

N00213.AR.001370
NAS KEY WEST
5090.3a

FINAL SAMPLING REPORT SOLID WASTE MANAGEMENT UNIT 2 (SWMU2) WITH
CONCURRENCE LETTER FROM FLORIDA DEPARTMENT OF ENVIRONMENTAL
PROTECTION WITH TRANSMITTAL NAS KEY WEST FL

8/12/2011
TETRA TECH



AIK-11-0236

August 12, 2011

Project Number 01545

via US Mail

Tracie Bolaños
State of Florida
Dept. of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Reference: CLEAN Contract No. N62467-04-D-0055
Contract Task Order No. 0121

Subject: Final SWMU 2 Sampling Report, Rev. 1 for Naval Air Station, Key West, Florida

Dear Ms. Bolaños:

I have enclosed a CD and hard copy of the Final SWMU 2 Sampling Report, Rev. 1, for Naval Air Station, Key West, Florida, which incorporates FDEP comments. This file is being sent on behalf of Dana Hayworth, NAVFAC Southeast via U.S. Mail for your final approval.

Please call me at (803) 641-4944, if you have any questions regarding the enclosed document.

Sincerely,

A handwritten signature in black ink that reads 'Shauna Stotler-Hardy'.

Shauna Stotler-Hardy
Project Manager

SLSH

c: Ms. Debra Humbert (Letter Only)
Mr. D. Hayworth, NAVFAC SE (CD/Letter Only)
Mr. R. Courtright, NAS Key West (CD/Letter Copy)
Mr. E. Barham, NAS Key West (Letter Only)

Mr. R. Demes, NAS Key West (Letter Only)
Mr. C. Pike/File
File 1545-7.13.1



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

September 28, 2011

Mr. Dana Hayworth
DEPARTMENT OF THE NAVY
NAVAL FACILITIES SOUTHEAST
ATTN: AJAX STREET, BLDG 135N
P.O. BOX 30A
JACKSONVILLE, FL 32212-0030
Official Government Business

Re Final SWMU 2 Sampling Report Naval Air Station Key West, Key West, Florida

Dear Mr. Hayworth:

The Department has completed the technical review of the above referenced document dated August, 2011 (received August 18, 2011). The document is adequate for its intent and approved. If I can be of any further assistance with this matter, please contact me at (850) 245-8998.

Sincerely

A handwritten signature in blue ink that reads 'Tracie L Bolanos'.

Tracie Lynn Bolanos
Remedial Project Manager
Federal Programs Section
Bureau of Waste Cleanup

JJC  ESN 

cc: Mr. Robert Courtright, Naval Air Station Key West, Key West, Florida
Shauna Statler-Hardy, Tetra Tech Aiken South Carolina

Comprehensive Long-term Environmental Action Navy

CONTRACT NUMBER N62467-04-D-0055



Rev. 1
08/10/11

SWMU 2 Sampling Report

**Naval Air Station Key West
Key West, Florida**

Contract Task Order 0121

August 2011



Southeast

NAS Jacksonville

Jacksonville, Florida 32212-0030

SWMU 2 SAMPLING REPORT
NAVAL AIR STATION KEY WEST
KEY WEST, FLORIDA

COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

Submitted to:
Naval Facilities Engineering Command
Southeast
NAS Jacksonville
Jacksonville, FL 32212-0030

Submitted by:
Tetra Tech NUS
661 Andersen Drive
Foster Plaza 7
Pittsburgh, Pennsylvania 15220

CONTRACT NUMBER N62467-04-D-0055
CONTRACT TASK ORDER 0121

AUGUST 2011

PREPARED UNDER THE SUPERVISION OF:



SHAUNA STOTLER-HARDY
TASK ORDER MANAGER
TETRA TECH NUS, INC.
AIKEN, SOUTH CAROLINA

APPROVED FOR SUBMITTAL BY:



DEBRA M. HUMBERT
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TETRA TECH NUS, INC.
PITTSBURGH, PENNSYLVANIA

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ACRONYMS AND ABBREVIATIONS

ARARs	Applicable or Relevant and Appropriate Requirements
BRA	Baseline Risk Assessment
CLEAN	Comprehensive Long-Term Environmental Action Navy
COC	contaminant of concern
CMS	Corrective Measures Study
CTL	Cleanup Target Level
CTO	Contract Task Order
DDD	4,4'-dichlorodiphenyl dichloroethane
DDE	4,4'-dichlorodiphenyl dichloroethylene
DDT	4,4'-dichlorodiphenyl trichloroethane
DoD	Department of Defense
ERA	ecological risk assessment
FDEP	Florida Department of Environmental Protection
IRA	Interim Remedial Action
LUCs	Land-Use Controls
msl	Mean Sea Level
NA	Not Applicable
NAS	Naval Air Station
NAVFAC	Naval Facilities Engineering Command
Navy	United States Department of the Navy
NFESC	Naval Facilities Engineering Service Center
NPDES	National Pollutant Discharge Elimination System
PAL	Project Action Limit
RFI	RCRA Facility Investigation
RFI/RI	RCRA Facility Investigation/Remedial Investigation
SAP	Sampling and Analysis Plan
SQAG	Sediment Quality Assessment Guidelines
SVOCs	semi-volatile organic compounds
SWMU	Solid Waste Management Unit
TAL	Target Analyte List
Tetra Tech	Tetra Tech NUS, Inc.
UFP-SAP	Uniform Federal Program Sampling and Analysis Plan
µg/L	Microgram per Liter
VOCs	Volatile Organic Compounds

1.0 SWMU 2 SAMPLING REPORT

Tetra Tech NUS, Inc. (TtNUS) has been contracted by the Department of the Navy, Naval Facilities Engineering Command, Southeast (NAVFAC SE) to perform sampling at the Solid Waste Management Unit (SWMU 2) at Naval Air Station (NAS) Key West, Florida. This report presents details of the analytical results from samples collected in August 2010. This report was prepared under the Comprehensive Long-term Environmental Action Navy (CLEAN) IV Contract Number N62467-04-D-0055, Contract Task Order (CTO) number 0121.

1.1 INTRODUCTION

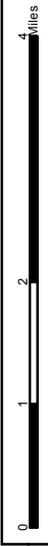
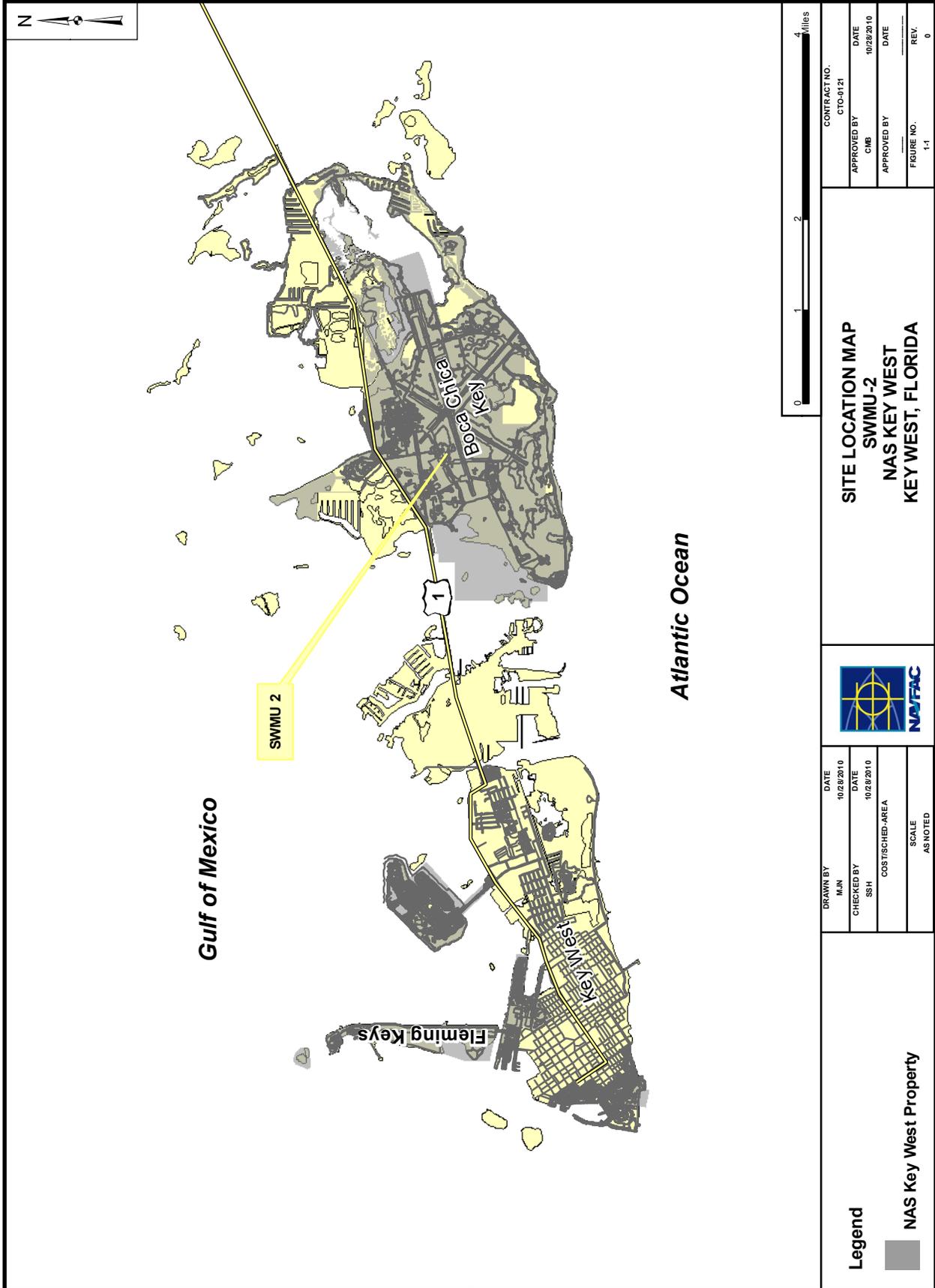
Naval Air Station (NAS) Key West is in southern Monroe County, Florida. Key West is approximately 150 miles southwest of Miami and is connected to the mainland by the Overseas Highway (U.S. Highway 1) (Figure 1-1). Several installations in various parts of the lower Florida Keys comprise what is known as the Naval Complex at Key West. Most of these are on Key West or Boca Chica Key. Other parts of the complex are located on Sigsbee Key (formerly Dredgers Key), Fleming Key, Demolition Key, Geiger Key, and Big Coppitt Key. Ground elevations in the Key West area average between 4 and 5 feet above mean sea level (msl). The Key West area is characterized by a shallow layer of soil with surface vegetation overlying eroded limestone. The topography of the lower Keys is generally smooth and flat with a gentle slope toward the shoreline.

SWMU 2, the former Boca Chica Pesticide Mixing Area, is located in the central portion of Boca Chica Key, Florida. SWMU 2 is surrounded by runways and taxiways. Runoff from the site flows to a manmade ditch that connects with a lagoon and a pond.

1.2 PURPOSE AND SCOPE OF REPORT

SWMU 2, the former Boca Chica DDT Mixing Area, is in the central portion of Boca Chica Key within an active airstrip and is completely surrounded by runways and taxiways. Pesticide (DDT) mixing operations were conducted at the site from the mid-1940s to the early 1970s. Under the Uniform Federal Policy Sampling and Analysis Plan (UFP-SAP) for Solid Waste Management Unit (SWMU) 2, sediment and surface water data were collected for 4,4'-dichlorodiphenyl dichloroethane (DDD), 4,4'-dichlorodiphenyl dichloroethylene (DDE), and 4,4'-dichlorodiphenyl trichloroethane (DDT) in the storm water ditches that connect the SWMU 2 lagoon to Outstanding Florida Waters. (Tetra Tech, 2010). An investigation of sediments and surface water in the storm water ditches was needed to assess the extent of potential pesticide migration beyond the current SWMU 2 site boundary.

This report summarizes the findings of the sampling event under the UFP-SAP for SWMU 2. The project team will use the results of the investigation to determine whether the amount and type of data collected is sufficient to support the project objectives.



CONTRACT NO. CTO-0121	
APPROVED BY CMB	DATE 10/28/2010
APPROVED BY	DATE
FIGURE NO. 1-1	REV. 0

SITE LOCATION MAP
SWMU-2
NAS KEY WEST
KEY WEST, FLORIDA



DRAWN BY M/M	DATE 10/28/2010
CHECKED BY SSH	DATE 10/28/2010
COSTISCHED AREA	
SCALE AS NOTED	

Legend

■ NAS Key West Property

2.0 BACKGROUND

2.1 SITE DESCRIPTION AND HISTORY

SWMU 2, the former Boca Chica DDT Mixing Area, is in the central portion of Boca Chica Key within an active airstrip and is completely surrounded by runways and taxiways. Pesticide (DDT) mixing operations were conducted at the site from the mid-1940s to the early 1970s. Building 915, formerly used for the storage and mixing of pesticides, was demolished in 1982 and two aboveground mixing tanks to the west of the building were removed. The site includes a series of ditches that were investigated during the RCRA Facility Investigation/Remedial Investigation (RFI/RI) and/or Supplement RFI/RI. The primary drainage ditch that collects surface water runoff from the site discharges to a lagoon east of the site. Both the lagoon and the ditch support mangroves and other plant life and are inhabited by fish and wading birds. An underground drainage pipe connects the primary ditch to a drainage system that terminates on the northwestern boundary of NAS Key West and drains into the Gulf of Mexico. The marine waters surrounding the Florida Keys have been designated Outstanding Florida Waters (62-302.700 FAC), meaning the Florida Department of Environmental Protection has deemed them worthy of special protection. The site also includes a secondary ditch that runs north to south connecting to a small pond approximately 300 feet southeast of the site of the demolished Building 915.

A Phased RFI/RI was conducted at SWMU 2 from 1986 to 1996. Pesticide contamination was found in surface water, sediments, and soils at concentrations exceeding risk-based screening values and Applicable or Relevant and Appropriate Requirements (ARARs). As a result of these findings, an Interim Remedial Action (IRA) was performed in 1995, removing 1,950 cubic yards of contaminated soil and sediment, to prevent the further migration of pesticide contaminants from soil and sediment to surface water and groundwater. The contaminated soil was removed during the IRA. Following the IRA, a Supplemental RFI/RI was conducted to identify remaining contaminants in sediment and surface water. A human health Baseline Risk Assessment (BRA), conducted as part of the Supplemental RFI/RI, identified DDT, DDD, and 4,4'-DDE as contaminants of concern (COC) in surface water and sediment because concentrations exceeded the Florida Department of Environmental Protection (FDEP) cancer risk threshold of 10^{-4} (one in ten thousand) for residential site users and trespassers. Although lead was found in surface water and sediment in exceedance of the screening level, it was not established as a COC. The ecological risk assessment (ERA) identified potential risks to aquatic and piscivorous receptors from exposure to DDT and its degradation products in surface water and sediment. As a result of these findings, a Corrective Measures Study (CMS) was performed and Land Use Controls (LUCs) with monitoring of groundwater, surface water, and sediment were chosen as the remedy for the site. The LUCs were designed to ensure protection of human health and environment by restricting future site use and accessibility.

During monitoring associated with the selected remedy for SWMU 2, groundwater, surface water, and sediment samples were collected quarterly from April 2000 to January 2001, and annually from 2002 through 2009. During preparation of the Post Storm Surge Work Plan, the analyte list was reduced from a larger group of analytes [pesticides, Target Analyte List (TAL) metals, semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs)] to include only TAL metals, SVOCs and pesticides as a result of an agreement by the NAS Key West Partnering Team to investigate only chemicals that were consistently detected in previous monitoring events. Although TAL metals were not included in the list of COCs at SWMU 2, they were detected in sediment and surface water during the RFI/RI. Consequently, the Navy wanted to ensure that concentrations of TAL metals remained within the range that was representative of concentrations evaluated during the RFI. Between 2000 and 2009, sediment concentrations of DDD and DDE were consistently detected above project action levels, and DDT was present in sediment above action levels at three sampling locations. Lead was detected in sediment at concentrations similar to those observed during the RFI/RI BRA; therefore lead is still not considered a COC. Pesticides were detected in surface water but did not exceed the action levels, and DDE exceeded the action level in one groundwater sample. The groundwater concentrations of other detected analytes were less than their respective action levels.

In November 2006, a Storm Surge Investigation was conducted to determine whether Hurricane Wilma had caused the migration of SWMU 2 contaminants into the adjacent pond and lagoon. Sediment and surface water pesticide concentrations exceeded the action levels in the pond, the lagoon and the secondary ditch (Tetra Tech, 2007). As a result of this investigation, a recommendation was made to expand the SWMU 2 boundary.

3.0 RESULTS AND DISCUSSION

In August 2010, ten surface water and sediment samples were collected for analysis in the storm water ditches that are connected to the SWMU 2 lagoon for DDD, DDE and DDT (Figure 3-1). The results of surface water sampling concluded with three surface water samples above Florida's Surface Water Cleanup Target Limit (CTL) of 0.0003 µg/L for DDD (Figure 3-2). The results of the sediment sampling concluded with five sediment samples above Florida's Sediment Quality Assessment Guideline (SQAG) of 1.78 µg/kg for DDD and four sediment samples above the SQAG of 2.07 µg/kg for DDE (Figure 3-3). Samples with concentrations greater than Surface Water CTLs are presented in Table 3-1 and samples with concentrations greater than SQAGs are presented in Table 3-2. Appendix B contains a complete list of chemicals detected in both matrix.

Empirical Laboratories, LLC of Nashville, Tennessee, performed the pesticide analyses.

TABLE 3-1

**PESTICIDE EXCEEDANCES IN SURFACE WATER AT SWMU 2
SWMU 2 SAMPLING REPORT
NAVAL AIR STATION
KEY WEST, FLORIDA**

LOCATION	SAMPLE DATE	SAMPLE ID	CHEMICAL CONTAMINANT	RESULT (µg/L)	QUAL^(a)	PAL (µg/L)
S2-SW-003	8/12/2010	S2-SW-003-0810	DDD	0.0063	J	0.0003
S2-SW-004	8/12/2010	S2-SW-004-0810	DDD	0.00511	J	0.0003
S2-SW-005	8/12/2010	S2-SW-005-0810	DDD	0.00691	J	0.0003

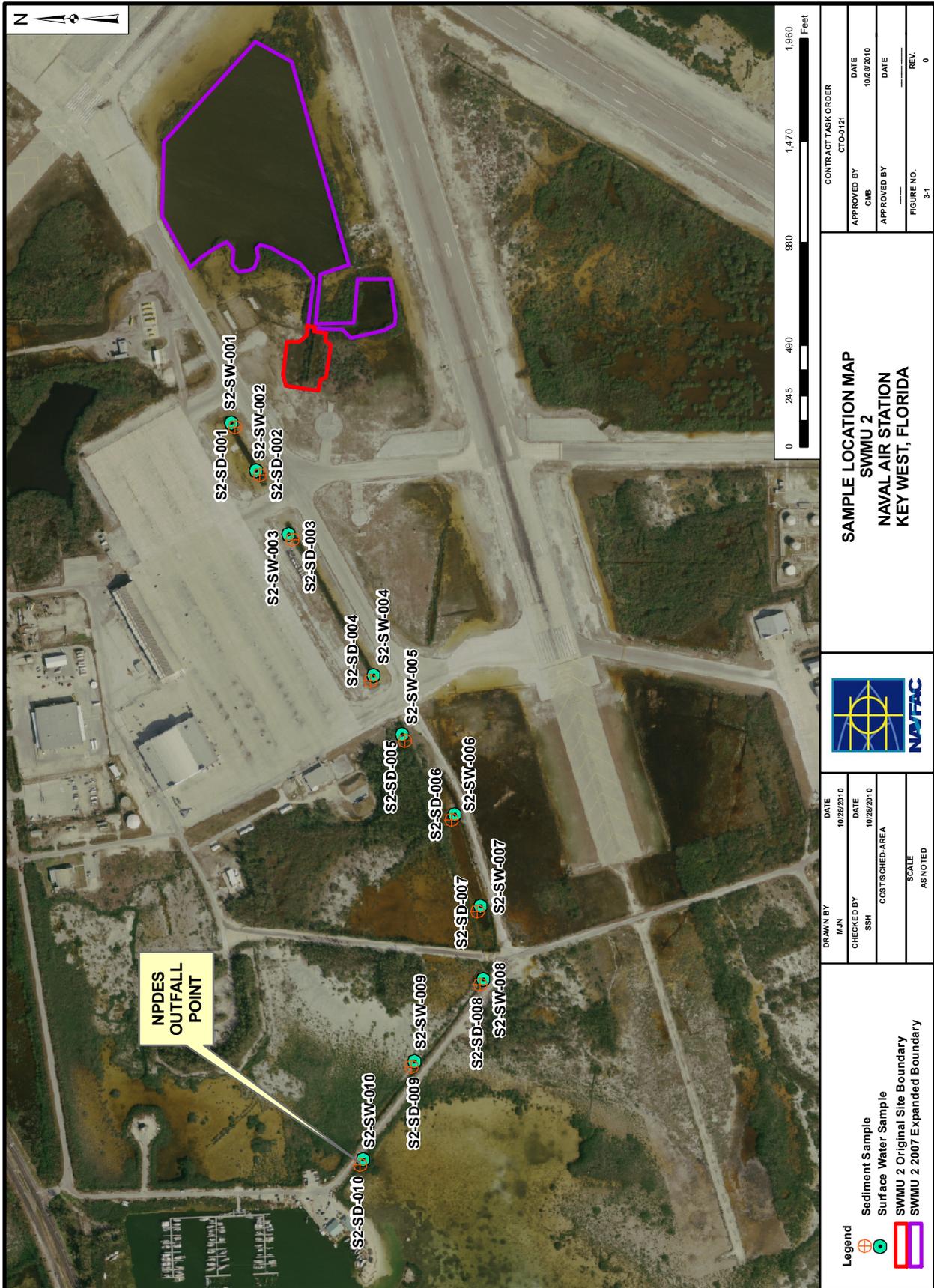
Qualifier (QUAL) code J: the associated value is an estimated quantity.

TABLE 3-2

**PESTICIDE EXCEEDANCES IN SEDIMENT AT SWMU 2
SWMU 2 SAMPLING REPORT
NAVAL AIR STATION
KEY WEST, FLORIDA**

LOCATION	SAMPLE DATE	SAMPLE ID	CHEMICAL CONTAMINANT	RESULT (µg/kg)	QUAL^(a)	PAL (µg/kg)
S2-SD-001	8/12/2010	S2-SD-001-0810	DDD	1.79	J	1.78
			DDE	15.6	J	2.07
S2-SD-002	8/12/2010	S2-SD-002-0810	DDD	7.87		1.78
			DDE	22.8	J	2.07
S2-SD-003	8/12/2010	S2-SD-003-0810	DDD	9.5		1.78
			DDE	11.35	J	2.07
S2-SD-004	8/12/2010	S2-SD-004-0810	DDD	3.17	J	1.78
S2-SD-005	8/12/2010	S2-SD-005-0810	DDD	8.14		1.78
			DDE	5.76	J	2.07

Qualifier (QUAL) code J: the associated value is an estimated quantity.



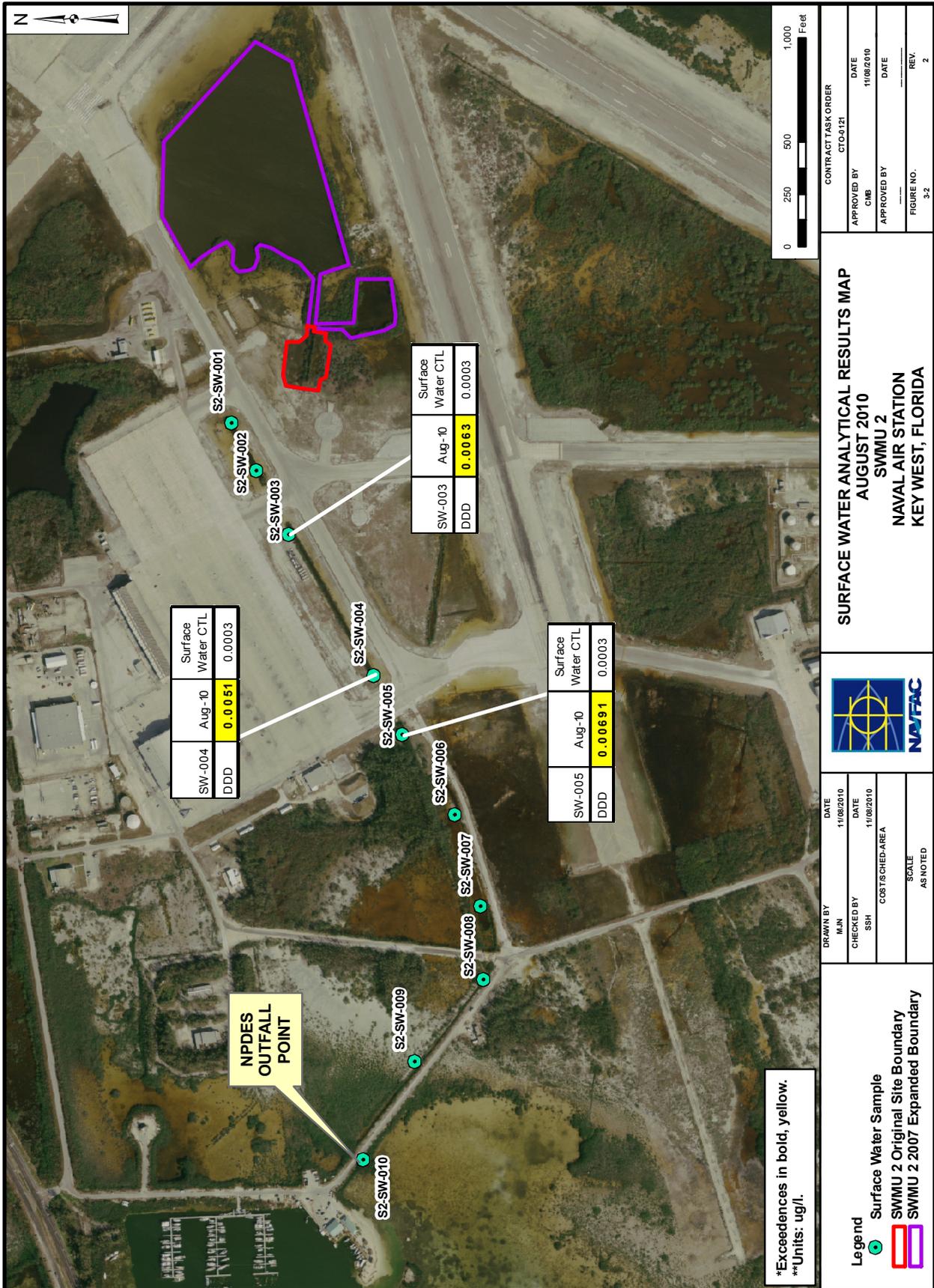
CONTRACT TASK ORDER CTO-0121	
APPROVED BY CMB	DATE 10/28/2010
APPROVED BY	DATE
FIGURE NO. 3-1	REV. 0

**SAMPLE LOCATION MAP
SWMU 2
NAVAL AIR STATION
KEY WEST, FLORIDA**



DRAWN BY M/JN	DATE 10/28/2010
CHECKED BY SSH	DATE 10/28/2010
COS T/S CHECKED-AREA	
SCALE AS NOTED	

Legend
Sediment Sample
Surface Water Sample
SWMU 2 Original Site Boundary
SWMU 2 2007 Expanded Boundary



*Exceedences in bold, yellow.
**Units: ug/l.



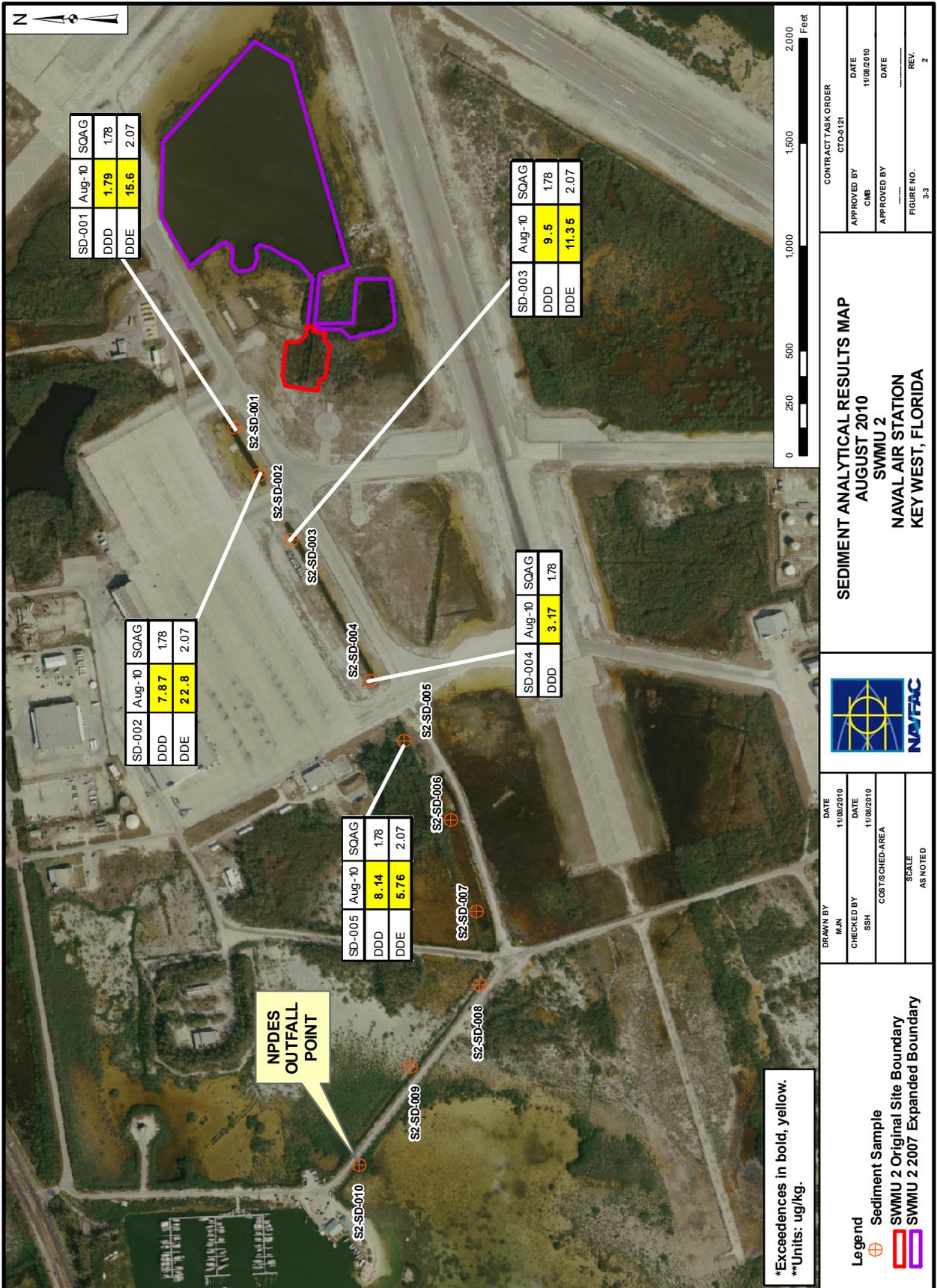
SURFACE WATER ANALYTICAL RESULTS MAP
AUGUST 2010
SWMU 2
NAVAL AIR STATION
KEY WEST, FLORIDA

DRAWN BY	DATE
MJM	11/08/2010
CHECKED BY	DATE
SSH	11/08/2010
COS/TS CHECKED-AREA	
SCALE	
AS NOTED	

Legend
● Surface Water Sample
▭ SWMU 2 Original Site Boundary
▭ SWMU 2 2007 Expanded Boundary

CONTRACT TASK ORDER	
CTO-0121	DATE
APPROVED BY	11/08/2010
OMB	DATE
APPROVED BY	REV.
FIGURE NO.	2
3-2	





4.0 SUMMARY

DDD was the only pesticide detected in surface water samples collected for fixed-base laboratory analysis; it was detected in three of the ten samples. All three DDD detections exceeded the surface water Cleanup Target Level (CTL). DDD, DDE and DDT were detected in all ten sediment samples; however concentrations of DDT were below the Florida SQAG. DDD exceeded the Florida SQAG in five of the ten sediment samples, and DDE exceeded the Florida SQAG in four of the ten sediment samples. Exceedances in both surface water and sediment samples were only found in the upper storm water ditches nearest SWMU 2 and none were found at the National Pollutant Discharge Elimination System (NPDES) Outfall Point.

REFERENCES

TtNUS (Tetra Tech NUS, Inc.) 2007. Post Storm Surge Evaluation Report for SWMUs 1, 2, 4, and 5, Naval Air Station Key West, Key West, Florida. Prepared for Naval Facilities Engineering Command, Aiken, South Carolina, December.

TtNUS (Tetra Tech NUS, Inc.) 2010. Final Uniform Federal Policy Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan) August 2010, SWMU 2: Boca Chica DDT Mixing Area, Rev. 3, for Naval Air Station, Key West, Florida. Prepared for Naval Facilities Engineering Command, Aiken, South Carolina, August.

APPENDIX A
DATA VALIDATION REPORT

TO: C. BRYAN
SDG: CTO121KY001

PAGE 2

PEST

The closing CCV %D was greater than 15% quality control limit for instrument GL-ECD3 on 08/26/10 @ 23:36 for column ZB-MR-1 for 4,4'-DDE and 4,4'-DDD affecting samples S2-FD-01-0810, S2-SD-001-0810, S2-SD-002-0810, S2-SD-003-0810, S2-SD-004-0810, S2-SD-005-0810, S2-SD-007-0810, S2-SD-008-0810, S2-SD-009-0810, and S2-SD-010-0810. The positive results reported from the ZB-MR-1 column for the aforementioned samples were qualified estimated, (J).

Positive results reported below the limit of quantitation (LOQ) but above the method detection limit (MDL) for the organic analyses were qualified as estimated, (J).

Additional Comments

The higher of the two column PEST results was reported except in cases where the laboratory determined that there was a sample matrix interference in which case the alternate column result was reported.

Sample S2-SD-004-0810 was analyzed at a 10X dilution resulting in elevated minimum detection and reporting limits for non-detected PEST analytes 4,4'-DDE and 4,4'-DDT

The closing continuing calibration verification (CCV) percent difference (%D) was greater than 15% quality control limit for instrument GL-ECD3 on 08/20/10 @ 21:39 for the ZB-MR-1 column for 4,4'-DDE, 4,4'-DDD, and 4,4'-DDT affecting samples S2-SW-009-0810 and S2-SW-010-0810. The PEST analytes were non-detected for the aforementioned samples and no validation action was required.

Executive Summary

Laboratory Performance: PEST continuing calibration verification %Ds which exceeded the quality control limits resulted in the qualification of pesticide positive results.

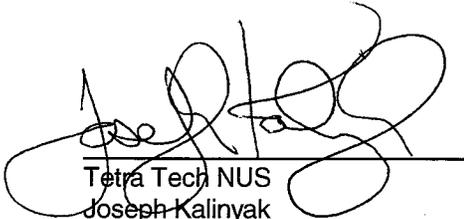
Other Factors Affecting Data Quality: Positive results reported below the limit of quantitation (LOQ) but above the method detection limit (MDL) for the organic analyses were qualified as estimated, (J).

TO: C. BRYAN
SDG: CTO121KY001

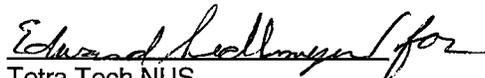
PAGE 3

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (10/99) and Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (January 2006). The text of this report has been formulated to address only those problem areas affecting data quality.

The text of this report has been formulated to address only those problem areas affecting data quality.



Tetra Tech NUS
Joseph Kalinyak
Chemist/Data Validator



Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

- Appendix A – Qualified Analytical Results
- Appendix B – Results as Reported by the Laboratory
- Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

- A = Lab Blank Contamination
- B = Field Blank Contamination
- C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
- C01 = GC/MS Tuning Noncompliance
- D = MS/MSD Recovery Noncompliance
- E = LCS/LCSD Recovery Noncompliance
- F = Lab Duplicate Imprecision
- G = Field Duplicate Imprecision
- H = Holding Time Exceedance
- I = ICP Serial Dilution Noncompliance
- J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
- K = ICP Interference - includes ICS % R Noncompliance
- L = Instrument Calibration Range Exceedance
- M = Sample Preservation Noncompliance
- N = Internal Standard Noncompliance
- N01 = Internal Standard Recovery Noncompliance Dioxins
- N02 = Recovery Standard Noncompliance Dioxins
- N03 = Clean-up Standard Noncompliance Dioxins
- O = Poor Instrument Performance (e.g. base-line drifting)
- P = Uncertainty near detection limit ($< 2 \times$ IDL for inorganics and $< CRQL$ for organics)
- Q = Other problems (can encompass a number of issues; e.g. chromatography, interferences, etc.)
- R = Surrogates Recovery Noncompliance
- S = Pesticide/PCB Resolution
- T = % Breakdown Noncompliance for DDT and Endrin
- U = % Difference between columns/detectors $> 25\%$ for positive results determined via GC/HPLC
- V = Non-linear calibrations; correlation coefficient $r < 0.995$
- W = EMPC result
- X = Signal to noise response drop
- Y = Percent solids $< 30\%$
- Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 01545	S2-FD-01-0810	S2-SD-001-0810	S2-SD-002-0810	S2-SD-003-0810		
SDG: CTO121KY001	1008133-01	1008133-02	1008133-03	1008133-04		
FRACTION: PEST/PCB	8/12/2010	8/12/2010	8/12/2010	8/12/2010		
MEDIA: SOIL	NM	NM	NM	NM		
	UG/KG	UG/KG	UG/KG	UG/KG		
PCT_SOLIDS	76.1	59.7	76.2	71.6		
DUP_OF	S2-SD-003-0810					
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD
4,4'-DDD	10.5 J	1.79 J	C	7.87	8.49	
4,4'-DDE	11.2 J	15.6 J	C	22.8 J	11.5 J	C
4,4'-DDT	0.326 J	0.285 U	P	0.681 J	0.238 U	P

PROJ_NO: 01545	S2-SD-004-0810	S2-SD-005-0810	S2-SD-006-0810	S2-SD-007-0810
SDG: CTO121KY001	1008133-05	1008133-06	1008133-07	1008133-08
FRACTION: PEST/PCB	8/12/2010	8/12/2010	8/12/2010	8/12/2010
MEDIA: SOIL	NM	NM	NM	NM
	UG/KG	UG/KG	UG/KG	UG/KG
PCT_SOLIDS	76.8	67.1	60.2	67.9
DUP_OF				
PARAMETER	RESULT	RESULT	RESULT	RESULT
4,4'-DDD	3.17 J	8.14	0.286 J	0.508 J
4,4'-DDE	2.21 U	5.76 J	0.952 J	0.874 J
4,4'-DDT	2.21 U	1.42	0.282 U	0.25 U
	QLCD	QLCD	QLCD	QLCD
	CP	C	P	CP
	VQL	VQL	VQL	VQL
	J	J	J	J
	U	U	U	U

PROJ_NO: 01545	NSAMPLE	S2-SD-008-0810	S2-SD-009-0810	S2-SD-010-0810					
SDG: CTO121KY001	LAB_ID	1008133-09	1008133-10	1008133-11					
FRACTION: PEST/PCB	SAMP_DATE	8/12/2010	8/12/2010	8/12/2010					
MEDIA: SOIL	QC_TYPE	NM	NM	NM					
	UNITS	UG/KG	UG/KG	UG/KG					
	PCT_SOLIDS	56.7	61.4	70.3					
	DUP_OF								
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
4,4'-DDD	0.889 J		CP	1.37 J		C	0.594 J		CP
4,4'-DDE	0.841 J		P	0.518 J		CP	0.52 J		P
4,4'-DDT	0.3 U			0.277 U			0.242 U		

PROJ_NO: 01545	S2-FD-02-0810	S2-SW-001-0810	S2-SW-002-0810	S2-SW-003-0810				
NSAMPLE	1008133-12	1008133-13	1008133-14	1008133-15				
LAB_ID	8/12/2010	8/12/2010	8/12/2010	8/12/2010				
SAMP_DATE	NM	NM	NM	NM				
QC_TYPE	UG/L	UG/L	UG/L	UG/L				
UNITS								
PCT_SOLIDS								
DUP_OF	S2-SW-003-0810							
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD		
4,4'-DDD	0.00494	J	P	0.00469	U	0.00766	J	P
4,4'-DDE	0.00469	U		0.00469	U	0.00476	U	
4,4'-DDT	0.00469	U		0.00469	U	0.00476	U	

PROJ_NO: 01545	NSAMPLE	S2-SW-004-0810	S2-SW-005-0810	S2-SW-006-0810	S2-SW-007-0810
SDG: CTO121KY001	LAB_ID	1008133-16	1008133-17	1008133-18	1008133-19
FRACTION: PEST/PCB	SAMP_DATE	8/12/2010	8/12/2010	8/12/2010	8/12/2010
MEDIA: WATER	QC_TYPE	NM	NM	NM	NM
	UNITS	UG/L	UG/L	UG/L	UG/L
	PCT_SOLIDS				
	DUP_OF				
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL
4,4'-DDD	0.00511	J	P	0.00463	U
4,4'-DDE	0.00463	U		0.00463	U
4,4'-DDT	0.00463	U		0.00463	U
	RESULT	VQL	QLCD	RESULT	VQL
	0.00691	J	P	0.00463	U
	0.00463	U		0.00463	U
	0.00463	U		0.00463	U

PROJ_NO: 01545	NSAMPLE	S2-SW-008-0810	S2-SW-009-0810	S2-SW-010-0810		
SDG: CTO121KY001	LAB_ID	1008133-20	1008133-21	1008133-22		
FRACTION: PEST/PCB	SAMP_DATE	8/12/2010	8/12/2010	8/12/2010		
MEDIA: WATER	QC_TYPE	NM	NM	NM		
	UNITS	UG/L	UG/L	UG/L		
	PCT_SOLIDS					
	DUP_OF					
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD
4,4'-DDD	0.00472	U		0.00463	U	
4,4'-DDE	0.00472	U		0.00463	U	
4,4'-DDT	0.00472	U		0.00463	U	

Appendix B

Results as Reported by the Laboratory

Appendix C

Support Documentation

HOLD TIME

SDG CTO121KY_0

SORT	UNITS	NSAMPLE	LAB ID	QC TYPE	SAMP DATE	EXTR DATE	ANAL DATE	SMP EXTR	EXTR ANL	SMP ANL
PEST	UG/KG	S2-SD-010-0810	1008133-11	NM	08/12/2010	08/21/2010	08/26/2010	9	5	14
PEST	UG/KG	S2-SD-001-0810	1008133-02	NM	08/12/2010	08/21/2010	08/26/2010	9	5	14
PEST	UG/KG	S2-SD-002-0810	1008133-03	NM	08/12/2010	08/21/2010	08/26/2010	9	5	14
PEST	UG/KG	S2-SD-003-0810	1008133-04	NM	08/12/2010	08/21/2010	08/26/2010	9	5	14
PEST	UG/KG	S2-SD-004-0810	1008133-05	NM	08/12/2010	08/21/2010	08/26/2010	9	5	14
PEST	UG/KG	S2-SD-005-0810	1008133-06	NM	08/12/2010	08/21/2010	08/26/2010	9	5	14
PEST	UG/KG	S2-SD-006-0810	1008133-07	NM	08/12/2010	08/21/2010	08/26/2010	9	5	14
PEST	UG/KG	S2-SD-007-0810	1008133-08	NM	08/12/2010	08/21/2010	08/26/2010	9	5	14
PEST	UG/KG	S2-SD-008-0810	1008133-09	NM	08/12/2010	08/21/2010	08/26/2010	9	5	14
PEST	UG/KG	S2-FD-01-0810	1008133-01	NM	08/12/2010	08/21/2010	08/26/2010	9	5	14
PEST	UG/KG	S2-SD-009-0810	1008133-10	NM	08/12/2010	08/21/2010	08/26/2010	9	5	14
PEST	UG/L	S2-SW-010-0810	1008133-22	NM	08/12/2010	08/18/2010	08/20/2010	6	2	8
PEST	UG/L	S2-SW-001-0810	1008133-13	NM	08/12/2010	08/18/2010	08/20/2010	6	2	8
PEST	UG/L	S2-SW-002-0810	1008133-14	NM	08/12/2010	08/18/2010	08/20/2010	6	2	8
PEST	UG/L	S2-SW-003-0810	1008133-15	NM	08/12/2010	08/18/2010	08/20/2010	6	2	8

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PEST	UG/L	S2-SW-004-0810	1008133-16	NM	08/12/2010	08/18/2010	08/20/2010	6	2	8
PEST	UG/L	S2-SW-005-0810	1008133-17	NM	08/12/2010	08/18/2010	08/20/2010	6	2	8
PEST	UG/L	S2-SW-006-0810	1008133-18	NM	08/12/2010	08/18/2010	08/20/2010	6	2	8
PEST	UG/L	S2-SW-007-0810	1008133-19	NM	08/12/2010	08/18/2010	08/20/2010	6	2	8
PEST	UG/L	S2-SW-008-0810	1008133-20	NM	08/12/2010	08/18/2010	08/20/2010	6	2	8
PEST	UG/L	S2-SW-009-0810	1008133-21	NM	08/12/2010	08/18/2010	08/20/2010	6	2	8
PEST	UG/L	S2-FD-02-0810	1008133-12	NM	08/12/2010	08/18/2010	08/20/2010	6	2	8



TETRA TECH NUS, INC

CHAIN OF CUSTODY
NUMBER: ED00000135-1

Project No: 112Gxxxxx	Facility: KEY WEST NAS	Project Manager: Chuck Bryan	Carrier: Federal Express	Laboratory Name: Empirical Laboratories, LLC 621 Mainstream Drive Nashville, TN 37228
Task No: 0121	Turn Around Time: Standard	Field Ops Leader: Gary Braganza	Carrier/Waybill No.	Point of Contact: Kim Kostzer (615) 345-1115

1008133

Date	Sample ID #	Time	Analysis	Loc ID	Matrix	Description	Preservative	Container Count	Container Type	Container Reqs	Comments
08/12/2010	S2-FD-01-0810	00:00	SW-846 8081A	QC	SD	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 1	1	Glass - Amber 8 oz. wide-mouth w/Teflon cap		- 01
08/12/2010	S2-FD-02-0810	00:00	SW-846 8081A	QC	SW	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 2	2	Glass - Amber 1L		- 12
08/12/2010	S2-SD-001-0810	14:05	SW-846 8081A	S2-SD001	SD	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 1	1	Glass - Amber 8 oz. wide-mouth w/Teflon cap		- 02
08/12/2010	S2-SD-002-0810	14:25	SW-846 8081A	S2-SD002	SD	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 1	1	Glass - Amber 8 oz. wide-mouth w/Teflon cap		- 03
08/12/2010	S2-SD-003-0810	11:10	SW-846 8081A	S2-SD003	SD	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 1	1	Glass - Amber 8 oz. wide-mouth w/Teflon cap		- 04
08/12/2010	S2-SD-004-0810	11:00	SW-846 8081A	S2-SD004	SD	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 1	1	Glass - Amber 8 oz. wide-mouth w/Teflon cap		- 05
08/12/2010	S2-SD-005-0810	10:45	SW-846 8081A	S2-SD005	SD	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 1	1	Glass - Amber 8 oz. wide-mouth w/Teflon cap		- 06
08/12/2010	S2-SD-006-0810	10:20	SW-846 8081A	S2-SD006	SD	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 1	1	Glass - Amber 8 oz. wide-mouth w/Teflon cap		- 07
08/12/2010	S2-SD-007-0810	10:00	SW-846 8081A	S2-SD007	SD	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 1	1	Glass - Amber 8 oz. wide-mouth w/Teflon cap		- 08
08/12/2010	S2-SD-008-0810	11:45	SW-846 8081A	S2-SD008	SD	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 1	1	Glass - Amber 8 oz. wide-mouth w/Teflon cap		- 09
08/12/2010	S2-SD-009-0810	12:00	SW-846 8081A	S2-SD009	SD	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 1	1	Glass - Amber 8 oz. wide-mouth w/Teflon cap		- 10
08/12/2010	S2-SD-010-0810	12:15	SW-846 8081A	S2-SD010	SD	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 1	1	Glass - Amber 8 oz. wide-mouth w/Teflon cap		- 11
08/12/2010	S2-SW-001-0810	14:00	SW-846 8081A	S2-SW001	SW	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 2	2	Glass - Amber 1L		- 13
08/12/2010	S2-SW-002-0810	14:20	SW-846 8081A	S2-SW002	SW	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 2	2	Glass - Amber 1L		- 14
08/12/2010	S2-SW-003-0810	11:05	SW-846 8081A	S2-SW003	SW	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 2	2	Glass - Amber 1L		- 15
08/12/2010	S2-SW-004-0810	10:55	SW-846 8081A	S2-SW004	SW	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 2	2	Glass - Amber 1L		- 16
08/12/2010	S2-SW-005-0810	10:40	SW-846 8081A	S2-SW005	SW	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 2	2	Glass - Amber 1L		- 17
08/12/2010	S2-SW-006-0810	10:15	SW-846 8081A	S2-SW006	SW	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 2	2	Glass - Amber 1L		- 18
08/12/2010	S2-SW-007-0810	09:50	SW-846 8081A	S2-SW007	SW	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 2	2	Glass - Amber 1L		- 19
08/12/2010	S2-SW-008-0810	11:40	SW-846 8081A	S2-SW008	SW	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 2	2	Glass - Amber 1L		- 20
08/12/2010	S2-SW-009-0810	11:55	SW-846 8081A	S2-SW009	SW	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 2	2	Glass - Amber 1L		- 21
08/12/2010	S2-SW-010-0810	12:10	SW-846 8081A	S2-SW010	SW	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C 2	2	Glass - Amber 1L		- 22

**EMPIRICAL LABORATORIES
COOLER RECEIPT FORM**

LIMS Number: 1008133 Number of Coolers: 1 of 3
 Client: TTNUS Project: Key West NAS
 Date/Time Received: 8/13/10 08:30 Date cooler(s) opened: 8/13/10
 Opened By (print): Will Schwarz (signature): [Signature]

Circle response below as appropriate

1. How did the samples arrive?: FedEx UPS DHL Hand Delivered
 EL Courier Other: _____

If applicable, enter airbill number here: 5103

2. Were custody seals on outside of cooler(s)? Yes No
 How many: 1 Seal date: 8/12/10 Seal Initials: 7

3. Were custody seals unbroken and intact at the date and time of arrival? Yes No N/A
 4. Were custody papers sealed in a plastic bag included in the sample cooler? Yes No N/A
 5. Were custody papers filled out properly (ink, signed, etc.)? Yes No N/A
 6. Did you sign custody papers in the appropriate place for acceptance? Yes No N/A
 7. Was project identifiable from custody papers? Yes No N/A
 8. If required, was enough ice present in the cooler(s)? Yes No N/A
 Type of Coolant: WET DRY BLUE NONE Temperature of Samples upon Receipt: 4.4.C

Dates samples were logged-in: 8/13/10

9. Initial this form to acknowledge login of sample(s): (Name): Will Schwarz (Initial): WS

10. Were all bottle lids intact and sealed tightly? Yes No N/A
 11. Did all bottles arrive unbroken? Yes No N/A
 12. Was all required bottle label information complete? Yes No N/A
 13. Did all bottle labels agree with custody papers? Yes No N/A
 14. Were correct containers used for the analyses indicated? Yes No N/A
 15. Were preservative levels correct in all applicable sample containers? Yes No N/A
 16. Was residual chlorine present in any applicable sample containers? Yes No N/A
 17. Was sufficient amount of sample sent for the analyses required? Yes No N/A
 18. Was headspace present in any included VOA vials? Yes No N/A

If Non-Conformance issues were present, list by sample ID: _____

CAR#: _____

**EMPIRICAL LABORATORIES
COOLER RECEIPT FORM**

LIMS Number: 1008133 Number of Coolers: 2 of 3
 Client: TTNUS Project: Key West NAS
 Date/Time Received: 8/13/10 08:30 Date cooler(s) opened: 8/13/10
 Opened By (print): Will Schwab (signature): [Signature]

Circle response below as appropriate

1. How did the samples arrive?: FedEx UPS DHL Hand Delivered
 EL Courier Other: _____

If applicable, enter airbill number here: 3410

2. Were custody seals on outside of cooler(s)? Yes No
 How many: 1 Seal date: 8/12/10 Seal Initials: ?

3. Were custody seals unbroken and intact at the date and time of arrival? Yes No N/A
 4. Were custody papers sealed in a plastic bag included in the sample cooler? Yes No N/A
 5. Were custody papers filled out properly (ink, signed, etc.)? Yes No N/A
 6. Did you sign custody papers in the appropriate place for acceptance? Yes No N/A
 7. Was project identifiable from custody papers? Yes No N/A
 8. If required, was enough ice present in the cooler(s)? Yes No N/A

Type of Coolant: WET DRY BLUE NONE Temperature of Samples upon Receipt: 2.8 °C

Dates samples were logged-in: 8/13/10

9. Initial this form to acknowledge login of sample(s): (Name): _____ (Initial): _____
 10. Were all bottle lids intact and sealed tightly? Yes No N/A
 11. Did all bottles arrive unbroken? Yes No N/A
 12. Was all required bottle label information complete? Yes No N/A
 13. Did all bottle labels agree with custody papers? Yes No N/A
 14. Were correct containers used for the analyses indicated? Yes No N/A
 15. Were preservative levels correct in all applicable sample containers? Yes No N/A
 16. Was residual chlorine present in any applicable sample containers? Yes No N/A
 17. Was sufficient amount of sample sent for the analyses required? Yes No N/A
 18. Was headspace present in any included VOA vials? Yes No N/A

If Non-Conformance issues were present, list by sample ID: _____

CAR#: _____

See
Page
1 of 3

EMPIRICAL LABORATORIES
COOLER RECEIPT FORM

LIMS Number: 1008133 Number of Coolers: 3 of 3
Client: TTNW Project: Key West NAS
Date/Time Received: 8/13/10 08:30 Date cooler(s) opened: 8/13/10
Opened By (print): Will Schwab (signature): [Signature]

Circle response below as appropriate

1. How did the samples arrive?: FedEx UPS DHL Hand Delivered
 EL Courier Other: _____

If applicable, enter airbill number here: 3409

2. Were custody seals on outside of cooler(s)? Yes No
How many: 1 Seal date: 8/12/10 Seal Initials: ?
3. Were custody seals unbroken and intact at the date and time of arrival? Yes No N/A
4. Were custody papers sealed in a plastic bag included in the sample cooler? Yes No N/A
5. Were custody papers filled out properly (ink, signed, etc.)? Yes No N/A
6. Did you sign custody papers in the appropriate place for acceptance? Yes No N/A
7. Was project identifiable from custody papers? Yes No N/A
8. If required, was enough ice present in the cooler(s)? Yes No N/A
- Type of Coolant: WET DRY BLUE NONE Temperature of Samples upon Receipt: 5.3 °C

Dates samples were logged-in: 8/13/10

9. Initial this form to acknowledge login of sample(s): (Name): _____ (Initial): _____
10. Were all bottle lids intact and sealed tightly? Yes No N/A
11. Did all bottles arrive unbroken? Yes No N/A
12. Was all required bottle label information complete? Yes No N/A
13. Did all bottle labels agree with custody papers? Yes No N/A
14. Were correct containers used for the analyses indicated? Yes No N/A
15. Were preservative levels correct in all applicable sample containers? Yes No N/A
16. Was residual chlorine present in any applicable sample containers? Yes No N/A
17. Was sufficient amount of sample sent for the analyses required? Yes No N/A
18. Was headspace present in any included VOA vials? Yes No N/A

If Non-Conformance issues were present, list by sample ID: _____

CAR#: _____

See
Page
1 of 3

WORK ORDER

Printed: 8/17/2010 6:40:00AM

1008133

Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010) Project: CTO 121 Key West 2010	Project Manager: Kim Kostzer Project Number: TET10CTO121K
---	--

Report To: Tetra Tech NUS, Inc. (T010) Tobrena Skeen Foster Plaza 7, 661 Anderson Drive Pittsburgh, PA 15220 Phone: (412) 921-8182 Fax: (412) 921-4040	Invoice To: Tetra Tech NUS, Inc. (T010) Tobrena Skeen Foster Plaza 7, 661 Anderson Drive Pittsburgh, PA 15220 Phone : (412) 921-8182 Fax: (412) 921-4040
---	---

Date Due: 09/03/2010 16:00 (15 day TAT)	
Received By: William Schwab	Date Received: 08/13/2010 08:30
Logged In By: William Schwab	Date Logged In: 08/13/2010 15:19

Samples Received at: 4.4°C
Custody Seals Yes Received On Ice Yes
Containers Intact Yes
COC/Labels Agree Yes
Preservation Confr Yes

Analysis	Due	TAT	Expires	Comments
1008133-01 S2-FD-01-0810 [Solid] Sampled 08/12/2010 00:00 Eastern				
WC_PERCENT_SOLIDS_2540B	08/31/2010 14:00	15	08/18/2010 23:00	
SGC_PEST8081A_3546	08/31/2010 14:00	15	08/25/2010 23:00	DDT,DDD,DDE
1008133-02 S2-SD-001-0810 [Solid] Sampled 08/12/2010 14:05 Eastern				
WC_PERCENT_SOLIDS_2540B	08/31/2010 14:00	15	08/19/2010 13:05	
SGC_PEST8081A_3546	08/31/2010 14:00	15	08/26/2010 13:05	DDT,DDD,DDE
1008133-03 S2-SD-002-0810 [Solid] Sampled 08/12/2010 14:25 Eastern				
WC_PERCENT_SOLIDS_2540B	08/31/2010 14:00	15	08/19/2010-13:25	
SGC_PEST8081A_3546	08/31/2010 14:00	15	08/26/2010 13:25	DDT,DDD,DDE
1008133-04 S2-SD-003-0810 [Solid] Sampled 08/12/2010 11:10 Eastern				
WC_PERCENT_SOLIDS_2540B	08/31/2010 14:00	15	08/19/2010 10:10	
SGC_PEST8081A_3546	08/31/2010 14:00	15	08/26/2010 10:10	DDT,DDD,DDE
1008133-05 S2-SD-004-0810 [Solid] Sampled 08/12/2010 11:00 Eastern				
WC_PERCENT_SOLIDS_2540B	08/31/2010 14:00	15	08/19/2010 10:00	
SGC_PEST8081A_3546	08/31/2010 14:00	15	08/26/2010 10:00	DDT,DDD,DDE
1008133-06 S2-SD-005-0810 [Solid] Sampled 08/12/2010 10:45 Eastern				
WC_PERCENT_SOLIDS_2540B	08/31/2010 14:00	15	08/19/2010 09:45	
SGC_PEST8081A_3546	08/31/2010 14:00	15	08/26/2010 09:45	DDT,DDD,DDE

WORK ORDER

Printed: 8/17/2010 6:40:00AM

1008133

Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)
Project: CTO 121 Key West_2010

Project Manager: Kim Kostzer
Project Number: TET10CTO121K

Analysis	Due	TAT	Expires	Comments
1008133-07 S2-SD-006-0810 [Solid] Sampled 08/12/2010 10:20 Eastern				
WC_PERCENT_SOLIDS_2540B	08/31/2010 14:00	15	08/19/2010 09:20	
SGC_PEST8081A_3546	08/31/2010 14:00	15	08/26/2010 09:20	DDT,DDD,DDE
1008133-08 S2-SD-007-0810 [Solid] Sampled 08/12/2010 10:00 Eastern				
WC_PERCENT_SOLIDS_2540B	08/31/2010 14:00	15	08/19/2010 09:00	
SGC_PEST8081A_3546	08/31/2010 14:00	15	08/26/2010 09:00	DDT,DDD,DDE
1008133-09 S2-SD-008-0810 [Solid] Sampled 08/12/2010 11:45 Eastern				
WC_PERCENT_SOLIDS_2540B	08/31/2010 14:00	15	08/19/2010 10:45	
SGC_PEST8081A_3546	08/31/2010 14:00	15	08/26/2010 10:45	DDT,DDD,DDE
1008133-10 S2-SD-009-0810 [Solid] Sampled 08/12/2010 12:00 Eastern				
WC_PERCENT_SOLIDS_2540B	08/31/2010 14:00	15	08/19/2010 11:00	
SGC_PEST8081A_3546	08/31/2010 14:00	15	08/26/2010 11:00	DDT,DDD,DDE
1008133-11 S2-SD-010-0810 [Solid] Sampled 08/12/2010 12:15 Eastern				
WC_PERCENT_SOLIDS_2540B	08/31/2010 14:00	15	08/19/2010 11:15	
SGC_PEST8081A_3546	08/31/2010 14:00	15	08/26/2010 11:15	DDT,DDD,DDE
1008133-12 S2-FD-02-0810 [Water] Sampled 08/12/2010 00:00 Eastern				
SGC_PEST8081A_3510	08/31/2010 14:00	15	08/18/2010 23:00	DDT,DDD,DDE
1008133-13 S2-SW-001-0810 [Water] Sampled 08/12/2010 14:00 Eastern				
SGC_PEST8081A_3510	08/31/2010 14:00	15	08/19/2010 13:00	DDT,DDD,DDE
1008133-14 S2-SW-002-0810 [Water] Sampled 08/12/2010 14:20 Eastern				
SGC_PEST8081A_3510	08/31/2010 14:00	15	08/19/2010 13:20	DDT,DDD,DDE
1008133-15 S2-SW-003-0810 [Water] Sampled 08/12/2010 11:05 Eastern				
SGC_PEST8081A_3510	08/31/2010 14:00	15	08/19/2010 10:05	DDT,DDD,DDE
1008133-16 S2-SW-004-0810 [Water] Sampled 08/12/2010 10:55 Eastern				
SGC_PEST8081A_3510	08/31/2010 14:00	15	08/19/2010 09:55	DDT,DDD,DDE
1008133-17 S2-SW-005-0810 [Water] Sampled 08/12/2010 10:40 Eastern				
SGC_PEST8081A_3510	08/31/2010 14:00	15	08/19/2010 09:40	DDT,DDD,DDE
1008133-18 S2-SW-006-0810 [Water] Sampled 08/12/2010 10:15 Eastern				
SGC_PEST8081A_3510	08/31/2010 14:00	15	08/19/2010 09:15	DDT,DDD,DDE

WORK ORDER

Printed: 8/17/2010 6:40:00AM

1008133

Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)
Project: CTO 121 Key West_2010

Project Manager: Kim Kostzer
Project Number: TET10CTO121K

Analysis	Due	TAT	Expires	Comments
1008133-19 S2-SW-007-0810 [Water] Sampled 08/12/2010 09:50 Eastern				
SGC_PEST8081A_3510	08/31/2010 14:00	15	08/19/2010 08:50	DDT,DDD,DDE
1008133-20 S2-SW-008-0810 [Water] Sampled 08/12/2010 11:40 Eastern				
SGC_PEST8081A_3510	08/31/2010 14:00	15	08/19/2010 10:40	DDT,DDD,DDE
1008133-21 S2-SW-009-0810 [Water] Sampled 08/12/2010 11:55 Eastern				
SGC_PEST8081A_3510	08/31/2010 14:00	15	08/19/2010 10:55	DDT,DDD,DDE
1008133-22 S2-SW-010-0810 [Water] Sampled 08/12/2010 12:10 Eastern				
SGC_PEST8081A_3510	08/31/2010 14:00	15	08/19/2010 11:10	DDT,DDD,DDE

Reviewed By _____

Date _____

Sample Delivery Group Assignment Form

CLIENT: Tetra Tech NUS, Inc. (T010)
 PROJECT NAME: CTO 121 Key West_2010
 SDG #: CTO121KY_001
 MATRIX: Water

QC LEVEL: EDD/IVQSM
 Report Due: 9/3/2010
 Client Sample Count: 20

Sample Type	Sampled	Received	Lab ID	Client ID	SM2540B	SM8081A
Field Duplicate	8/12/2010	8/13/2010	1008133-01	S2-FD-01-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-02	S2-SD-001-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-03	S2-SD-002-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-04	S2-SD-003-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-05	S2-SD-004-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-06	S2-SD-005-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-07	S2-SD-006-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-08	S2-SD-007-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-09	S2-SD-008-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-10	S2-SD-009-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-11	S2-SD-010-0810	X	X
Field Duplicate	8/12/2010	8/13/2010	1008133-12	S2-FD-02-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-13	S2-SW-001-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-14	S2-SW-002-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-15	S2-SW-003-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-16	S2-SW-004-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-17	S2-SW-005-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-18	S2-SW-006-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-19	S2-SW-007-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-20	S2-SW-008-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-21	S2-SW-009-0810	X	X
Client Sample	8/12/2010	8/13/2010	1008133-22	S2-SW-010-0810	X	X

Sample Delivery Group Case Narrative

Receipt Information

The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. There were no subcontracted analyses for this SDG.

Changes to the Revision

This is an original submittal of the final report package.

Analytical Information

All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. The following information is provided specific to individual methods:

Chromatographic Flags for Manual Integration:

The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

- A:** The peak was manually integrated as it was not integrated in the original chromatogram.
- B:** The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
- C:** The peak was manually integrated to correct the baseline from the original chromatogram.
- D:** The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
- E:** The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

SW8081A:

The continuing calibration verifications exceeded criteria in 0H23534-CCV7 for 4,4'-DDE, 4,4'-DDD, 4,4'-DDT, and Tetrachloro-m-xylene on column 1 and in 0H23910-CCV7 for 4,4'-DDD on column 1.

The matrix spike duplicate associated to sample 1008133-02 exceeded criteria for 4,4'-DDE on column 2.

The surrogate Tetrachloro-m-xylene exceeded criteria on one or both columns in sample 1008133-01, -02, -03, -04, -06, -07, -08, -09, -10, -11 and the surrogate

Decachlorobiphenyl exceeded on one or both columns in samples 1008133-04 and -21.

No additional anomalies or deviations were noted and the data was properly qualified.

Data Qualifiers

As applicable and where required, the following general qualifiers are associated with the sample results. Additional qualifiers will be specified within the reporting sections of the data package or within the body of the Case Narrative.

Analytical Report Terms and Qualifiers

- MDL:** The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix. For DoD QSM 4.1 reporting purposes, this definition is also applied to the reported Detection Limit (DL).
- LOD:** The Limit of Detection is an estimate of the minimum amount of a substance that an analytical process can reliably detect. An LOD is analyte- and matrix-specific and may be laboratory-dependent. This definition is further clarified in the DoD QSM 4.1 revisions as the smallest amount or concentration of a substance that must be present in a sample in order to be detected at a high level of confidence (99%). At the LOD, the false negative rate (Type II error) is 1%.
- LOQ:** The Limit of Quantitation is the minimum level, concentration, or quantity of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. This term is further clarified within the DoD QSM 4.1 as the lowest concentration that produces a quantitative result within specified limits of precision and bias.
- *:** A failing quality control criteria is associated with the reported result.
- B:** The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero. **For Florida DEP reports this qualifier is "V".**
- D:** When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".
- E:** The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound. **For Florida DEP reports this qualifier is "L".**
- H1:** The result was analyzed outside of the EPA recommended holding time.

- H2:** The result was extracted outside of the EPA recommended holding time
- J:** The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The mass spectral data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL. One should feel confident that the result is greater than zero and less than the EQL. **For Florida DEP reports this qualifier is "I"**.
- M:** Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In metals, the qualifier indicates that the parameters MDL/RL has been raised.
- N:** The MS/MSD accuracy and/or precision are outside criteria. The predigested spike recovery is not within control limits for the associated parameter.
- P:** The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported unless matrix interference is obvious or for HPLC analysis where the primary column is reported.
- Q:** The RPD and/or percent recovery failed in the associated Blank Spike and/or Blank Spike Duplicate.
- S:** The associated internal standard failed criteria.
- U:** The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the DL.
- X:** The parameter shows a potential positive bias on a reported concentration due to an ICV or CCV exceeding the upper control limit on the high side.
- Y:** The parameter shows a potential negative bias on a reported concentration due to an ICV or CCV exceeding the lower control limit on the low side.

LIMS Definitions / Naming Conventions:

The following are general naming conventions that are used throughout the laboratory; however, on a method by method basis, there are additional QAQC items that are named in a consistent format.

- BLK:** LIMS assigns a unique identifier to the Method Blank by naming it as the letters BLK appended to the Batch ID. A Method Blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The Method Blank is used to assess for possible contamination during preparation and/or analysis steps. Method Blanks within

a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally.

- BS:** LIMS assigns a unique identifier to the Blank Spike by naming it as the letters BS appended to the Batch ID. The Blank Spike or Lab Control Sample is a controlled analyte-free matrix, which is spiked with known and verified concentrations of target analytes. Spiking concentrations can be referenced in the method SOP. The BS is used to evaluate the viability of analytes taken through the entire prep (when applicable) and analytical process. Blank Spikes within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally. A duplicate Blank Spike will be designated as a BSD.
- MS:** The LIMS assigns each Client sample with a unique identifier. The Matrix Spike is designated with a MS at the end of the sample's unique identifier. The Matrix Spike sample is used to assess the effect of the sample matrix on the precision and accuracy of the results generated using the selected method. A duplicate Matrix Spike will be designated as a MSD.
- IDs:** The LIMS assigns each Client sample with a unique identifier. The letter "RE" may potentially be appended to the end of the LIMS Sample ID. And "RE" implies that the sample was either re-prepped, re-analyzed straight, or re-analyzed at a dilution. Subsequent re-analysis for the sample will be appended with a numerical value beginning with 1 that will increase incrementally. Eg: RE1, RE2, RE3, etc.

Statement of Data Authenticity:

I certify that, based upon my inquiry of those individuals immediately responsible for obtaining the information and to the best of my knowledge, the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, with the exception of the conditions detailed in this Case Narrative, as verified by my signature below. During absences, Ms. Marcia K. McGinnity is authorized to sign this Statement of Data Authenticity.



Mr. Rick D. Davis
Laboratory Technical Director / VP Operations

Data for SW8081A Forms

HOLDING TIME SUMMARY
SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
S2-FD-01-0810	08/12/10 00:00	08/13/10 08:30	08/21/10 14:45	9.66	14.00	08/26/10 20:12	5.23	40.00	
S2-SD-001-0810	08/12/10 14:05	08/13/10 08:30	08/21/10 14:45	9.07	14.00	08/26/10 20:30	5.24	40.00	
S2-SD-002-0810	08/12/10 14:25	08/13/10 08:30	08/21/10 14:45	9.06	14.00	08/26/10 21:26	5.28	40.00	
S2-SD-003-0810	08/12/10 11:10	08/13/10 08:30	08/21/10 14:45	9.19	14.00	08/26/10 21:45	5.29	40.00	
S2-SD-004-0810	08/12/10 11:00	08/13/10 08:30	08/21/10 14:45	9.20	14.00	08/26/10 23:17	5.36	40.00	
S2-SD-005-0810	08/12/10 10:45	08/13/10 08:30	08/21/10 14:45	9.21	14.00	08/26/10 22:03	5.30	40.00	
S2-SD-006-0810	08/12/10 10:20	08/13/10 08:30	08/21/10 14:45	9.23	14.00	08/26/10 18:39	5.16	40.00	
S2-SD-007-0810	08/12/10 10:00	08/13/10 08:30	08/21/10 14:45	9.24	14.00	08/26/10 22:22	5.32	40.00	
S2-SD-008-0810	08/12/10 11:45	08/13/10 08:30	08/21/10 14:45	9.17	14.00	08/26/10 19:53	5.21	40.00	
S2-SD-009-0810	08/12/10 12:00	08/13/10 08:30	08/21/10 14:45	9.16	14.00	08/26/10 22:40	5.33	40.00	
S2-SD-010-0810	08/12/10 12:15	08/13/10 08:30	08/21/10 14:45	9.15	14.00	08/26/10 22:59	5.34	40.00	
S2-FD-02-0810	08/12/10 00:00	08/13/10 08:30	08/18/10 13:15	6.59	7.00	08/20/10 15:27	2.09	40.00	
S2-SW-001-0810	08/12/10 14:00	08/13/10 08:30	08/18/10 13:15	6.01	7.00	08/20/10 15:46	2.10	40.00	
S2-SW-002-0810	08/12/10 14:20	08/13/10 08:30	08/18/10 13:15	6.00	7.00	08/20/10 16:04	2.12	40.00	
S2-SW-003-0810	08/12/10 11:05	08/13/10 08:30	08/18/10 13:15	6.13	7.00	08/20/10 16:23	2.13	40.00	
S2-SW-004-0810	08/12/10 10:55	08/13/10 08:30	08/18/10 13:15	6.14	7.00	08/20/10 16:41	2.14	40.00	
S2-SW-005-0810	08/12/10 10:40	08/13/10 08:30	08/18/10 13:15	6.15	7.00	08/20/10 17:00	2.16	40.00	
S2-SW-006-0810	08/12/10 10:15	08/13/10 08:30	08/18/10 13:15	6.17	7.00	08/20/10 17:19	2.17	40.00	
S2-SW-007-0810	08/12/10 09:50	08/13/10 08:30	08/18/10 13:15	6.18	7.00	08/20/10 17:37	2.18	40.00	
S2-SW-008-0810	08/12/10 11:40	08/13/10 08:30	08/18/10 13:15	6.11	7.00	08/20/10 17:56	2.20	40.00	
S2-SW-009-0810	08/12/10 11:55	08/13/10 08:30	08/18/10 13:15	6.10	7.00	08/20/10 19:10	2.25	40.00	
S2-SW-010-0810	08/12/10 12:10	08/13/10 08:30	08/18/10 13:15	6.09	7.00	08/20/10 19:29	2.26	40.00	

ANALYSIS SEQUENCE SUMMARY

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Sequence: 0H23124

Instrument: GL-ECD3

Calibration: 0231008

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Performance Mix	0H23124-PEM1	002F0201.D	08/18/10 13:33
Performance Mix	0H23124-PEM1	002R0201.D	08/18/10 13:33
Cal Standard	0H23124-CAL7	007R0701.D	08/18/10 15:32
Cal Standard	0H23124-CAL7	007F0701.D	08/18/10 15:32
Cal Standard	0H23124-CAL6	008R0801.D	08/18/10 15:51
Cal Standard	0H23124-CAL6	008F0801.D	08/18/10 15:51
Cal Standard	0H23124-CAL5	009R0901.D	08/18/10 16:09
Cal Standard	0H23124-CAL5	009F0901.D	08/18/10 16:09
Cal Standard	0H23124-CAL4	010F1001.D	08/18/10 16:28
Cal Standard	0H23124-CAL4	010R1001.D	08/18/10 16:28
Cal Standard	0H23124-CAL3	011R1101.D	08/18/10 16:47
Cal Standard	0H23124-CAL3	011F1101.D	08/18/10 16:47
Cal Standard	0H23124-CAL2	012R1201.D	08/18/10 17:05
Cal Standard	0H23124-CAL2	012F1201.D	08/18/10 17:05
Cal Standard	0H23124-CAL1	013F1301.D	08/18/10 17:24
Cal Standard	0H23124-CAL1	013R1301.D	08/18/10 17:24
Initial Cal Check	0H23124-ICV1	014F1401.D	08/18/10 17:42
Initial Cal Check	0H23124-ICV1	014R1401.D	08/18/10 17:42

INITIAL CALIBRATION STANDARDS

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	CTO121KY_001
Client:	Tetra Tech NUS, Inc. (T010)	Project:	CTO 121 Key West_2010
Sequence:	0H23124	Instrument:	GL-ECD3
Calibration:	0231008		

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
10C0794	Pest_ICAL7@1ppb	0H23124-CAL7	007R0701.D	08/18/10 15:32
10C0794	Pest_ICAL7@1ppb	0H23124-CAL7	007F0701.D	08/18/10 15:32
10C0793	Pest_ICAL6@5ppb	0H23124-CAL6	008R0801.D	08/18/10 15:51
10C0793	Pest_ICAL6@5ppb	0H23124-CAL6	008F0801.D	08/18/10 15:51
10C0792	Pest_ICAL5@10ppb	0H23124-CAL5	009R0901.D	08/18/10 16:09
10C0792	Pest_ICAL5@10ppb	0H23124-CAL5	009F0901.D	08/18/10 16:09
10C0791	Pest_ICAL4@25ppb	0H23124-CAL4	010F1001.D	08/18/10 16:28
10C0791	Pest_ICAL4@25ppb	0H23124-CAL4	010R1001.D	08/18/10 16:28
10C0790	Pest_ICAL3@50ppb	0H23124-CAL3	011F1101.D	08/18/10 16:47
10C0790	Pest_ICAL3@50ppb	0H23124-CAL3	011R1101.D	08/18/10 16:47
10G0640	Pest. AB/Sur CCV @ 100ppb	0H23124-CAL2	012R1201.D	08/18/10 17:05
10G0640	Pest. AB/Sur CCV @ 100ppb	0H23124-CAL2	012F1201.D	08/18/10 17:05
10C0788	Pest_ICAL1@200ppb	0H23124-CAL1	013F1301.D	08/18/10 17:24
10C0788	Pest_ICAL1@200ppb	0H23124-CAL1	013R1301.D	08/18/10 17:24

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Calibration: 0231008

Instrument: GL-ECD3

Matrix: Water

Calibration Date: 8/11/2010 12:00:47AM

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
4,4'-DDE	27519.77	6.767484	8.629714	2.842699E-02			20	
4,4'-DDE [2C]	14536	15.04788	7.246429	1.954972E-02			20	
4,4'-DDD	23101.16	8.474523	9.266429	0.0296259			20	
4,4'-DDD [2C]	12755.82	12.48848	7.879571	1.974741E-02			20	
4,4'-DDT	25024.36	7.158773	9.658429	2.947097E-02			20	
4,4'-DDT [2C]	13114.2	12.3948	8.177	1.714982E-02			20	
Aldrin	31120.06	8.893775	7.557	2.921149E-02			20	
Aldrin [2C]	16204.13	14.86722	6.205143	2.164582E-02			20	
alpha-BHC	33844.89	12.4158	6.187857	2.894959E-02			20	
alpha-BHC [2C]	19272.35	11.99603	5.292	1.685321E-02			20	
alpha-Chlordane	29241.99	4.045688	8.437572	3.677886E-02			20	
alpha-Chlordane [2C]	16397.83	36.48557	7.048714	4.359658E-03	0.9975395		0.995	
beta-BHC	13038.83	2.446098	6.730143	3.701915E-02			20	
beta-BHC [2C]	8373.678	15.74826	5.868429	1.719395E-02			20	
delta-BHC	29814.53	8.998456	7.006714	3.602863E-02			20	
delta-BHC [2C]	17029.45	10.28906	6.101429	1.045718E-02			20	
Dieldrin	29188.35	7.751798	8.836286	3.309295E-02			20	
Dieldrin [2C]	15697.49	12.96163	7.407	1.988733E-02			20	
Endosulfan I	26911.37	6.149281	8.504	1.448972E-02			20	
Endosulfan I [2C]	14173.41	19.9611	7.114714	1.686527E-02			20	
Endosulfan II	26170.13	6.04497	9.390572	2.758914E-02			20	
Endosulfan II [2C]	13403.27	13.91583	8.061572	2.289066E-02			20	
Endosulfan sulfate	23040.98	3.76789	9.845286	1.708877E-02			20	
Endosulfan sulfate [2C]	11514.77	15.2963	8.541286	2.028099E-02			20	
Endrin	22471.34	7.480832	9.120143	2.533572E-02			20	
Endrin [2C]	13226.79	15.56737	7.723714	1.412329E-02			20	
Endrin aldehyde	21143.07	4.790829	9.552143	3.671377E-02			20	
Endrin aldehyde [2C]	11260.22	13.5891	8.276	1.537137E-02			20	
Endrin ketone	29376.24	3.387549	10.466	2.637199E-02			20	
Endrin ketone [2C]	16732.36	17.78552	9.166143	1.512736E-02			20	
gamma-BHC (Lindane)	31100.31	8.957544	6.532572	3.282645E-02			20	
gamma-BHC (Lindane) [2C]	17791.3	11.62578	5.600286	5.864797E-03			20	

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Calibration: 0231008

Instrument: GL-ECD3

Matrix: Water

Calibration Date: 8/11/2010 12:00:47AM

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
gamma-Chlordane	37257.31	30.01873	8.345286	5.051504E-02	0.9993212		0.995	
gamma-Chlordane [2C]	14922.48	14.49041	6.977572	1.239514E-02			20	
Heptachlor	29736.6	6.077364	7.170143	3.245733E-02			20	
Heptachlor [2C]	15963.78	16.7678	5.926	1.916283E-02			20	
Heptachlor epoxide	29552.84	4.606994	8.043714	3.038538E-02			20	
Heptachlor epoxide [2C]	15242.53	15.3383	6.715857	0.0132946			20	
Methoxychlor	13027.57	3.389406	10.25771	2.338781E-02			20	
Methoxychlor [2C]	6917.408	18.61895	8.883143	9.206613E-03			20	
Chlordane (1)	4544.393	3.286134	7.752667	2.236497E-02			20	
Chlordane (2)	1017.763	3.468766	6.320667	1.861382E-02			20	
Chlordane (3)	1196.977	3.906475	6.541667	2.360379E-03			20	
Chlordane (4)	3644.61	5.291068	7.660666	1.162645E-02			20	
Chlordane (5)	1003.849	8.616068	8.754666	1.964215E-02			20	
Chlordane (1) [2C]	1362.396	13.11042	6.430167	1.864939E-02			20	
Chlordane (2) [2C]	654.6175	9.631315	5.267	1.246755E-02			20	
Chlordane (3) [2C]	808.8417	11.15806	5.422333	3.094815E-03			20	
Chlordane (4) [2C]	1771.491	11.21356	6.406167	1.238472E-02			20	
Chlordane (5) [2C]	828.1467	6.494989	7.436167	9.51604E-03			20	
Toxaphene (1)	1395.611	8.204187	9.6145	5.322644E-03			20	
Toxaphene (2)	479.7112	14.03675	8.328834	1.548541E-02			20	
Toxaphene (3)	1313.166	13.1824	8.9845	9.140261E-03			20	
Toxaphene (4)	1147.815	11.62736	9.097	1.351885E-02			20	
Toxaphene (5)	588.7569	16.24	10.0655	1.559012E-03			20	
Toxaphene (1) [2C]	1324.91	11.05342	8.352333	1.269554E-02			20	
Toxaphene (2) [2C]	366.0796	18.27378	7.4325	1.458249E-02			20	
Toxaphene (3) [2C]	585.1707	17.09072	7.769667	4.366211E-03			20	
Toxaphene (4) [2C]	566.5054	11.02968	8.732167	2.381051E-02			20	
Toxaphene (5) [2C]	303.8118	12.64219	8.9005	1.783531E-02			20	
Tetrachloro-m-xylene	24057.43	2.676355	5.723714	0.032494			20	
Tetrachloro-m-xylene [2C]	14828.89	14.36384	4.816857	5.66406E-03			20	
Decachlorobiphenyl	22887.18	12.48804	12.136	1.561439E-02			20	
Decachlorobiphenyl [2C]	8615.216	13.32513	10.51583	8.051072E-03			20	

INITIAL CALIBRATION DATA

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Calibration: 0231008

Instrument: GL-ECD3

Matrix: Water

Calibration Date: 8/11/2010 12:00:47AM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF										
gamma-BHC (Lindane) [2C]												
gamma-Chlordane												
gamma-Chlordane [2C]												
Heptachlor												
Heptachlor [2C]												
Heptachlor epoxide												
Heptachlor epoxide [2C]												
Methoxychlor												
Methoxychlor [2C]												
Chlordane (1)												
Chlordane (2)												
Chlordane (3)												
Chlordane (4)												
Chlordane (5)												
Chlordane (1) [2C]												
Chlordane (2) [2C]												
Chlordane (3) [2C]												
Chlordane (4) [2C]												
Chlordane (5) [2C]												
Toxaphene (1)												
Toxaphene (2)												
Toxaphene (3)												
Toxaphene (4)												
Toxaphene (5)												
Toxaphene (1) [2C]												
Toxaphene (2) [2C]												
Toxaphene (3) [2C]												
Toxaphene (4) [2C]												
Toxaphene (5) [2C]												
Tetrachloro-m-xylene	2.5		5		25		37.5		50		125	
Tetrachloro-m-xylene [2C]	2.5		5		25		37.5		50		125	

INITIAL CALIBRATION DATA
SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Calibration: 0231008

Instrument: GL-ECD3

Matrix: Water

Calibration Date: 8/11/2010 12:00:47AM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF										
Decachlorobiphenyl	2.5		5		25		37.5		50		125	
Decachlorobiphenyl [2C]	2.5		5		25		37.5		50		125	
4,4'-DDE												
4,4'-DDE [2C]												
4,4'-DDD												
4,4'-DDD [2C]												
4,4'-DDT												
4,4'-DDT [2C]												
Aldrin												
Aldrin [2C]												
alpha-BHC												
alpha-BHC [2C]												
alpha-Chlordane												
alpha-Chlordane [2C]												
beta-BHC												
beta-BHC [2C]												
delta-BHC												
delta-BHC [2C]												
Dieldrin												
Dieldrin [2C]												
Endosulfan I												
Endosulfan I [2C]												
Endosulfan II												
Endosulfan II [2C]												
Endosulfan sulfate												
Endosulfan sulfate [2C]												
Endrin												
Endrin [2C]												
Endrin aldehyde												
Endrin aldehyde [2C]												
Endrin ketone												

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Calibration: 0231008

Instrument: GL-ECD3

Matrix: Water

Calibration Date: 8/11/2010 12:00:47AM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Endrin ketone [2C]												
gamma-BHC (Lindane)												
gamma-BHC (Lindane) [2C]												
gamma-Chlordane												
gamma-Chlordane [2C]												
Heptachlor												
Heptachlor [2C]												
Heptachlor epoxide												
Heptachlor epoxide [2C]												
Methoxychlor												
Methoxychlor [2C]												
Chlordane (1)												
Chlordane (2)												
Chlordane (3)												
Chlordane (4)												
Chlordane (5)												
Chlordane (1) [2C]												
Chlordane (2) [2C]												
Chlordane (3) [2C]												
Chlordane (4) [2C]												
Chlordane (5) [2C]												
Toxaphene (1)	100	1263.58	250	1300.444	500	1382.396	750	1361.445	1000	1529.582	2000	1536.219
Toxaphene (2)	100	402.69	250	440.388	500	432.196	750	490.1533	1000	579.407	2000	533.433
Toxaphene (3)	100	1138.38	250	1473.116	500	1131.008	750	1206.851	1000	1424.733	2000	1504.906
Toxaphene (4)	100	1032.7	250	1060.356	500	1048.956	750	1119.731	1000	1353.23	2000	1271.916
Toxaphene (5)	100	498.51	250	515.144	500	580.208	750	524.972	1000	714.324	2000	699.3835
Toxaphene (1) [2C]	100	1096.17	250	1431.692	500	1426.94	750	1441.025	1000	1363.396	2000	1190.239
Toxaphene (2) [2C]	100	261.1	250	415.504	500	422.838	750	413.8733	1000	374.794	2000	308.3685
Toxaphene (3) [2C]	100	403.15	250	654.552	500	656.71	750	639.848	1000	622.342	2000	534.422
Toxaphene (4) [2C]	100	471.95	250	587.26	500	627.018	750	619.0587	1000	585.312	2000	508.434
Toxaphene (5) [2C]	100	254.71	250	280.204	500	335.37	750	352.52	1000	322.514	2000	277.5525

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Calibration: 0231008

Instrument: GL-ECD3

Matrix: Water

Calibration Date: 8/11/2010 12:00:47AM

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
gamma-BHC (Lindane) [2C]												
gamma-Chlordane												
gamma-Chlordane [2C]												
Heptachlor												
Heptachlor [2C]												
Heptachlor epoxide												
Heptachlor epoxide [2C]												
Methoxychlor												
Methoxychlor [2C]												
Chlordane (1)	5	4504.2	10	4468.1	20	4537.5	50	4404.52	100	4518.21	200	4833.825
Chlordane (2)	5	971.2	10	999.8	20	1026.5	50	1002.18	100	1032.53	200	1074.365
Chlordane (3)	5	1182.2	10	1175.2	20	1148.2	50	1182.74	100	1210.01	200	1283.51
Chlordane (4)	5	3445.4	10	3504.7	20	3605.85	50	3597.28	100	3729.68	200	3984.75
Chlordane (5)	5	864.2	10	957.2	20	1017.25	50	1011.46	100	1056.25	200	1116.735
Chlordane (1) [2C]	5	1555.4	10	1527.6	20	1481.5	50	1230.7	100	1146.46	200	1232.715
Chlordane (2) [2C]	5	722.8	10	714.2	20	694.1	50	621.72	100	585.16	200	589.725
Chlordane (3) [2C]	5	919.2	10	908.6	20	828.5	50	751.7	100	717.9	200	727.15
Chlordane (4) [2C]	5	2035.8	10	1967.7	20	1811.95	50	1634.44	100	1555.58	200	1623.475
Chlordane (5) [2C]	5	847.2	10	837.3	20	844.1	50	774.06	100	759.66	200	906.56
Toxaphene (1)												
Toxaphene (2)												
Toxaphene (3)												
Toxaphene (4)												
Toxaphene (5)												
Toxaphene (1) [2C]												
Toxaphene (2) [2C]												
Toxaphene (3) [2C]												
Toxaphene (4) [2C]												
Toxaphene (5) [2C]												
Tetrachloro-m-xylene												
Tetrachloro-m-xylene [2C]												

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY 001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Calibration: 0231008

Instrument: GL-ECD3

Matrix: Water

Calibration Date: 8/11/2010 12:00:47AM

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
4,4'-DDE	200	29227.19	100	29165.44	50	28973.96	25	28493.68	10	26306.5	5	24904.6
4,4'-DDE [2C]	200	11798.72	100	12795.61	50	13702.68	25	14470.76	10	14671.2	5	15790
4,4'-DDD	200	25199.27	100	25046.18	50	24350	25	23766.6	10	21916.5	5	20802.6
4,4'-DDD [2C]	200	10707.13	100	11495.93	50	12232.56	25	12774.6	10	12716.1	5	13748.4
4,4'-DDT	200	26962.85	100	26426	50	26385.18	25	25827.2	10	23807.1	5	22452.2
4,4'-DDT [2C]	200	11039.19	100	11700.84	50	12802.82	25	13271.96	10	13101.4	5	13769.2
Aldrin	200	33490.68	100	33790.16	50	33179.96	25	32410.92	10	29746.5	5	28240.2
Aldrin [2C]	200	13063.39	100	14442.73	50	15239.42	25	16026.8	10	16644.8	5	17424.8
alpha-BHC	200	37463.15	100	38608.52	50	36338.18	25	34825.08	10	32499.9	5	30313.4
alpha-BHC [2C]	200	16185.09	100	18348.97	50	18107.52	25	18632.56	10	19653.1	5	20407.2
alpha-Chlordane	200	30009.95	100	30057.19	50	30239.28	25	30002.44	10	28349.9	5	27075.2
alpha-Chlordane [2C]	200	11830.84	100	12860.17	50	13908.5	25	14870.8	10	15139.7	5	16692.8
beta-BHC	200	13158.25	100	13454.54	50	13194.84	25	13035.2	10	12544.8	5	12681.2
beta-BHC [2C]	200	6931.085	100	7573.52	50	7740.08	25	7916.56	10	8265.9	5	9329.6
delta-BHC	200	32633.84	100	32268.02	50	31759.02	25	30873.4	10	27967.6	5	26255.8
delta-BHC [2C]	200	14737.67	100	15964.53	50	16585.08	25	16990.84	10	17001.8	5	17487.2
Dieldrin	200	31327.06	100	31321.44	50	30884.42	25	30232.92	10	27757.4	5	26380.2
Dieldrin [2C]	200	13082.18	100	14227.29	50	14819.48	25	15583.88	10	15783.2	5	17055.4
Endosulfan I	200	28045.3	100	28331.35	50	28444.5	25	27883.4	10	26127.6	5	24573.4
Endosulfan I [2C]	200	11274.24	100	12326.19	50	12995.54	25	13540.2	10	13973.3	5	15149.4
Endosulfan II	200	26466.98	100	26354.86	50	26242.96	25	26057.52	10	24675	5	24238.6
Endosulfan II [2C]	200	11252.87	100	12007.12	50	12744.92	25	13214.68	10	13306.7	5	14280.6
Endosulfan sulfate	200	23571.21	100	23669.12	50	23670.22	25	23251.12	10	22160.8	5	21480.4
Endosulfan sulfate [2C]	200	9524.665	100	10209.29	50	10917.64	25	11325.92	10	11419.3	5	12220.6
Endrin	200	22873.71	100	23970.94	50	24525.82	25	23476.6	10	21667.5	5	20284.8
Endrin [2C]	200	10207.54	100	11611.01	50	12912.68	25	13373.68	10	13488.8	5	14228.8
Endrin aldehyde	200	22635.33	100	21979.22	50	21424.66	25	21225.68	10	20288.4	5	19622.2
Endrin aldehyde [2C]	200	9736.025	100	10123.67	50	10550.78	25	10969.64	10	11104.2	5	12042.2
Endrin ketone	200	30555.84	100	30150.25	50	29746.1	25	29445.2	10	28346.7	5	27740.6
Endrin ketone [2C]	200	13631.95	100	14595.71	50	15552.96	25	16293.6	10	16562.7	5	17727.6
gamma-BHC (Lindane)	200	33646.93	100	34018.82	50	33038.62	25	32075.4	10	29689	5	28160.4

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Calibration: 0231008

Instrument: GL-ECD3

Matrix: Water

Calibration Date: 8/11/2010 12:00:47AM

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
gamma-BHC (Lindane) [2C]	200	14943	100	16664.79	50	16911.86	25	17496.12	10	18162.3	5	18789
gamma-Chlordane	200	31775.26	100	31112.68	50	33811.1	25	36457.4	10	32644.5	5	32683.2
gamma-Chlordane [2C]	200	12226.07	100	13357.47	50	14037.46	25	14618.56	10	15122.8	5	16199
Heptachlor	200	31273.16	100	30873.44	50	31096.14	25	30585.28	10	27674.6	5	26722.6
Heptachlor [2C]	200	12861.19	100	13993.34	50	14922.1	25	15617.32	10	15962.7	5	17271.8
Heptachlor epoxide	200	30214.6	100	30303.38	50	30567.84	25	31091.96	10	28156.3	5	27410.8
Heptachlor epoxide [2C]	200	12273.27	100	13411.82	50	14338.88	25	15114.44	10	15541.1	5	16526.2
Methoxychlor	200	12605.22	100	12720.77	50	13080.98	25	13043	10	13014	5	12787
Methoxychlor [2C]	200	5277.575	100	5871.96	50	6492.92	25	6827	10	6967.4	5	7779
Chlordane (1)												
Chlordane (2)												
Chlordane (3)												
Chlordane (4)												
Chlordane (5)												
Chlordane (1) [2C]												
Chlordane (2) [2C]												
Chlordane (3) [2C]												
Chlordane (4) [2C]												
Chlordane (5) [2C]												
Toxaphene (1)												
Toxaphene (2)												
Toxaphene (3)												
Toxaphene (4)												
Toxaphene (5)												
Toxaphene (1) [2C]												
Toxaphene (2) [2C]												
Toxaphene (3) [2C]												
Toxaphene (4) [2C]												
Toxaphene (5) [2C]												
Tetrachloro-m-xylenc	200	24175.82	100	24800.11	50	24280.38	25	23923.4	10	23278.3	5	23187
Tetrachloro-m-xylenc [2C]	200	12256.39	100	13426.15	50	13812.52	25	14296.04	10	15091.7	5	16154.4

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Calibration: 0231008

Instrument: GL-ECD3

Matrix: Water

Calibration Date: 8/11/2010 12:00:47AM

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Decachlorobiphenyl	200	20090.43	100	21115.97	50	22423.54	25	20840.32	10	23593.2	5	23538.8
Decachlorobiphenyl [2C]	200	7138.495	100	7809.34	50	8682.52	25	8321.64	10	9359.1	5	10380.2
4,4'-DDE	200	29227.19	100	29165.44	50	28973.96	25	28493.68	10	26306.5	5	24904.6
4,4'-DDE [2C]	200	11798.72	100	12795.61	50	13702.68	25	14470.76	10	14671.2	5	15790
4,4'-DDD	200	25199.27	100	25046.18	50	24350	25	23766.6	10	21916.5	5	20802.6
4,4'-DDD [2C]	200	10707.13	100	11495.93	50	12232.56	25	12774.6	10	12716.1	5	13748.4
4,4'-DDT	200	26962.85	100	26426	50	26385.18	25	25827.2	10	23807.1	5	22452.2
4,4'-DDT [2C]	200	11039.19	100	11700.84	50	12802.82	25	13271.96	10	13101.4	5	13769.2
Aldrin	200	33490.68	100	33790.16	50	33179.96	25	32410.92	10	29746.5	5	28240.2
Aldrin [2C]	200	13063.39	100	14442.73	50	15239.42	25	16026.8	10	16644.8	5	17424.8
alpha-BHC	200	37463.15	100	38608.52	50	36338.18	25	34825.08	10	32499.9	5	30313.4
alpha-BHC [2C]	200	16185.09	100	18348.97	50	18107.52	25	18632.56	10	19653.1	5	20407.2
alpha-Chlordane	200	30009.95	100	30057.19	50	30239.28	25	30002.44	10	28349.9	5	27075.2
alpha-Chlordane [2C]	200	11830.84	100	12860.17	50	13908.5	25	14870.8	10	15139.7	5	16692.8
beta-BHC	200	13158.25	100	13454.54	50	13194.84	25	13035.2	10	12544.8	5	12681.2
beta-BHC [2C]	200	6931.085	100	7573.52	50	7740.08	25	7916.56	10	8265.9	5	9329.6
delta-BHC	200	32633.84	100	32268.02	50	31759.02	25	30873.4	10	27967.6	5	26255.8
delta-BHC [2C]	200	14737.67	100	15964.53	50	16585.08	25	16990.84	10	17001.8	5	17487.2
Dieldrin	200	31327.06	100	31321.44	50	30884.42	25	30232.92	10	27757.4	5	26380.2
Dieldrin [2C]	200	13082.18	100	14227.29	50	14819.48	25	15583.88	10	15783.2	5	17055.4
Endosulfan I	200	28045.3	100	28331.35	50	28444.5	25	27883.4	10	26127.6	5	24573.4
Endosulfan I [2C]	200	11274.24	100	12326.19	50	12995.54	25	13540.2	10	13973.3	5	15149.4
Endosulfan II	200	26466.98	100	26354.86	50	26242.96	25	26057.52	10	24675	5	24238.6
Endosulfan II [2C]	200	11252.87	100	12007.12	50	12744.92	25	13214.68	10	13306.7	5	14280.6
Endosulfan sulfate	200	23571.21	100	23669.12	50	23670.22	25	23251.12	10	22160.8	5	21480.4
Endosulfan sulfate [2C]	200	9524.665	100	10209.29	50	10917.64	25	11325.92	10	11419.3	5	12220.6
Endrin	200	22873.71	100	23970.94	50	24525.82	25	23476.6	10	21667.5	5	20284.8
Endrin [2C]	200	10207.54	100	11611.01	50	12912.68	25	13373.68	10	13488.8	5	14228.8
Endrin aldehyde	200	22635.33	100	21979.22	50	21424.66	25	21225.68	10	20288.4	5	19622.2
Endrin aldehyde [2C]	200	9736.025	100	10123.67	50	10550.78	25	10969.64	10	11104.2	5	12042.2
Endrin ketone	200	30555.84	100	30150.25	50	29746.1	25	29445.2	10	28346.7	5	27740.6

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Calibration: 0231008

Instrument: GL-ECD3

Matrix: Water

Calibration Date: 8/11/2010 12:00:47AM

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Endrin ketone [2C]	200	13631.95	100	14595.71	50	15552.96	25	16293.6	10	16562.7	5	17727.6
gamma-BHC (Lindane)	200	33646.93	100	34018.82	50	33038.62	25	32075.4	10	29689	5	28160.4
gamma-BHC (Lindane) [2C]	200	14943	100	16664.79	50	16911.86	25	17496.12	10	18162.3	5	18789
gamma-Chlordane	200	31775.26	100	31112.68	50	33811.1	25	36457.4	10	32644.5	5	32683.2
gamma-Chlordane [2C]	200	12226.07	100	13357.47	50	14037.46	25	14618.56	10	15122.8	5	16199
Heptachlor	200	31273.16	100	30873.44	50	31096.14	25	30585.28	10	27674.6	5	26722.6
Heptachlor [2C]	200	12861.19	100	13993.34	50	14922.1	25	15617.32	10	15962.7	5	17271.8
Heptachlor epoxide	200	30214.6	100	30303.38	50	30567.84	25	31091.96	10	28156.3	5	27410.8
Heptachlor epoxide [2C]	200	12273.27	100	13411.82	50	14338.88	25	15114.44	10	15541.1	5	16526.2
Methoxychlor	200	12605.22	100	12720.77	50	13080.98	25	13043	10	13014	5	12787
Methoxychlor [2C]	200	5277.575	100	5871.96	50	6492.92	25	6827	10	6967.4	5	7779
Chlordane (1)												
Chlordane (2)												
Chlordane (3)												
Chlordane (4)												
Chlordane (5)												
Chlordane (1) [2C]												
Chlordane (2) [2C]												
Chlordane (3) [2C]												
Chlordane (4) [2C]												
Chlordane (5) [2C]												
Toxaphene (1)												
Toxaphene (2)												
Toxaphene (3)												
Toxaphene (4)												
Toxaphene (5)												
Toxaphene (1) [2C]												
Toxaphene (2) [2C]												
Toxaphene (3) [2C]												
Toxaphene (4) [2C]												
Toxaphene (5) [2C]												

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Calibration: 0231008

Instrument: GL-ECD3

Matrix: Water

Calibration Date: 8/11/2010 12:00:47AM

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Tetrachloro-m-xylene	200	24175.82	100	24800.11	50	24280.38	25	23923.4	10	23278.3	5	23187
Tetrachloro-m-xylene [2C]	200	12256.39	100	13426.15	50	13812.52	25	14296.04	10	15091.7	5	16154.4
Decachlorobiphenyl	200	20090.43	100	21115.97	50	22423.54	25	20840.32	10	23593.2	5	23538.8
Decachlorobiphenyl [2C]	200	7138.495	100	7809.34	50	8682.52	25	8321.64	10	9359.1	5	10380.2

BREAKDOWN REPORT

Lab Sample ID: 0H23124-PEM1 Analyzed: 08/18/2010

Column Number: 1

Analyte	% Breakdown
4,4'-DDT	5.40
Endrin	9.83

Column Number: 2

Analyte	% Breakdown
4,4'-DDT	9.24
Endrin	12.62

INITIAL CALIBRATION CHECK

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Instrument ID: GL-ECD3

Calibration: 0231008

Lab File ID: 014F1401.D

Calibration Date: 08/11/10 00:00

Sequence: 0H23124

Injection Date: 08/18/10

Lab Sample ID: 0H23124-ICV1

Injection Time: 17:42

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
4,4'-DDE	A	100.0	107.4	27519.77	29549.93		7.4	20
4,4'-DDE [2C]	A	100.0	88.89	14536	12921.31		-11.1	20
4,4'-DDD	A	100.0	108.7	23101.16	25115.94		8.7	20
4,4'-DDD [2C]	A	100.0	90.72	12755.82	11572.26		-9.3	20
4,4'-DDT	A	100.0	103.2	25024.36	25830.22		3.2	20
4,4'-DDT [2C]	A	100.0	86.61	13114.2	11358.67		-13.4	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

BREAKDOWN REPORT

Lab Sample ID: 0H23910-PEM1 Analyzed: 08/26/2010

Column Number:	1
Analyte	% Breakdown
4,4'-DDT	0.00
Endrin	0.00

Column Number:	2
Analyte	% Breakdown
4,4'-DDT	0.00
Endrin	0.00

BREAKDOWN REPORT

Lab Sample ID: 0H23534-PEM1 Analyzed: 08/20/2010

Column Number:	1
Analyte	% Breakdown
4,4'-DDT	0.00

Column Number:	2
Analyte	% Breakdown
4,4'-DDT	0.00

BREAKDOWN REPORT

Lab Sample ID: 0H22418-PEM1 Analyzed: 08/11/2010

Column Number:	1
Analyte	% Breakdown
4,4'-DDT	0.00
Endrin	0.00

Column Number:	2
Analyte	% Breakdown
4,4'-DDT	0.00
Endrin	6.06

ANALYSIS SEQUENCE SUMMARY

SW8081A

Laboratory: Empirical Laboratories, LLC
 Client: Tetra Tech NUS, Inc. (T010)
 Sequence: 0H23534
 Calibration: 0231008

SDG: CTO121KY_001
 Project: CTO 121 Key West 2010
 Instrument: GL-ECD3

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Performance Mix	0H23534-PEM1	002F0201.D	08/20/10 12:39
Performance Mix	0H23534-PEM1	002R0201.D	08/20/10 12:39
Calibration Check	0H23534-CCV1	003R0301.D	08/20/10 13:16
Calibration Check	0H23534-CCV1	003F0301.D	08/20/10 13:16
Blank	0H18009-BLK1	006R0601.D	08/20/10 14:12
Blank	0H18009-BLK1	006F0601.D	08/20/10 14:12
LCS	0H18009-BS1	007F0701.D	08/20/10 14:31
LCS	0H18009-BS1	007R0701.D	08/20/10 14:31
LCS Dup	0H18009-BSD1	008F0801.D	08/20/10 14:50
LCS Dup	0H18009-BSD1	008R0801.D	08/20/10 14:50
S2-FD-02-0810	1008133-12	010F1001.D	08/20/10 15:27
S2-FD-02-0810	1008133-12	010R1001.D	08/20/10 15:27
S2-SW-001-0810	1008133-13	011R1101.D	08/20/10 15:46
S2-SW-001-0810	1008133-13	011F1101.D	08/20/10 15:46
S2-SW-002-0810	1008133-14	012F1201.D	08/20/10 16:04
S2-SW-002-0810	1008133-14	012R1201.D	08/20/10 16:04
S2-SW-003-0810	1008133-15	013F1301.D	08/20/10 16:23
S2-SW-003-0810	1008133-15	013R1301.D	08/20/10 16:23
S2-SW-004-0810	1008133-16	014R1401.D	08/20/10 16:41
S2-SW-004-0810	1008133-16	014F1401.D	08/20/10 16:41
S2-SW-005-0810	1008133-17	015R1501.D	08/20/10 17:00
S2-SW-005-0810	1008133-17	015F1501.D	08/20/10 17:00
S2-SW-006-0810	1008133-18	016R1601.D	08/20/10 17:19
S2-SW-006-0810	1008133-18	016F1601.D	08/20/10 17:19
S2-SW-007-0810	1008133-19	017F1701.D	08/20/10 17:37
S2-SW-007-0810	1008133-19	017R1701.D	08/20/10 17:37
S2-SW-008-0810	1008133-20	018F1801.D	08/20/10 17:56
S2-SW-008-0810	1008133-20	018R1801.D	08/20/10 17:56
Calibration Check	0H23534-CCV4	019F1901.D	08/20/10 18:14
Calibration Check	0H23534-CCV4	019R1901.D	08/20/10 18:14
S2-SW-009-0810	1008133-21	022F2201.D	08/20/10 19:10
S2-SW-009-0810	1008133-21	022R2201.D	08/20/10 19:10

ANALYSIS SEQUENCE SUMMARY

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Sequence: 0H23534

Instrument: GL-ECD3

Calibration: 0231008

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
S2-SW-010-0810	1008133-22	023F2301.D	08/20/10 19:29
S2-SW-010-0810	1008133-22	023R2301.D	08/20/10 19:29
Calibration Check	0H23534-CCV7	030F3001.D	08/20/10 21:39
Calibration Check	0H23534-CCV7	030R3001.D	08/20/10 21:39

CONTINUING CALIBRATION CHECK

SW8081A

Laboratory: Empirical Laboratories, LLC
 Client: Tetra Tech NUS, Inc. (T010)
 Instrument ID: GL-ECD3
 Lab File ID: 003F0301.D
 Sequence: 0H23534
 Lab Sample ID: 0H23534-CCV1

SDG: CTO121KY_001
 Project: CTO 121 Key West 2010
 Calibration: 0231008
 Calibration Date: 08/11/10 00:00
 Injection Date: 08/20/10
 Injection Time: 13:16

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
4,4'-DDE	A	100.0	102.6	27519.77	28249.24		2.7	20
4,4'-DDE [2C]	A	100.0	87.16	14536	12668.91		-12.8	20
4,4'-DDD	A	100.0	104.2	23101.16	24081.96		4.2	20
4,4'-DDD [2C]	A	100.0	89.15	12755.82	11371.78		-10.9	20
4,4'-DDT	A	100.0	103.8	25024.36	25971.1		3.8	20
4,4'-DDT [2C]	A	100.0	88.71	13114.2	11633.54		-11.3	20
Tetrachloro-m-xylene	A	100.0	101.6	24057.43	24456.78		1.7	20
Tetrachloro-m-xylene [2C]	A	100.0	92.04	14828.89	13648.06		-8.0	20
Decachlorobiphenyl	A	100.0	108.6	22887.18	24858.17		8.6	20
Decachlorobiphenyl [2C]	A	100.0	106.8	8615.216	9200.4		6.8	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Instrument ID: GL-ECD3

Calibration: 0231008

Lab File ID: 019F1901.D

Calibration Date: 08/11/10 00:00

Sequence: 0H23534

Injection Date: 08/20/10

Lab Sample ID: 0H23534-CCV4

Injection Time: 18:14

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
4,4'-DDE	A	100.0	107.3	27519.77	29530.42		7.3	20
4,4'-DDE [2C]	A	100.0	92.44	14536	13436.69		-7.6	20
4,4'-DDD	A	100.0	111.0	23101.16	25642.11		11.0	20
4,4'-DDD [2C]	A	100.0	95.25	12755.82	12150.03		-4.7	20
4,4'-DDT	A	100.0	102.2	25024.36	25569		2.2	20
4,4'-DDT [2C]	A	100.0	89.49	13114.2	11735.8		-10.5	20
Tetrachloro-m-xylene	A	100.0	107.2	24057.43	25777.83		7.2	20
Tetrachloro-m-xylene [2C]	A	100.0	96.63	14828.89	14329.02		-3.4	20
Decachlorobiphenyl	A	100.0	103.0	22887.18	23563.18		3.0	20
Decachlorobiphenyl [2C]	A	100.0	101.7	8615.216	8762.83		1.7	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8081A

Laboratory: Empirical Laboratories, LLC
 Client: Tetra Tech NUS, Inc. (T010)
 Instrument ID: GL-ECD3
 Lab File ID: 030F3001.D
 Sequence: 0H23534
 Lab Sample ID: 0H23534-CCV7

SDG: CTO121KY_001
 Project: CTO 121 Key West 2010
 Calibration: 0231008
 Calibration Date: 08/11/10 00:00
 Injection Date: 08/20/10
 Injection Time: 21:39

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
4,4'-DDE	A	100.0	128.7	27519.77	35408.63		28.7	20 *
4,4'-DDE [2C]	A	100.0	107.9	14536	15689.65		7.9	20
4,4'-DDD	A	100.0	132.8	23101.16	30674.96		32.8	20 *
4,4'-DDD [2C]	A	100.0	113.8	12755.82	14512.84		13.8	20
4,4'-DDT	A	100.0	120.9	25024.36	30266.87		20.9	20 *
4,4'-DDT [2C]	A	100.0	102.4	13114.2	13425.33		2.4	20
Tetrachloro-m-xylene	A	100.0	124.3	24057.43	29909.09		24.3	20 *
Tetrachloro-m-xylene [2C]	A	100.0	110.5	14828.89	16389.31		10.5	20
Decachlorobiphenyl	A	100.0	118.7	22887.18	27161.37		18.7	20
Decachlorobiphenyl [2C]	A	100.0	116.9	8615.216	10073.96		16.9	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Surrogate

ANALYSIS SEQUENCE SUMMARY

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West_2010

Sequence: 0H23910

Instrument: GL-ECD3

Calibration: 0231008

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Performance Mix	0H23910-PEM1	002F0201.D	08/26/10 16:10
Performance Mix	0H23910-PEM1	002R0201.D	08/26/10 16:10
Calibration Check	0H23910-CCV1	003R0301.D	08/26/10 16:29
Calibration Check	0H23910-CCV1	003F0301.D	08/26/10 16:29
Blank	0H19016-BLK2	006R0601.D	08/26/10 17:24
Blank	0H19016-BLK2	006F0601.D	08/26/10 17:24
LCS	0H19016-BS1	007F0701.D	08/26/10 17:43
LCS	0H19016-BS1	007R0701.D	08/26/10 17:43
S2-SD-006-0810	1008133-07	010F1001.D	08/26/10 18:39
S2-SD-006-0810	1008133-07	010R1001.D	08/26/10 18:39
Calibration Check	0H23910-CCV4	011R1101.D	08/26/10 18:57
Calibration Check	0H23910-CCV4	011F1101.D	08/26/10 18:57
S2-SD-008-0810	1008133-09	014R1401.D	08/26/10 19:53
S2-SD-008-0810	1008133-09	014F1401.D	08/26/10 19:53
S2-FD-01-0810	1008133-01	015F1501.D	08/26/10 20:12
S2-FD-01-0810	1008133-01	015R1501.D	08/26/10 20:12
S2-SD-001-0810	1008133-02	016R1601.D	08/26/10 20:30
S2-SD-001-0810	1008133-02	016F1601.D	08/26/10 20:30
S2-SD-001-0810	0H19016-MS1	017R1701.D	08/26/10 20:49
S2-SD-001-0810	0H19016-MS1	017F1701.D	08/26/10 20:49
S2-SD-001-0810	0H19016-MSD1	018F1801.D	08/26/10 21:07
S2-SD-001-0810	0H19016-MSD1	018R1801.D	08/26/10 21:07
S2-SD-002-0810	1008133-03	019R1901.D	08/26/10 21:26
S2-SD-002-0810	1008133-03	019F1901.D	08/26/10 21:26
S2-SD-003-0810	1008133-04	020R2001.D	08/26/10 21:45
S2-SD-003-0810	1008133-04	020F2001.D	08/26/10 21:45
S2-SD-005-0810	1008133-06	021R2101.D	08/26/10 22:03
S2-SD-005-0810	1008133-06	021F2101.D	08/26/10 22:03
S2-SD-007-0810	1008133-08	022F2201.D	08/26/10 22:22
S2-SD-007-0810	1008133-08	022R2201.D	08/26/10 22:22
S2-SD-009-0810	1008133-10	023F2301.D	08/26/10 22:40
S2-SD-009-0810	1008133-10	023R2301.D	08/26/10 22:40

ANALYSIS SEQUENCE SUMMARY

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Sequence: 0H23910

Instrument: GL-ECD3

Calibration: 0231008

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
S2-SD-010-0810	1008133-11	024F2401.D	08/26/10 22:59
S2-SD-010-0810	1008133-11	024R2401.D	08/26/10 22:59
S2-SD-004-0810	1008133-05	025F2501.D	08/26/10 23:17
S2-SD-004-0810	1008133-05	025R2501.D	08/26/10 23:17
Calibration Check	0H23910-CCV7	026F2601.D	08/26/10 23:36
Calibration Check	0H23910-CCV7	026R2601.D	08/26/10 23:36

CONTINUING CALIBRATION CHECK

SW8081A

Laboratory: Empirical Laboratories, LLC
 Client: Tetra Tech NUS, Inc. (T010)
 Instrument ID: GL-ECD3
 Lab File ID: 003F0301.D
 Sequence: 0H23910
 Lab Sample ID: 0H23910-CCV1

SDG: CTO121KY_001
 Project: CTO 121 Key West 2010
 Calibration: 0231008
 Calibration Date: 08/11/10 00:00
 Injection Date: 08/26/10
 Injection Time: 16:29

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
4,4'-DDE	A	100.0	101.1	27519.77	27816.38		1.1	20
4,4'-DDE [2C]	A	100.0	85.84	14536	12478.08		-14.2	20
4,4'-DDD	A	100.0	99.76	23101.16	23046.81		-0.2	20
4,4'-DDD [2C]	A	100.0	88.21	12755.82	11251.84		-11.8	20
4,4'-DDT	A	100.0	100.8	25024.36	25214.54		0.8	20
4,4'-DDT [2C]	A	100.0	88.87	13114.2	11654.08		-11.1	20
Tetrachloro-m-xylene	A	100.0	104.2	24057.43	25063.45		4.2	20
Tetrachloro-m-xylene [2C]	A	100.0	93.26	14828.89	13830.24		-6.7	20
Decachlorobiphenyl	A	100.0	87.91	22887.18	20120.73		-12.1	20
Decachlorobiphenyl [2C]	A	100.0	90.38	8615.216	7786.2		-9.6	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Instrument ID: GL-ECD3

Calibration: 0231008

Lab File ID: 011F1101.D

Calibration Date: 08/11/10 00:00

Sequence: 0H23910

Injection Date: 08/26/10

Lab Sample ID: 0H23910-CCV4

Injection Time: 18:57

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
4,4'-DDE	A	100.0	106.5	27519.77	29300.66		6.5	20
4,4'-DDE [2C]	A	100.0	92.21	14536	13403.34		-7.8	20
4,4'-DDD	A	100.0	108.9	23101.16	25155.76		8.9	20
4,4'-DDD [2C]	A	100.0	94.91	12755.82	12106.42		-5.1	20
4,4'-DDT	A	100.0	110.8	25024.36	27734.62		10.8	20
4,4'-DDT [2C]	A	100.0	94.41	13114.2	12381.1		-5.6	20
Tetrachloro-m-xylene	A	100.0	108.3	24057.43	26046.86		8.3	20
Tetrachloro-m-xylene [2C]	A	100.0	97.38	14828.89	14441.09		-2.6	20
Decachlorobiphenyl	A	100.0	104.2	22887.18	23859.03		4.2	20
Decachlorobiphenyl [2C]	A	100.0	103.2	8615.216	8894.43		3.2	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8081A

Laboratory: Empirical Laboratories, LLC
 Client: Tetra Tech NUS, Inc. (T010)
 Instrument ID: GL-ECD3
 Lab File ID: 026F2601.D
 Sequence: 0H23910
 Lab Sample ID: 0H23910-CCV7

SDG: CTO121KY_001
 Project: CTO 121 Key West 2010
 Calibration: 0231008
 Calibration Date: 08/11/10 00:00
 Injection Date: 08/26/10
 Injection Time: 23:36

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
4,4'-DDE	A	100.0	118.1	27519.77	32491.49		18.1	20
4,4'-DDE [2C]	A	100.0	99.07	14536	14400.27		-0.9	20
4,4'-DDD	A	100.0	122.2	23101.16	28226.88		22.2	20 *
4,4'-DDD [2C]	A	100.0	105.7	12755.82	13480.65		5.7	20
4,4'-DDT	A	100.0	109.8	25024.36	27485.3		9.8	20
4,4'-DDT [2C]	A	100.0	94.85	13114.2	12439		-5.1	20
Tetrachloro-m-xylene <i>surrogate</i>	A	100.0	118.8	24057.43	28582.25		18.8	20
Tetrachloro-m-xylene [2C]	A	100.0	105.4	14828.89	15632.32		5.4	20
Decachlorobiphenyl	A	100.0	107.5	22887.18	24601.51		7.5	20
Decachlorobiphenyl [2C]	A	100.0	105.4	8615.216	9084.43		5.4	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

PREPARATION BATCH SUMMARY

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Batch: 0H18009

Batch Matrix: Water

Preparation: EXT 3510

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
Blank	0H18009-BLK1	08/18/10 13:15	1,000.00	10.00
LCS	0H18009-BS1	08/18/10 13:15	1,000.00	10.00
LCS Dup	0H18009-BSD1	08/18/10 13:15	1,000.00	10.00
S2-FD-02-0810	1008133-12	08/18/10 13:15	1,065.00	10.00
S2-SW-001-0810	1008133-13	08/18/10 13:15	1,065.00	10.00
S2-SW-002-0810	1008133-14	08/18/10 13:15	1,065.00	10.00
S2-SW-003-0810	1008133-15	08/18/10 13:15	1,050.00	10.00
S2-SW-004-0810	1008133-16	08/18/10 13:15	1,080.00	10.00
S2-SW-005-0810	1008133-17	08/18/10 13:15	1,080.00	10.00
S2-SW-006-0810	1008133-18	08/18/10 13:15	1,080.00	10.00
S2-SW-007-0810	1008133-19	08/18/10 13:15	1,080.00	10.00
S2-SW-008-0810	1008133-20	08/18/10 13:15	1,060.00	10.00
S2-SW-009-0810	1008133-21	08/18/10 13:15	1,080.00	10.00
S2-SW-010-0810	1008133-22	08/18/10 13:15	1,080.00	10.00

LCS / LCS DUPLICATE RECOVERY

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Matrix: Water

Batch: 0H18009

Laboratory ID: 0H18009-BS1

Preparation: EXT 3510

Initial/Final: 1000 mL / 10 mL

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.	QC LIMITS REC.
4,4'-DDE	1.000	0.8231	82.3	35 - 140
4,4'-DDE [2C]	1.000	0.7266	72.7	35 - 140
4,4'-DDD	1.000	0.8912	89.1	25 - 150
4,4'-DDD [2C]	1.000	0.7842	78.4	25 - 150
4,4'-DDT	1.000	0.8401	84.0	45 - 140
4,4'-DDT [2C]	1.000	0.7518	75.2	45 - 140

ANALYTE	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
4,4'-DDE	1.000	0.8414	84.1	2.19	30	35 - 140
4,4'-DDE [2C]	1.000	0.7411	74.1	1.98	30	35 - 140
4,4'-DDD	1.000	0.9072	90.7	1.78	30	25 - 150
4,4'-DDD [2C]	1.000	0.8035	80.4	2.43	30	25 - 150
4,4'-DDT	1.000	0.8711	87.1	3.62	30	45 - 140
4,4'-DDT [2C]	1.000	0.7819	78.2	3.92	30	45 - 140

PREPARATION BATCH SUMMARY

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Batch: 0H19016

Batch Matrix: Solid

Preparation: EXT_3546

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
Blank	0H19016-BLK2	08/21/10 14:45	15.00	5.00
LCS	0H19016-BS1	08/21/10 14:45	15.00	5.00
S2-SD-001-0810	0H19016-MS1	08/21/10 14:45	15.00	5.00
S2-SD-001-0810	0H19016-MSD1	08/21/10 14:45	15.00	5.00
S2-FD-01-0810	1008133-01	08/21/10 14:45	15.00	5.00
S2-SD-001-0810	1008133-02	08/21/10 14:45	15.00	5.00
S2-SD-002-0810	1008133-03	08/21/10 14:45	15.00	5.00
S2-SD-003-0810	1008133-04	08/21/10 14:45	15.00	5.00
S2-SD-004-0810	1008133-05	08/21/10 14:45	15.00	5.00
S2-SD-005-0810	1008133-06	08/21/10 14:45	15.00	5.00
S2-SD-006-0810	1008133-07	08/21/10 14:45	15.00	5.00
S2-SD-007-0810	1008133-08	08/21/10 14:45	15.00	5.00
S2-SD-008-0810	1008133-09	08/21/10 14:45	15.00	5.00
S2-SD-009-0810	1008133-10	08/21/10 14:45	15.00	5.00
S2-SD-010-0810	1008133-11	08/21/10 14:45	15.00	5.00

LCS / LCS DUPLICATE RECOVERY

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Matrix: Solid

Batch: 0H19016

Laboratory ID: 0H19016-BS1

Preparation: EXT 3546

Initial/Final: 15 g / 5 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCS CONCENTRATION (ug/Kg wet)	LCS % REC.	QC LIMITS REC.
4,4'-DDE	33.33	30.39	91.2	70 - 125
4,4'-DDE [2C]	33.33	25.71	77.1	70 - 125
4,4'-DDD	33.33	30.24	90.7	30 - 135
4,4'-DDD [2C]	33.33	25.46	76.4	30 - 135
4,4'-DDT	33.33	30.86	92.6	45 - 140
4,4'-DDT [2C]	33.33	26.98	80.9	45 - 140

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Sequence: 0H23534

Instrument: GL-ECD3

Calibration: 0231008

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
Calibration Check (0H23534-CCV1) ug/L				Lab File ID: 003F0301.D		Analyzed: 08/20/10 13:16		
Tetrachloro-m-xylene	100.0	102	80 - 120	5.687	5.687	0.0000	+/-0.030	
Tetrachloro-m-xylene [2C]	100.0	92.0	80 - 120	4.787	4.787	0.0000	+/-0.030	
Decachlorobiphenyl	100.0	109	80 - 120	12.083	12.083	0.0000	+/-0.030	
Decachlorobiphenyl [2C]	100.0	107	80 - 120	10.469	10.469	0.0000	+/-0.030	
Blank (0H18009-BLK1) ug/L				Lab File ID: 006F0601.D		Analyzed: 08/20/10 14:12		
Tetrachloro-m-xylene	0.5000	70.5	25 - 140	5.688	5.687	0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	0.5000	69.4	25 - 140	4.786	4.787	-0.0010	+/-0.030	
Decachlorobiphenyl	0.5000	67.6	30 - 135	12.083	12.083	0.0000	+/-0.030	
Decachlorobiphenyl [2C]	0.5000	72.6	30 - 135	10.468	10.469	-0.0010	+/-0.030	
LCS (0H18009-BS1) ug/L				Lab File ID: 007F0701.D		Analyzed: 08/20/10 14:31		
Tetrachloro-m-xylene	0.5000	72.9	25 - 140	5.686	5.687	-0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	0.5000	69.3	25 - 140	4.786	4.787	-0.0010	+/-0.030	
Decachlorobiphenyl	0.5000	49.2	30 - 135	12.083	12.083	0.0000	+/-0.030	
Decachlorobiphenyl [2C]	0.5000	53.6	30 - 135	10.47	10.469	0.0010	+/-0.030	
LCS Dup (0H18009-BSD1) ug/L				Lab File ID: 008F0801.D		Analyzed: 08/20/10 14:50		
Tetrachloro-m-xylene	0.5000	76.0	25 - 140	5.687	5.687	0.0000	+/-0.030	
Tetrachloro-m-xylene [2C]	0.5000	72.5	25 - 140	4.788	4.787	0.0010	+/-0.030	
Decachlorobiphenyl	0.5000	53.2	30 - 135	12.082	12.083	-0.0010	+/-0.030	
Decachlorobiphenyl [2C]	0.5000	57.7	30 - 135	10.469	10.469	0.0000	+/-0.030	
S2-FD-02-0810 (1008133-12) ug/L				Lab File ID: 010F1001.D		Analyzed: 08/20/10 15:27		
Tetrachloro-m-xylene	0.4695	57.8	25 - 140	5.687	5.687	0.0000	+/-0.030	
Tetrachloro-m-xylene [2C]	0.4695	55.9	25 - 140	4.787	4.787	0.0000	+/-0.030	
Decachlorobiphenyl	0.4695	30.1	30 - 135	12.084	12.083	0.0010	+/-0.030	
Decachlorobiphenyl [2C]	0.4695	41.4	30 - 135	10.469	10.469	0.0000	+/-0.030	
S2-SW-001-0810 (1008133-13) ug/L				Lab File ID: 011F1101.D		Analyzed: 08/20/10 15:46		
Tetrachloro-m-xylene	0.4695	75.1	25 - 140	5.687	5.687	0.0000	+/-0.030	
Tetrachloro-m-xylene [2C]	0.4695	70.8	25 - 140	4.787	4.787	0.0000	+/-0.030	
Decachlorobiphenyl	0.4695	68.8	30 - 135	12.083	12.083	0.0000	+/-0.030	
Decachlorobiphenyl [2C]	0.4695	71.3	30 - 135	10.469	10.469	0.0000	+/-0.030	
S2-SW-002-0810 (1008133-14) ug/L				Lab File ID: 012F1201.D		Analyzed: 08/20/10 16:04		
Tetrachloro-m-xylene	0.4695	74.4	25 - 140	5.688	5.687	0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	0.4695	70.1	25 - 140	4.787	4.787	0.0000	+/-0.030	
Decachlorobiphenyl	0.4695	81.1	30 - 135	12.085	12.083	0.0020	+/-0.030	
Decachlorobiphenyl [2C]	0.4695	82.8	30 - 135	10.47	10.469	0.0010	+/-0.030	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8081A

Laboratory: Empirical Laboratories, LLC
 Client: Tetra Tech NUS, Inc. (T010)
 Sequence: 0H23534

SDG: CTO121KY_001
 Project: CTO 121 Key West 2010
 Instrument: GL-ECD3
 Calibration: 0231008

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
S2-SW-003-0810 (1008133-15) ug/L Lab File ID: 013F1301.D Analyzed: 08/20/10 16:23								
Tetrachloro-m-xylene	0.4762	71.2	25 - 140	5.686	5.687	-0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	0.4762	66.3	25 - 140	4.786	4.787	-0.0010	+/-0.030	
Decachlorobiphenyl	0.4762	71.1	30 - 135	12.083	12.083	0.0000	+/-0.030	
Decachlorobiphenyl [2C]	0.4762	72.8	30 - 135	10.47	10.469	0.0010	+/-0.030	
S2-SW-004-0810 (1008133-16) ug/L Lab File ID: 014F1401.D Analyzed: 08/20/10 16:41								
Tetrachloro-m-xylene	0.4630	68.3	25 - 140	5.688	5.687	0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	0.4630	64.6	25 - 140	4.788	4.787	0.0010	+/-0.030	
Decachlorobiphenyl	0.4630	71.4	30 - 135	12.085	12.083	0.0020	+/-0.030	
Decachlorobiphenyl [2C]	0.4630	73.5	30 - 135	10.47	10.469	0.0010	+/-0.030	
S2-SW-005-0810 (1008133-17) ug/L Lab File ID: 015F1501.D Analyzed: 08/20/10 17:00								
Tetrachloro-m-xylene	0.4630	71.2	25 - 140	5.686	5.687	-0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	0.4630	66.6	25 - 140	4.786	4.787	-0.0010	+/-0.030	
Decachlorobiphenyl	0.4630	67.0	30 - 135	12.085	12.083	0.0020	+/-0.030	
Decachlorobiphenyl [2C]	0.4630	67.4	30 - 135	10.47	10.469	0.0010	+/-0.030	
S2-SW-006-0810 (1008133-18) ug/L Lab File ID: 016F1601.D Analyzed: 08/20/10 17:19								
Tetrachloro-m-xylene	0.4630	63.0	25 - 140	5.687	5.687	0.0000	+/-0.030	
Tetrachloro-m-xylene [2C]	0.4630	60.2	25 - 140	4.787	4.787	0.0000	+/-0.030	
Decachlorobiphenyl	0.4630	60.7	30 - 135	12.086	12.083	0.0030	+/-0.030	
Decachlorobiphenyl [2C]	0.4630	62.5	30 - 135	10.469	10.469	0.0000	+/-0.030	
S2-SW-007-0810 (1008133-19) ug/L Lab File ID: 017F1701.D Analyzed: 08/20/10 17:37								
Tetrachloro-m-xylene	0.4630	77.5	25 - 140	5.686	5.687	-0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	0.4630	71.9	25 - 140	4.786	4.787	-0.0010	+/-0.030	
Decachlorobiphenyl	0.4630	79.3	30 - 135	12.084	12.083	0.0010	+/-0.030	
Decachlorobiphenyl [2C]	0.4630	81.7	30 - 135	10.469	10.469	0.0000	+/-0.030	
S2-SW-008-0810 (1008133-20) ug/L Lab File ID: 018F1801.D Analyzed: 08/20/10 17:56								
Tetrachloro-m-xylene	0.4717	77.3	25 - 140	5.687	5.687	0.0000	+/-0.030	
Tetrachloro-m-xylene [2C]	0.4717	73.0	25 - 140	4.786	4.787	-0.0010	+/-0.030	
Decachlorobiphenyl	0.4717	79.9	30 - 135	12.084	12.083	0.0010	+/-0.030	
Decachlorobiphenyl [2C]	0.4717	82.4	30 - 135	10.471	10.469	0.0020	+/-0.030	
Calibration Check (0H23534-CCV4) ug/L Lab File ID: 019F1901.D Analyzed: 08/20/10 18:14								
Tetrachloro-m-xylene	100.0	107	80 - 120	5.687	5.687	0.0000	+/-0.030	
Tetrachloro-m-xylene [2C]	100.0	96.6	80 - 120	4.787	4.787	0.0000	+/-0.030	
Decachlorobiphenyl	100.0	103	80 - 120	12.085	12.083	0.0020	+/-0.030	
Decachlorobiphenyl [2C]	100.0	102	80 - 120	10.469	10.469	0.0000	+/-0.030	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8081A

Laboratory: Empirical Laboratories, LLC
 Client: Tetra Tech NUS, Inc. (T010)
 Sequence: 0H23534

SDG: CTO121KY_001
 Project: CTO 121 Key West 2010
 Instrument: GL-ECD3
 Calibration: 0231008

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
S2-SW-009-0810 (1008133-21) ug/L								
				Lab File ID: 022F2201.D		Analyzed: 08/20/10 19:10		
Tetrachloro-m-xylene	0.4630	53.4	25 - 140	5.686	5.687	-0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	0.4630	53.0	25 - 140	4.786	4.787	-0.0010	+/-0.030	
Decachlorobiphenyl	0.4630	26.8	30 - 135	12.084	12.083	0.0010	+/-0.030	*
Decachlorobiphenyl [2C]	0.4630	29.2	30 - 135	10.468	10.469	-0.0010	+/-0.030	*
S2-SW-010-0810 (1008133-22) ug/L								
				Lab File ID: 023F2301.D		Analyzed: 08/20/10 19:29		
Tetrachloro-m-xylene	0.4630	63.8	25 - 140	5.687	5.687	0.0000	+/-0.030	
Tetrachloro-m-xylene [2C]	0.4630	62.3	25 - 140	4.786	4.787	-0.0010	+/-0.030	
Decachlorobiphenyl	0.4630	31.3	30 - 135	12.084	12.083	0.0010	+/-0.030	
Decachlorobiphenyl [2C]	0.4630	33.7	30 - 135	10.469	10.469	0.0000	+/-0.030	
Calibration Check (0H23534-CCV7) ug/L								
				Lab File ID: 030F3001.D		Analyzed: 08/20/10 21:39		
Tetrachloro-m-xylene	100.0	124	80 - 120	5.688	5.687	0.0010	+/-0.030	*
Tetrachloro-m-xylene [2C]	100.0	110	80 - 120	4.786	4.787	-0.0010	+/-0.030	
Decachlorobiphenyl	100.0	119	80 - 120	12.083	12.083	0.0000	+/-0.030	
Decachlorobiphenyl [2C]	100.0	117	80 - 120	10.47	10.469	0.0010	+/-0.030	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Sequence: 0H23910

Instrument: GL-ECD3

Calibration: 0231008

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
Calibration Check (0H23910-CCV1) ug/L				Lab File ID: 003F0301.D		Analyzed: 08/26/10 16:29		
Tetrachloro-m-xylene	100.0	104	80 - 120	5.609	5.609	0.0000	+/-0.030	
Tetrachloro-m-xylene [2C]	100.0	93.3	80 - 120	4.723	4.723	0.0000	+/-0.030	
Decachlorobiphenyl	100.0	87.9	80 - 120	11.976	11.976	0.0000	+/-0.030	
Decachlorobiphenyl [2C]	100.0	90.4	80 - 120	10.369	10.369	0.0000	+/-0.030	
Blank (0H19016-BLK2) ug/Kg wet				Lab File ID: 006F0601.D		Analyzed: 08/26/10 17:24		
Tetrachloro-m-xylene	16.67	83.4	70 - 125	5.609	5.609	0.0000	+/-0.030	
Tetrachloro-m-xylene [2C]	16.67	79.4	70 - 125	4.722	4.723	-0.0010	+/-0.030	
Decachlorobiphenyl	16.67	80.6	55 - 130	11.975	11.976	-0.0010	+/-0.030	
Decachlorobiphenyl [2C]	16.67	84.2	55 - 130	10.369	10.369	0.0000	+/-0.030	
LCS (0H19016-BS1) ug/Kg wet				Lab File ID: 007F0701.D		Analyzed: 08/26/10 17:43		
Tetrachloro-m-xylene	16.67	81.5	70 - 125	5.609	5.609	0.0000	+/-0.030	
Tetrachloro-m-xylene [2C]	16.67	75.0	70 - 125	4.722	4.723	-0.0010	+/-0.030	
Decachlorobiphenyl	16.67	84.4	55 - 130	11.975	11.976	-0.0010	+/-0.030	
Decachlorobiphenyl [2C]	16.67	88.1	55 - 130	10.367	10.369	-0.0020	+/-0.030	
S2-SD-006-0810 (1008133-07) ug/Kg dry				Lab File ID: 010F1001.D		Analyzed: 08/26/10 18:39		
Tetrachloro-m-xylene	27.69	72.0	70 - 125	5.607	5.609	-0.0020	+/-0.030	
Tetrachloro-m-xylene [2C]	27.69	60.2	70 - 125	4.723	4.723	0.0000	+/-0.030	*
Decachlorobiphenyl	27.69	74.1	55 - 130	11.977	11.976	0.0010	+/-0.030	
Decachlorobiphenyl [2C]	27.69	65.5	55 - 130	10.369	10.369	0.0000	+/-0.030	
Calibration Check (0H23910-CCV4) ug/L				Lab File ID: 011F1101.D		Analyzed: 08/26/10 18:57		
Tetrachloro-m-xylene	100.0	108	80 - 120	5.609	5.609	0.0000	+/-0.030	
Tetrachloro-m-xylene [2C]	100.0	97.4	80 - 120	4.722	4.723	-0.0010	+/-0.030	
Decachlorobiphenyl	100.0	104	80 - 120	11.975	11.976	-0.0010	+/-0.030	
Decachlorobiphenyl [2C]	100.0	103	80 - 120	10.369	10.369	0.0000	+/-0.030	
S2-SD-008-0810 (1008133-09) ug/Kg dry				Lab File ID: 014F1401.D		Analyzed: 08/26/10 19:53		
Tetrachloro-m-xylene	29.40	78.7	70 - 125	5.608	5.609	-0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	29.40	66.4	70 - 125	4.722	4.723	-0.0010	+/-0.030	*
Decachlorobiphenyl	29.40	78.2	55 - 130	11.977	11.976	0.0010	+/-0.030	
Decachlorobiphenyl [2C]	29.40	69.7	55 - 130	10.368	10.369	-0.0010	+/-0.030	
S2-FD-01-0810 (1008133-01) ug/Kg dry				Lab File ID: 015F1501.D		Analyzed: 08/26/10 20:12		
Tetrachloro-m-xylene	21.91	83.5	70 - 125	5.608	5.609	-0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	21.91	67.0	70 - 125	4.723	4.723	0.0000	+/-0.030	*
Decachlorobiphenyl	21.91	76.7	55 - 130	11.975	11.976	-0.0010	+/-0.030	
Decachlorobiphenyl [2C]	21.91	64.9	55 - 130	10.368	10.369	-0.0010	+/-0.030	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8081A

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Sequence: 0H23910

Instrument: GL-ECD3

Calibration: 0231008

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
S2-SD-001-0810 (1008133-02) ug/Kg dry				Lab File ID: 016F1601.D		Analyzed: 08/26/10 20:30		
Tetrachloro-m-xylene	27.93	69.3	70 - 125	5.609	5.609	0.0000	+/-0.030	*
Tetrachloro-m-xylene [2C]	27.93	57.6	70 - 125	4.721	4.723	-0.0020	+/-0.030	*
Decachlorobiphenyl	27.93	62.8	55 - 130	11.974	11.976	-0.0020	+/-0.030	
Decachlorobiphenyl [2C]	27.93	55.8	55 - 130	10.368	10.369	-0.0010	+/-0.030	
Matrix Spike (0H19016-MS1) ug/Kg dry				Lab File ID: 017F1701.D		Analyzed: 08/26/10 20:49		
Tetrachloro-m-xylene	27.93	86.6	70 - 125	5.608	5.609	-0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	27.93	70.4	70 - 125	4.723	4.723	0.0000	+/-0.030	
Decachlorobiphenyl	27.93	75.9	55 - 130	11.976	11.976	0.0000	+/-0.030	
Decachlorobiphenyl [2C]	27.93	65.5	55 - 130	10.369	10.369	0.0000	+/-0.030	
Matrix Spike Dup (0H19016-MSD1) ug/Kg dry				Lab File ID: 018F1801.D		Analyzed: 08/26/10 21:07		
Tetrachloro-m-xylene	27.93	86.5	70 - 125	5.609	5.609	0.0000	+/-0.030	
Tetrachloro-m-xylene [2C]	27.93	68.4	70 - 125	4.722	4.723	-0.0010	+/-0.030	*
Decachlorobiphenyl	27.93	75.9	55 - 130	11.975	11.976	-0.0010	+/-0.030	
Decachlorobiphenyl [2C]	27.93	65.0	55 - 130	10.369	10.369	0.0000	+/-0.030	
S2-SD-002-0810 (1008133-03) ug/Kg dry				Lab File ID: 019F1901.D		Analyzed: 08/26/10 21:26		
Tetrachloro-m-xylene	21.88	81.5	70 - 125	5.608	5.609	-0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	21.88	66.9	70 - 125	4.722	4.723	-0.0010	+/-0.030	*
Decachlorobiphenyl	21.88	73.6	55 - 130	11.977	11.976	0.0010	+/-0.030	
Decachlorobiphenyl [2C]	21.88	62.4	55 - 130	10.367	10.369	-0.0020	+/-0.030	
S2-SD-003-0810 (1008133-04) ug/Kg dry				Lab File ID: 020F2001.D		Analyzed: 08/26/10 21:45		
Tetrachloro-m-xylene	23.29	71.8	70 - 125	5.608	5.609	-0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	23.29	58.7	70 - 125	4.722	4.723	-0.0010	+/-0.030	*
Decachlorobiphenyl	23.29	62.3	55 - 130	11.976	11.976	0.0000	+/-0.030	
Decachlorobiphenyl [2C]	23.29	54.8	55 - 130	10.368	10.369	-0.0010	+/-0.030	*
S2-SD-005-0810 (1008133-06) ug/Kg dry				Lab File ID: 021F2101.D		Analyzed: 08/26/10 22:03		
Tetrachloro-m-xylene	24.85	75.8	70 - 125	5.608	5.609	-0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	24.85	63.4	70 - 125	4.721	4.723	-0.0020	+/-0.030	*
Decachlorobiphenyl	24.85	71.3	55 - 130	11.975	11.976	-0.0010	+/-0.030	
Decachlorobiphenyl [2C]	24.85	62.3	55 - 130	10.368	10.369	-0.0010	+/-0.030	
S2-SD-007-0810 (1008133-08) ug/Kg dry				Lab File ID: 022F2201.D		Analyzed: 08/26/10 22:22		
Tetrachloro-m-xylene	24.53	75.2	70 - 125	5.608	5.609	-0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	24.53	63.5	70 - 125	4.721	4.723	-0.0020	+/-0.030	*
Decachlorobiphenyl	24.53	65.8	55 - 130	11.974	11.976	-0.0020	+/-0.030	
Decachlorobiphenyl [2C]	24.53	57.6	55 - 130	10.366	10.369	-0.0030	+/-0.030	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8081A

Laboratory: Empirical Laboratories, LLC
 Client: Tetra Tech NUS, Inc. (T010)
 Sequence: 0H23910

SDG: CTO121KY_001
 Project: CTO 121 Key West 2010
 Instrument: GL-ECD3
 Calibration: 0231008

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
S2-SD-009-0810 (1008133-10) ug/Kg dry				Lab File ID: 023F2301.D		Analyzed: 08/26/10 22:40		
Tetrachloro-m-xylene	27.17	79.7	70 - 125	5.608	5.609	-0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	27.17	66.8	70 - 125	4.723	4.723	0.0000	+/-0.030	*
Decachlorobiphenyl	27.17	73.3	55 - 130	11.976	11.976	0.0000	+/-0.030	
Decachlorobiphenyl [2C]	27.17	64.8	55 - 130	10.369	10.369	0.0000	+/-0.030	
S2-SD-010-0810 (1008133-11) ug/Kg dry				Lab File ID: 024F2401.D		Analyzed: 08/26/10 22:59		
Tetrachloro-m-xylene	23.69	78.5	70 - 125	5.607	5.609	-0.0020	+/-0.030	
Tetrachloro-m-xylene [2C]	23.69	65.8	70 - 125	4.722	4.723	-0.0010	+/-0.030	*
Decachlorobiphenyl	23.69	73.8	55 - 130	11.975	11.976	-0.0010	+/-0.030	
Decachlorobiphenyl [2C]	23.69	65.1	55 - 130	10.367	10.369	-0.0020	+/-0.030	
S2-SD-004-0810 (1008133-05) ug/Kg dry				Lab File ID: 025F2501.D		Analyzed: 08/26/10 23:17		
Tetrachloro-m-xylene	21.71	76.2	70 - 125	5.607	5.609	-0.0020	+/-0.030	
Tetrachloro-m-xylene [2C]	21.71	83.9	70 - 125	4.722	4.723	-0.0010	+/-0.030	
Decachlorobiphenyl	21.71	84.5	55 - 130	11.975	11.976	-0.0010	+/-0.030	
Decachlorobiphenyl [2C]	21.71	82.6	55 - 130	10.367	10.369	-0.0020	+/-0.030	
Calibration Check (0H23910-CCV7) ug/L				Lab File ID: 026F2601.D		Analyzed: 08/26/10 23:36		
Tetrachloro-m-xylene	100.0	119	80 - 120	5.608	5.609	-0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	100.0	105	80 - 120	4.722	4.723	-0.0010	+/-0.030	
Decachlorobiphenyl	100.0	108	80 - 120	11.975	11.976	-0.0010	+/-0.030	
Decachlorobiphenyl [2C]	100.0	105	80 - 120	10.369	10.369	0.0000	+/-0.030	

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW8081A

S2-SD-001-0810

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Matrix: Solid

Batch: 0H19016

% Solids: 59.67

Source Sample Name: 1008133-02

ANALYTE	SPIKE ADDED (ug/Kg dry)	SAMPLE CONCENTRATION (ug/Kg dry)	MS CONCENTRATION (ug/Kg dry)	MS % REC.	Q	QC LIMITS REC.
4,4'-DDE	55.86	15.65	74.58	105		70 - 125
4,4'-DDE [2C]	55.86	9.382	48.47	70.0		70 - 125
4,4'-DDD	55.86	1.788	60.37	105		30 - 135
4,4'-DDD [2C]	55.86	6.770	43.96	66.6		30 - 135
4,4'-DDT	55.86	ND	67.06	120		45 - 140
4,4'-DDT [2C]	55.86	0.5042	37.79	66.7		45 - 140

ANALYTE	SPIKE ADDED (ug/Kg dry)	MSD CONCENTRATION (ug/Kg dry)	MSD % REC. #	% RPD	Q	QC LIMITS	
						RPD	REC.
4,4'-DDE	55.86	71.16	99.4	4.69		30	70 - 125
4,4'-DDE [2C]	55.86	43.92	61.8	9.85	*	30	70 - 125
4,4'-DDD	55.86	57.94	101	4.10		30	30 - 135
4,4'-DDD [2C]	55.86	43.22	65.3	1.68		30	30 - 135
4,4'-DDT	55.86	54.82	98.1	20.1		30	45 - 140
4,4'-DDT [2C]	55.86	36.35	64.2	3.88		30	45 - 140

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

S2-FD-02-0810

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1008133-12 Date(s) Analyzed: 08/20/2010 08/20/2010

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	9.22	9.24	9.30	0.00494	
	2	7.84	7.85	7.91	0.00481	3

FORM X
 IDENTIFICATION SUMMARY
 FOR SINGLE COMPONENT ANALYTES

S2-SW-003-0810

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1008133-15 Date(s) Analyzed: 08/20/2010 08/20/2010

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	9.22	9.24	9.30	0.00766	
	2	7.84	7.85	7.91	0.00626	20

FORM X
 IDENTIFICATION SUMMARY
 FOR SINGLE COMPONENT ANALYTES

S2-SW-004-0810

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1008133-16 Date(s) Analyzed: 08/20/2010 08/20/2010

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	9.22	9.24	9.30	0.00502	
	2	7.84	7.85	7.91	0.00511	2

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

S2-SW-005-0810

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1008133-17 Date(s) Analyzed: 08/20/2010 08/20/2010

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	9.22	9.24	9.30	0.00691	
	2	7.84	7.85	7.91	0.00486	35

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

S2-FD-01-0810

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1008133-01 Date(s) Analyzed: 08/26/2010 08/26/2010

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	9.12	9.24	9.30	7.01	
	2	7.75	7.85	7.91	10.5	40
4,4'-DDE	1	8.49	8.60	8.66	11.2	
	2	7.12	7.22	7.28	6.91	47
4,4'-DDT	1	9.51	9.63	9.69	1.04	
	2	8.03	8.15	8.21	0.326	104

?

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

S2-SD-001-0810

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1008133-02

Date(s) Analyzed: 08/26/2010 08/26/2010

Instrument ID (1): GL-ECD3

Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	9.12	9.24	9.30	1.79 ?	
	2	7.75	7.85	7.91	6.77	116
4,4'-DDE	1	8.48	8.60	8.66	15.6	
	2	7.12	7.22	7.28	9.38	50

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

S2-SD-002-0810

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1008133-03 Date(s) Analyzed: 08/26/2010 08/26/2010

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	9.12	9.24	9.30	4.31	
	2	7.75	7.85	7.91	7.87	58
4,4'-DDE	1	8.48	8.60	8.66	22.8	
	2	7.12	7.22	7.28	14.0	48
4,4'-DDT	1	9.51	9.63	9.69	0.304	
	2	8.03	8.15	8.21	0.681	77

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

S2-SD-003-0810

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1008133-04

Date(s) Analyzed: 08/26/2010 08/26/2010

Instrument ID (1): GL-ECD3

Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	9.12	9.24	9.30	6.33	
	2	7.75	7.85	7.91	8.49	29
4,4'-DDE	1	8.49	8.60	8.66	11.5	
	2	7.12	7.22	7.28	5.80	66

FORM X
 IDENTIFICATION SUMMARY
 FOR SINGLE COMPONENT ANALYTES

S2-SD-004-0810

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1008133-05

Date(s) Analyzed: 08/26/2010 08/26/2010

Instrument ID (1): GL-ECD3

Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	9.12	9.24	9.30	3.17	
	2	7.75	7.85	7.91	2.34	30

FORM X
 IDENTIFICATION SUMMARY
 FOR SINGLE COMPONENT ANALYTES

S2-SD-005-0810

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1008133-06 Date(s) Analyzed: 08/26/2010 08/26/2010

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	9.12	9.24	9.30	4.66	
	2	7.75	7.85	7.91	8.14	54
4,4'-DDE	1	8.48	8.60	8.66	5.76	
	2	7.12	7.22	7.28	4.42	26
4,4'-DDT	1	9.51	9.63	9.69	0.730	
	2	8.04	8.15	8.21	1.42	64

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

S2-SD-006-0810

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1008133-07

Date(s) Analyzed: 08/26/2010 08/26/2010

Instrument ID (1): GL-ECD3

Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	9.12	9.24	9.30	0.286 ?	
	2	7.75	7.85	7.91	6.27	183
4,4'-DDE	1	8.48	8.60	8.66	0.319	
	2	7.12	7.22	7.28	0.952	100

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

S2-SD-007-0810

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1008133-08 Date(s) Analyzed: 08/26/2010 08/26/2010

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	9.12	9.24	9.30	0.508 ?	
	2	7.75	7.85	7.91	7.16	174
4,4'-DDE	1	8.48	8.60	8.66	0.754	
	2	7.12	7.22	7.28	0.874	15

FORM X
 IDENTIFICATION SUMMARY
 FOR SINGLE COMPONENT ANALYTES

S2-SD-008-0810

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1008133-09

Date(s) Analyzed: 08/26/2010 08/26/2010

Instrument ID (1): GL-ECD3

Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	9.14	9.24	9.30	0.889	
	2	7.75	7.85	7.91	7.53	158
4,4'-DDE	1	8.48	8.60	8.66	0.623	
	2	7.12	7.22	7.28	0.841	30

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

S2-SD-009-0810

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1008133-10

Date(s) Analyzed: 08/26/2010 08/26/2010

Instrument ID (1): GL-ECD3

Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	9.13	9.24	9.30	1.37	
	2	7.74	7.85	7.91	6.54	131
4,4'-DDE	1	8.48	8.60	8.66	0.518	
	2	7.12	7.22	7.28	0.502	3

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

S2-SD-010-0810

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1008133-11

Date(s) Analyzed: 08/26/2010 08/26/2010

Instrument ID (1): GL-ECD3

Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	9.13	9.24	9.30	0.594	
	2	7.74	7.85	7.91	7.60	171
4,4'-DDE	1	8.48	8.60	8.66	0.321	
	2	7.12	7.22	7.28	0.520	47

METHOD DETECTION AND REPORTING LIMITS

Laboratory: Empirical Laboratories, LLC

SDG: CTO121KY_001

Client: Tetra Tech NUS, Inc. (T010)

Project: CTO 121 Key West 2010

Matrix: Solid

Instrument: GL-ECD3

Analyte	MDL	MRL	Units	Method
4,4'-DDD	0.170	0.670	ug/Kg	SW8081A
	0.00500	0.0200	ug/L	SW8081A
	0.00500	0.0200	ug/Kg	SW8081A
4,4'-DDD [2C]	0.170	0.670	ug/Kg	SW8081A
	0.00500	0.0200	ug/L	SW8081A
	0.00500	0.0200	ug/Kg	SW8081A
4,4'-DDE	0.170	0.670	ug/Kg	SW8081A
	0.00500	0.0200	ug/L	SW8081A
	0.00500	0.0200	ug/Kg	SW8081A
4,4'-DDE [2C]	0.170	0.670	ug/Kg	SW8081A
4,4'-DDT	0.170	0.670	ug/Kg	SW8081A
	0.00500	0.0200	ug/L	SW8081A
	0.00500	0.0200	ug/Kg	SW8081A
4,4'-DDT [2C]	0.170	0.670	ug/Kg	SW8081A

NAS KEY WEST
 WATER DATA
 CTO121KY001

FRACTION	CHEMICAL	S2-FD-02-0810	UNITS	S2-SW-003-0810	RPD	D
PEST/PCB	4,4'-DDD	0.00494 J	UG/L	0.00766 J	43.17	0.00
					N/A	< 2X R.O.L.

Current RPD Quality Control Limit: 30 %.
 Shaded cells indicate RPDs that exceed the applicable quality control limit.

**NAS KEY WEST
SOIL DATA
CTO121KY001**

FRACTION	CHEMICAL	S2-FD-01-0810	UNITS	S2-SD-003-0810	RPD	D
PEST/PCB	4,4'-DDD	10.5 J	UG/KG	8.49	21.17	2.01
PEST/PCB	4,4'-DDE	11.2 J	UG/KG	11.5 J	2.64	0.30
PEST/PCB	4,4'-DDT	0.326 J	UG/KG	ND	200.00	0.33 N/A

AXR.L

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

APPENDIX B
FIELD LOG SHEETS



Tetra Tech NUS, Inc.

SEDIMENT SAMPLING LOG

SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SD-001-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SD001	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	Gary Braganza
WBS Code #		Concentration	-Select-	Modified Date	8/12/10
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date	Time	Method	Monitor (ppm)	Depth (ft)	Color	Description
------	------	--------	---------------	------------	-------	-------------

Analysis Records

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	14:05	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	1	Glass - Amber	8 oz. wide-mouth w/Teflon cap		ED00000135-1

General Observations and Notes

No Notes

- End of Report -



SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SD-002-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SD002	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	Gary Braganza
WBS Code #		Concentration		Modified Date	8/12/10
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date	Time	Method	Monitor (ppm)	Depth (ft)	Color	Description
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Analysis Records

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	14:25	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	1	Glass - Amber	8 oz. wide-mouth w/Teflon cap		ED00000135-1

General Observations and Notes

No Notes

- End of Report -



SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SD-003-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SD003	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	Gary Braganza
WBS Code #		Concentration	-Select-	Modified Date	8/12/10
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date	Time	Method	Monitor (ppm)	Depth (ft)	Color	Description
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Analysis Records

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	11:10	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	1	Glass - Amber	8 oz. wide-mouth w/Teflon cap		ED00000135-1

General Observations and Notes

No Notes

- End of Report -



SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SD-004-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SD004	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	
WBS Code #		Concentration		Modified Date	
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date	Time	Method	Monitor (ppm)	Depth (ft)	Color	Description
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Analysis Records

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	11:00	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	1	Glass - Amber	8 oz. wide-mouth w/Teflon cap		ED00000135-1

General Observations and Notes

No Notes

- End of Report -



SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SD-005-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SD005	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	
WBS Code #		Concentration		Modified Date	
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date	Time	Method	Monitor (ppm)	Depth (ft)	Color	Description
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Analysis Records

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	10:45	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	1	Glass - Amber	8 oz. wide-mouth w/Teflon cap		ED00000135-1

General Observations and Notes

No Notes

- End of Report -



SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SD-006-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SD006	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	
WBS Code #		Concentration		Modified Date	
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date	Time	Method	Monitor (ppm)	Depth (ft)	Color	Description
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Analysis Records

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	10:20	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	1	Glass - Amber	8 oz. wide-mouth w/Teflon cap		ED00000135-1

General Observations and Notes

No Notes

- End of Report -



SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SD-007-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SD007	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	
WBS Code #		Concentration		Modified Date	
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date	Time	Method	Monitor (ppm)	Depth (ft)	Color	Description
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Analysis Records

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	10:00	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	1	Glass - Amber	8 oz. wide-mouth w/Teflon cap		ED00000135-1

General Observations and Notes

No Notes

- End of Report -



SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SD-008-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SD008	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	
WBS Code #		Concentration		Modified Date	
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date	Time	Method	Monitor (ppm)	Depth (ft)	Color	Description
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Analysis Records

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	11:45	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	1	Glass - Amber	8 oz. wide-mouth w/Teflon cap		ED00000135-1

General Observations and Notes

No Notes

- End of Report -



SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SD-009-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SD009	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	
WBS Code #		Concentration		Modified Date	
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date	Time	Method	Monitor (ppm)	Depth (ft)	Color	Description
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Analysis Records

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	12:00	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	1	Glass - Amber	8 oz. wide-mouth w/Teflon cap		ED00000135-1

General Observations and Notes

No Notes

- End of Report -



SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SD-010-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SD010	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	
WBS Code #		Concentration		Modified Date	
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date	Time	Method	Monitor (ppm)	Depth (ft)	Color	Description
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Analysis Records

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	12:15	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	1	Glass - Amber	8 oz. wide-mouth w/Teflon cap		ED00000135-1

General Observations and Notes

No Notes

- End of Report -



SURFACE WATER SAMPLING LOG

SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SW-001-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SW001	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	
WBS Code #	xxxx	Concentration		Modified Date	
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date		Color		Temp (C)	
Time		pH (S.U.)		ORP (mV)	
Depth (ft.)		S.C. (mS/cm)		Salinity (%)	
Method		DO (mg/L)			
MS/MSD Collected		Turbidity (NTUs)			
Duplicate Collected	N				
Duplicate ID					

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	14:00	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	2	Glass - Amber	1L		ED00000135-1

General Observations and Notes

No Notes

- End of Report -



SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SW-002-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SW002	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	
WBS Code #	xxxx	Concentration		Modified Date	
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date		Color		Temp (C)	
Time		pH (S.U.)		ORP (mV)	
Depth (ft.)		S.C. (mS/cm)		Salinity (%)	
Method		DO (mg/L)			
MS/MSD Collected		Turbidity (NTUs)			
Duplicate Collected	N				
Duplicate ID					

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	14:20	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	2	Glass - Amber	1L		ED00000135-1

General Observations and Notes

No Notes

- End of Report -



SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SW-003-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SW003	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	Gary Braganza
WBS Code #	xxxx	Concentration		Modified Date	8/12/10
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date	Color	Temp (C)
Time	pH (S.U.)	ORP (mV)
Depth (ft.)	S.C. (mS/cm)	Salinity (%)
Method	DO (mg/L)	
MS/MSD Collected	Turbidity (NTUs)	
Duplicate Collected	Y	
Duplicate ID		

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	11:05	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	2	Glass - Amber	1L		ED00000135-1

General Observations and Notes

No Notes

- End of Report -



SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SW-004-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SW004	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	
WBS Code #	xxxx	Concentration		Modified Date	
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date		Color		Temp (C)	
Time		pH (S.U.)		ORP (mV)	
Depth (ft.)		S.C. (mS/cm)		Salinity (%)	
Method		DO (mg/L)			
MS/MSD Collected		Turbidity (NTUs)			
Duplicate Collected	N				
Duplicate ID					

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	10:55	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	2	Glass - Amber	1L		ED00000135-1

General Observations and Notes

No Notes

- End of Report -



SURFACE WATER SAMPLING LOG

SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SW-005-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SW005	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	
WBS Code #	xxxx	Concentration		Modified Date	
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date		Color		Temp (C)	
Time		pH (S.U.)		ORP (mV)	
Depth (ft.)		S.C. (mS/cm)		Salinity (%)	
Method		DO (mg/L)			
MS/MSD Collected		Turbidity (NTUs)			
Duplicate Collected	N				
Duplicate ID					

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	10:40	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	2	Glass - Amber	1L		ED00000135-1

General Observations and Notes

No Notes

- End of Report -



SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SW-006-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SW006	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	
WBS Code #	xxxx	Concentration		Modified Date	
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date		Color		Temp (C)	
Time		pH (S.U.)		ORP (mV)	
Depth (ft.)		S.C. (mS/cm)		Salinity (%)	
Method		DO (mg/L)			
MS/MSD Collected		Turbidity (NTUs)			
Duplicate Collected	N				
Duplicate ID					

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	10:15	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	2	Glass - Amber	1L		ED00000135-1

General Observations and Notes

No Notes

- End of Report -



SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SW-007-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SW007	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	
WBS Code #	xxxx	Concentration		Modified Date	
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date		Color		Temp (C)	
Time		pH (S.U.)		ORP (mV)	
Depth (ft.)		S.C. (mS/cm)		Salinity (%)	
Method		DO (mg/L)			
MS/MSD Collected		Turbidity (NTUs)			
Duplicate Collected	N				
Duplicate ID					

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	09:50	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	2	Glass - Amber	1L		ED00000135-1

General Observations and Notes

No Notes

- End of Report -



SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SW-008-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SW008	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	
WBS Code #	xxxx	Concentration		Modified Date	
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date		Color		Temp (C)	
Time		pH (S.U.)		ORP (mV)	
Depth (ft.)		S.C. (mS/cm)		Salinity (%)	
Method		DO (mg/L)			
MS/MSD Collected		Turbidity (NTUs)			
Duplicate Collected	N				
Duplicate ID					

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	11:40	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	2	Glass - Amber	1L		ED00000135-1

General Observations and Notes

No Notes

- End of Report -



SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SW-009-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SW009	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	
WBS Code #	xxxx	Concentration		Modified Date	
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date		Color		Temp (C)	
Time		pH (S.U.)		ORP (mV)	
Depth (ft.)		S.C. (mS/cm)		Salinity (%)	
Method		DO (mg/L)			
MS/MSD Collected		Turbidity (NTUs)			
Duplicate Collected	N				
Duplicate ID					

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	11:55	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	2	Glass - Amber	1L		ED00000135-1

General Observations and Notes

No Notes

- End of Report -



SWMU 2 Surface Water and Sediment Sampling - KEY WEST NAS

Project Information

Facility Name	KEY WEST NAS	Sample ID #	S2-SW-010-0810	Created By	John Wright
TtNUS Project #	112G01545	Sample Location ID	S2-SW010	Created Date	8/11/10
Task/Contract #	0121	Sampled By	Gary Braganza	Modified By	
WBS Code #	xxxx	Concentration		Modified Date	
QA Sample Type				Printed By	Derrick Haltiwanger
Status	Working			Printed Date	10/29/10

Sample Collection Records

Date		Color		Temp (C)	
Time		pH (S.U.)		ORP (mV)	
Depth (ft.)		S.C. (mS/cm)		Salinity (%)	
Method		DO (mg/L)			
MS/MSD Collected		Turbidity (NTUs)			
Duplicate Collected	N				
Duplicate ID					

Collected	Date	Time	Analysis / Method	Description of Analysis	Preservative	Count	Type	Requirements	Comments	Chain#
	8/12/10	12:10	SW-846 8081A	Pesticides (4,4'-DDT, 4,4'-DDE, 4,4'-DDD)	4°C	2	Glass - Amber	1L		ED00000135-1

General Observations and Notes

No Notes

- End of Report -