCBHS-048

Additional Details
N/A

Will this change result in a contract cost or time change? ☐ Yes ☒ No
Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
Kendall Wallace	5/3/06			5-9-06

Disposition

☐ Approved.

☐ Not approved (give reason). _____

TtEC Engineer (signature) (if engineering related) Not applicable	Date	TtEC Project Manager (signature)	Date
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☑ No Comments	
TtEC PESM (signature)	Date	TtEC Scientist (signature) (if science related)	Date
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☑ No Comments	5/8/06
TtEC QC Program Manager (signature)	Date		
☐ Comments (attached) ☐ No Comments	5/3/06		

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TETRA TECH FW INC.

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-5713
CTO No.084
Field Change Request Form No. FCR-PCBHS-048

Additional Details
N/A

Will this change result in a contract cost or time change? ☐ Yes ☒ No
Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
Kendall Walker	4/18/06	FIELD ENGINEER		4-18-06

Disposition
☑ Approved.
☐ Not approved (give reason). _____

TtEC Engineer (signature) (if engineering related) Not applicable	Date	TtEC Project Manager (signature)	Date
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☑ No Comments	4/18/06
TtEC PESM (signature) Roger N Maggetto ☐ Comments (attached) ☑ No Comments	Date 4/19/06	TtEC Scientist (signature) (if science related) ☐ Comments (attached) ☐ No Comments	Date
TtEC QC Program Manager (signature) ☐ Comments (attached) ☐ No Comments	Date		

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Project Manager, DON RPM, DON ROICC, PQCM, QCM, Site Superintendent

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0072/0084	FCR-3TCRA-049
Location		Date
HPS TCRA Excavation Sites		1/09/06

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Final Project Work Plan for IR-02, PCB Hot Spot, and MDR/MSA, Rev. 0, DCNs 05-1441, 05-1442, and 05-1443 respectively. Subject: Drum Labeling

Description (items involved. submit sketch, if applicable)

The Waste Management Plans in each of the three TCRAs provide guidance for Container Labeling. An electronic Drum Log and Bin Log is maintained tracking all aspects of the container, its contents, date collected, date sampled, etc as information is available as specified by the Work Plan – Waste management Plan.

Reason for Change

A significant portion of the information is not available when material is accumulated and placed in the container.

Only after the material is sampled, characterized and then profiled by the Disposal Facility, just prior to shipping is all of the information available. This information is acquired throughout the storage period.

At start of accumulation drums are numbered, accumulation start date marked, Hazardous Waste/Analysis Pending labels are added to the container.

All Bins are initially placed in an outdoor fenced area marked as "Hazardous Waste Storage Area". As they are sampled and subsequently moved to a storage building, where they are temporarily labeled as Hazardous Waste until they are shipped. At which time, the label is removed, as it is not required under DOT Regulations for bulk containers. The ASD is not marked on Bins containing RAD/Hazardous soil as they are not subject to the 90 day storage limit (because they are RAD)

The Drum Log and Bin spreadsheet contains all information relative to the container as specified in the Work Plan – Waste Management Plans.

Completed labels are added to the drums prior to shipping.

Recommended Disposition (submit sketch, if applicable)

At start of accumulation drums shall be numbered, accumulation start date marked, and Hazardous Waste or Hazardous Waste Analysis Pending labels are added to the container.

Bins will be temporarily labeled once transferred to a storage building.

The new drums will be added to the Drum Log and tracked. Data will be added to the Log as it becomes available. Bin information is added to the spreadsheet as bins are filled and moved.

Completed labels in compliance with the DOT and RCRA requirements will be added to the drum prior to shipping.

The temporary Hazardous Waste label will be removed from the bins immediately prior to shipping.

TETRA TECH FW, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0072/0084	FCR-3TCRA-049
Location: HPS TCRA Excavation Sites		Date: 1/09/06

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other: Final Project Work Plan for IR-02, PCB Hot Spot, and MDR/MSA, Rev. 0, DCNs 05-1441, 05-1442, and 05-1443 respectively. Subject: Drum Labeling

Additional Details

Will this change result in a contract cost or time change? ☐ Yes ☒ No

Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
	19JAN06	WASTE MGMT MGR		1/20/06

Disposition

☐ Approved.

☐ Not approved (give reason). _____

TtFW Engineer (signature) (if engineering related)	Date	TtFW Project Manager (signature)	Date
N/A ☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☒ No Comments	1/20/06
TtFW PESM (signature)	**Date**	**TtFW Scientist (signature) (if science related)**	**Date**
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☒ No Comments	1/20/06 1/20/06
TtFW QC Program Manager (signature)	**Date**		
☐ Comments (attached) ☐ No Comments			

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TETRA TECH EC INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0072/0084	FCR-3TCRA-049
Location: HPS TCRA Excavation Sites		Date: 1/09/06

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Final Project Work Plan for IR-02, PCB Hot Spot, and *MDR/MSA, Rev. 0, DCNs 05-1441, 05-1442, and 05-1443 respectively.* Subject: Drum Labeling

Additional Details

Will this change result in a contract cost or time change? ☐ Yes ☐ No

Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date

Disposition

☐ Approved.

☐ Not approved (give reason) _____

TtFW Engineer (signature) (if engineering related)	Date	TtFW Project Manager (signature)	Date
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☐ No Comments	
TtFW PESM (signature) Roger N Macgatto	Date 1-23-06	TtFW Scientist (signature) (if science related)	Date
☐ Comments (attached) ☒ No Comments		☐ Comments (attached) ☐ No Comments	
TtFW QC Program Manager (signature)	Date		
☐ Comments (attached) ☐ No Comments			

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TETRA TECH FW INC

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0084	FCR-PCBHS-050
Location		Date
PCB Hot Spot Soil Excavation Site		05/03/06

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Final Project Work Plan, Rev. 0, DCN 05-1442, Date 11/10/05

Description (items involved, submit sketch, if applicable)

Revisions to Work Plan Section 7.2.5 Wastewater and Waste Fluids and Sampling and Analysis Plan Section 4.4 regarding waste characterization sampling.

Reason for Change

Rainwater has accumulated in the excavation at PCB Hot Spots. The rainwater is going to be pumped out and put through a treatment system provided by another DON contractor and then discharged into a Baker Tank or similar container. Upon the other DON contractor's receipt of a discharge permit, the treated water will be discharged into S.F. City's sanitary sewer system for further treatment in the City's waste water treatment plant.

Recommended Disposition (submit sketch, if applicable)

Section 7.2.5 in the Work Plan and Section 4.4 and 6.4.4 of the SAP describe the storage and collection of wastewater samples from tanks.
The following section will be added to the Work Plan (page 7-4, Section 7.2.5 Wastewater and Waste Fluids, after the second paragraph) and to the SAP (page A.4-7, Section 4.4 Waste Characterization Sampling, after the sixth paragraph and before the section beginning with "Drums, bottles, jars and small containers...")

Accumulated rain water will be pumped out and put through a wastewater filter treatment system provided by another DON contractor and then discharged into a Baker Tank or similar container. Upon the other DON contractor's receipt of a discharge permit, the treated water will be discharged into S.F. City's sanitary sewer system for further treatment in the City's waste water treatment plant. The sampling frequency will be determined by the other DON contractor and their permit, and the samples will be analyzed for parameters consistent with the permit discharge requirements. The analytical data will be provided by TtEC to the other DON contractor, who will evaluate the data against the permit, and facilitate the subsequent discharge of the water into the sanitary sewer system if permit requirements are met. This process will continue until all wastewater has been pumped out and processed through the treatment system.

TETRA TECH FW, INC

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-5713
CTO No.084
Field Change Request Form No. FCR-PCBHS-050

Additional Details
N/A

Will this change result in a contract cost or time change?	☒ Yes ☐ No
Estimate of contract cost or time charge (if any)	$72,500 in sub-contractor analytical costs (included in a notification of change (#003 submitted to the Navy January 06) which was subsequently also awarded.

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
[signature]	5/15/06	Program Chemist	[signature] for Joe Kerell	5-15-06

Disposition

☒ Approved.

☐ Not approved (give reason). _____

TtEC Engineer (signature) (if engineering related) Not applicable ☐ Comments (attached) ☐ No Comments	Date	TtEC Project Manager (signature) ☐ Comments (attached) ☑ No Comments	Date 5-15-06
TtEC PESM (signature) [signature] ☐ Comments (attached) ☒ No Comments	Date 5/15/06	TtEC Scientist (signature) (if science related) [signature] ☐ Comments (attached) ☒ No Comments	Date 5/15/06
TtEC QC Program Manager (signature) [signature] ☐ Comments (attached) received on 12/5/06 ☐ No Comments	Date 12/5/06		

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Project Manager, DON RPM, DON ROICC, PQCM, QCM, Site Superintendent

TETRA TECH

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0084	FCR-PCBHS-51
Location		Date
PCB Hot Spot Soil Excavation Site		12/06/05

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Final Project Work Plan, Rev. 0, DCN: FWSD-RAC-05-1442 Date 11/10/05 Subject: Use of Tremie Pipe for Well Abandonment

Description (items involved, submit sketch, if applicable)

The Final Work Plan calls for the use of a tremie pipe to place the backfill material when grouting the boring vacated by the monitoring well. Instead of using a tremie pipe, the grout will be poured directly from the ground surface.

Reason for Change

The PCB Hot Spot Soil Excavation Site project (CTO 84) includes the abandonment of several groundwater monitoring wells. The Final Work Plan states that after the well material is removed from the boring, the annular space will be backfilled with bentonite grout using a tremie pipe. Tremie pipe is typically used for the application of well materials when there is a considerable amount of water in the boring that may cause bridging of the material as it falls through the water column. Typically, the tremie pipe is lowered through the water column to the bottom of the boring, and the material is placed in the boring from the bottom up. At the PCB Hot Spot site, the monitoring wells being abandoned are normally dry or contain very little water. Consequently, bridging of the material due to over-coming the affects of groundwater in the boring is not an issue. It was recommended that the grout be mixed in accordance with the specifications and placed in the boring at the ground surface (top down). This change will expedite the backfilling process and save labor and material costs.

Recommended Disposition (submit sketch, if applicable)

Change to Final Work Plan Section 5.12, paragraph 4, by adding "if deemed necessary by the Field Geologist" after the words "tremie pipe."

TETRA TECH

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-5713
CTO No.084
Field Change Request Form No. FCR-PCBHS-51

Additional Details
N/A

Will this change result in a contract cost or time change? ☐ Yes ☒ No
Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
1-26-06 [signature]	1/26/06	Task Manager	[signature]	1-26-06

Disposition

☐ Approved.
☐ Not approved (give reason). _____

TtEC Engineer (signature) (if engineering related)	Date	TtEC Project Manager (signature)	Date
[signature] ☐ Comments (attached) ☒ No Comments	2/8/06	[signature] ☐ Comments (attached) ☒ No Comments	1-26-06
TtEC PESM (signature)	**Date**	**TtEC Scientist (signature) (if science related)**	**Date**
Roger K Margotto ☐ Comments (attached) ☒ No Comments	2/7/06	NA ☐ Comments (attached) ☐ No Comments	
TtEC QC Program Manager (signature)	**Date**		
Mary Schneider ☐ Comments (attached) ☒ No Comments	2/8/06		

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TETRA TECH

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-5713
CTO No 084
Field Change Request Form No. FCR-PCBHS-51

Additional Details
N A

Will this change result in a contract cost or time change? ☐ Yes ☒ No
Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
1-26-06 [signature] ~~Joe Levitt~~	1/26/06 1-26-06 ~~12/06/2005~~	Task Manager	[signature]	1-26-06

Disposition

☐ Approved.
☐ Not approved (give reason). _____

TtEC Engineer (signature) (if engineering related)	Date	TtEC Project Manager (signature)	Date
[signature] ☐ Comments (attached) ☒ No Comments	2/1/06	[signature] ☐ Comments (attached) ☒ No Comments	1-26-06
TtEC PESM (signature)	**Date**	**TtEC Scientist (signature) (if science related)**	**Date**
☐ Comments (attached) ☐ No Comments		NA ☐ Comments (attached) ☐ No Comments	
TtEC QC Program Manager (signature)	**Date**		
☐ Comments (attached) ☐ No Comments			

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Project Manager, DON RPM, DON ROICC, PQCM, QCM, Construction Manager, Site Superintendent

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0084	FCR-PCBHS-052
Location		Date
PCB Hot Spot Soil Excavation Site		3/1/2006

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Final Project Work Plan, Rev. 0, DCN 05-1442, Date 11/10/05 Subject: Backfill of Excavation

Description (items involved, submit sketch, if applicable)

Revision of text in Section 5.16, Backfill Placement and Compaction, to clarify backfill materials and placement procedures.

Reason for Change

In areas where the excavation extends below the groundwater table, drain rock (clean virgin ¾ inch material) will be used as a base layer for backfill. As little drain rock as possible will be placed to in order to create a bottom foundation to allow for backfill compaction. Geotextile liner will be placed on top of the rock and covered with soil. This FCR documents the change to the Final Work Plan.

Recommended Disposition (submit sketch, if applicable)

Revisions to the Work Plan

Revise the first paragraph of Section 5.16, Backfill Placement and Compaction, as follows:

Following completion of the post-excavation sampling and prior to placement of backfill soils, an 8-ounce layer of geotextile will be placed over the bottom and sidewalls of the excavation. The geotextile layer will function as a demarcation of the excavation boundary. In areas where the excavation extends below the groundwater table, drain rock (clean virgin ¾ inch material) will be placed prior to the geotextile layer.

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-5713
CTO No.084
Field Change Request Form No. FCR-PCBHS-052

Additional Details
N/A

Will this change result in a contract cost or time change? ☒ Yes ☐ No

Estimate of contract cost or time change (if any): $126,000 as notified in CTO 084 notification 003 of Jan 30, 2006.

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
	3/1/2006	Field Engineer		

Disposition

☒ Approved.

☐ Not approved (give reason).

TtEC Engineer (signature) (if engineering related)	Date	TtEC Project Manager (signature)	Date
☐ Comments (attached) ☒ No Comments	3/2/06	☐ Comments (attached) ☒ No Comments	3/2/06
TtEC PESM (signature)	**Date**	**TtEC Scientist (signature) (if science related)**	**Date**
☐ Comments (attached) ☒ No Comments	3/7/06	N/A ☐ Comments (attached) ☐ No Comments	
TtEC QC Program Manager (signature)	**Date**		
Mary Schneider 2006.03.07 17:22:11 -08'00' ☐ Comments (attached) ☐ No Comments			

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TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0084	FCR-PCBHS-053
Location		Date
PCB Hot Spot Soil Excavation Site		3/13/06

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Final Project Work Plan, Rev. 0, DCN 05-1442, Date 11/10/05 Subject: Well Abandonment by Pressure Grouting

Description (items involved, submit sketch, if applicable)

The Final Work Plan provides one method of abandoning/destroying groundwater monitoring wells, removing the well casing and using a tremie pipe to place the backfill material to grout the boring. In addition to using a tremie pipe to place grout after a well casing is removed, the Work Plan will be revised to allow the following grout placement alternative: the grout may be poured directly from the ground surface if the field geologist concludes that there is minimal risk or bridging during grout placement.

Additionally, a second method of well abandonment/destruction will be added to the Work Plan. In situations where removing the casing is not practical, the well may be abandoned by pressure grouting.

Reason for Change

The PCB Hot Spot Soil Excavation Site project (CTO 84) includes the abandonment of several groundwater monitoring wells. The Work Plan states that after the well material was removed from the boring, the borehole would be backfilled with bentonite grout using a tremie pipe. A tremie pipe is typically used for the application of grout when there is a considerable amount of water in the boring that may cause bridging of the material as it falls through the water column. Typically, the tremie pipe is lowered through the water column to the bottom of the boring and the material is placed in the boring from the bottom up. At the PCB Hot Spot Site, the monitoring wells being abandoned are usually dry or contain very little water. Consequently, bridging of the material due to the affects of groundwater in the boring is not a significant issue. Therefore, based on professional judgment, the field geologist may elect to directly place the grout material from the top of the open borehole. Where applicable, this is a cost-effective alternative to placing grout by tremie pipe.

Additionally, due to the physical location of wells in and near the excavation area, in some cases it may be difficult to access wells with drilling equipment to remove the well casing. In these situations, pressure grouting may be a valuable alternate method of well abandonment/destruction as this method does not require a drill rig to be placed directly on top of the well to drill out the casing.

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-571
CTO No.084
Field Change Request Form No. FCR-PCBHS-053

Recommended Disposition (submit sketch, if applicable)

The three changes to Section 5.12 of the Work Plan described below are recommended.

The last sentence of paragraph four in Section 5.12 will be revised to read as follows:

"The typical procedure for destroying wells and piezometers are as follows;"

The following text will be added to the sixth bullet in Section 5.12.

"Alternately, if in the opinion of the field geologist there is little risk of bridging then grout may be placed in the boring at the ground surface (placing the grout from the top down). Whichever method is utilized, the grout will consist of neat cement grout in accordance with (California Well Standards (Bulletins 74-90 and 74-81). Neat cement shall be composed of one sack of Portland cement (or equivalent) to 4.5 to 6.5 gallons of clean water, depending on the additives. Prior to placement, the grout will be mixed in accordance with the specifications stated in the drilling standards (California Well Standards (Bulletins 74-90 and 74-81))."

The following text will be added to the end of Section 5.12.

"In some cases access to well locations may be restricted, limiting the ability to drill out the well casing. In these situations, in accordance with Bulletin 74-90 (Section 9.B.1. and Section 9.F), at the discretion of the field geologist the well may be abandoned/destroyed by pressure grouting without removing the well casing. Pressure grouting will be done using neat cement grout that conforms to the content/mixing standards previously described in this section. To ensure that a sufficient amount of grout has been injected into the well to fill the annular space of the boring and the well casing, the volume of casing and annular space will be calculated and the appropriate amount of grout will be mixed prior to injection. Abandonment will be considered successful when the minimum amount of material is injected. The calculated volume of the annular space/casing volume, along with the volume of grout injected will be recorded.

Abandoning/destroying a well by grouting in place will also require that the well monument be removed, along with any well casing extending above the ground surface. These materials will be subject to radiological screening and waste disposal standards previously described in this section for well materials removed by over drilling."

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-571
CTO No.084
Field Change Request Form No. FCR-PCBHS-053

Additional Details
N/A

Will this change result in a contract cost or time change? ☐ Yes ☒ No
Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
	3/13/2006	Task Manager		3-14-06

Disposition
☒ Approved.
☐ Not approved (give reason). _____

TtEC Engineer (signature) (if engineering related)	Date	TtEC Project Manager (signature)	Date
☐ Comments (attached) ☐ No Comments	3/16/06	☐ Comments (attached) ☒ No Comments	3-15-06
TtEC PESM (signature)	**Date**	**TtEC Scientist (signature) (if science related)**	**Date**
Roger N Margatto ☐ Comments (attached) ☒ No Comments	3/15/06	☐ Comments (attached) ☐ No Comments	
TtEC QC Program Manager (signature)	**Date**		
Mary Schneider 2006.03.17 09:51:20 -08'00' ☐ Comments (attached) ☐ No Comments			

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Project Manager, DON RPM, DON ROICC, PQCM, QCM, Construction Manager, Site Superintendent

TETRA TECH FW, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0084	FCR-PCBHS-055
Location		Date
PCB Hot Spot Soil Excavation Site		04/12/06

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Final Project Work Plan, Rev. 0, DCN 05-1442, Date 11/10/05

Description (items involved, submit sketch, if applicable)

Revisions to Work Plan Section 5.15 and Sampling and Analysis Plan Section 4.3 regarding Post-excavation Sampling.

Reason for Change

In an effort to minimize the time that an excavated grid remains open and to allow for immediate backfill placement as the excavation work has been completed, post-excavation chemical results need to be available early. To facilitate this process when needed, chemical post-excavation samples will be collected through evaluation of the vertical extent of contamination by potholing of each grid.

Recommended Disposition (submit sketch, if applicable)

TETRA TECH FW, INC.

FIELD CHANGE REQUEST FORM

Revisions to the Work Plan and the Sampling and Analysis Plan

The following paragraphs need to be added to Section 5.15 (to be included as the fourth paragraph) and Section 4.3 of the Sampling and Analysis Plan (to be included as the fourth paragraph) respectively:

At the discretion of the project manager, site superintendent, and/or their designee, an alternative field approach to collecting discrete chemical sidewall or bottom post-excavation samples may be applied. In an effort to minimize the time that an excavated grid remains open, with the ultimate objective to allow for immediate backfill placement as the excavation work has been completed, post-excavation chemical results need to be available early. To facilitate this process, chemical post-excavation samples may be collected through evaluation of the vertical extent of contamination by potholing of each grid. The location for the pothole will be dug at a randomly selected point for the post-excavation sample within each grid. The pothole will extend down to the depth at which visual contamination will be removed; historical data indicates that areas are below cleanup goals; or the maximum safe depth to which the excavation can be extended is reached. When the pothole has been evaluated for the vertical absence of contamination, one discrete post-excavation soil sample will be collected. PCB and TPH field test kits will be conducted on the discrete samples and the resulting data will be used as a screening tool to evaluate the need for another pothole post-excavation sample at a deeper depth if the original pothole sample is above cleanup goals based on field test kits. Once pothole post-excavation field test kits results are below cleanup goals, that post-excavation soil sample will be sent off site for PCB and TPH analysis. In addition, for grids excavated to a depth of 7.5 feet bgs or less, a sample will be collected at approximately 8 feet bgs and sent off site for PCB and TPH analysis to evaluate vertical extent of contamination that could be present at depth and determine if further over-excavation is necessary.

If the situation occurs that a grid has been potholed to a depth at which a post-excavation soil sample was collected and determined to be below cleanup goals, and then upon excavation of that grid there is still visual staining present at that depth, further excavation of the contaminated area will take place. Removal of soil will continue until the visual contamination is removed or the maximum safe depth to which the excavation can be extended is reached. Subsequently, another post-excavation soil sample will be collected at a random location within the grid, field screened for PCBs and TPH using field test kits, and then sent off site for PCB and TPH analysis when field tests indicate results below cleanup goals. This process will mean that the grid will not be backfilled until off site analytical results confirm that the COC are below cleanup goals. During the potholing activities, radiological surveys will be performed manually for beta/gamma emitters as detailed in Section 4.0 of the Work Plan. Radioactive material that is identified during screening activities will be collected, segregated, and stored in appropriate containers for subsequent packaging and disposal by a certified Waste Broker under the direction of the DON LLRW Disposal Program.

Samples for onsite ROC analysis will not be collected during potholing activities. Post-excavation ROC samples will be collected upon completion of the excavation of the grid and prior to backfill placement to ensure that the RROs for the grid have been achieved. Since onsite ROC analysis can be performed in less than 24 hours, the excavated grid will not remain open for an extended period of time.

TETRA TECH FW, INC.

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-5713
CTO No.084
Field Change Request Form No. FCR-PCBHS-055

Additional Details
N/A

Will this change result in a contract cost or time change? ☐ Yes ☒ No
Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
Kendall Walker	4/18/06	FIELD ENGINEER		4-18-06

Disposition
☐ Approved.
☐ Not approved (give reason). _____

TtEC Engineer (signature) (if engineering related) Not applicable	Date	TtEC Project Manager (signature)	Date
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☑ No Comments	4/18/06
TtEC PESM (signature) Roger N Macgatte ☐ Comments (attached) ☒ No Comments	Date 4/19/06	TtEC Scientist (signature) (if science related) ☐ Comments (attached) ☐ No Comments	Date
TtEC QC Program Manager (signature) ☐ Comments (attached) ☐ No Comments	Date		

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TETRA TECH FW, INC.

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-5713
CTO No.084
Field Change Request Form No. FCR-PCBHS-055

Additional Details
N/A

Will this change result in a contract cost or time change? ☐ Yes ☒ No
Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
[signature]	5/3/06	FIELD ENGINEER	[signature]	5-3-06

Disposition
☐ Approved.
☐ Not approved (give reason). _____

TtEC Engineer (signature) (if engineering related) Not applicable	Date	TtEC Project Manager (signature)	Date
☐ Comments (attached) ☐ No Comments		[signature] ☐ Comments (attached) ☑ No Comments	4/18/06
TtEC PESM (signature)	Date	TtEC Scientist (signature) (if science related)	Date
☐ Comments (attached) ☐ No Comments		[signature] ☐ Comments (attached) ☐ No Comments	4/18/06
TtEC QC Program Manager (signature)	Date		
[signature] ☐ Comments (attached) ☒ No Comments	5/3/06		

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TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No. 72/84	Field Change Request Form No.
N68711-98-D-5713	0072	FCR-3TCRA-056 ~~FCR-CTO-72-56~~ JAS 5/15/06
Location		Date
Parcels E and E-2		4/18/2006

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Dust Control and Asbestos Mitigation Plan Subject: Exemptions to operation of dus monitors

Description (items involved, submit sketch, if applicable)

Appendix A-Air Monitoring Plan requires that the air monitoring program be conducted during construction activities.

Reason for Change

Appendix A-Air Monitoring Plan does not provide exemptions for conducting construction activities without the air monitors operating.

During extended precipitation events dust is not generated and the units are prone to tripping the GFCI on the genera
ccasionally the air monitoring units will be ~~occ~~ out of commission JAS 5/15/06

Since the air monitoring program is mainly informational there is not a regulatory requirement that construction activit be discontinued if it is impractical or impossible to run the air monitoring units.

Recommended Disposition (submit sketch, if applicable)

Add section 1.3 as follows

1.3 Exemptions

During prolonged precipitation events (greater than 8 hours of precipitation in a 24 hour period) the air monitoring units will not be operated.

An air monitoring station or individual unit being inoperable shall not preclude construction activities at the associated work site.

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-5713
CTO No.072
Field Change Request Form No.

Additional Details
N/A

Will this change result in a contract cost or time change? ☐ Yes ☒ No
Estimate of contract cost or time charge (if any)

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
	4/17/2006	RSO		5/8/06

Disposition

☒ Approved.
☐ Not approved (give reason).

TtEC Engineer (signature) (if engineering related)	Date	TtEC Project Manager (signature)	Date
NA ☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☒ No Comments	5/9/06
TtEC PESM (signature) For Roger Mayotte ☐ Comments (attached) ☒ No Comments	Date	TtEC Scientist (signature) (if science related) NA ☐ Comments (attached) ☐ No Comments	Date
TtEC QC Program Manager (signature) ☐ Comments (attached) ☒ No Comments	Date 5/9/06		

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FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	84	FCR-PCBHS-062
Location		Date
HPS PCB HS Parcels E and E-2		05-16-06

RE: Drawing No. _____ Title _____

Specification Section _____ Title _____

Other Final Project Work Plan, Rev. 0, DCN 05-1442, Date 11/10/05

Description (items involved, submit sketch, if applicable)

Revision to Sampling and Analysis Plan Section 4.3, paragraph 4 regarding the use of field screening analysis using TPH/PCB field test kits.

Reason for Change

Due to the potential for post-excavation sampling at the maximum scoped depth and/or lateral extent of the excavation, and therefore eliminating the need for an iterative over-excavation process to remove contaminants, the use of the field screening test kits is an option for post-excavation samples. If field test kits are not performed on the samples, then the samples will be sent directly to the off-site laboratory for TPH and PCB analysis.

Recommended Disposition (submit sketch, if applicable)

Revision to Sampling and Analysis Plan, Section 4.3, paragraph 4 as follows: "In addition, if the percent moisture in the soil exceeds 30 percent or at the discretion of the Project Manager, or Site Superintendent or his/her designee in consultation with the Project Manager, based on field conditions, the field test kits will not be performed and the sample will be sent off site for PCB and TPH analysis. The results will be considered the post-excavation sample results if further excavation cannot be conducted".

TETRA TECH FW INC

FIELD CHANGE REQUEST FORM

Additional Details

Will this change result in a contract cost or time change? ☐ Yes ☒ No

Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
[signature]	5/16/06	Project Chemist	[signature]	5-17-06

Disposition

☐ Approved.

☐ Not approved (give reason). _____

TtEC Engineer (signature) (if engineering related)	Date	TtEC Project Manager (signature)	Date
[signature] ☐ Comments (attached) ☐ No Comments	5-18-06	[signature] ☒ Comments (attached) ☐ No Comments	05-17-06
TtEC PESM (signature) (if health and safety related)	**Date**	**TtEC Scientist (signature) (if science related)**	**Date**
[signature] ☐ Comments (attached) ☒ No Comments	5-18-06	[signature] ☐ Comments (attached) ☒ No Comments	5/18/06
TtEC QC Program Manager (signature)	**Date**		
[signature] ☐ Comments (attached) ☒ No Comments	5/26/06		

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TETRA TECH

FIELD CHANGE REQUEST FORM

Additional Details

Will this change result in a contract cost or time change? ☐ Yes ☒ No

Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
[signature]	5/16/06	Project Chemist	[signature]	5-17-06

Disposition

☐ Approved.

☐ Not approved (give reason). _____

TtEC Engineer (signature) (if engineering related)	Date	TtEC Project Manager (signature)	Date
Kendall Walker ☐ Comments (attached) ☐ No Comments	5-18-06	[signature] ☒ Comments (attached) ☐ No Comments	05-17-06
TtEC PESM (signature) (if health and safety related)	**Date**	**TtEC Scientist (signature) (if science related)**	**Date**
Roger U Marzetto ☐ Comments (attached) ☒ No Comments	5-18-06	Lisa Bankoski ☐ Comments (attached) ☒ No Comments	5/18/06
TtEC QC Program Manager (signature)	**Date**		
☐ Comments (attached) ☐ No Comments			

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TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	72	FCR-3TCRA-063
Location		Date
Parcels E and E-2		5/31/2006

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Dust Control and Asbestos Mitigation Plan; DCN 05-1279, Rev. 0, June 9, 2005 Subject: Monitoring Periods

Description (items involved, submit sketch, if applicable)

Appendix A-Air Monitoring Plan requires that the air monitoring program be conducted during construction activities.

Reason for Change

Historical data shows that there has been a low load of contaminants on filters. Consequently a reduced sampling frequency is granted. The pertinent sections are amended to reflect actual working conditions.

Recommended Disposition (submit sketch, if applicable)

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Section 3.1.1 Change the second sentence from "This method requires that each sample be collected on a filter over a course of a 24-hour period;" to "This method requires that each sample be collected on a filter over a course of a *period not to exceed 54 hours*;"

Section 3.1.2 Change the second sentence from "This method requires that each sample be collected on a filter over a course of a 24-hour period;" to "This method requires that each sample be collected on a filter over a course of a *period not to exceed 54 hours*;"

Section 3.1.3 Change the third sentence from "Each sample will be collected over the course of a 24-hour period." to "Each Sample will be collected over the course of a *period not to exceed 54 hours*."

Section 3.1.6 Delete the first sentence.

Table A.3.1 Change the TSP's, PM10's, PCB's and Asbestos frequency cells in the excavation and soil handling section to read "*2-3 samples per work week*".

Table A.3.1 Change the TSP's, PM10's, PCB's and Asbestos frequency cells in the backfill and site restoration section to read "*2-3 samples per work week*".

Table A.3.1 Change the ROCs' frequency cells in the excavation and soil handling section to read "*1 sample per work day*".

Table A.3.1 Change the ROCs' frequency cells in the backfill and site restoration section to read "*1 sample per work day*".

Table A.3.1 Change the TSP's, PM10's, PCB's and asbestos number of samples cells in the excavation and soil handling section to read "*20 x 5 x 6*".

Table A.3.1 Change TSP's, PM10's, PCB's and asbestos number of samples cells in the backfill and site restoration section to read "*20 x 5 x 6*".

TETRA TECH EC, INC.

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-5713
CTO No. 72
Field Change Request Form No: FCR-3TCRA-063

Additional Details
N/A

Will this change result in a contract cost or time change? ☐ Yes ☒ No
Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
	5/31/2006	RSO		6/1/06

Disposition
☒ Approved.
☐ Not approved (give reason). _____

TtEC Engineer (signature) (if engineering related)	Date	TtEC Project Manager (signature)	Date
N/A ☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☒ No Comments	6/1/06
TtEC PESM (signature)	**Date**	**TtEC Scientist (signature) (if science related)**	**Date**
Roger N Macgatt ☐ Comments (attached) ☒ No Comments	7/26/06	N/A ☐ Comments (attached) ☐ No Comments	
TtEC QC Program Manager (signature)	**Date**		
Mary Schmidt ☐ Comments (attached) ☒ No Comments	7/27/06		

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Project Manager, DON RPM, DON ROICC, PQCM, QCM, Construction Manager, Site Superintendent

TETRA TECH

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	0084	FCR-PCBHS-65
Location		Date
PCB Hot Spot Soil Excavation Site		07/11/06

RE: Drawing No. N/A Title N/A

Specification Section N/A Title N/A

Other Final Project Work Plan, Rev. 0, DCN: FWSD-RAC-05-1442 Date 11/10/05

Subject: Additional Laydown Area for Excavated Soils Exhibiting High Clay Content.

Description (items involved, submit sketch, if applicable)

Revisions to Work Plan Section 5.13 regarding the addition of a laydown area for excavated soils exhibiting high clay content should space become limited on the PCB Hot Spots dewatering pad.

Reason for Change

Space may become limited at the PCB Hot Spots dewatering pad for the stockpiling and surveying of excavated soils exhibiting high clay content which are inappropriate for processing through the conveyor system. Therefore, additional space for these activities is required.

Recommended Disposition (submit sketch, if applicable)

Revisions to the Work Plan
(refer to FCR-PCBHS-048 regarding radiological screening of soils with high clay content)

Section 5.13, the following paragraphs need to be added to the section as the eighth and ninth paragraphs.

If necessary, an additional laydown area for stockpiling and radiological screening of soils exhibiting high clay content may be required. Should the excavated quantities of high clay content soils exceed the capacity of the existing dewatering pad, a soils laydown area shall be located in an available area within the PCB Hot Spot such as on top of parts of the excavation already backfilled and compacted. High clay content soils placed within the laydown area shall be radiologically screened as previously described. The laydown area shall be made with a layer of 20 mil plastic liner or visqueen covered with a 6 to 9-inch-thick coarse soil layer. The purpose of the design is to prevent puncture of the liner and preventing excavated soils from coming into contact with clean material. The laydown area will be bermed to eliminate the runoff of any liquids which may accumulate. The dimensions of the laydown area will be approximately 150 ft by 150 ft.

Once radiological screening of high clay content soils is complete, the soil laydown area shall be removed by taking up the 6 to 9-inch-thick coarse soil layer and processing the material through the PCB Hot Spot secondary screening conveyor system. Following removal of the soil layer, the remaining plastic or visqueen liner shall be removed and disposed of appropriately. Upon removal of the liner, a radiological survey of the underlying area shall be completed to verify the absence of radiological materials. In addition, eighteen systematically located soil samples shall be collected and analyzed by gamma spectroscopy at the on-site laboratory.

TETRATECH EC INC

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-5713
CTO No.084
Field Change Request Form No. FCR-PCBHS-65

Additional Details
N/A

Will this change result in a contract cost or time change? ☐ Yes ☒ No
Estimate of contract cost or time charge (if any) _____

Preparer (signature)	Date	Preparer's Title	Site Superintendent (Signature)	Date
[signature]	7/17/06	Alternate Quality Control Manager	[signature]	7-17-06

Disposition
☒ Approved.
☐ Not approved (give reason). _____

TtEC Engineer (signature) (if engineering related)	Date	TtEC Project Manager (signature)	Date
N/A ☐ Comments (attached) ☐ No Comments		[signature] ☐ Comments (attached) ☑ No Comments	7/18/06
TtEC PESM (signature)	**Date**	**TtEC Scientist (signature) (if science related)**	**Date**
[signature] ☐ Comments (attached) ☒ No Comments	7/19/06	[signature] ☐ Comments (attached) ☒ No Comments	7/17/06
TtEC QC Program Manager (signature)	**Date**		
[signature] ☐ Comments (attached) ☒ No Comments	7/20/06		

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Project Manager, DON RPM, DON ROICC, PQCM, QCM, Construction Manager, Site Superintendent

TETRA TECH FW, INC

FIELD CHANGE REQUEST FORM

Contract No.	CTO No.	Field Change Request Form No.
N68711-98-D-5713	72 & 84	FCR-3TCRA-069
Location		Date
IR-02; PCB Hot Spot; Metal Debris Reef and Metal Slag Area		7/21/06

RE: Drawing No. _____ Title _____

Specification Section _____ Title _____

Other _____

Description (items involved, submit sketch, if applicable)

Neither the Work Plans nor the Sampling and Analysis Plans for the three Parcel E Time-critical Removal Action (TCRA) sites specify the radiological survey and chemical/radiological sampling requirements for demobilization of the dewatering, screening, stockpile, and decontamination pads.

Reason for Change

This FCR clarifies the radiological survey and chemical/radiological sampling requirements for demobilizing the dewatering, screening, stockpile, and decontamination pads at the TCRA sites (IR-02 Northwest and Central, PCB Hot Spot, and Metal Debris Reef/Metal Slag Area).

Recommended Disposition (submit sketch, if applicable)

The following text will be added as a new section in each of the Parcel E TCRA Work Plans. The location in each Work Plan is:

Section 5.19 (IR-02 Northwest and Central Work Plan)
Section 5.20 (PCB Hot Spot)
Section 7.19 (Metal Debris Reef/Metal Slag Area)

Post-remedial Survey and Sampling of Dewatering, Screening, Stockpile, and Decontamination Pads

After the dewatering, screening, stockpile, and decontamination pads at the three TCRA sites are no longer needed, the following radiological survey and chemical/radiological sampling will be performed to properly characterize the pads for demobilization.

Where they are contiguous, dewatering, screening, and decontamination pads may be combined together (considered as one pad) for the purposes of calculating volumes and areas to determine sampling requirements described below. Because they are much less likely to have radiological contamination, stockpile pads should be treated separately for this purpose, even if they may be contiguous with other pads.

Radiological Survey

When the pads are no longer needed, a radiological survey will be performed using the towed array or by hand scanning. The radiological survey procedures will follow those already specified for this activity in the work plan, including identifying any anomalous readings that require further investigation.

If any anomalous readings are identified, they will be investigated and any elevated activity removed using the procedures already specified in the work plan.

When the radiological survey is complete and any radiological anomalies removed (if required), chemical and radiological sampling of the top layer of the pad may be performed.

Radiological and Chemical Sampling of the Top Pad Layer

When the radiological survey is completed, samples will be collected from the top layer of the pads. Samples will be collected for radiological and chemical analysis. As described below, chemical sampling will be performed consistent with the requirement for waste characterization; radiological sampling will be performed consistent with the requirements for free release of the pad soil.

TETRA TECH FW, INC.

FIELD CHANGE REQUEST FORM

Contract No. N68711-98-D-5713
CTO No. 72 & 84
Field Change Request Form No. FCR-3TCRA-069

Recommended Disposition (Continued)

Chemical samples will be collected at a frequency of one sample per 500 cubic yards of soil with a minimum of 5 samples collected from any pad layer with a total volume less then 2500 cubic yards. Chemical samples in the top layer will be collected at random locations using the soil sampling procedures identified in the Sampling and Analysis Plan (SAP). Chemical samples will be sent to an off-site laboratory and analyzed for volatile organic compounds (VOCs); semivolatile organic compounds (SVOCs), including polynuclear aromatic hydrocarbons (PAHs); pesticides; PCBs; total purgeable hydrocarbons (TPH-purgeable); total extractable petroleum hydrocarbons (TPH-extractable); and Title 22 metals. Asbestos, Soluble Threshold Limit Concentration (STLC), and Toxicity Characteristic Leaching Procedure (TCLP) will be added as applicable.

To select the number of radiological samples, the pad will be divided into areas not to exceed 1000 square meters (m^2). Eighteen samples will be collected from each 1000 m^2 area. Sample will be collected at locations selected using a random-start, systematic sampling method. Samples will be collected using the procedures identified in the SAP. The samples will be analyzed for gamma-emitting radionuclides. For PCB Hotspot, Metal Slag Area, and Metal Debris Reef ten percent (10%) of the samples will be sent to an off-site radiological laboratory for Strontium-90 analysis. For only IR-02 thirty percent (30%) of the samples will be sent to an off-site radiological laboratory for Strontium-90 analysis. Additional biased samples may be collected if elevated measurements were detected during the scan survey.

When the chemical and radiological analytical data are available it will be reviewed with RASO and the Navy RPM. During this review, if radiological contamination is identified, the DON may direct that additional sampling and sample analysis be performed, including analysis for radionuclides that may not be detected by gamma spectroscopy. If no additional analyses are required, the soil in the top layer of the pad will be characterized as (1) suitable for reuse onsite, (2) hazardous waste, (3) radiological waste, or (4) mixed waste. Soil that is suitable for reuse will be stockpiled at a location agreed upon by TtEC and the DON. Soil that is not suitable for reuse will be stockpiled for future disposal (following the waste stockpile protocols in this Work Plan) or placed directly into waste bins, as appropriate.

Radiological and Chemical Sampling of the Bottom Pad Layer

After the top layer of the stockpile is removed, the bottom layer will be sampled for chemical analysis and may be sampled for radiological analysis. At a minimum, chemical sampling of the bottom layer will be performed using the same approach described above for sampling the top layer. However, in addition to the specified random samples, biased sampling may also be required; biased samples will be required at each location where a break in the liner between the upper and lower pads is known to have occurred. The samples collected from the bottom pad layer will be analyzed for the same suite of analyses identified above for the top layer.

With RASO concurrence, if no radiological contamination was identified in the upper layer, then radiological samples will not be required in the bottom layer. If radiological contamination was identified in the upper layer, then samples will be collected using the approach described above. However, the suite of radiological analytical parameters and the 1000 m^2 grids that will be sampled will be selected by RASO based on the actual contaminants identified in the top layer.

As with the top layer, when the chemical and radiological analytical data are available it will be reviewed with RASO and the Navy RPM. During this review, if radiological contamination is identified, the DON may direct that additional sampling and sample analysis be performed, including analysis for radionuclides that may not be detected by gamma spectroscopy. If no additional analyses are required, the soil in the bottom layer of the pad will be characterized as suitable for reuse or as a waste, applying the same criteria used for soil in the top layer. As appropriate, the soil with subsequently be stockpiled and/or disposed of.

TETRA TECH FW, INC.

FIELD CHANGE REQUEST FORM

Additional Details

None

Will this change result in a contract cost or time change? ☐ Yes X No

Estimate of contract cost or time charge (if any) _____

Preparer (signature) J. Kinney	Date	Preparer's Title	Site Superintendent (Signature)	Date
	8/2/06	Regulatory Specialist		

Disposition

☐ Approved.

☐ Not approved (give reason). _____

TtFW Engineer (signature) (if engineering related) Not Applicable	Date	TtFW Project Manager (signature) G. Slattery	Date
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☒ No Comments	8/2/06
TtFW PESM (signature) R. Margotto	Date	TtFW Scientist (signature) D. DeLong (if science related)	Date
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☐ No Comments	
TtFW QC Program Manager (signature) M. Schneider	Date		
☐ Comments (attached) ☐ No Comments			

Distribution: Original to Project File, Copy to Site File,
Project Manager, DON RPM, DON ROICC, PQCM, QCM, Site Superintendent

TETRA TECH FW, INC

FIELD CHANGE REQUEST FORM

Additional Details

None

Will this change result in a contract cost or time change? ☐ Yes X No

Estimate of contract cost or time charge (if any) _____

Preparer (signature) J. Kinney	Date	Preparer's Title	Site Superintendent (Signature)	Date
	8/2/06	Regulatory Specialist		

Disposition

☐ Approved.

☐ Not approved (give reason). _____

TtFW Engineer (signature) (if engineering related) Not Applicable	Date	TtFW Project Manager (signature) G. Slattery	Date
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☒ No Comments	8/2/06
TtFW PESM (signature) R. Margotto	Date	TtFW Scientist (signature) D. DeLong (if science related)	Date
☐ Comments (attached) ☐ No Comments		☐ Comments (attached) ☒ No Comments	8/3/06
TtFW QC Program Manager (signature) M. Schneider	Date		
☐ Comments (attached) ☐ No Comments			

Distribution: Original to Project File, Copy to Site File,
Project Manager, DON RPM, DON RCICC, PQCM, QCM, Site Superintendent

APPENDIX K

COMMUNITY RELATIONS DOCUMENTS

Hunters Point Shipyard

Removal Actions at the Parcel E/E-2 Shoreline

Fact Sheet No. 7 June 2005

The Navy is committed to keeping the local community, shipyard tenants and federal, state and local regulators informed about radiological investigations and cleanup activities that result from conducting actions recommended in the Historical Radiological Assessment.

Introduction

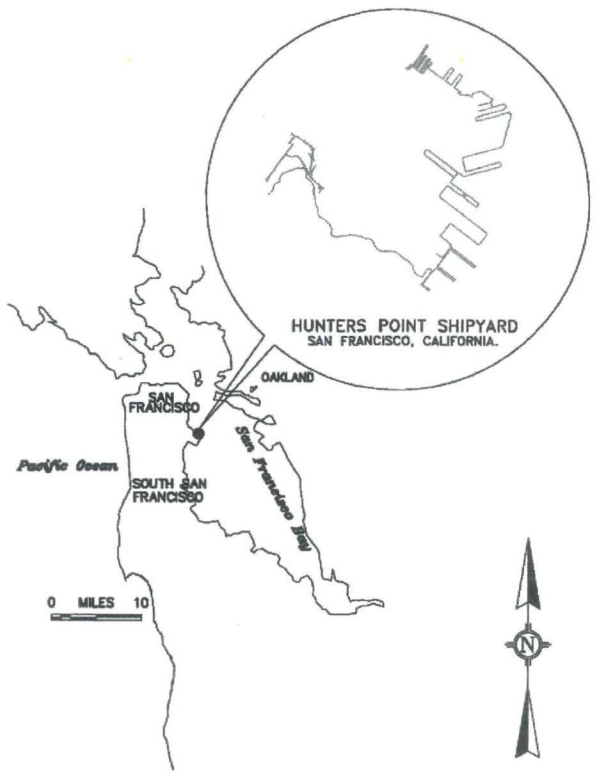
The U.S. Navy, as part of its Installation Restoration (IR) Program, is in the process of conducting actions recommended in the Historical Radiological Assessment for Hunters Point Shipyard (HPS). These actions will include investigation and cleanup of hazardous wastes and residual radioactive contamination at radiologically impacted sites at HPS. This fact sheet is seventh in a continuing series to update the community on radiological matters at HPS.

To implement the IR Program, HPS was divided into six parcels, Parcels A through F. In 2004, Parcel A was transferred to the San Francisco Redevelopment Agency and Parcel E was subdivided into two parcels, Parcels E and E-2. This fact sheet reports on removal activities that will be conducted at four sites in Parcels E and E-2. All removal activities will be within radiologically impacted areas. For purposes of the actions, these areas are identified as:

1. Metal Debris Reef
2. Metal Slag Area
3. IR-02 Northwest and Central
4. PCB Hot Spot

All of the actions at these four sites are being conducted as "time-critical removal actions," or TCRAs, which allow for faster-than-usual cleanups. The Metal Debris Reef, Metal Slag Area and IR-02 Northwest and Central TCRAs are being conducted to remove radioactive materials. The PCB Hot Spot TCRA is being conducted to remove polychlorinated biphenyls (PCBs) and associated petroleum contamination, in addition to radioactive materials.

The following provides an overview of the TCRAs for each site. A glossary is included on page 4 to assist with technical language. Detailed work plans for each of the TCRAs have been published for regulatory and public review. These work plans may be viewed at the information repository locations listed on the back page. The public is encouraged to review HPS cleanup documents and provide feedback. Contact information for Navy representatives is also provided on the back page.



TCRAs at Parcels E and E-2

The TCRAs are being conducted to eliminate any potential future risk to people and to ensure that low-level radioactive materials, PCBs or petroleum-based materials do not move from the site to the surrounding environment. Such migration or release could occur as a result of erosion, weathering, seismic events or biological activity.

Strict safety measures will be followed during the TCRAs. These measures include installing security fencing, controlling dust, monitoring wind and weather conditions, monitoring air, controlling stormwater runoff and identifying subsurface

Keeping the Community Informed

Locals Perform Site Work

Navy contractors will employ up to 20 trained local workers through their work program with Young Community Developers (YCD). YCD is a local nonprofit community and economic development agency that helps match environmental restoration jobs with local community members. YCD staff will assist with excavation, backfilling and radiation screening activities.

utilities. A wildlife biologist will make sure that no "species of special status" live on the sites (see glossary on page 4). Every effort will be taken to ensure that the public and the environment remain safe during the cleanup process.

The results of the removal actions will be documented in a Removal Action Completion Report. These reports will be available for review at the information repositories listed on the back page.

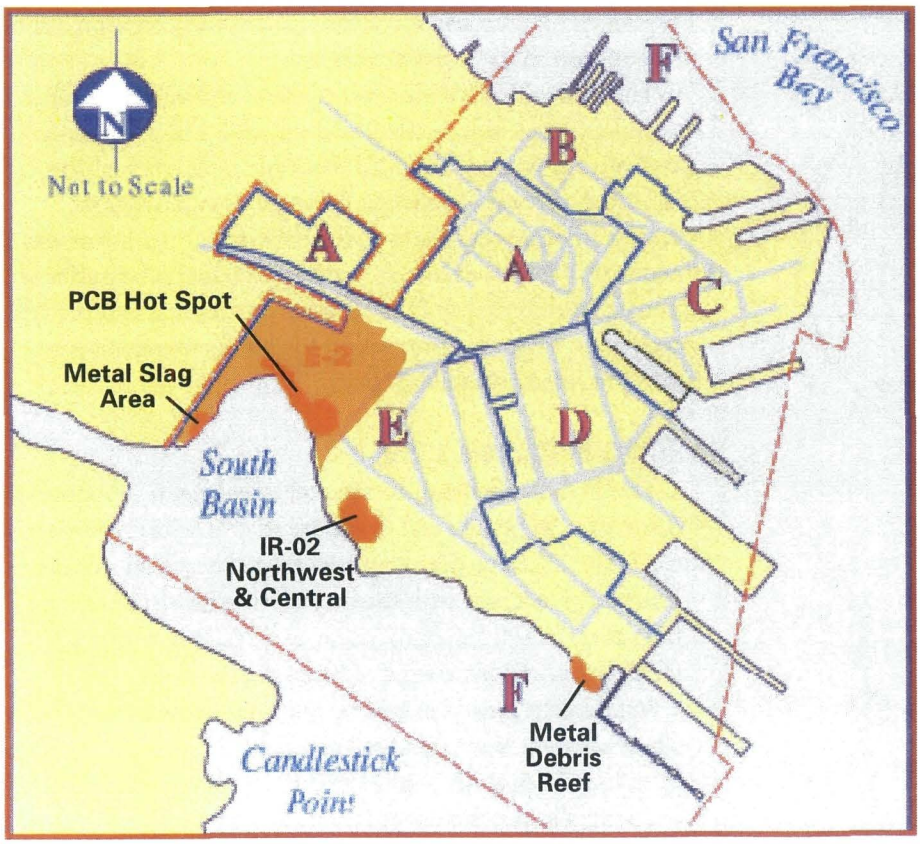
PCB Hot Spot

The PCB Hot Spot TCRA focuses on a 4-acre area within Parcel E-2 and a small section of Parcel E (see figure below). The site contains elevated levels of PCBs (associated with oil, hydraulic fluid or other petroleum products) and elevated levels of total petroleum hydrocarbons (TPH; fuels and oils). The TCRA will remove these materials to eliminate any potential future risk in areas that may be affected by erosion, weathering, seismic events or biological activity. It is estimated that 20,000 cubic yards of soil will be excavated during this TCRA. Site preparation began in February. The TCRA is scheduled to begin in May and site restoration is planned for August 2005.

All soil within the upper 3 feet of the site will be removed. PCB levels greater than 1 part per million and TPH levels greater than 3,500 parts per million will be removed. Soils below 3 feet will be removed if PCBs are present at levels greater than 100 parts per million or if TPH levels greater than 3,500 parts per million are found.

Because the PCB Hot Spot site is located within a radiologically impacted area, soils will be screened for radiation (radium-226, cesium-137 and strontium-90). An initial radiological screening will be done before the soil is excavated and a second screening of the soil will be done after material is removed from the excavation. Large debris will be separated and screened separately. Radioactively contaminated soil or debris will be separated and stored in special containers in controlled areas.

All soil or debris with elevated levels of PCBs, TPH or radioactive materials will be disposed of off-site at appropriate disposal facilities.



IR-02 Northwest and Central

The IR-02 Northwest and Central TCRA focuses on a 3-acre site located in Parcel E (see figure at left). Previous radiological investigations at the site found the soil there contains radioluminescent devices, including items such as dials, gauges and markers that contain a paint, usually mixed with radium, to make them visible in the dark. The TCRA will eliminate any potential future risk to people and ensure that radioactive materials do not move from the site to the surrounding environment as a result of erosion, weathering, seismic events or biological activity. It is estimated that 44,000 cubic yards of soil will be excavated during this TCRA. Site preparation began in

Keeping the Community Informed

February. The TCRA will begin in May and site restoration is planned for September 2005.

The Navy estimates the radioactive materials (radium-226, cesium-137 and strontium-90) are mostly in the upper 6.5 feet of soil, but the excavation may continue to about 10 feet to ensure that all contaminated debris is removed.

An initial radiological screening will be done before the soil is excavated and a second screening of the excavation site will be done after material is removed. Large debris will be separated and screened separately. Contaminated materials will be separated and disposed of off-site at an appropriate facility.

The soil at the IR-02 Northwest and Central site is also known to be contaminated with chemicals including metals, volatile organic compounds, semivolatile organic compounds, pesticides, PCBs and petroleum hydrocarbons (see definitions on page 4). These materials will not be addressed under this TCRA but will be addressed later as part of the Parcel E Feasibility Study.

Soil and debris excavated from the site and found to be free of radioactive materials will be returned as fill for the deeper parts of the excavation. Clean fill soil will be used as backfill for the top 3 to 5 feet of the excavation site.

Metal Debris Reef & Metal Slag Areas

The Metal Debris Reef and the Metal Slag TCRA focuses on two separate sites. The Metal Debris Reef is an area of approximately 1.2 acres located on the southeast shoreline of Parcel E. The Metal Slag Area is approximately 0.9 acres located on the northwest shoreline of Parcel E-2 (see figure on page 2). Both of these areas are known to contain radioactive materials. While not a current issue, these materials could pose a potential future risk to people and the environment if exposed due to erosion, weathering, seismic events or biological activity. At the Metal Debris Reef area, as much as 8,500 cubic yards of metal slag and debris will be excavated during this TCRA. At the Metal Slag Area, as much as 5,500 cubic yards of metal slag will be removed. Site preparation began in March. The TCRA is scheduled to begin in June and site restoration is planned for September 2005.

The Metal Debris Reef was formed when materials were disposed of and burned at the nearby Open Burn Disposal Area. Slag and debris are present as deep as 12 feet. Most of the Metal Debris Reef is covered during high tide. The Metal Slag Area is composed of wastes from the metal foundry and the smelter used when the shipyard was active. As deep as 15 feet below ground surface, this waste includes industrial debris and metal slag. The area is partly covered at high tide. Both sites may contain radium-226, cesium-137 and strontium-90.

The intent of the Metal Debris Reef and Metal Slag Area TCRA is to remove all materials from the two locations. The materials above the water will be screened for radioactive material before removal and after excavation. The materials below the water will be removed and dewatered before screening for radioactive material. All radioactive materials will be segregated and disposed of off-site at an appropriate facility.

The Metal Debris Reef will be filled in with clean sand and protected from erosion with layers of large rock. In the Metal Slag Area, a wetland will be constructed and landscaped with native vegetation to restore and improve the existing shoreline habitat.

The Navy has worked extensively with biologists and ecologists at the National Marine Fisheries Service and U.S. Fish and Wildlife Service, as well as local experts, to avoid impacting endangered fish species in the San Francisco Bay. Based on research conducted by certified wildlife biologists, no endangered species have been seen in the project area or nearby. However, the Navy's approach will be extremely considerate and conservative and will perform work as much as practical when endangered species are not likely to be present in the bay. This "in-water work window" is from June 1 to November 30. In addition, the Navy will install "silt curtains" in San Francisco Bay next to the work areas to keep materials from reaching the bay outside the work area during the excavation and backfilling.

Trucks Through the Neighborhood

From June to October 2005, as many as 25 to 30 truckloads of soil and/or debris may be moved from HPS each day between 7:30 AM and 4 PM. The haul route used will be from the HPS Main Gate at Innes Avenue, along Innes and Evans Avenues to Cesar Chavez Street, and onto Highway 101. After the trucks are loaded, they will be guided through a cleaning and check station to ensure the trucks are free from loose soil, the tires are clean and the truck beds are covered. All trucks will be screened to ensure that there is no residual radioactive contamination on the outside of the trucks. All material classified as radioactive waste will be packaged in lined containers with secured lids. Truckers will use all transportation safety precautions during this time. Every effort will be made to reduce the impact to the community.

Keeping the Community Informed

Glossary and Definitions

Hot spot – a specific site or area of contamination

HPS – Hunters Point Shipyard

IR – Installation Restoration

Metal reef – a partially submerged, reef-like formation composed of metal debris, metal slag and concrete debris

Metal scrap – discarded pieces of metal material

Metal slag – material remaining after metal has been melted at very high temperatures

mg/kg – milligrams per kilogram

PCBs– polychlorinated biphenyls

Radioactive material – a substance that contains or emits radiation

Radioluminescent devices – items such as dials, gauges and markers that contained a paint usually mixed with radium to make them visible in the dark

Semivolatile organic compound – organic compound that evaporates slowly at room temperature

Species of special status – a species that has been listed as "threatened" or "endangered" by the state or federal government; knowing which special status species occur within a given location helps to target the most meaningful areas for protection

TCRA – time-critical removal action; a short-term cleanup action taken to remove a potential health risk to people or the environment

Total petroleum hydrocarbons – fuels and oils

Volatile organic compound – organic compound that evaporates quickly at room temperature

YCD – Young Community Developers

Where to Get Information

Navy documents and reference materials about HPS, including work plans for the sites described in this fact sheet, are available for the public at two different locations. The City of San Francisco Main Library contains a nearly complete record of all documents related to the investigation and cleanup actions under way at HPS.

The Bayview / Anna E. Waden Branch Library contains a smaller collection of documents, copies of current investigation reports and the Historical Radiological Assessment for HPS.

The Navy invites you to visit the libraries and read the reports to gain a more complete understanding of investigation and cleanup activities. The two information repositories are located at:

City of San Francisco Main Library

Government Information Center, 5th floor
100 Larkin Street
San Francisco, CA 94102
(415) 557-4500

Bayview / Anna E. Waden Branch Library

5075 Third Street
San Francisco, CA 94124
(415) 715-4100

For More Information Contact:

Mr. Patrick Brooks
Acting BRAC Environmental Coordinator and Lead Remedial Project Manager
BRAC Program Management Office West
1230 Columbia Street, Suite 1100
San Diego, CA 92101
Phone: (619) 532-0930 Fax: (619) 532-0995
E-mail: george.brooks@navy.mil

Ms. Jill Votaw
Public Affairs Officer
BRAC Program Management Office West
1230 Columbia Street, Suite 1100
San Diego, CA 92101
Phone: (619) 532-0941 Fax: (619) 532-0995
E-mail: jill.votaw@navy.mil

HPS Environmental Web Site: http://www.efdsw.navfac.navy.mil/environmental/hunterspoint.htm

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APPENDIX L

VALIDATED ANALYTICAL DATA PACKAGES

(Available on CD only)

APPENDIX M

OFF-SITE LABORATORY POST-EXCAVATION RADIOLOGICAL SAMPLE REPORTS

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8870

8870-005 84NPCBG57-1PE-001

DATA SHEET

SDG 8870 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R608023-05 Client sample id 84NPCBG57-1PE-001
Dept sample id 8870-005 Location/Matrix HPS-PCB SOIL
Received 08/03/06 Collected/Weight 07/31/06 14:10 363 g
Custody/Proj. No. 21171 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.027	0.18	0.306	0.331	U	SR
Potassium-40	13966-00-2	1.22	0.70	0.593			GAM
Cobalt-60	10198-40-0	U		0.051	0.036	U	GAM
Cesium-137	10045-97-3	U		0.046	0.113	U	GAM
Europium-152	14683-23-9	U		0.400	0.130	U	GAM
Europium-154	15585-10-1	U		0.165	0.230	U	GAM
Thallium-208	14913-50-9	U		0.063		U	GAM
Lead-210	14255-04-0	0.438	0.38	0.452		U	GAM
Bismuth-212	14913-49-6	U		0.607		U	GAM
Lead-212	15092-94-1	0.075	0.038	0.037			GAM
Bismuth-214	14733-03-0	0.104	0.076	0.079			GAM
Lead-214	15067-28-4	0.076	0.046	0.051			GAM
Radium-226	13982-63-3	0.100	0.074	0.077	1.00		GAM
Actinium-228	14331-83-0	U		0.241		U	GAM
Thorium-230	14269-63-7	U		2.76		U	GAM
Thorium-232	7440-29-1	U		0.241	1.69	U	GAM
Protactinium-234m	378783-76-7	U		8.85		U	GAM
Thorium-234	15065-10-8	U		0.013		U	GAM
Uranium-235	15117-96-1	U		0.087	0.195	U	GAM
Americium-241	14596-10-2	U		0.047	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 08/29/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8844

R606017-01 84NPCBG77PE-001

DATA SHEET

SDG 8844 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R606017-01 Client sample id 84NPCBG77PE-001
Dept sample id 8844-001 Location/Matrix HPS-PCB SOIL
Received 06/01/06 Collected/Weight 05/30/06 14:10 400 g
Custody/Proj. No. 18454 CTO_84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.003	0.084	0.145	0.331	U	SR
Potassium-40	13966-00-2	5.60	1.7	1.20			GAM
Cobalt-60	10198-40-0	U		0.098	0.036	U	GAM
Cesium-137	10045-97-3	U		0.071	0.113	U	GAM
Europium-152	14683-23-9	U		0.659	0.130	U	GAM
Europium-154	15585-10-1	U		0.286	0.230	U	GAM
Thallium-208	14913-50-9	U		0.081		U	GAM
Lead-210	14255-04-0	0.971	0.44	0.550			GAM
Bismuth-212	14913-49-6	U		1.07		U	GAM
Lead-212	15092-94-1	0.164	0.059	0.053			GAM
Bismuth-214	14733-03-0	0.240	0.13	0.124			GAM
Lead-214	15067-28-4	0.167	0.092	0.095			GAM
Radium-226	13982-63-3	0.233	0.12	0.120	1.00		GAM
Actinium-228	14331-83-0	U		0.397		U	GAM
Thorium-230	14269-63-7	U		3.58		U	GAM
Thorium-232	7440-29-1	0.481	0.34	0.341	1.69		GAM
Protactinium-234m	378783-76-7	U		13.4		U	GAM
Thorium-234	15065-10-8	U		0.017		U	GAM
Uranium-235	15117-96-1	U		0.099	0.195	U	GAM
Americium-241	14596-10-2	U		0.061	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 07/27/06

8864-018 84NPCBG79PE-001

DATA SHEET

SDG 8864 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R607069-18 Client sample id 84NPCBG79PE-001
Dept sample id 8864-018 Location/Matrix HPS-PCB SOIL
Received 07/13/06 Collected/Weight 07/11/06 08:30 361 g
Custody/Proj. No. 18840 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.076	0.19	0.366	0.331	U	SR
Potassium-40	13966-00-2	5.83	1.3	0.675			GAM
Cobalt-60	10198-40-0	U		0.060	0.036	U	GAM
Cesium-137	10045-97-3	U		0.051	0.113	U	GAM
Europium-152	14683-23-9	U		0.501	0.130	U	GAM
Europium-154	15585-10-1	U		0.195	0.230	U	GAM
Thallium-208	14913-50-9	0.091	0.040	0.043			GAM
Lead-210	14255-04-0	0.584	0.36	0.455			GAM
Bismuth-212	14913-49-6	U		0.712		U	GAM
Lead-212	15092-94-1	0.208	0.057	0.047			GAM
Bismuth-214	14733-03-0	0.271	0.11	0.094			GAM
Lead-214	15067-28-4	0.171	0.071	0.069			GAM
Radium-226	13982-63-3	0.263	0.10	0.091	1.00		GAM
Actinium-228	14331-83-0	U		0.284		U	GAM
Thorium-230	14269-63-7	U		3.09		U	GAM
Thorium-232	7440-29-1	0.595	0.27	0.229	1.69		GAM
Protactinium-234m	378783-76-7	U		8.78		U	GAM
Thorium-234	15065-10-8	U		0.015		U	GAM
Uranium-235	15117-96-1	U		0.090	0.195	U	GAM
Americium-241	14596-10-2	U		0.054	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 08/22/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8892

R511214-02 84NPCBG85PE-001

DATA SHEET

SDG 8892 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R511214-02 Client sample id 84NPCBG85PE-001
Dept sample id 8892-002 Location/Matrix Hunters Point Shipyard SOIL
Received 11/17/05 Collected/Weight 11/11/05 15:50 298 g
Custody/Proj. No. 14173 CTO_84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.042	0.12	0.231	42.3	U	SR
Potassium-40	13966-00-2	10.5	4.3	0.750			GAM
Cobalt-60	10198-40-0	U		0.093	0.420	U	GAM
Cesium-137	10045-97-3	U		0.300	0.130	U	GAM
Europium-152	14683-23-9	U		0.171	0.130	U	GAM
Europium-154	15585-10-1	U		0.112	0.230	U	GAM
Thallium-208	14913-50-9	0.077	0.068	0.072			GAM
Lead-210	14255-04-0	U		5.23		U	GAM
Bismuth-212	14913-49-6	U		1.08		U	GAM
Lead-212	15092-94-1	0.269	0.13	0.137			GAM
Bismuth-214	14733-03-0	0.415	0.16	0.130			GAM
Lead-214	15067-28-4	0.364	0.16	0.154			GAM
Radium-226	13982-63-3	U		1.16	2.00	U	GAM
Actinium-228	14331-83-0	U		0.398		U	GAM
Thorium-232	7440-29-1	U		8.95		U	GAM
Protactinium-234	15100-28-4	U		0.207		U	GAM
Thorium-234	15065-10-8	U		0.053		U	GAM
Uranium-235	15117-96-1	U		0.093	0.570	U	GAM
Americium-241	14596-10-2	U		0.251	7.80	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 12/22/05

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8882

R511151-07 84NPCBG88P1-002

DATA SHEET

SDG 8882 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R511151-07 Client sample id 84NPCBG88P1-002
Dept sample id 8882-007 Location/Matrix Hunters Point Shipyard SOIL
Received 11/08/05 Collected/Weight 11/08/05 09:05 316 g
Custody/Proj. No. 14085 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.174	0.11	0.186	42.3	U	SR
Potassium-40	13966-00-2	7.65	1.5	0.730			GAM
Cobalt-60	10198-40-0	U		0.093	0.420	U	GAM
Cesium-137	10045-97-3	U		0.067	0.130	U	GAM
Europium-152	14683-23-9	U		0.104	0.130	U	GAM
Europium-154	15585-10-1	U		0.068	0.230	U	GAM
Thallium-208	14913-50-9	U		0.170		U	GAM
Lead-210	14255-04-0	U		2.05		U	GAM
Bismuth-212	14913-49-6	U		0.970		U	GAM
Lead-212	15092-94-1	0.310	0.12	0.105			GAM
Bismuth-214	14733-03-0	U		0.169		U	GAM
Lead-214	15067-28-4	0.240	0.11	0.102			GAM
Radium-226	13982-63-3	U		1.26	2.00	U	GAM
Actinium-228	14331-83-0	U		0.352		U	GAM
Thorium-232	7440-29-1	U		4.32		U	GAM
Protactinium-234	15100-28-4	U		0.138		U	GAM
Thorium-234	15065-10-8	U		0.033		U	GAM
Uranium-235	15117-96-1	U		0.093	0.570	U	GAM
Americium-241	14596-10-2	U		0.130	7.80	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 12/22/05

EBERLINE SERVICES / RICHMOND

SAMPLE DELIVERY GROUP 8805

8805-004 84NPCBG91PE-001

DATA SHEET

SDG 8805 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R512122-04 Client sample id 84NPCBG91PE-001
Dept sample id 8805-004 Location/Matrix HPS, PCB Hotspot SOIL
Received 12/20/05 Collected/Weight 12/14/05 12:10 341 g
Custody/Proj. No. 15233 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.037	0.082	0.177	42.3	U	SR
Potassium-40	13966-00-2	5.75	1.2	0.541			GAM
Cobalt-60	10198-40-0	U		0.075	0.420	U	GAM
Cesium-137	10045-97-3	U		0.072	0.130	U	GAM
Europium-152	14683-23-9	U		0.126	0.130	U	GAM
Europium-154	15585-10-1	U		0.083	0.230	U	GAM
Thallium-208	14913-50-9	U		0.080		U	GAM
Lead-210	14255-04-0	U		2.29		U	GAM
Bismuth-212	14913-49-6	U		1.04		U	GAM
Lead-212	15092-94-1	0.320	0.12	0.108			GAM
Bismuth-214	14733-03-0	U		0.161		U	GAM
Lead-214	15067-28-4	0.250	0.14	0.142			GAM
Radium-226	13982-63-3	U		0.965	2.00	U	GAM
Actinium-228	14331-83-0	U		0.335		U	GAM
Thorium-232	7440-29-1	U		5.31		U	GAM
Protactinium-234	15100-28-4	U		0.164		U	GAM
Thorium-234	15065-10-8	U		0.039		U	GAM
Uranium-235	15117-96-1	U		0.071	0.570	U	GAM
Americium-241	14596-10-2	U		0.150	7.80	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 01/30/06

EBERLINE SERVICES / RICHMOND

SAMPLE DELIVERY GROUP 8876

R510121-05 84NPCBG95PE-001

DATA SHEET

SDG 8876 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 56429

Lab sample id R510121-05 Client sample id 84NPCBG95PE-001
Dept sample id 8876-005 Location/Matrix Hunters Point Shipyard SOIL
Received 10/20/05 Collected/Weight 10/12/05 13:43 423 g
Custody/Proj. No. 11111 CTO_84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.032	0.11	0.194	42.3	U	SR
Potassium-40	13966-00-2	3.17	0.93	0.693			GAM
Cobalt-60	10198-40-0	U		0.066	0.420	U	GAM
Cesium-137	10045-97-3	U		0.059	0.130	U	GAM
Europium-152	14683-23-9	U		0.087	0.130	U	GAM
Europium-154	15585-10-1	U		0.057	0.230	U	GAM
Thallium-208	14913-50-9	0.073	0.054	0.054			GAM
Lead-210	14255-04-0	0.861	0.53	0.638			GAM
Bismuth-212	14913-49-6	U		0.798		U	GAM
Lead-212	15092-94-1	0.284	0.10	0.075			GAM
Bismuth-214	14733-03-0	0.230	0.14	0.108			GAM
Lead-214	15067-28-4	0.177	0.12	0.110			GAM
Radium-226	13982-63-3	U		0.869	2.00	U	GAM
Actinium-228	14331-83-0	U		0.270		U	GAM
Thorium-232	7440-29-1	U		2.15		U	GAM
Protactinium-234	15100-28-4	U		0.110		U	GAM
Thorium-234	15065-10-8	U		0.024		U	GAM
Uranium-235	15117-96-1	U		0.064	0.570	U	GAM
Americium-241	14596-10-2	U		0.059	7.80	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spectrscopy Method - EPA 901.1

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 12/22/05

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8876

R510121-04 84NPCBG102PE-001

DATA SHEET

SDG 8876 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 56429

Lab sample id R510121-04 Client sample id 84NPCBG102PE-001
Dept sample id 8876-004 Location/Matrix Hunters Point Shipyard SOIL
Received 10/20/05 Collected/Weight 10/12/05 13:46 401 g
Custody/Proj. No. 11111 CTO_84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.032	0.084	0.161	42.3	U	SR
Potassium-40	13966-00-2	5.34	1.1	0.440			GAM
Cobalt-60	10198-40-0	U		0.055	0.420	U	GAM
Cesium-137	10045-97-3	U		0.051	0.130	U	GAM
Europium-152	14683-23-9	U		0.098	0.130	U	GAM
Europium-154	15585-10-1	U		0.057	0.230	U	GAM
Thallium-208	14913-50-9	0.059	0.037	0.042			GAM
Lead-210	14255-04-0	U		5.43		U	GAM
Bismuth-212	14913-49-6	U		0.696		U	GAM
Lead-212	15092-94-1	0.252	0.084	0.088			GAM
Bismuth-214	14733-03-0	0.275	0.10	0.094			GAM
Lead-214	15067-28-4	0.244	0.081	0.086			GAM
Radium-226	13982-63-3	U		0.725	2.00	U	GAM
Actinium-228	14331-83-0	U		0.289		U	GAM
Thorium-232	7440-29-1	U		5.86		U	GAM
Protactinium-234	15100-28-4	U		0.119		U	GAM
Thorium-234	15065-10-8	U		0.037		U	GAM
Uranium-235	15117-96-1	U		0.054	0.570	U	GAM
Americium-241	14596-10-2	U		0.213	7.80	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spectrscopy Method - EPA 901.1

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 12/22/05

8839-013 84NPCBG105PE-001

DATA SHEET

SDG 8839 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R605155-13 Client sample id 84NPCBG105PE-001
Dept sample id 8839-013 Location/Matrix HPS, PCB SOIL
Received 05/18/06 Collected/Weight 05/15/06 08:05 488 g
Custody/Proj. No. 17944 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.025	0.082	0.171	0.331	U	SR
Potassium-40	13966-00-2	10.0	2.1	1.10			GAM
Cobalt-60	10198-40-0	U		0.110	0.036	U	GAM
Cesium-137	10045-97-3	U		0.076	0.113	U	GAM
Europium-152	14683-23-9	U		0.706	0.130	U	GAM
Europium-154	15585-10-1	U		0.277	0.230	U	GAM
Thallium-208	14913-50-9	U		0.078		U	GAM
Lead-210	14255-04-0	U		0.691		U	GAM
Bismuth-212	14913-49-6	U		1.11		U	GAM
Lead-212	15092-94-1	0.196	0.064	0.056			GAM
Bismuth-214	14733-03-0	0.218	0.14	0.146			GAM
Lead-214	15067-28-4	0.204	0.093	0.091			GAM
Radium-226	13982-63-3	0.212	0.14	0.142	1.00		GAM
Actinium-228	14331-83-0	U		0.378		U	GAM
Thorium-230	14269-63-7	U		3.94		U	GAM
Thorium-232	7440-29-1	U		0.378	1.69	U	GAM
Protactinium-234m	378783-76-7	U		16.0		U	GAM
Thorium-234	15065-10-8	U		0.018		U	GAM
Uranium-235	15117-96-1	U		0.110	0.195	U	GAM
Americium-241	14596-10-2	U		0.063	1.36	U	GAM

Gamma Spec. Method - EPA 901.1
Strontium-90 Method - DOE Sr-01/02

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 07/12/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8832

8832-004 84NPCBG125PE-001

DATA SHEET

SDG 8832 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R605049-04 Client sample id 84NPCBG125PE-001
Dept sample id 8832-004 Location/Matrix HPS, PCB SOIL
Received 05/04/06 Collected/Weight 04/27/06 09:30 446 g
Custody/Proj. No. 15920 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.067	0.10	0.220	0.331	U	SR
Potassium-40	13966-00-2	5.61	0.94	0.246			GAM
Cobalt-60	10198-40-0	U		0.022	0.036	U	GAM
Cesium-137	10045-97-3	U		0.021	0.113	U	GAM
Europium-152	14683-23-9	U		0.168	0.130	U	GAM
Europium-154	15585-10-1	U		0.070	0.230	U	GAM
Thallium-208	14913-50-9	0.079	0.025	0.023			GAM
Lead-210	14255-04-0	U		2.25		U	GAM
Bismuth-212	14913-49-6	U		0.356		U	GAM
Lead-212	15092-94-1	0.274	0.049	0.025			GAM
Bismuth-214	14733-03-0	0.280	0.061	0.047			GAM
Lead-214	15067-28-4	0.307	0.063	0.046			GAM
Radium-226	13982-63-3	0.272	0.059	0.046	1.00		GAM
Actinium-228	14331-83-0	U		0.124		U	GAM
Thorium-230	14269-63-7	U		4.02		U	GAM
Thorium-232	7440-29-1	0.322	0.10	0.094	1.69		GAM
Protactinium-234m	378783-76-7	U		3.70		U	GAM
Thorium-234	15065-10-8	U		0.015		U	GAM
Uranium-235	15117-96-1	U		0.084	0.195	U	GAM
Americium-241	14596-10-2	U		0.097	1.36	U	GAM

Gamma Spec. Method - EPA 901.1
Strontium-90 Method - DOE Sr-01/02

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 06/14/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8839

8839-016 84NPCBG127PE-002

DATA SHEET

SDG 8839 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R605155-16 Client sample id 84NPCBG127PE-002
Dept sample id 8839-016 Location/Matrix HPS, PCB SOIL
Received 05/18/06 Collected/Weight 05/09/06 13:20 510 g
Custody/Proj. No. 17944 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.045	0.093	0.185	0.331	U	SR
Potassium-40	13966-00-2	7.95	1.7	0.832			GAM
Cobalt-60	10198-40-0	U		0.084	0.036	U	GAM
Cesium-137	10045-97-3	U		0.062	0.113	U	GAM
Europium-152	14683-23-9	U		0.653	0.130	U	GAM
Europium-154	15585-10-1	U		0.283	0.230	U	GAM
Thallium-208	14913-50-9	0.115	0.058	0.059			GAM
Lead-210	14255-04-0	0.805	0.41	0.527			GAM
Bismuth-212	14913-49-6	U		1.04		U	GAM
Lead-212	15092-94-1	0.193	0.062	0.054			GAM
Bismuth-214	14733-03-0	0.188	0.12	0.128			GAM
Lead-214	15067-28-4	0.182	0.078	0.079			GAM
Radium-226	13982-63-3	0.183	0.11	0.125	1.00		GAM
Actinium-228	14331-83-0	U		0.364		U	GAM
Thorium-230	14269-63-7	U		3.55		U	GAM
Thorium-232	7440-29-1	0.442	0.32	0.291	1.69		GAM
Protactinium-234m	378783-76-7	U		13.1		U	GAM
Thorium-234	15065-10-8	U		0.017		U	GAM
Uranium-235	15117-96-1	U		0.101	0.195	U	GAM
Americium-241	14596-10-2	U		0.059	1.36	U	GAM

Gamma Spec. Method - EPA 901.1
Strontium-90 Method - DOE Sr-01/02

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 07/12/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8822

8822-002 84NPCBG129PE-002

DATA SHEET

SDG 8822 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R603105-02 Client sample id 84NPCBG129PE-002
Dept sample id 8822-002 Location/Matrix HPS, PCB SOIL
Received 03/16/06 Collected/Weight 03/02/06 14:40 487 g
Custody/Proj. No. 17654 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.041	0.11	0.215	42.3	U	SR
Potassium-40	13966-00-2	6.24	1.3	0.517			GAM
Cobalt-60	10198-40-0	U		0.068	0.420	U	GAM
Cesium-137	10045-97-3	U		0.054	0.130	U	GAM
Europium-152	14683-23-9	U		0.087	0.130	U	GAM
Europium-154	15585-10-1	U		0.060	0.230	U	GAM
Thallium-208	14913-50-9	0.087	0.047	0.048			GAM
Lead-210	14255-04-0	U		2.23		U	GAM
Bismuth-212	14913-49-6	U		0.865		U	GAM
Lead-212	15092-94-1	0.236	0.074	0.077			GAM
Bismuth-214	14733-03-0	0.312	0.11	0.100			GAM
Lead-214	15067-28-4	0.296	0.096	0.099			GAM
Radium-226	13982-63-3	U		1.26	2.00	U	GAM
Actinium-228	14331-83-0	U		0.317		U	GAM
Thorium-232	7440-29-1	U		4.33		U	GAM
Protactinium-234	15100-28-4	U		0.110		U	GAM
Thorium-234	15065-10-8	U		0.029		U	GAM
Uranium-235	15117-96-1	U		0.093	0.570	U	GAM
Americium-241	14596-10-2	U		0.125	7.80	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 04/14/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8802

8802-008 84NPCBG131PE-001

DATA SHEET

SDG 8802 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R512094-08 Client sample id 84NPCBG131PE-001
Dept sample id 8802-008 Location/Matrix HPS, PCB Hotspot SOIL
Received 12/15/05 Collected/Weight 12/08/05 08:00 305 g
Custody/Proj. No. 15222 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.013	0.11	0.214	42.3	U	SR
Potassium-40	13966-00-2	4.83	1.2	0.783			GAM
Cobalt-60	10198-40-0	U		0.088	0.420	U	GAM
Cesium-137	10045-97-3	U		0.083	0.130	U	GAM
Europium-152	14683-23-9	U		0.137	0.130	U	GAM
Europium-154	15585-10-1	U		0.087	0.230	U	GAM
Thallium-208	14913-50-9	U		0.091		U	GAM
Lead-210	14255-04-0	U		2.69		U	GAM
Bismuth-212	14913-49-6	U		1.19		U	GAM
Lead-212	15092-94-1	0.487	0.15	0.117			GAM
Bismuth-214	14733-03-0	U		0.178		U	GAM
Lead-214	15067-28-4	U		0.162		U	GAM
Radium-226	13982-63-3	U		1.07	2.00	U	GAM
Actinium-228	14331-83-0	U		0.381		U	GAM
Thorium-232	7440-29-1	U		5.88		U	GAM
Protactinium-234	15100-28-4	U		0.180		U	GAM
Thorium-234	15065-10-8	U		0.043		U	GAM
Uranium-235	15117-96-1	U		0.079	0.570	U	GAM
Americium-241	14596-10-2	U		0.177	7.80	U	GAM

Gamma Spec. Method - EPA 901.1
Strontium-90 Method - DOE Sr-01/02

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 01/23/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8802

8802-009 84NPCBG167PE-001

DATA SHEET

SDG 8802 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R512094-09 Client sample id 84NPCBG167PE-001
Dept sample id 8802-009 Location/Matrix HPS, PCB Hotspot SOIL
Received 12/15/05 Collected/Weight 12/13/05 13:05 320 g
Custody/Proj. No. 15222 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.112	0.082	0.193	42.3	U	SR
Potassium-40	13966-00-2	18.3	3.1	0.576			GAM
Cobalt-60	10198-40-0	U		0.064	0.420	U	GAM
Cesium-137	10045-97-3	U		0.048	0.130	U	GAM
Europium-152	14683-23-9	U		0.106	0.130	U	GAM
Europium-154	15585-10-1	U		0.067	0.230	U	GAM
Thallium-208	14913-50-9	0.108	0.048	0.051			GAM
Lead-210	14255-04-0	U		6.77		U	GAM
Bismuth-212	14913-49-6	U		0.824		U	GAM
Lead-212	15092-94-1	0.262	0.087	0.091			GAM
Bismuth-214	14733-03-0	0.205	0.10	0.104			GAM
Lead-214	15067-28-4	0.223	0.12	0.122			GAM
Radium-226	13982-63-3	U		0.828	2.00	U	GAM
Actinium-228	14331-83-0	U		0.286		U	GAM
Thorium-232	7440-29-1	U		7.66		U	GAM
Protactinium-234	15100-28-4	U		0.143		U	GAM
Thorium-234	15065-10-8	U		0.040		U	GAM
Uranium-235	15117-96-1	U		0.061	0.570	U	GAM
Americium-241	14596-10-2	U		0.247	7.80	U	GAM

Gamma Spec. Method - EPA 901.1
Strontium-90 Method - DOE Sr-01/02

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 01/23/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8802

8802-007 84NPCBG169PE-002

DATA SHEET

SDG 8802 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R512094-07 Client sample id 84NPCBG169PE-002
Dept sample id 8802-007 Location/Matrix HPS, PCB Hotspot SOIL
Received 12/15/05 Collected/Weight 12/13/05 13:10 345 g
Custody/Proj. No. 15222 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.040	0.11	0.215	42.3	U	SR
Potassium-40	13966-00-2	18.9	3.3	0.847			GAM
Cobalt-60	10198-40-0	U		0.080	0.420	U	GAM
Cesium-137	10045-97-3	U		0.076	0.130	U	GAM
Europium-152	14683-23-9	U		0.116	0.130	U	GAM
Europium-154	15585-10-1	U		0.076	0.230	U	GAM
Thallium-208	14913-50-9	0.149	0.073	0.078			GAM
Lead-210	14255-04-0	U		2.77		U	GAM
Bismuth-212	14913-49-6	U		0.940		U	GAM
Lead-212	15092-94-1	0.326	0.11	0.112			GAM
Bismuth-214	14733-03-0	0.216	0.12	0.136			GAM
Lead-214	15067-28-4	0.129	0.093	0.125			GAM
Radium-226	13982-63-3	U		0.885	2.00	U	GAM
Actinium-228	14331-83-0	U		0.370		U	GAM
Thorium-232	7440-29-1	U		4.70		U	GAM
Protactinium-234	15100-28-4	U		0.171		U	GAM
Thorium-234	15065-10-8	U		0.037		U	GAM
Uranium-235	15117-96-1	U		0.061	0.570	U	GAM
Americium-241	14596-10-2	U		0.166	7.80	U	GAM

Gamma Spec. Method - EPA 901.1
Strontium-90 Method - DOE Sr-01/02

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 01/23/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8895

8895-008 84NPCBG172PE-002

DATA SHEET

SDG 8895 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R512018-08 Client sample id 84NPCBG172PE-002
Dept sample id 8895-008 Location/Matrix HPS, PCB Hotspot SOIL
Received 12/01/05 Collected/Weight 11/22/05 12:00 387.0 g
Custody/Proj. No. 13832 CTO_84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.020	0.12	0.234	42.3	U	SR
Potassium-40	13966-00-2	14.0	2.5	0.623			GAM
Cobalt-60	10198-40-0	U		0.081	0.420	U	GAM
Cesium-137	10045-97-3	U		0.070	0.130	U	GAM
Europium-152	14683-23-9	U		0.096	0.130	U	GAM
Europium-154	15585-10-1	U		0.063	0.230	U	GAM
Thallium-208	14913-50-9	0.074	0.046	0.050			GAM
Lead-210	14255-04-0	0.765	0.57	0.712			GAM
Bismuth-212	14913-49-6	U		0.955		U	GAM
Lead-212	15092-94-1	0.266	0.11	0.086			GAM
Bismuth-214	14733-03-0	0.159	0.14	0.122			GAM
Lead-214	15067-28-4	0.204	0.10	0.097			GAM
Radium-226	13982-63-3	U		0.779	2.00	U	GAM
Actinium-228	14331-83-0	U		0.320		U	GAM
Thorium-232	7440-29-1	U		2.29		U	GAM
Protactinium-234	15100-28-4	U		0.122		U	GAM
Thorium-234	15065-10-8	U		0.025		U	GAM
Uranium-235	15117-96-1	U		0.058	0.570	U	GAM
Americium-241	14596-10-2	U		0.061	7.80	U	GAM

Gamma Spec. Method - EPA 901.1
Strontium-90 Method - DOE Sr-01/02

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 12/21/05

DATA SHEET

SDG 8870 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R608023-03 Client sample id 84NPCBG58-15WPE-001
Dept sample id 8870-003 Location/Matrix HPS-PCB SOIL
Received 08/03/06 Collected/Weight 07/31/06 14:25 398 g
Custody/Proj. No. 21171 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.056	0.18	0.368	0.331	U	SR
Potassium-40	13966-00-2	12.6	2.2	0.341			GAM
Cobalt-60	10198-40-0	U		0.036	0.036	U	GAM
Cesium-137	10045-97-3	U		0.031	0.113	U	GAM
Europium-152	14683-23-9	U		0.248	0.130	U	GAM
Europium-154	15585-10-1	U		0.106	0.230	U	GAM
Thallium-208	14913-50-9	0.069	0.036	0.031			GAM
Lead-210	14255-04-0	U		1.96		U	GAM
Bismuth-212	14913-49-6	U		0.574		U	GAM
Lead-212	15092-94-1	0.157	0.040	0.035			GAM
Bismuth-214	14733-03-0	0.120	0.052	0.053			GAM
Lead-214	15067-28-4	0.114	0.059	0.061			GAM
Radium-226	13982-63-3	0.117	0.051	0.052	1.00		GAM
Actinium-228	14331-83-0	U		0.165		U	GAM
Thorium-230	14269-63-7	U		4.71		U	GAM
Thorium-232	7440-29-1	0.186	0.11	0.112	1.69		GAM
Protactinium-234m	378783-76-7	U		5.28		U	GAM
Thorium-234	15065-10-8	U		0.021		U	GAM
Uranium-235	15117-96-1	U		0.107	0.195	U	GAM
Americium-241	14596-10-2	U		0.100	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 08/29/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8866

8866-004 84NPCBG64SWPE-001

DATA SHEET

SDG 8866 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R607123-04 Client sample id 84NPCBG64SWPE-001
Dept sample id 8866-004 Location/Matrix HPS-PCB SOIL
Received 07/20/06 Collected/Weight 07/19/06 15:20 424 g
Custody/Proj. No. 18906 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.056	0.11	0.214	0.331	U	SR
Potassium-40	13966-00-2	5.77	1.1	0.476			GAM
Cobalt-60	10198-40-0	U		0.055	0.036	U	GAM
Cesium-137	10045-97-3	U		0.044	0.113	U	GAM
Europium-152	14683-23-9	U		0.386	0.130	U	GAM
Europium-154	15585-10-1	U		0.182	0.230	U	GAM
Thallium-208	14913-50-9	0.071	0.043	0.043			GAM
Lead-210	14255-04-0	0.430	0.30	0.377			GAM
Bismuth-212	14913-49-6	U		0.602		U	GAM
Lead-212	15092-94-1	0.160	0.044	0.035			GAM
Bismuth-214	14733-03-0	0.181	0.083	0.080			GAM
Lead-214	15067-28-4	0.191	0.070	0.058			GAM
Radium-226	13982-63-3	0.176	0.080	0.078	1.00		GAM
Actinium-228	14331-83-0	U		0.243		U	GAM
Thorium-230	14269-63-7	U		2.53		U	GAM
Thorium-232	7440-29-1	0.475	0.20	0.201	1.69		GAM
Protactinium-234m	378783-76-7	U		7.36		U	GAM
Thorium-234	15065-10-8	U		0.013		U	GAM
Uranium-235	15117-96-1	U		0.078	0.195	U	GAM
Americium-241	14596-10-2	U		0.043	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 08/24/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8832

8832-002 84NPCBG71ASWPE-002

DATA SHEET

SDG 8832 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R605049-02 Client sample id 84NPCBG71ASWPE-002
Dept sample id 8832-002 Location/Matrix HPS, PCB SOIL
Received 05/04/06 Collected/Weight 05/03/06 11:15 480 g
Custody/Proj. No. 15920 CTO_84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.052	0.078	0.167	0.331	U	SR
Potassium-40	13966-00-2	8.43	2.2	0.267			GAM
Cobalt-60	10198-40-0	U		0.025	0.036	U	GAM
Cesium-137	10045-97-3	U		0.021	0.113	U	GAM
Europium-152	14683-23-9	U		0.192	0.130	U	GAM
Europium-154	15585-10-1	U		0.072	0.230	U	GAM
Thallium-208	14913-50-9	0.063	0.033	0.023			GAM
Lead-210	14255-04-0	U		1.53		U	GAM
Bismuth-212	14913-49-6	U		0.307		U	GAM
Lead-212	15092-94-1	0.182	0.053	0.030			GAM
Bismuth-214	14733-03-0	0.288	0.083	0.046			GAM
Lead-214	15067-28-4	0.327	0.078	0.050			GAM
Radium-226	13982-63-3	0.280	0.081	0.045	1.00		GAM
Actinium-228	14331-83-0	U		0.126		U	GAM
Thorium-230	14269-63-7	U		3.81		U	GAM
Thorium-232	7440-29-1	0.161	0.12	0.104	1.69		GAM
Protactinium-234m	378783-76-7	U		3.78		U	GAM
Thorium-234	15065-10-8	U		0.016		U	GAM
Uranium-235	15117-96-1	U		0.082	0.195	U	GAM
Americium-241	14596-10-2	U		0.081	1.36	U	GAM

Gamma Spec. Method - EPA 901.1
Strontium-90 Method - DOE Sr-01/02

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 06/14/06

EBERLINE SERVICES / RICHMOND

SAMPLE DELIVERY GROUP 8860

R606239-07 84NPCBG81A5WPE-001

DATA SHEET

SDG 8860 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59371

Lab sample id R606239-07 Client sample id 84NPCBG81A5WPE-001
Dept sample id 8860-007 Location/Matrix HPS-PCB SOIL
Received 06/29/06 Collected/Weight 06/23/06 08:35 401 g
Custody/Proj. No. 18669 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.135	0.18	0.334	0.331	U	SR
Potassium-40	13966-00-2	13.0	2.2	0.703			GAM
Cobalt-60	10198-40-0	U		0.067	0.036	U	GAM
Cesium-137	10045-97-3	U		0.043	0.113	U	GAM
Europium-152	14683-23-9	U		0.446	0.130	U	GAM
Europium-154	15585-10-1	U		0.211	0.230	U	GAM
Thallium-208	14913-50-9	0.045	0.031	0.036			GAM
Lead-210	14255-04-0	U		0.453		U	GAM
Bismuth-212	14913-49-6	U		0.673		U	GAM
Lead-212	15092-94-1	0.126	0.049	0.043			GAM
Bismuth-214	14733-03-0	0.129	0.071	0.079			GAM
Lead-214	15067-28-4	0.112	0.053	0.055			GAM
Radium-226	13982-63-3	0.126	0.069	0.076	1.00		GAM
Actinium-228	14331-83-0	U		0.246		U	GAM
Thorium-230	14269-63-7	U		2.84		U	GAM
Thorium-232	7440-29-1	U		0.246	1.69	U	GAM
Protactinium-234m	378783-76-7	U		9.95		U	GAM
Thorium-234	15065-10-8	U		0.013		U	GAM
Uranium-235	15117-96-1	U		0.086	0.195	U	GAM
Americium-241	14596-10-2	U		0.050	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 08/16/06

DATA SHEET

SDG 8860 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59371

Lab sample id R606239-14 Client sample id 84NPCBG86SWPE-001
Dept sample id 8860-014 Location/Matrix HPS-PCB SOIL
Received 06/29/06 Collected/Weight 06/28/06 10:35 338 g
Custody/Proj. No. 18670 CTO_84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.047	0.15	0.291	0.331	U	SR
Potassium-40	13966-00-2	11.2	2.1	0.786			GAM
Cobalt-60	10198-40-0	U		0.079	0.036	U	GAM
Cesium-137	10045-97-3	U		0.061	0.113	U	GAM
Europium-152	14683-23-9	U		0.588	0.130	U	GAM
Europium-154	15585-10-1	U		0.263	0.230	U	GAM
Thallium-208	14913-50-9	U		0.064		U	GAM
Lead-210	14255-04-0	0.645	0.42	0.534			GAM
Bismuth-212	14913-49-6	U		0.821		U	GAM
Lead-212	15092-94-1	0.167	0.056	0.052			GAM
Bismuth-214	14733-03-0	0.240	0.10	0.102			GAM
Lead-214	15067-28-4	0.177	0.061	0.066			GAM
Radium-226	13982-63-3	0.233	0.098	0.099	1.00		GAM
Actinium-228	14331-83-0	U		0.334		U	GAM
Thorium-230	14269-63-7	U		3.52		U	GAM
Thorium-232	7440-29-1	0.317	0.24	0.279	1.69		GAM
Protactinium-234m	378783-76-7	U		11.3		U	GAM
Thorium-234	15065-10-8	U		0.016		U	GAM
Uranium-235	15117-96-1	U		0.106	0.195	U	GAM
Americium-241	14596-10-2	U		0.060	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 08/16/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8864

8864-008 84NPCBG109SWPE-002

DATA SHEET

SDG 8864 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R607069-08 Client sample id 84NPCBG109SWPE-002
Dept sample id 8864-008 Location/Matrix HPS-PCB SOIL
Received 07/13/06 Collected/Weight 07/06/06 10:00 401 g
Custody/Proj. No. 18838 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.008	0.11	0.192	0.331	U	SR
Potassium-40	13966-00-2	9.81	1.5	0.149			GAM
Cobalt-60	10198-40-0	U		0.012	0.036	U	GAM
Cesium-137	10045-97-3	U		0.013	0.113	U	GAM
Europium-152	14683-23-9	U		0.587	0.130	U	GAM
Europium-154	15585-10-1	U		0.043	0.230	U	GAM
Thallium-208	14913-50-9	0.081	0.018	0.013			GAM
Lead-210	14255-04-0	0.384	0.15	0.192			GAM
Bismuth-212	14913-49-6	U		0.160		U	GAM
Lead-212	15092-94-1	0.222	0.037	0.017			GAM
Bismuth-214	14733-03-0	0.330	0.056	0.024			GAM
Lead-214	15067-28-4	0.335	0.059	0.030			GAM
Radium-226	13982-63-3	0.321	0.055	0.024	1.00		GAM
Actinium-228	14331-83-0	U		0.047		U	GAM
Thorium-230	14269-63-7	U		4.56		U	GAM
Thorium-232	7440-29-1	0.215	0.072	0.064	1.69		GAM
Protactinium-234m	378783-76-7	U		2.04		U	GAM
Thorium-234	15065-10-8	U		0.007		U	GAM
Uranium-235	15117-96-1	U		0.055	0.195	U	GAM
Americium-241	14596-10-2	U		0.016	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 08/22/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8864

8864-005 84NPCBG111SWPE-001

DATA SHEET

SDG 8864 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R607069-05 Client sample id 84NPCBG111SWPE-001
Dept sample id 8864-005 Location/Matrix HPS-PCB SOIL
Received 07/13/06 Collected/Weight 06/30/06 14:20 475 g
Custody/Proj. No. 18838 CTO_84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.121	0.15	0.276	0.331	U	SR
Potassium-40	13966-00-2	4.28	1.1	0.125			GAM
Cobalt-60	10198-40-0	U		0.013	0.036	U	GAM
Cesium-137	10045-97-3	U		0.011	0.113	U	GAM
Europium-152	14683-23-9	U		0.090	0.130	U	GAM
Europium-154	15585-10-1	U		0.033	0.230	U	GAM
Thallium-208	14913-50-9	0.053	0.019	0.011			GAM
Lead-210	14255-04-0	U		0.711		U	GAM
Bismuth-212	14913-49-6	0.180	0.13	0.135			GAM
Lead-212	15092-94-1	0.164	0.029	0.013			GAM
Bismuth-214	14733-03-0	0.157	0.037	0.022			GAM
Lead-214	15067-28-4	0.156	0.036	0.022			GAM
Radium-226	13982-63-3	0.152	0.036	0.021	1.00		GAM
Actinium-228	14331-83-0	U		0.059		U	GAM
Thorium-230	14269-63-7	U		1.96		U	GAM
Thorium-232	7440-29-1	0.178	0.071	0.047	1.69		GAM
Protactinium-234m	378783-76-7	U		1.68		U	GAM
Thorium-234	15065-10-8	U		0.008		U	GAM
Uranium-235	15117-96-1	U		0.037	0.195	U	GAM
Americium-241	14596-10-2	U		0.038	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 08/22/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8802

8802-012 84NPCBG128SWPE-002

DATA SHEET

SDG 8802 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R512094-12 Client sample id 84NPCBG128SWPE-002
Dept sample id 8802-012 Location/Matrix HPS, PCB Hotspot SOIL
Received 12/15/05 Collected/Weight 12/12/05 14:00 383 g
Custody/Proj. No. 15223 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.024	0.10	0.209	42.3	U	SR
Potassium-40	13966-00-2	5.65	3.5	0.617			GAM
Cobalt-60	10198-40-0	U		0.154	0.420	U	GAM
Cesium-137	10045-97-3	U		0.055	0.130	U	GAM
Europium-152	14683-23-9	U		0.110	0.130	U	GAM
Europium-154	15585-10-1	U		0.079	0.230	U	GAM
Thallium-208	14913-50-9	U		0.093		U	GAM
Lead-210	14255-04-0	U		3.85		U	GAM
Bismuth-212	14913-49-6	U		0.790		U	GAM
Lead-212	15092-94-1	0.171	0.10	0.088			GAM
Bismuth-214	14733-03-0	0.170	0.13	0.101			GAM
Lead-214	15067-28-4	U		0.208		U	GAM
Radium-226	13982-63-3	U		0.817	2.00	U	GAM
Actinium-228	14331-83-0	U		0.314		U	GAM
Thorium-232	7440-29-1	U		6.09		U	GAM
Protactinium-234	15100-28-4	U		0.150		U	GAM
Thorium-234	15065-10-8	U		0.039		U	GAM
Uranium-235	15117-96-1	U		0.060	0.570	U	GAM
Americium-241	14596-10-2	U		0.199	7.80	U	GAM

Gamma Spec. Method - EPA 901.1
Strontium-90 Method - DOE Sr-01/02

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 01/23/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8814

8814-001 84NPCBG172SWPE-001

DATA SHEET

SDG 8814 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R602030-01 Client sample id 84NPCBG172SWPE-001
Dept sample id 8814-001 Location/Matrix HPS, Parcel E PCB SOIL
Received 02/02/06 Collected/Weight 01/26/06 08:35 392.0 g
Custody/Proj. No. 16834 CTO_84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.017	0.12	0.226	42.3	U	SR
Potassium-40	13966-00-2	10.9	2.2	0.785			GAM
Cobalt-60	10198-40-0	U		0.110	0.420	U	GAM
Cesium-137	10045-97-3	U		0.133	0.130	U	GAM
Europium-152	14683-23-9	U		0.144	0.130	U	GAM
Europium-154	15585-10-1	U		0.095	0.230	U	GAM
Thallium-208	14913-50-9	0.211	0.083	0.084			GAM
Lead-210	14255-04-0	U		3.56		U	GAM
Bismuth-212	14913-49-6	U		1.23		U	GAM
Lead-212	15092-94-1	0.438	0.15	0.157			GAM
Bismuth-214	14733-03-0	0.349	0.18	0.177			GAM
Lead-214	15067-28-4	0.405	0.16	0.175			GAM
Radium-226	13982-63-3	U		1.52	2.00	U	GAM
Actinium-228	14331-83-0	U		0.533		U	GAM
Thorium-232	7440-29-1	U		6.78		U	GAM
Protactinium-234	15100-28-4	U		0.202		U	GAM
Thorium-234	15065-10-8	U		0.050		U	GAM
Uranium-235	15117-96-1	U		0.113	0.570	U	GAM
Americium-241	14596-10-2	U		0.210	7.80	U	GAM

Gamma Spec. Method - EPA 901.1
Strontium-90 Method - DOE Sr-01/02

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 03/03/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8822

8822-001 84NPCBSU1A0PE-002

DATA SHEET

SDG 8822 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R603105-01 Client sample id 84NPCBSU1A0PE-002
Dept sample id 8822-001 Location/Matrix HPS, PCB SOIL
Received 03/16/06 Collected/Weight 03/02/06 15:05 400 g
Custody/Proj. No. 17654 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.062	0.093	0.199	42.3	U	SR
Potassium-40	13966-00-2	6.92	2.7	0.409			GAM
Cobalt-60	10198-40-0	U		0.050	0.420	U	GAM
Cesium-137	10045-97-3	U		0.044	0.130	U	GAM
Europium-152	14683-23-9	U		0.099	0.130	U	GAM
Europium-154	15585-10-1	U		0.064	0.230	U	GAM
Thallium-208	14913-50-9	0.128	0.057	0.052			GAM
Lead-210	14255-04-0	U		3.27		U	GAM
Bismuth-212	14913-49-6	U		0.651		U	GAM
Lead-212	15092-94-1	0.273	0.079	0.062			GAM
Bismuth-214	14733-03-0	0.236	0.12	0.099			GAM
Lead-214	15067-28-4	0.204	0.097	0.096			GAM
Radium-226	13982-63-3	U		1.08	2.00	U	GAM
Actinium-228	14331-83-0	U		0.266		U	GAM
Thorium-232	7440-29-1	U		5.48		U	GAM
Protactinium-234	15100-28-4	U		0.126		U	GAM
Thorium-234	15065-10-8	U		0.030		U	GAM
Uranium-235	15117-96-1	U		0.080	0.570	U	GAM
Americium-241	14596-10-2	U		0.168	7.80	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 04/14/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8802

8802-004 84NPCBSU10CPE-001

DATA SHEET

SDG 8802 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R512094-04 Client sample id 84NPCBSU10CPE-001
Dept sample id 8802-004 Location/Matrix HPS, PCB Hotspot SOIL
Received 12/15/05 Collected/Weight 12/08/05 13:10 361 g
Custody/Proj. No. 15222 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.029	0.097	0.199	42.3	U	SR
Potassium-40	13966-00-2	7.84	1.5	0.765			GAM
Cobalt-60	10198-40-0	U		0.077	0.420	U	GAM
Cesium-137	10045-97-3	U		0.063	0.130	U	GAM
Europium-152	14683-23-9	U		0.095	0.130	U	GAM
Europium-154	15585-10-1	U		0.064	0.230	U	GAM
Thallium-208	14913-50-9	0.081	0.050	0.055			GAM
Lead-210	14255-04-0	0.650	0.45	0.608			GAM
Bismuth-212	14913-49-6	U		0.880		U	GAM
Lead-212	15092-94-1	0.375	0.11	0.078			GAM
Bismuth-214	14733-03-0	0.247	0.24	0.125			GAM
Lead-214	15067-28-4	U		0.298		U	GAM
Radium-226	13982-63-3	U		1.22	2.00	U	GAM
Actinium-228	14331-83-0	U		0.315		U	GAM
Thorium-232	7440-29-1	U		2.41		U	GAM
Protactinium-234	15100-28-4	U		0.124		U	GAM
Thorium-234	15065-10-8	U		0.027		U	GAM
Uranium-235	15117-96-1	U		0.090	0.570	U	GAM
Americium-241	14596-10-2	U		0.068	7.80	U	GAM

Gamma Spec. Method - EPA 901.1
Strontium-90 Method - DOE Sr-01/02

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 01/23/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8802

8802-001 84NPCBSU12DPE-001

DATA SHEET

SDG 8802 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R512094-01 Client sample id 84NPCBSU12DPE-001
Dept sample id 8802-001 Location/Matrix HPS, PCB Hotspot SOIL
Received 12/15/05 Collected/Weight 12/08/05 12:40 323 g
Custody/Proj. No. 15222 CTO_84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.021	0.12	0.227	42.3	U	SR
Potassium-40	13966-00-2	U		0.413		U	GAM
Cobalt-60	10198-40-0	U		0.030	0.420	U	GAM
Cesium-137	10045-97-3	U		0.027	0.130	U	GAM
Europium-152	14683-23-9	U		0.038	0.130	U	GAM
Europium-154	15585-10-1	U		0.025	0.230	U	GAM
Thallium-208	14913-50-9	U		0.027		U	GAM
Lead-210	14255-04-0	0.331	0.25	0.290			GAM
Bismuth-212	14913-49-6	U		0.363		U	GAM
Lead-212	15092-94-1	0.070	0.070	0.034			GAM
Bismuth-214	14733-03-0	U		0.053		U	GAM
Lead-214	15067-28-4	U		0.050		U	GAM
Radium-226	13982-63-3	U		0.321	2.00	U	GAM
Actinium-228	14331-83-0	U		0.113		U	GAM
Thorium-232	7440-29-1	U		0.957		U	GAM
Protactinium-234	15100-28-4	U		0.050		U	GAM
Thorium-234	15065-10-8	U		0.010		U	GAM
Uranium-235	15117-96-1	U		0.024	0.570	U	GAM
Americium-241	14596-10-2	U		0.026	7.80	U	GAM

Gamma Spec. Method - EPA 901.1
Strontium-90 Method - DOE Sr-01/02

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 01/23/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8899

R512057-01 84NPCBSU1DEPE-001

DATA SHEET

SDG 8899 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R512057-01 Client sample id 84NPCBSU1DEPE-001
Dept sample id 8899-001 Location/Matrix HPS-PCB Hotspot SOIL
Received 12/08/05 Collected/Weight 12/07/05 12:30 270 g
Custody/Proj. No. 15183 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.024	0.097	0.189	42.3	U	SR
Potassium-40	13966-00-2	14.2	2.9	0.596			GAM
Cobalt-60	10198-40-0	U		0.083	0.420	U	GAM
Cesium-137	10045-97-3	U		0.073	0.130	U	GAM
Europium-152	14683-23-9	U		0.096	0.130	U	GAM
Europium-154	15585-10-1	U		0.066	0.230	U	GAM
Thallium-208	14913-50-9	U		0.075		U	GAM
Lead-210	14255-04-0	U		0.695		U	GAM
Bismuth-212	14913-49-6	U		1.01		U	GAM
Lead-212	15092-94-1	0.221	0.099	0.082			GAM
Bismuth-214	14733-03-0	0.303	0.18	0.135			GAM
Lead-214	15067-28-4	U		0.134		U	GAM
Radium-226	13982-63-3	U		0.842	2.00	U	GAM
Actinium-228	14331-83-0	U		0.338		U	GAM
Thorium-232	7440-29-1	U		2.49		U	GAM
Protactinium-234	15100-28-4	U		0.131		U	GAM
Thorium-234	15065-10-8	U		0.027		U	GAM
Uranium-235	15117-96-1	U		0.062	0.570	U	GAM
Americium-241	14596-10-2	U		0.068	7.80	U	GAM

Strontium-90 Method - *DOE Sr-01/02*
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 12/29/05

EBERLINE SERVICES / RICHMOND

SAMPLE DELIVERY GROUP 8839

8839-001 84NPCBSU2B1PE-001

DATA SHEET

SDG 8839 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R605155-01 Client sample id 84NPCBSU2B1PE-001
Dept sample id 8839-001 Location/Matrix HPS, PCB SOIL
Received 05/18/06 Collected/Weight 05/15/06 07:40 472 g
Custody/Proj. No. 17943 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.023	0.12	0.234	0.331	U	SR
Potassium-40	13966-00-2	6.81	1.1	0.219			GAM
Cobalt-60	10198-40-0	U		0.023	0.036	U	GAM
Cesium-137	10045-97-3	U		0.020	0.113	U	GAM
Europium-152	14683-23-9	U		0.186	0.130	U	GAM
Europium-154	15585-10-1	U		0.069	0.230	U	GAM
Thallium-208	14913-50-9	0.110	0.028	0.022			GAM
Lead-210	14255-04-0	0.654	0.25	0.308			GAM
Bismuth-212	14913-49-6	U		0.449		U	GAM
Lead-212	15092-94-1	0.415	0.077	0.036			GAM
Bismuth-214	14733-03-0	0.284	0.067	0.049			GAM
Lead-214	15067-28-4	0.288	0.059	0.040			GAM
Radium-226	13982-63-3	0.276	0.065	0.047	1.00		GAM
Actinium-228	14331-83-0	U		0.130		U	GAM
Thorium-230	14269-63-7	U		1.78		U	GAM
Thorium-232	7440-29-1	0.384	0.12	0.107	1.69		GAM
Protactinium-234m	378783-76-7	U		3.74		U	GAM
Thorium-234	15065-10-8	U		0.011		U	GAM
Uranium-235	15117-96-1	U		0.138	0.195	U	GAM
Americium-241	14596-10-2	U		0.022	1.36	U	GAM

Gamma Spec. Method - EPA 901.1
Strontium-90 Method - DOE Sr-01/02

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 07/12/06

R605109-05 84NPCBSU3C1PE-001

D A T A S H E E T

SDG 8835 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R605109-05 Client sample id 84NPCBSU3C1PE-001
Dept sample id 8835-005 Location/Matrix HPS-PCB SOIL
Received 05/11/06 Collected/Weight 05/08/06 08:50 298 g
Custody/Proj. No. 15734 CTO_84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.085	0.12	0.216	0.331	U	SR
Potassium-40	13966-00-2	3.12	0.59	0.222			GAM
Cobalt-60	10198-40-0	U		0.023	0.036	U	GAM
Cesium-137	10045-97-3	U		0.023	0.113	U	GAM
Europium-152	14683-23-9	U		0.178	0.130	U	GAM
Europium-154	15585-10-1	U		0.069	0.230	U	GAM
Thallium-208	14913-50-9	0.067	0.030	0.027			GAM
Lead-210	14255-04-0	U		2.99		U	GAM
Bismuth-212	14913-49-6	U		0.240		U	GAM
Lead-212	15092-94-1	0.188	0.050	0.040			GAM
Bismuth-214	14733-03-0	0.151	0.050	0.048			GAM
Lead-214	15067-28-4	0.142	0.044	0.046			GAM
Radium-226	13982-63-3	0.147	0.049	0.046	1.00		GAM
Actinium-228	14331-83-0	U		0.129		U	GAM
Thorium-230	14269-63-7	U		4.12		U	GAM
Thorium-232	7440-29-1	0.244	0.097	0.085	1.69		GAM
Protactinium-234m	378783-76-7	U		4.16		U	GAM
Thorium-234	15065-10-8	U		0.015		U	GAM
Uranium-235	15117-96-1	U		0.093	0.195	U	GAM
Americium-241	14596-10-2	U		0.115	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 06/30/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8835

R605109-02 84NPCBSU3D1PE-001

DATA SHEET

SDG 8835 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R605109-02 Client sample id 84NPCBSU3D1PE-001
Dept sample id 8835-002 Location/Matrix HPS-PCB SOIL
Received 05/11/06 Collected/Weight 05/08/06 08:30 323 g
Custody/Proj. No. 15734 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.007	0.095	0.192	0.331	U	SR
Potassium-40	13966-00-2	5.28	0.90	0.272			GAM
Cobalt-60	10198-40-0	U		0.023	0.036	U	GAM
Cesium-137	10045-97-3	U		0.021	0.113	U	GAM
Europium-152	14683-23-9	U		0.179	0.130	U	GAM
Europium-154	15585-10-1	U		0.080	0.230	U	GAM
Thallium-208	14913-50-9	0.080	0.027	0.024			GAM
Lead-210	14255-04-0	0.630	0.26	0.310			GAM
Bismuth-212	14913-49-6	U		0.457		U	GAM
Lead-212	15092-94-1	0.208	0.049	0.028			GAM
Bismuth-214	14733-03-0	0.242	0.067	0.050			GAM
Lead-214	15067-28-4	0.205	0.054	0.046			GAM
Radium-226	13982-63-3	0.236	0.065	0.049	1.00		GAM
Actinium-228	14331-83-0	U		0.118		U	GAM
Thorium-230	14269-63-7	2.08	1.0	1.55			GAM
Thorium-232	7440-29-1	0.253	0.092	0.088	1.69		GAM
Protactinium-234m	378783-76-7	U		3.56		U	GAM
Thorium-234	15065-10-8	U		0.011		U	GAM
Uranium-235	15117-96-1	U		0.076	0.195	U	GAM
Americium-241	14596-10-2	U		0.022	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 06/30/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8825

R604043-02 84NPCBSU4BOPE-002

DATA SHEET

SDG 8825 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R604043-02 Client sample id 84NPCBSU4BOPE-002
Dept sample id 8825-002 Location/Matrix HPS-PCB SOIL
Received 04/06/06 Collected/Weight 03/30/06 10:20 456 g
Custody/Proj. No. 16086 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.025	0.12	0.237	0.331	U	SR
Potassium-40	13966-00-2	6.93	1.1	0.245			GAM
Cobalt-60	10198-40-0	U		0.026	0.036	U	GAM
Cesium-137	10045-97-3	U		0.024	0.113	U	GAM
Europium-152	14683-23-9	U		0.224	0.130	U	GAM
Europium-154	15585-10-1	U		0.089	0.230	U	GAM
Thallium-208	14913-50-9	0.088	0.028	0.028			GAM
Lead-210	14255-04-0	U		1.14		U	GAM
Bismuth-212	14913-49-6	U		0.538		U	GAM
Lead-212	15092-94-1	0.286	0.051	0.029			GAM
Bismuth-214	14733-03-0	0.288	0.067	0.054			GAM
Lead-214	15067-28-4	0.282	0.062	0.052			GAM
Radium-226	13982-63-3	0.280	0.065	0.053	1.00		GAM
Actinium-228	14331-83-0	U		0.154		U	GAM
Thorium-230	14269-63-7	U		3.51		U	GAM
Thorium-232	7440-29-1	0.266	0.11	0.119	1.69		GAM
Protactinium-234m	378783-76-7	U		4.64		U	GAM
Thorium-234	15065-10-8	U		0.016		U	GAM
Uranium-235	15117-96-1	U		0.097	0.195	U	GAM
Americium-241	14596-10-2	U		0.069	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 06/02/06

EBERLINE SERVICES / RICHMOND

SAMPLE DELIVERY GROUP 8835

R605109-07 84NPCBSU4B2PE-001

DATA SHEET

SDG 8835 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R605109-07 Client sample id 84NPCBSU4B2PE-001
Dept sample id 8835-007 Location/Matrix HPS-PCB SOIL
Received 05/11/06 Collected/Weight 05/09/06 13:15 500 g
Custody/Proj. No. 15734 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.039	0.12	0.223	0.331	U	SR
Potassium-40	13966-00-2	3.20	2.3	0.324			GAM
Cobalt-60	10198-40-0	U		0.035	0.036	U	GAM
Cesium-137	10045-97-3	U		0.030	0.113	U	GAM
Europium-152	14683-23-9	U		0.222	0.130	U	GAM
Europium-154	15585-10-1	U		0.083	0.230	U	GAM
Thallium-208	14913-50-9	0.059	0.033	0.025			GAM
Lead-210	14255-04-0	U		1.78		U	GAM
Bismuth-212	14913-49-6	0.367	0.36	0.395		U	GAM
Lead-212	15092-94-1	0.262	0.059	0.032			GAM
Bismuth-214	14733-03-0	0.187	0.092	0.053			GAM
Lead-214	15067-28-4	0.224	0.075	0.057			GAM
Radium-226	13982-63-3	0.181	0.089	0.051	1.00		GAM
Actinium-228	14331-83-0	U		0.142		U	GAM
Thorium-230	14269-63-7	U		4.93		U	GAM
Thorium-232	7440-29-1	0.288	0.18	0.120	1.69		GAM
Protactinium-234m	378783-76-7	U		4.16		U	GAM
Thorium-234	15065-10-8	U		0.019		U	GAM
Uranium-235	15117-96-1	U		0.105	0.195	U	GAM
Americium-241	14596-10-2	U		0.093	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 06/30/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8839

8839-002 84NPCBSU5A2PE-001

DATA SHEET

SDG 8839 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R605155-02 Client sample id 84NPCBSU5A2PE-001
Dept sample id 8839-002 Location/Matrix HPS, PCB SOIL
Received 05/18/06 Collected/Weight 05/15/06 10:10 475 g
Custody/Proj. No. 17943 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.016	0.12	0.231	0.331	U	SR
Potassium-40	13966-00-2	5.94	2.3	0.292			GAM
Cobalt-60	10198-40-0	U		0.032	0.036	U	GAM
Cesium-137	10045-97-3	U		0.029	0.113	U	GAM
Europium-152	14683-23-9	U		0.220	0.130	U	GAM
Europium-154	15585-10-1	U		0.080	0.230	U	GAM
Thallium-208	14913-50-9	0.095	0.038	0.029			GAM
Lead-210	14255-04-0	U		1.78		U	GAM
Bismuth-212	14913-49-6	0.384	0.32	0.360			GAM
Lead-212	15092-94-1	0.260	0.057	0.032			GAM
Bismuth-214	14733-03-0	0.255	0.092	0.053			GAM
Lead-214	15067-28-4	0.269	0.072	0.048			GAM
Radium-226	13982-63-3	0.247	0.090	0.051	1.00		GAM
Actinium-228	14331-83-0	U		0.143		U	GAM
Thorium-230	14269-63-7	U		4.67		U	GAM
Thorium-232	7440-29-1	0.371	0.18	0.121	1.69		GAM
Protactinium-234m	378783-76-7	U		4.09		U	GAM
Thorium-234	15065-10-8	U		0.018		U	GAM
Uranium-235	15117-96-1	U		0.101	0.195	U	GAM
Americium-241	14596-10-2	U		0.088	1.36	U	GAM

Gamma Spec. Method - EPA 901.1
Strontium-90 Method - DOE Sr-01/02

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 07/12/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8844

R606017-03 84NPCBSU57PE-001

DATA SHEET

SDG 8844 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R606017-03 Client sample id 84NPCBSU57PE-001
Dept sample id 8844-003 Location/Matrix HPS-PCB SOIL
Received 06/01/06 Collected/Weight 05/30/06 14:00 370 g
Custody/Proj. No. 18454 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.047	0.087	0.184	0.331	U	SR
Potassium-40	13966-00-2	4.25	1.3	0.848			GAM
Cobalt-60	10198-40-0	U		0.080	0.036	U	GAM
Cesium-137	10045-97-3	U		0.067	0.113	U	GAM
Europium-152	14683-23-9	U		0.588	0.130	U	GAM
Europium-154	15585-10-1	U		0.260	0.230	U	GAM
Thallium-208	14913-50-9	0.110	0.069	0.064			GAM
Lead-210	14255-04-0	0.741	0.47	0.588			GAM
Bismuth-212	14913-49-6	U		0.887		U	GAM
Lead-212	15092-94-1	0.172	0.069	0.058			GAM
Bismuth-214	14733-03-0	0.235	0.13	0.121			GAM
Lead-214	15067-28-4	0.117	0.078	0.085			GAM
Radium-226	13982-63-3	0.228	0.12	0.118	1.00		GAM
Actinium-228	14331-83-0	U		0.372		U	GAM
Thorium-230	14269-63-7	U		3.36		U	GAM
Thorium-232	7440-29-1	0.510	0.39	0.345	1.69		GAM
Protactinium-234m	378783-76-7	U		13.1		U	GAM
Thorium-234	15065-10-8	U		0.016		U	GAM
Uranium-235	15117-96-1	U		0.092	0.195	U	GAM
Americium-241	14596-10-2	U		0.057	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 07/27/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8864

8864-003 84NPCBSU5BDPE-001

DATA SHEET

SDG 8864 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R607069-03 Client sample id 84NPCBSU5BDPE-001
Dept sample id 8864-003 Location/Matrix HPS-PCB SOIL
Received 07/13/06 Collected/Weight 06/30/06 11:05 403 g
Custody/Proj. No. 18838 CTO_84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.004	0.19	0.369	0.331	U	SR
Potassium-40	13966-00-2	5.30	1.6	0.293			GAM
Cobalt-60	10198-40-0	U		0.030	0.036	U	GAM
Cesium-137	10045-97-3	U		0.026	0.113	U	GAM
Europium-152	14683-23-9	U		0.232	0.130	U	GAM
Europium-154	15585-10-1	U		0.084	0.230	U	GAM
Thallium-208	14913-50-9	0.066	0.033	0.029			GAM
Lead-210	14255-04-0	U		1.88		U	GAM
Bismuth-212	14913-49-6	0.517	0.32	0.346			GAM
Lead-212	15092-94-1	0.193	0.046	0.034			GAM
Bismuth-214	14733-03-0	0.137	0.067	0.056			GAM
Lead-214	15067-28-4	0.155	0.054	0.050			GAM
Radium-226	13982-63-3	0.133	0.065	0.054	1.00		GAM
Actinium-228	14331-83-0	U		0.152		U	GAM
Thorium-230	14269-63-7	U		4.75		U	GAM
Thorium-232	7440-29-1	0.256	0.12	0.103	1.69		GAM
Protactinium-234m	378783-76-7	U		4.98		U	GAM
Thorium-234	15065-10-8	U		0.020		U	GAM
Uranium-235	15117-96-1	U		0.100	0.195	U	GAM
Americium-241	14596-10-2	U		0.101	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 08/22/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8848

R606086-01 84NPCBS06B3PE-001

DATA SHEET

SDG 8848 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R606086-01 Client sample id 84NPCBS06B3PE-001
Dept sample id 8848-001 Location/Matrix HPS-PCB SOIL
Received 06/08/06 Collected/Weight 06/02/06 11:35 432 g
Custody/Proj. No. 18273 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.072	0.078	0.171	0.331	U	SR
Potassium-40	13966-00-2	6.93	1.3	0.349			GAM
Cobalt-60	10198-40-0	U		0.043	0.036	U	GAM
Cesium-137	10045-97-3	U		0.039	0.113	U	GAM
Europium-152	14683-23-9	U		0.345	0.130	U	GAM
Europium-154	15585-10-1	U		0.120	0.230	U	GAM
Thallium-208	14913-50-9	0.094	0.039	0.041			GAM
Lead-210	14255-04-0	0.968	0.43	0.534			GAM
Bismuth-212	14913-49-6	U		0.955		U	GAM
Lead-212	15092-94-1	0.339	0.067	0.040			GAM
Bismuth-214	14733-03-0	0.233	0.069	0.063			GAM
Lead-214	15067-28-4	0.263	0.079	0.074			GAM
Radium-226	13982-63-3	0.226	0.067	0.062	1.00		GAM
Actinium-228	14331-83-0	U		0.226		U	GAM
Thorium-230	14269-63-7	U		3.10		U	GAM
Thorium-232	7440-29-1	0.412	0.20	0.180	1.69		GAM
Protactinium-234m	378783-76-7	U		7.00		U	GAM
Thorium-234	15065-10-8	U		0.020		U	GAM
Uranium-235	15117-96-1	U		0.126	0.195	U	GAM
Americium-241	14596-10-2	U		0.041	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 08/02/06

EBERLINE SERVICES / RICHMOND

SAMPLE DELIVERY GROUP 8869

8869-003 84NPCBSU7A1PE-002

DATA SHEET

SDG 8869 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R607165-03 Client sample id 84NPCBSU7A1PE-002
Dept sample id 8869-003 Location/Matrix HPS-PCB SOIL
Received 07/27/06 Collected/Weight 07/25/06 17:40 370 g
Custody/Proj. No. 19163 CTO_84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.023	0.14	0.269	0.331	U	SR
Potassium-40	13966-00-2	12.7	2.3	0.730			GAM
Cobalt-60	10198-40-0	U		0.072	0.036	U	GAM
Cesium-137	10045-97-3	U		0.054	0.113	U	GAM
Europium-152	14683-23-9	U		0.535	0.130	U	GAM
Europium-154	15585-10-1	U		0.239	0.230	U	GAM
Thallium-208	14913-50-9	0.091	0.045	0.046			GAM
Lead-210	14255-04-0	0.464	0.37	0.476		U	GAM
Bismuth-212	14913-49-6	U		0.746		U	GAM
Lead-212	15092-94-1	0.148	0.053	0.049			GAM
Bismuth-214	14733-03-0	0.189	0.086	0.090			GAM
Lead-214	15067-28-4	0.147	0.064	0.067			GAM
Radium-226	13982-63-3	0.184	0.084	0.087	1.00		GAM
Actinium-228	14331-83-0	U		0.305		U	GAM
Thorium-230	14269-63-7	U		3.16		U	GAM
Thorium-232	7440-29-1	0.334	0.27	0.296	1.69		GAM
Protactinium-234m	378783-76-7	U		11.3		U	GAM
Thorium-234	15065-10-8	U		0.015		U	GAM
Uranium-235	15117-96-1	U		0.095	0.195	U	GAM
Americium-241	14596-10-2	U		0.053	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 08/29/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8864

8864-007 84NPCBS08A2PE-001

DATA SHEET

SDG 8864 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R607069-07 Client sample id 84NPCBS08A2PE-001
Dept sample id 8864-007 Location/Matrix HPS-PCB SOIL
Received 07/13/06 Collected/Weight 07/06/06 08:25 412 g
Custody/Proj. No. 18838 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.008	0.15	0.292	0.331	U	SR
Potassium-40	13966-00-2	3.09	1.4	0.136			GAM
Cobalt-60	10198-40-0	U		0.019	0.036	U	GAM
Cesium-137	10045-97-3	U		0.012	0.113	U	GAM
Europium-152	14683-23-9	U		0.101	0.130	U	GAM
Europium-154	15585-10-1	U		0.039	0.230	U	GAM
Thallium-208	14913-50-9	0.043	0.021	0.012			GAM
Lead-210	14255-04-0	U		0.874		U	GAM
Bismuth-212	14913-49-6	0.272	0.17	0.163			GAM
Lead-212	15092-94-1	0.182	0.038	0.016			GAM
Bismuth-214	14733-03-0	0.149	0.048	0.026			GAM
Lead-214	15067-28-4	0.184	0.042	0.024			GAM
Radium-226	13982-63-3	0.145	0.046	0.025	1.00		GAM
Actinium-228	14331-83-0	U		0.069		U	GAM
Thorium-230	14269-63-7	U		2.20		U	GAM
Thorium-232	7440-29-1	0.187	0.085	0.057	1.69		GAM
Protactinium-234m	378783-76-7	U		2.12		U	GAM
Thorium-234	15065-10-8	U		0.010		U	GAM
Uranium-235	15117-96-1	U		0.044	0.195	U	GAM
Americium-241	14596-10-2	U		0.046	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 08/22/06

EBERLINE SERVICES / RICHMOND

SAMPLE DELIVERY GROUP 8864

8864-013 84NPCBSU8C2PE-001

DATA SHEET

SDG 8864 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R607069-13 Client sample id 84NPCBSU8C2PE-001
Dept sample id 8864-013 Location/Matrix HPS-PCB SOIL
Received 07/13/06 Collected/Weight 07/07/06 13:05 499 g
Custody/Proj. No. 18840 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.049	0.13	0.280	0.331	U	SR
Potassium-40	13966-00-2	4.51	1.0	0.248			GAM
Cobalt-60	10198-40-0	U		0.025	0.036	U	GAM
Cesium-137	10045-97-3	U		0.048	0.113	U	GAM
Europium-152	14683-23-9	U		0.175	0.130	U	GAM
Europium-154	15585-10-1	U		0.063	0.230	U	GAM
Thallium-208	14913-50-9	0.073	0.027	0.023			GAM
Lead-210	14255-04-0	U		1.38		U	GAM
Bismuth-212	14913-49-6	0.279	0.23	0.284		U	GAM
Lead-212	15092-94-1	0.170	0.034	0.025			GAM
Bismuth-214	14733-03-0	0.178	0.052	0.044			GAM
Lead-214	15067-28-4	0.182	0.048	0.042			GAM
Radium-226	13982-63-3	0.173	0.051	0.043	1.00		GAM
Actinium-228	14331-83-0	U		0.116		U	GAM
Thorium-230	14269-63-7	U		3.82		U	GAM
Thorium-232	7440-29-1	0.237	0.11	0.095	1.69		GAM
Protactinium-234m	378783-76-7	U		3.31		U	GAM
Thorium-234	15065-10-8	U		0.015		U	GAM
Uranium-235	15117-96-1	U		0.081	0.195	U	GAM
Americium-241	14596-10-2	U		0.074	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 08/22/06

EBERLINE SERVICES / RICHMOND

SAMPLE DELIVERY GROUP 8864

8864-016 84NPCBSU8C3PE-001

DATA SHEET

SDG 8864 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R607069-16 Client sample id 84NPCBSU8C3PE-001
Dept sample id 8864-016 Location/Matrix HPS-PCB SOIL
Received 07/13/06 Collected/Weight 07/11/06 08:25 368 g
Custody/Proj. No. 18840 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.066	0.15	0.280	0.331	U	SR
Potassium-40	13966-00-2	6.30	1.1	0.244			GAM
Cobalt-60	10198-40-0	U		0.027	0.036	U	GAM
Cesium-137	10045-97-3	U		0.024	0.113	U	GAM
Europium-152	14683-23-9	U		0.179	0.130	U	GAM
Europium-154	15585-10-1	U		0.083	0.230	U	GAM
Thallium-208	14913-50-9	0.107	0.031	0.027			GAM
Lead-210	14255-04-0	0.372	0.30	0.398		U	GAM
Bismuth-212	14913-49-6	U		0.304		U	GAM
Lead-212	15092-94-1	0.308	0.056	0.034			GAM
Bismuth-214	14733-03-0	0.274	0.063	0.046			GAM
Lead-214	15067-28-4	0.235	0.060	0.056			GAM
Radium-226	13982-63-3	0.266	0.061	0.045	1.00		GAM
Actinium-228	14331-83-0	U		0.093		U	GAM
Thorium-230	14269-63-7	U		2.35		U	GAM
Thorium-232	7440-29-1	0.420	0.14	0.109	1.69		GAM
Protactinium-234m	378783-76-7	U		4.18		U	GAM
Thorium-234	15065-10-8	U		0.016		U	GAM
Uranium-235	15117-96-1	U		0.116	0.195	U	GAM
Americium-241	14596-10-2	U		0.033	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 08/22/06

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8802

8802-006 84NPCBSU9A0PE-001

DATA SHEET

SDG 8802 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R512094-06 Client sample id 84NPCBSU9A0PE-001
Dept sample id 8802-006 Location/Matrix HPS, PCB Hotspot SOIL
Received 12/15/05 Collected/Weight 12/13/05 12:00 347 g
Custody/Proj. No. 15222 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.017	0.11	0.223	42.3	U	SR
Potassium-40	13966-00-2	20.4	4.6	0.483			GAM
Cobalt-60	10198-40-0	U		0.127	0.420	U	GAM
Cesium-137	10045-97-3	U		0.051	0.130	U	GAM
Europium-152	14683-23-9	U		0.103	0.130	U	GAM
Europium-154	15585-10-1	U		0.076	0.230	U	GAM
Thallium-208	14913-50-9	0.084	0.060	0.054			GAM
Lead-210	14255-04-0	U		3.64		U	GAM
Bismuth-212	14913-49-6	U		0.721		U	GAM
Lead-212	15092-94-1	0.229	0.097	0.072			GAM
Bismuth-214	14733-03-0	0.272	0.16	0.116			GAM
Lead-214	15067-28-4	0.144	0.11	0.106			GAM
Radium-226	13982-63-3	U		1.30	2.00	U	GAM
Actinium-228	14331-83-0	U		0.292		U	GAM
Thorium-232	7440-29-1	U		6.17		U	GAM
Protactinium-234	15100-28-4	U		0.146		U	GAM
Thorium-234	15065-10-8	U		0.038		U	GAM
Uranium-235	15117-96-1	U		0.096	0.570	U	GAM
Americium-241	14596-10-2	U		0.185	7.80	U	GAM

Gamma Spec. Method - EPA 901.1
Strontium-90 Method - DOE Sr-01/02

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 01/23/06

EBERLINE SERVICES / RICHMOND

SAMPLE DELIVERY GROUP 8860

R606239-08 84NPCBSU9E2PE-001

DATA SHEET

SDG 8860 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59371

Lab sample id R606239-08 Client sample id 84NPCBSU9E2PE-001
Dept sample id 8860-008 Location/Matrix HPS-PCB SOIL
Received 06/29/06 Collected/Weight 06/23/06 08:00 416 g
Custody/Proj. No. 18669 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.005	0.29	0.429	0.331	U	SR
Potassium-40	13966-00-2	5.90	0.99	0.264			GAM
Cobalt-60	10198-40-0	U		0.025	0.036	U	GAM
Cesium-137	10045-97-3	U		0.023	0.113	U	GAM
Europium-152	14683-23-9	U		0.217	0.130	U	GAM
Europium-154	15585-10-1	U		0.077	0.230	U	GAM
Thallium-208	14913-50-9	0.092	0.025	0.022			GAM
Lead-210	14255-04-0	0.266	0.24	0.347		U	GAM
Bismuth-212	14913-49-6	U		0.330		U	GAM
Lead-212	15092-94-1	0.330	0.065	0.045			GAM
Bismuth-214	14733-03-0	0.265	0.058	0.042			GAM
Lead-214	15067-28-4	0.323	0.071	0.052			GAM
Radium-226	13982-63-3	0.257	0.056	0.041	1.00		GAM
Actinium-228	14331-83-0	U		0.137		U	GAM
Thorium-230	14269-63-7	3.32	1.9	2.48			GAM
Thorium-232	7440-29-1	0.322	0.11	0.104	1.69		GAM
Protactinium-234m	378783-76-7	U		3.68		U	GAM
Thorium-234	15065-10-8	U		0.014		U	GAM
Uranium-235	15117-96-1	U		0.107	0.195	U	GAM
Americium-241	14596-10-2	U		0.031	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 08/16/06

8895-005 84NPCBSU100BPE-001

DATA SHEET

SDG 8895 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R512018-05 Client sample id 84NPCBSU100BPE-001
Dept sample id 8895-005 Location/Matrix HPS, PCB Hotspot SOIL
Received 12/01/05 Collected/Weight 11/28/05 12:10 393.0 g
Custody/Proj. No. 13832 CTO_84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.011	0.12	0.239	42.3	U	SR
Potassium-40	13966-00-2	18.8	3.2	0.727			GAM
Cobalt-60	10198-40-0	U		0.103	0.420	U	GAM
Cesium-137	10045-97-3	U		0.082	0.130	U	GAM
Europium-152	14683-23-9	U		0.115	0.130	U	GAM
Europium-154	15585-10-1	U		0.075	0.230	U	GAM
Thallium-208	14913-50-9	U		0.086		U	GAM
Lead-210	14255-04-0	U		2.12		U	GAM
Bismuth-212	14913-49-6	U		1.09		U	GAM
Lead-212	15092-94-1	0.259	0.095	0.092			GAM
Bismuth-214	14733-03-0	U		0.168		U	GAM
Lead-214	15067-28-4	U		0.150		U	GAM
Radium-226	13982-63-3	U		0.892	2.00	U	GAM
Actinium-228	14331-83-0	U		0.389		U	GAM
Thorium-232	7440-29-1	U		4.58		U	GAM
Protactinium-234	15100-28-4	U		0.146		U	GAM
Thorium-234	15065-10-8	U		0.035		U	GAM
Uranium-235	15117-96-1	U		0.068	0.570	U	GAM
Americium-241	14596-10-2	U		0.140	7.80	U	GAM

Gamma Spec. Method - EPA 901.1
Strontium-90 Method - DOE Sr-01/02

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 12/21/05

DATA SHEET

SDG 8895 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R512018-06 Client sample id 84NPCBSU101FPE-001
Dept sample id 8895-006 Location/Matrix HPS, PCB Hotspot SOIL
Received 12/01/05 Collected/Weight 11/28/05 12:50 308.0 g
Custody/Proj. No. 13832 CTO_84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.089	0.12	0.241	42.3	U	SR
Potassium-40	13966-00-2	10.5	2.0	0.628			GAM
Cobalt-60	10198-40-0	U		0.077	0.420	U	GAM
Cesium-137	10045-97-3	U		0.083	0.130	U	GAM
Europium-152	14683-23-9	U		0.116	0.130	U	GAM
Europium-154	15585-10-1	U		0.076	0.230	U	GAM
Thallium-208	14913-50-9	0.155	0.069	0.062			GAM
Lead-210	14255-04-0	U		2.23		U	GAM
Bismuth-212	14913-49-6	U		1.08		U	GAM
Lead-212	15092-94-1	0.465	0.18	0.122			GAM
Bismuth-214	14733-03-0	U		0.170		U	GAM
Lead-214	15067-28-4	0.297	0.14	0.131			GAM
Radium-226	13982-63-3	U		1.51	2.00	U	GAM
Actinium-228	14331-83-0	U		0.390		U	GAM
Thorium-232	7440-29-1	U		4.54		U	GAM
Protactinium-234	15100-28-4	U		0.155		U	GAM
Thorium-234	15065-10-8	U		0.036		U	GAM
Uranium-235	15117-96-1	U		0.112	0.570	U	GAM
Americium-241	14596-10-2	U		0.140	7.80	U	GAM

Gamma Spec. Method - EPA 901.1
Strontium-90 Method - DOE Sr-01/02

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 12/21/05

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP 8802

8802-005 84NPCBSU10G0PE-001

DATA SHEET

SDG 8802 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 57624

Lab sample id R512094-05 Client sample id 84NPCBSU10G0PE-001
Dept sample id 8802-005 Location/Matrix HPS, PCB Hotspot SOIL
Received 12/15/05 Collected/Weight 12/13/05 12:45 288 g
Custody/Proj. No. 15222 CTO 84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	-0.052	0.11	0.230	42.3	U	SR
Potassium-40	13966-00-2	14.8	7.6	0.512			GAM
Cobalt-60	10198-40-0	U		0.060	0.420	U	GAM
Cesium-137	10045-97-3	U		0.053	0.130	U	GAM
Europium-152	14683-23-9	U		0.080	0.130	U	GAM
Europium-154	15585-10-1	U		0.058	0.230	U	GAM
Thallium-208	14913-50-9	U		0.153		U	GAM
Lead-210	14255-04-0	U		3.04		U	GAM
Bismuth-212	14913-49-6	U		0.628		U	GAM
Lead-212	15092-94-1	0.234	0.16	0.081			GAM
Bismuth-214	14733-03-0	U		0.114		U	GAM
Lead-214	15067-28-4	U		0.100		U	GAM
Radium-226	13982-63-3	U		0.635	2.00	U	GAM
Actinium-228	14331-83-0	U		0.257		U	GAM
Thorium-232	7440-29-1	U		4.83		U	GAM
Protactinium-234	15100-28-4	U		0.113		U	GAM
Thorium-234	15065-10-8	U		0.029		U	GAM
Uranium-235	15117-96-1	U		0.047	0.570	U	GAM
Americium-241	14596-10-2	U		0.160	7.80	U	GAM

Gamma Spec. Method - EPA 901.1
Strontium-90 Method - DOE Sr-01/02

Lab id EBERL
Protocol TTFW-HPS
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 01/23/06

EBERLINE SERVICES / RICHMOND

SAMPLE DELIVERY GROUP 8866

8866-005 84NPCBSU11H1PE-001

DATA SHEET

SDG 8866 Client Tetra Tech EC, Inc.
Contact Melissa C. Mannion Contract 59497

Lab sample id R607123-05 Client sample id 84NPCBSU11H1PE-001
Dept sample id 8866-005 Location/Matrix HPS-PCB SOIL
Received 07/20/06 Collected/Weight 07/19/06 15:25 425 g
Custody/Proj. No. 18906 CTO_84

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (TOTAL)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Strontium-90	10098-97-2	0.018	0.13	0.256	0.331	U	SR
Potassium-40	13966-00-2	3.21	1.3	0.263			GAM
Cobalt-60	10198-40-0	U		0.027	0.036	U	GAM
Cesium-137	10045-97-3	U		0.025	0.113	U	GAM
Europium-152	14683-23-9	U		0.214	0.130	U	GAM
Europium-154	15585-10-1	U		0.083	0.230	U	GAM
Thallium-208	14913-50-9	U		0.052		U	GAM
Lead-210	14255-04-0	U		1.69		U	GAM
Bismuth-212	14913-49-6	0.464	0.45	0.441			GAM
Lead-212	15092-94-1	0.107	0.038	0.030			GAM
Bismuth-214	14733-03-0	0.117	0.063	0.055			GAM
Lead-214	15067-28-4	0.056	0.038	0.038			GAM
Radium-226	13982-63-3	0.114	0.061	0.053	1.00		GAM
Actinium-228	14331-83-0	U		0.143		U	GAM
Thorium-230	14269-63-7	U		4.04		U	GAM
Thorium-232	7440-29-1	0.221	0.14	0.124	1.69		GAM
Protactinium-234m	378783-76-7	U		4.34		U	GAM
Thorium-234	15065-10-8	U		0.018		U	GAM
Uranium-235	15117-96-1	U		0.096	0.195	U	GAM
Americium-241	14596-10-2	U		0.086	1.36	U	GAM

Strontium-90 Method - DOE Sr-01/02
Gamma Spec. Method - EPA 901.1

Lab id EBERL
Protocol TTFW-CT84
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 08/24/06

APPENDIX N

RESPONSE TO COMMENTS ON DRAFT REMOVAL ACTION COMPLETION REPORT, PCB HOT SPOT SOIL EXCAVATION SITE, PARCELS E AND E-2, HUNTERS POINT SHIPYARD (DCN: ECSD-5713-0084-0001)

RESPONSE TO COMMENTS
FOR
DRAFT REMOVAL ACTION COMPLETION REPORT, PCB HOT SPOT, PARCELS E AND E-2
HUNTERS POINT SHIPYARD, SAN FRANCISCO, CALIFORNIA (Dated July 31, 2007)

DCN: ECSD-5731-0084-0001

Reviewed by Thomas P. Lanphar
Senior Hazardous Substance Scientist
Office Military Facilities
Department of Toxic Substances Control

Comments Received via Email: October 2 , 2007

Comments	
Comment 1. Figure 4-8 and Figure 4-9. Foot notes provide references for the two landfill cap limits on Figures 4-8 and 4-9; however, the references do not explain the differences of these two boundaries. Please further explain the meaning of these two cap limits and why differences exist between.	**Response 1.** The approximate line of the landfill cap (TtEMI, 2003) is based on the original design document of the cap. The edge of the geo-membrane cap (TtEMI, 2002) was taken and projected from the as-built drawing. This additional information was added to Figures 4-8 and 4-9. Both boundaries were applied and staked out in the field during the excavation to prevent any encounter with, and therefore compromise of, the landfill cap. The excavation did not encounter the Parcel E-2 Landfill cap.
Comment 2. Figure 4-X. DTSC suggest that an additional figure be included in the report showing color coded girds exceeding the Removal Action Objectives for PCB and petroleum. This figure could be similar to Figure 4-1, which shows maximum excavation depth.	**Response 2.** Comment noted. Grids exceeding the Removal Action Objectives are discussed in Section 8.0, Effectiveness of the Removal Action. The locations of grids with residual chemical contaminants above cleanup goals after the completion of PCB Hot Spot Soil Excavation Site (PCB Hot Spot) are listed in Table 8-1. Figures 8-1 and Figure 8-2 have been added to the report to also graphically show the locations of the grids with residual contamination.
Comment 3. Section 8.0 Effectiveness of Removal Action. One of the reasons cited for discontinuing excavation activities and consequently leaving residual chemical contamination behind is the proximity to the Parcel E-2 landfill and the avoidance of the possibility to encounter, and therefore compromise, the Parcel E-2 Landfill engineered cap. According to Figures 4-8 and 4-9, the excavation encountered the edge of the cap geomembrane in several grids. Please clarify whether the landfill cap was encountered and what actions were taken if and when this happened.	**Response 3.** The excavation did not encounter the Parcel E-2 Landfill cap. Excavation on the north and northeast side of PCB Hot Spot relied on existing as-built data. The excavation was halted in this area to avoid encountering the landfill cap. Visually stained soil and debris on grid sidewalls and bottoms were removed and post-excavation confirmation samples collected.

RESPONSE TO COMMENTS
FOR
DRAFT REMOVAL ACTION COMPLETION REPORT, PCB HOT SPOT, PARCELS E AND E-2
HUNTERS POINT SHIPYARD, SAN FRANCISCO, CALIFORNIA (Dated July 31, 2007)

DCN: ECSD-5731-0084-0001

Comment 4. Section 8.0 Effectiveness of Removal Action and Section 11.0 Recommendations. Several reasons for discontinuing excavation activities are listed in Section 8.0 and in Section 11.0 the Navy concludes that further removal is recommended near the Parcel E-2/F boundary (E2 shoreline). DTSC concurs with the Navy's reasoning and recommendations. Parcels E and E2 contain other areas of PCB and petroleum soil contamination that should be considered for additional excavation. Figure 2-1 of the PCB Hot Spot Removal final Project Work Plan (November 10, 2005), identifies PCB contamination not scoped in this removal action. PCBs are known to exists northwest of the excavation in grids 182 (PCB at 3.3 mg/kg at 0.2 feet bgs); 183 (PCB at 6.8 at 2.5 feet bgs) and grid 192 (PCB at 4.9 at 2.5 feet bgs). Also, east of the excavation in Parcel E, several grids with PCBs above RAOs exists (see grids 1 through 52). Please acknowledge these other areas of PCB contamination in the Completion Report and discuss the potential need to conduct excavations in these other areas. Please include a discussion and evaluation of remaining PCB and petroleum soil contamination in Parcel E2 (including the shoreline and east adjacent area) and include soil excavation alternatives in the draft final Parcel E2 Remedial Investigation and Feasibility Study.	**Response 4.** This Completion Report discusses the implementation of time-critical removal action (TCRA) activities and the effectiveness of the TCRA at PCB Hot Spot. Existing contamination outside the PCB Hot Spot is discussed in the *Parcel E Remedial Investigation* (Tetra Tech, Levin-Fricke-Recon, and Uribe and Associates, 1997), the *Parcels E and E-2 Standard Data Gaps Investigation Data Summary Report* (Tetra Tech EMI, 2005), as well as the Draft Parcel E-2 Remedial Investigation/Feasibility Study, Hunters Point Shipyard, San Francisco, California. Residual contamination within PCB Hot Spot is discussed in Section 8.0 and Table 8.1 and depicted on Figures 8-1 (grid bottoms) and 8-2 (perimeter sidewall grids).

RESPONSE TO COMMENTS
FOR
DRAFT REMOVAL ACTION COMPLETION REPORT, PCB HOT SPOT, PARCELS E AND E2
HUNTERS POINT SHIPYARD, SAN FRANCISCO, CALIFORNIA (Dated July 31, 2007)

DCN: ECSD-5731-0084-0001

Reviewed by Mark Ripperda

Environmental Protection Agency,

(Ripperda.Mark@epamail.epa.gov)

Comments Received via Email: September 6 , 2007

General Comments

Comment 1. We agree with the conclusions in the report that cleanup goals have not been achieved in many of the perimeter samples. The shoreline area poses the highest potential risk both because of its higher levels of contamination and its proximity to the bay and should be the primary focus of future work.	**Response 1.** Comment noted.

RESPONSE TO COMMENTS
FOR
DRAFT REMOVAL ACTION COMPLETION REPORT, PCB HOT SPOT, PARCELS E AND E2
HUNTERS POINT SHIPYARD, SAN FRANCISCO, CALIFORNIA (Dated July 31, 2007)

DCN: ECSD-5731-0084-0001

Comment 2. The Base Realignment and Closure (BRAC) Cleanup Team (BCT) was told that at least one drum, including the one punctured by the excavator, contained pesticides, but this is not discussed in the text. Please provide a more complete description of the contents of the drums in the text.	**Response 2.** Since the completion report discusses the implementation and effectiveness of the TCRA at PCB Hot Spot, but did not include efforts for complete identification of all wastes encountered, the waste materials were generally sampled and characterized for waste disposal only. More than 120 drums were encountered and properly over-packed during the excavation activities. Given the fact that the over-packs eventually were disposed via incineration, HazCat analyses and radiological swipes for radiological clearance fulfilled the disposal requirements. The contents were typically not further characterized and were thereby not further discussed in the text. Upon encounter of the one particular waste drum that was punctured by the excavator, the drum was sampled with focus on obtaining information in order to evaluate the content of the drum from a health and safety standpoint. The drum was sampled for the following: VOCs, pesticides, potassium, total phosphorous, PCB, TPH-gas, and TPH-diesel The results showed that the drum contained the following: 1.8 percent diesel, 3.1 percent motor oils, 0.96 percent gasoline, 0.18 percent MIBK (solvent), 0.86 percent PCB, and some other analytes typical in fuels. The drum also included 16* ppm heptachlor epoxide, 60* ppm dieldrin and 49* ppm methoxychlor. The overall moisture content was 21 percent. The drum was eventually over-packed to secure the remaining sludgy content and associated soils and disposed at Kettleman with the other over-packed drums for subsequent transfer and disposal by incineration at Onyx Environmental Services, Port Arthur Treatment Facility in Port Arthur, Texas. The sampling results from this single drum were included in the text in Section 6.2 Drums, bottles, jars and containers with unknown content of the Final PCB Hot Spot Removal Action Completion Report. * Analytical waste results do not require third party laboratory validation and were therefore never validated. Concentrations should be considered approximate.

RESPONSE TO COMMENTS
FOR
DRAFT REMOVAL ACTION COMPLETION REPORT, PCB HOT SPOT, PARCELS E AND E2
HUNTERS POINT SHIPYARD, SAN FRANCISCO, CALIFORNIA (Dated July 31, 2007)

DCN: ECSD-5731-0084-0001

Comment 3. The text in Section 4.2 indicates that visual staining on the bottoms and sidewalls of the excavations was documented, but it does not appear that this information was provided in the Report. Similarly, it does not appear that documentation has been provided to identify the grids that contained free phase product. Please revise the Report to include a table summarizing grids where visual staining and free phase product has been provided.	**Response 3.** Areas with visual staining were removed as part of the removal action. The only areas where visual staining was observed but not removed included areas where exploratory potholing outside the excavation boundary was conducted. These areas included the shoreline protection and berms. For further information on those locations, see Section 4.1.4 Exploratory potholing to evaluate contamination near the Parcel E-2/F boundary, As stated in Section 4.1, "...free-phase product in the form of both globules and sheen was observed in several locations. Free-phase product was specifically encountered along the western and southwestern boundary, along the Parcel E-2 Landfill, and in the grids where the majority of the drums with content were found (see Section 4.1.2)." Excavation continued in grids where free-phase product was encountered. Visual contamination or free product was removed until the grid appeared "clean" before post-excavation confirmation samples were collected. No revisions to the text were made.
Specific Comments	
Comment 1. Section 4.1.3, Geophysical Survey and Intrusive Investigation, Page 4-7 and Figure 4-5, Geophysical Map 3 - Specific Anomalies with a 55-Gallon Drum Equivalent Geophysical Response: The text states that anomalies were identified at various depths, but neither the text nor figures specify the depths that the symbols used on Figure 4-5 represent, so it is unclear if all of the anomalies have been excavated, particularly in cells that were only excavated to a shallow depth (e.g., grid cells 64, 77 and 89). Also, was the survey depicted on Figure 4-5 continued into the northern part of the excavated area? If so, a figure summarizing the geophysical response in this area should be provided. Please specify the depths represented by the symbols used on Figure 4-3 and discuss whether there are anomalies in blocks that were only excavated to a shallow depth that could be deeper than the maximum depth excavated. In addition, please clarify whether there is a northern counter part to Figure 4-5 and if so, please provide it in the next version of this report.	**Response 1.** Anomalies were identified at various depths; however, a called out geophysical anomaly would not necessarily confirm the presence of contamination. An anomaly is a deviation in the electromagnetic response and may be caused by the presence of metal, water, or site geology. Soil and debris exhibiting visual staining were removed from PCB Hot Spot. Figure 4-5 is an interpretation of the geophysical data presented in Figures 4-3 and 4-4. Figure 4-6 presents the geophysical data for the northern part of PCB Hot Spot. A similar interpreted data figure was not created for the northern part of the excavated area due to the fact that the northern area contained wetland areas. Excavation of wetlands was not part of the scope of this TCRA. The symbols used in Figure 4-4 were added to the legend for further clarification.

RESPONSE TO COMMENTS
FOR
DRAFT REMOVAL ACTION COMPLETION REPORT, PCB HOT SPOT, PARCELS E AND E2
HUNTERS POINT SHIPYARD, SAN FRANCISCO, CALIFORNIA (Dated July 31, 2007)

DCN: ECSD-5731-0084-0001

Comment 2. Section 4.1.5, Materials Potentially Presenting an Explosives Hazard, Page 4-8: The title of the section should read, "Material Potentially Presenting an Explosive Hazard" to be consistent with standard terminology. All other uses of this term should also be corrected throughout the document. In addition, the word "ordinance" should read "ordnance" in the first paragraph of the section.	**Response 2.** Comment noted. The text was revised as requested.
Comment 3. Section 4.1.5 Materials Potentially Presenting an Explosives Hazard, Page 4-9: It is unclear whether material potentially presenting an explosive hazard (MPPEH) was stored properly. In the first paragraph of the section on page 4-9, there are two sentences which state, "The drums used for storage of the collected MPPEH were located at Building 704. Building 704 is an area specifically identified for hazardous material storage and is located in a secluded area adjacent to Parcel E (see Figure 2-1)," but it is unclear whether this building has been sited for the storage of items which may contain explosives, as is required by DoD 6055.9-STD (DoD Ammunition and Explosives Safety Standards). In addition, if other hazardous materials are stored in the building, the following excerpt of DoD 6055.9-STD may apply, depending on the hazard presented: C3.3. STORAGE AND COMPATIBILITY PRINCIPLES C3.3.3. AE may not be stored with dissimilar substances or articles (e.g., flammable or combustible materials, acids, or corrosives) that may present additional hazards to the AE unless they have been assessed to be compatible. In addition, since the MPPEH recovered constitutes a solid waste under the provisions of 40 CFR 266 (it was purposely buried as a means of disposal), the provisions of Chapter 14 (Special Storage Procedures for Waste Military Munitions) of DoD 6055.9-STD also apply. Please review the storage principles under which the cited MPPEH is being stored, clarify whether Building 704 meets the DoD standards for storage of MPPEH, and ensure that the considerations noted above are being observed for future removal and remedial actions.	**Response 3.** The Navy is currently in the process of determining the most appropriate disposal method(s) for the remaining MPPEH from all the TCRA sites and is concurrently reviewing the principles for MPPEH storage.

RESPONSE TO COMMENTS
FOR
DRAFT REMOVAL ACTION COMPLETION REPORT, PCB HOT SPOT, PARCELS E AND E2
HUNTERS POINT SHIPYARD, SAN FRANCISCO, CALIFORNIA (Dated July 31, 2007)

DCN: ECSD-5731-0084-0001

Comment 4. Figure 4-1, Maximum Excavation Depth Map: This figure is not very clear. First, the figures appears to indicate that all of the gridded cells, including those outside the excavation boundaries were excavated, since the same color was used for some grid cells within the excavation boundaries (e.g., 64 and 77) as the cells outside the excavation boundaries (i.e., white for the 0 to 3 ft depth interval, per the legend). Also, the colors used to designate the 11-15 ft bgs depth interval and the 19-21 ft bgs interval are too similar to be distinguished unless grid cells are adjacent; more distinct colors should be utilized. In addition, it is unclear if the 16 to 18 foot below ground surface (ft bgs) depth interval is missing, since there is no designated color in the legend for this interval. If no cells were excavated to this depth range, a statement to this effect should be added to the legend to minimize potential confusion. Further, it appears that grid cell 57 is split; the color for the northeastern half indicates it was excavated to 11 to 15 ft bgs while color used for the southwestern half indicates it was excavated to 19 to 21 ft bgs. Please use different colors to distinguish between areas that were not excavated (i.e., areas outside the excavation boundary) and the shallowest interval excavated (e.g., grid cells 77 and 64) as well as to distinguish between the deepest depth intervals.	**Response 4.** The colors of the figure were adjusted for clarification. A note was also added to the figure to indicate that the 16-18 foot below ground surface (bgs) interval is missing because there are no grids excavated to that depth interval. Excavation of grid 57 was split. Due to its estimated proximity to the Parcel E-2 Landfill cap, the initial presence of visual staining, and sidewall sloping requirements, half the grid was excavated to approximately 15 feet bgs and the remaining portion was excavated to approximately 21 feet bgs. Visually stained soils were removed. Post-excavation bottom confirmation samples were collected from both elevations.
Minor Comments	
Comment 1. Appendix F, Table F-2, Overpack Drum Log: Several entries (e.g., D84-40, D84-59) continue beyond the bottom of the cell in the "contents" column. Please review this table and expand the row height as necessary so that the entire entries can be read.	**Response 1.** The format of Appendix F was adjusted as requested.
Comment 2. Appendix J, Table: The significance of the yellow and aqua shading is unclear because there are no footnotes to explain this shading. Please provide footnotes to explain the significance of the yellow and aqua shading.	**Response 2.** The table is inclusive of all the Field Change Requests (FCR) issued for all four TCRAs executed in parallel (PCB Hot Spot Soil Excavation Site, IR-02 Northwest and Central, Metal Debris Reef, and Metal Slag Areas). The yellow and aqua shading indicate that the FCR pertained to the PCB Hot Spot TCRA only or covered all the TCRAs, respectively. Footnotes were added to the table to explain the significance of the shading.

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Dear BCT Members:

Enclosure (1) is the Final Removal Action Completion Report, PCB Hot Spot Soil Excavation Site, Parcels E and E-2, at Hunters Point Shipyard, San Francisco, California, dated October, 2007. Please find responses to review comments on the Draft Removal Action Completion Report included in Appendix N.

If you have questions, please contact Mr. Mark Walden at (619) 532-0931, or Mr. Keith Forman at keith.s.forman@navy.mil.

Sincerely,

KEITH FORMAN
BRAC Environmental Coordinator
By direction of the Director

Enclosure: 1. Final Removal Action Completion Report, PCB Hot Spot Soil Excavation Site, Parcels E and E-2, Hunters Point Shipyard, San Francisco, California, October, 2007

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