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March 11 2011

264204 19 H2 03/MIPC 386P86

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Subject Final *Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL#01 Investigation Area C2* Lennar Mare Island Vallejo California

Dear Ms Naito

Enclosed is one copy of the Final *Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL#01 Investigation Area C2* for Lennar Mare Island Vallejo California

This document was prepared by CH2M HILL on behalf of Lennar Mare Island LLC (LMI) as part of the scope of the Environmental Services Cooperative Agreement to complete remaining environmental work at Mare Island and in accordance with the Consent Agreement between LMI City of Vallejo and the California Environmental Protection Agency Department of Toxic Substances Control

If you have any questions regarding this document please contact me at 707/554 8157 or Jennifer Lindquist at 530/229 3224

Sincerely

CH2M HILL

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Final

Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL#01, Investigation Area C2, Lennar Mare Island, Vallejo, California

Prepared for

Department of Toxic Substances Control

March 2011

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Acronyms and Abbreviations

µg/100 cm^2	microgram per 100 square centimeters
bgs	below ground surface
CA/FO	Consent Agreement and Final Order
CERCLA	Comprehensive Environmental Response Compensation and Liability Act of 1980
DTSC	California Environmental Protection Agency Department of Toxic Substances Control
EPC	exposure point concentration
J	estimated detected concentration
LMI	Lennar Mare Island LLC
LUC	land use covenant
mg/kg	milligrams per kilogram
Navy	United States Department of the Navy
NFA	no further action
PCB	polychlorinated biphenyl
RSL	regional screening level
TSCA	Toxic Substances Control Act
UCL	upper confidence limit
VSFCD	Vallejo Sanitation and Flood Control District
USEPA	United States Environmental Protection Agency

1 0 Introduction

This report summarizes the polychlorinated biphenyl (PCB) cleanup actions performed in 2010 by CH2M HILL at PCB Site Building 386 AL#01 and requests no further action (NFA) for PCB Site Building 386 AL#01 in Investigation Area C2 of Lennar Mare Island LLC s (LMI) Eastern Early Transfer Parcel CH2M HILL prepared this report to comply with the Consent Agreement (LMI et al 2001) signed April 16 2001 by LMI the City of Vallejo and the State of California Environmental Protection Agency Department of Toxic Substances Control (DTSC) The Consent Agreement specifies requirements for obtaining regulatory closure for sites of environmental concern in a manner that is consistent with the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA)

CH2M HILL s cleanup actions at PCB Site Building 386 AL#01 consisted of the following activities at Pit 3 scabbling concrete from three sidewalls removing one 5 by 5 foot section of concrete flooring removing a concrete wall and verification sampling These cleanup actions were conducted in accordance with the DTSC approved Cleanup Plan for Pits in Polychlorinated Biphenyl Site Building 386 AL#01 in Investigation Area C2 Lennar Mare Island Vallejo California (CH2M HILL 2009a DTSC 2010a)

A draft version of this report was submitted to the DTSC on November 23 2010 (CH2M HILL 2010a) Appendix A includes the responses to the written comments provided by the DTSC on the draft version of this report (DTSC 2011)

This document is organized in the following sections

- **Section 1 0 Introduction** provides an introduction to this report
- **Section 2 0 Site Identification and Background** describes the site background and lists the previous sampling efforts
- **Section 3 0 Cleanup Action Summary** provides a description of CH2M HILL s cleanup actions at PCB Site Building 386 AL#01
- **Section 4 0 Polychlorinated Biphenyl Site Closure Process** provides the rationale for site closure
- **Section 5 0 Conclusions** provides conclusions for this report
- **Section 6 0 References** provides references for documents used to prepare this report

2 0 Site Identification and Background

Building 386 is located in Investigation Area C2 south of Bagley (formerly 14th) Street between Azuar Drive and Railroad Avenue (Figure 2 1 tables and figures are located at the end of their respective section) Building 386 was constructed in 1919 as part of a single superstructure with Buildings 388 and 390 and was used as a metalworking facility Although adjacent Buildings 382 388 and 390 have been leased to XKT Engineering Inc Building 386 is not currently leased According to the *Preliminary Land Use Plan* (SWA Group 2000) Building 386 is in an area designated for future industrial use

One PCB site is associated with Building 386 and listed in the Consent Agreement (LMI et al 2001) AL#01 the ground floor in Building 386 Documentation of the United States Department of the Navy (Navy) PCB site assessment and confirmation sampling is contained in the *Final Basewide Polychlorinated Biphenyl Confirmation Sampling Report* (Tetra Tech Environmental Management Inc 1999) Following removal actions at PCB Site Building 386 AL#01 in February and March 2007 total PCB concentrations in soil confirmation samples collected from the ground floor were below 0 74 mg/kg the United States Environmental Protection Agency (USEPA) industrial Regional Screening level (RSL) for high risk PCBs (USEPA 2010a) An NFA determination was requested in the *Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL #01 Investigation Area C2 Lennar Mare Island Vallejo California* (CH2M HILL 2008a) which was submitted to DTSC on January 15 2008

On June 9 2008 Mr Henry Chui of DTSC and Ms Gillian Semmer of CH2M HILL conducted a site visit at Building 386 During the visit Mr Chui requested one charac terization sample be collected from nine pits located in Building 386 (CH2M HILL 2008b) The results of the pit sampling were summarized in the Cleanup Plan for Pits in Polychlorinated Biphenyl Site Building 386 AL#01 in Investigation Area C2 Lennar Mare Island Vallejo California (Cleanup Plan) (CH2M HILL 2009a) submitted to the DTSC on October 6 2009 As described in the Cleanup Plan total PCB concentrations in pit characterization samples were below the cleanup goal except at Pit 3 an irregularly shaped concrete lined pit ranging in depth from 2 to 12 feet below the ground floor of Building 386 and located roughly in the northeastern area of Building 386 Figure 2 2 shows the previous sampling locations and corresponding PCB concentrations prior to implementation of cleanup actions at Pit 3 in PCB Site Building 386 AL#01

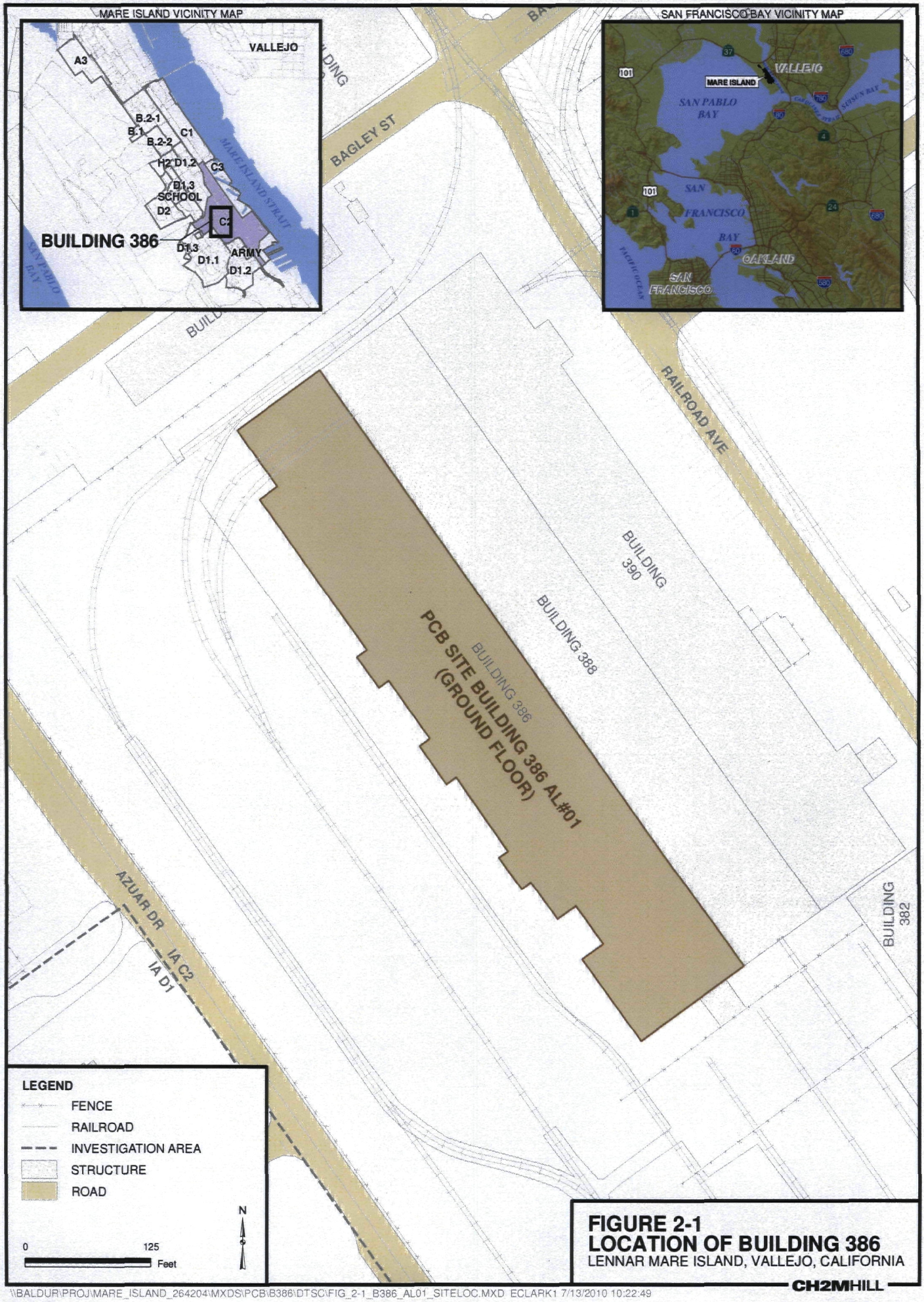
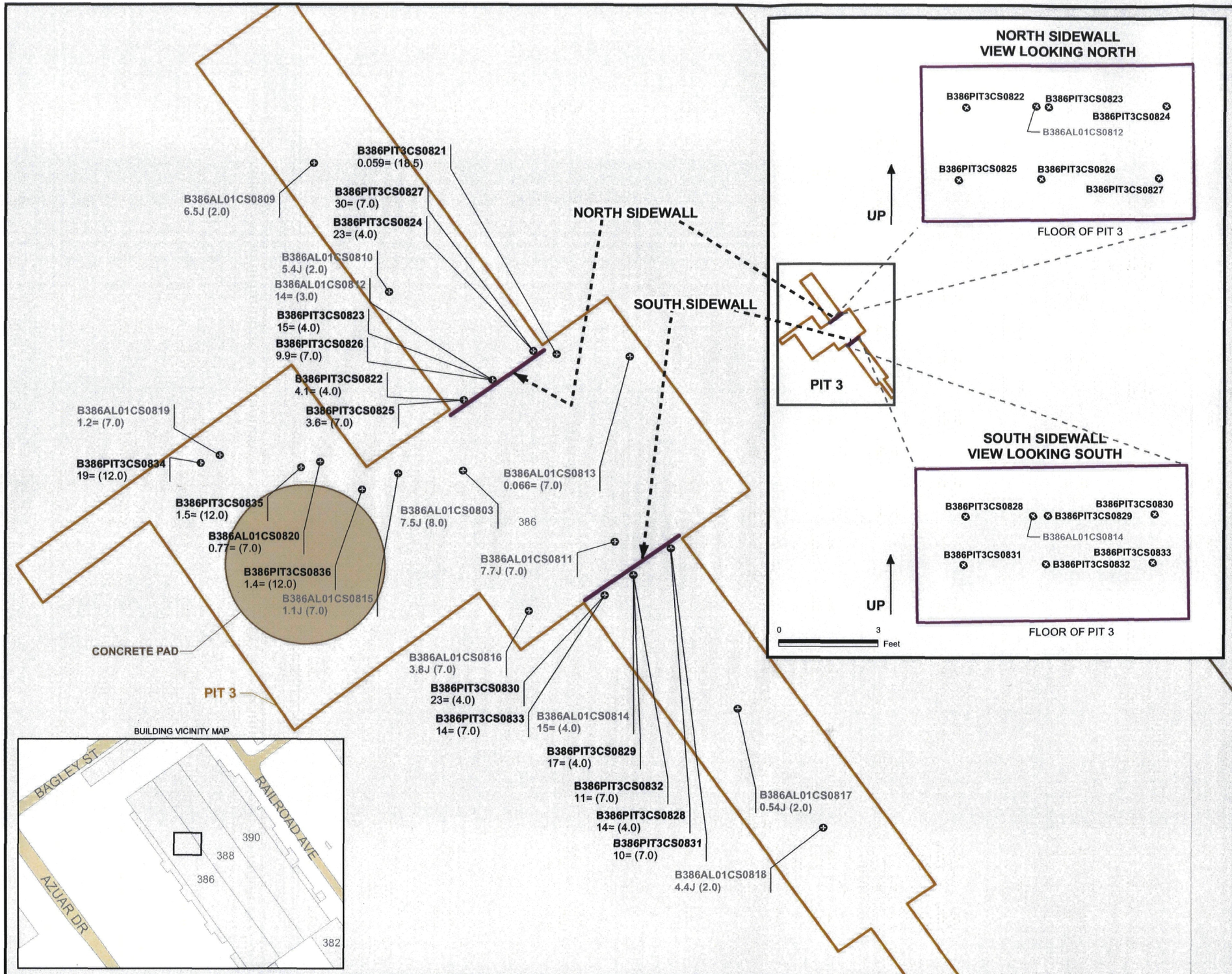


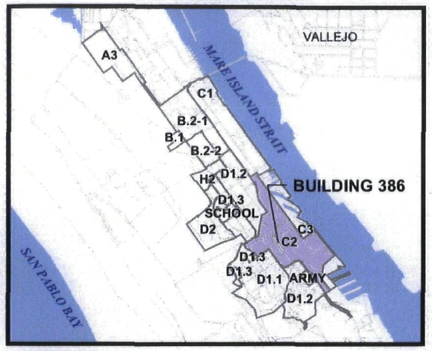
FIGURE 2-1
LOCATION OF BUILDING 386
LENNAR MARE ISLAND, VALLEJO, CALIFORNIA

CH2MHILL

\\BALDUR\PROJ\MARE_ISLAND_264204\MXDS\PCB\B386\DTSC\FIG_2-1_B386_AL01_SITELOC.MXD ECLARK1 7/13/2010 10:22:49



MARE ISLAND VICINITY MAP



LEGEND

- CONCRETE CHIP SAMPLE
- PIT
- PREVIOUS REMOVAL AREA
- STRUCTURE
- ROAD

SAMPLE LOCATION — IR14VB219
PCB CONCENTRATION (mg/kg) — 86FJ (2.8)
SAMPLE BEGINNING DEPTH (FEET BGS)

NOTES:
1. "<" = NOT DETECTED AT OR ABOVE THE INDICATED CONCENTRATION
2. "=" = ANALYTE WAS DETECTED
3. "J" = ESTIMATED DETECTED RESULT
4. ANALYTE = TOTAL PCBs
5. FOR SAMPLES COLLECTED BY CH2M HILL, TOTAL PCBs ARE CALCULATED BY SUMMING THE DETECTED AROCLORS AND, FOR NONDETECTS, BY USING A PROXY VALUE OF ONE-HALF THE DETECTION LEVEL FOR HISTORICALLY DETECTED AROCLORS AND ADDING THIS TO DETECTED AROCLORS
6. GRAY LABEL = REMOVED SAMPLE LOCATION
7. LENNAR MARE ISLAND, INC. REMOVED EQUIPMENT FROM THE CONCRETE PAD IN PIT 3 IN JULY 2009.
8. THE MEASUREMENT DATUM FOR SAMPLE DEPTHS IS THE FLOOR OF BUILDING 386

0 7 Feet

N

FIGURE 2-2
PIT 3 IN PCB SITE BUILDING 386 AL#01 PREVIOUS SAMPLING LOCATIONS AND TOTAL PCB CONCENTRATIONS
LENNAR MARE ISLAND, VALLEJO, CALIFORNIA

CH2MHILL

\\BALDUR\PROJ\MARE_ISLAND_264204\MXDS\PCB\B386\DTSC\FIG_2-2_B386_PCB_PIT3_GPX.MXD ECLARK1 11/9/2010 15:06:54

3 0 Cleanup Action Summary

The 2010 cleanup actions at PCB Site Building 386 AL#01 were implemented in accordance with the DTSC approved Cleanup Plan (CH2M HILL 2009a DTSC 2010a) Analytical results for verification samples collected during the 2010 cleanup actions are summarized in Table 3 1 Laboratory analytical reports and verification sampling data are provided in Appendix B Photographs of the 2010 cleanup actions and verification sampling at Pit 3 in PCB Site Building 386 AL#01 are provided in Appendix C Photograph 1 shows the location of Pit 3 within Building 386

On March 30 and 31 2010 3 to 4 inches of concrete were scabbled from sidewalls of Pit 3 in the areas surrounding sampling locations B386PIT3CS0822 through B386PIT3CS0827 on the north sidewall and B386PIT3CS0828 through B386PIT3CS0833 on the south sidewall (Figure 3 1 and Photograph 2 in Appendix B) After the scabbling was completed CH2M HILL personnel collected six discrete concrete chip verification samples (B386PIT3NCS0901 through B386PIT3NCS0906) from the scabbled area on the north sidewall and six discrete concrete chip verification samples (B386PIT3SCS0901 through B386PIT3SCS0906) from the scabbled area on the south sidewall (Figure 3 1) PCBs were detected in 9 of the 12 samples with total PCB concentrations ranging from 0 027 (B386PIT3NCS0906) to 3 mg/kg (B386PIT3SCS0905) (Table 3 1)

On April 6 and 7 2010 an approximately 4 inch layer of concrete was removed from a 5 by 5 foot area where the concrete floor of Pit 3 is 12 feet deep and surrounding previous sampling location B386PIT3CS0834 (Figure 3 1 and Photograph 3 in Appendix C) On April 9 2010 after the concrete had been removed CH2M HILL personnel collected four discrete concrete chip verification samples (B386PIT3CS0901 through B386PIT3CS0904) (Figure 3 1) PCBs were not detected above laboratory detection levels in these samples (Table 3 1)

During a walk through of PCB Site Building 386 AL#01 with Ms Gillian Semmer/ CH2M HILL on March 25 2010 Ms Janet Naito/DTSC directed CH2M HILL to collect five additional samples from stain specific locations on the sidewalls and floor of Pit 3 (CH2M HILL 2010b) In an email sent by Ms Naito to Ms Jennifer Lindquist/CH2M HILL on April 15 2010 Ms Naito directed CH2M HILL to sample three additional locations in Pit 3 (DTSC 2010b) One of the additional sample locations proposed by Ms Naito was at the south end of Pit 3 but was only to be sampled if staining was present on the south concrete sidewall after debris and dust were removed No staining was observed after debris and dust were removed and therefore a sample was not collected at that location (Photograph 4 in Appendix C) On April 16 2010 CH2M HILL personnel collected discrete concrete chip verification samples B386PIT3CS0907 through B386PIT3CS0913 at the seven stain specific locations identified by DTSC (Figure 3 1) Sample B386PIT3CS0910 was collected from the sidewall of a concrete shelf at the southern end of Pit 3 and sample B386PIT3CS0911 was collected from the floor of the concrete shelf which was approxi mately 2 feet below the Building 386 floor surface Total PCBs were detected at concentrations ranging from 0 32J (B386PIT3CS0909) (J indicates an estimated

concentration) to 31 mg/kg (B386PIT3CS0910) in these seven verification samples (Table 3 1)

Because total PCB concentrations were above 10 mg/kg at two sampling locations (B386PIT3CS0907 [29 mg/kg] and B386PIT3CS0910 [31 mg/kg]) additional concrete was removed Most of the northeast wall (30 by 2 foot area 8 5 inches thick) surrounding sampling location B386PIT3CS0907 was stained (Photograph 5 in Appendix C) and was removed on May 25 2010 (Figure 3 1 and Photograph 6 in Appendix C) Verification sampling was not necessary because the entire northeast wall was removed due to the extent of the staining

On June 7 2010 approximately 3 to 4 inches of concrete were scabbled from a 6 by 13 foot area surrounding sampling location B386PIT3CS0910 on the south sidewall of a concrete shelf that extended northwest into Pit 3 (Figure 3 1 and Photograph 7 in Appendix C) The scabbled area was extended to include the area of observed staining On June 10 2010 CH2M HILL personnel collected eight discrete concrete chip verification samples (B386PIT3CS0914 through B386PIT3CS0921) from the removal area (Photo 8 in Appendix C) PCBs were detected in seven of the eight verification samples at concentrations ranging from 0 013J (B386PIT3CS0917) to 0 1 mg/kg (B386PIT3CS0915) (Table 3 1) After the cleanup actions the maximum remaining total PCB concentration in concrete at Pit 3 is 6 2J mg/kg (B386PIT3CS0911) (Table 3 1) After the concrete was scabbled and/or removed cracks were not observed in the remaining concrete

The concrete removed during the March and April cleanup actions was placed in six 55 gallon drums and stored in a bermed plastic lined area in the northwest corner of Building 386 The remaining removed concrete was stockpiled in a lined bermed area at the south end of Building 386 The six drums of concrete were transported to Altamont Landfill as Class II waste on June 24 2010 and the stockpiled concrete approximately 40 tons (two truckloads) was sent to Keller Canyon landfill on July 28 2010 Appendix D contains copies of the waste manifests for the concrete removed in the CH2M HILL cleanup actions at PCB Site Building 386 AL#01

In August 2008 a sample (IR21B386PIT03) was collected from the water in Pit 3 during characterization activities for the Installation Restoration Program Site 21 and the Buildings 386 388 and 390 Area site The laboratory analytical report for the water sample is provided in Appendix B PCBs were not detected in the water sample at concentrations above the laboratory detection level

As part of the March and April cleanup actions approximately 1 400 gallons of water were pumped out of Pit 3 and treated using particulate and activated carbon filters Approximately half of the water was generated from pressure washing during the concrete removal activities and approximately half of the water was originally in Pit 3 The source of the water present in Pit 3 prior to the 2010 cleanup actions is unknown However because infilling of Pit 3 with water has occurred each time the water has been removed groundwater could be a potential contributor Available Navy structural drawings of Pit 3 do not show conduits or piping connecting Pit 3 to other pits and do not show a pathway between Pit 3 to adjacent soil

As documented in the DTSC approved *Final Feasibility Study/Removal Action Work Plan for IR21 and the Buildings 386 388 and 390 Area Lennar Mare Island Vallejo California* (CH2M HILL 2009b DTSC 2009) groundwater samples collected from soil borings and monitoring wells at the Installation Restoration Program Site 21 and the Buildings 386 388 and 390 Area were analyzed for PCBs Three of these samples were collected from soil borings adjacent to Pit 3 PCBs were not detected above the laboratory detection level (0 5 micrograms per liter) in these samples

The water removed from Pit 3 was stored in 275 gallon plastic totes placed on a bermed plastic lined area inside Building 386 The water was sampled and analyzed in accordance with disposal criteria and discharged to the sanitary sewer under the discharge permit obtained from the Vallejo Sanitation and Flood Control District (VSFCD) Appendix E contains a copy of the VSFCD discharge permit

TABLE 3 1
Verification Sample Results for the 2010 Cleanup Actions at PCB Site Building 386 AL#01
Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL #01 Investigation Area C2 Lennar Mare Island Vallejo California

Sample Location	Sample Matrix	Sample Depth (feet bgs)	Sample Date	Total PCB Concentration[b] (mg/kg)	Comments
B386PIT3CS0901	Concrete	13 0	04/09/2010	<0 0038J	Floor of pit proxy value for Aroclor 1016 of 0 00085 mg/kg proxy value for Aroclor 1242 of 0 00115 mg/kg proxy value for Aroclor 1254 of 0 0012J mg/kg proxy value for Aroclor 1260 of 0 00055 mg/kg
B386PIT3CS0902	Concrete	13 0	04/09/2010	<0 0038J	Floor of pit proxy value for Aroclor 1016 of 0 00085 mg/kg proxy value for Aroclor 1242 of 0 00115 mg/kg proxy value for Aroclor 1254 of 0 0012J mg/kg proxy value for Aroclor 1260 of 0 00055 mg/kg
B386PIT3CS0903	Concrete	13 0	04/09/2010	<0 0038J	Floor of pit proxy value for Aroclor 1016 of 0 00085 mg/kg proxy value for Aroclor 1242 of 0 00115 mg/kg proxy value for Aroclor 1254 of 0 0012J mg/kg proxy value for Aroclor 1260 of 0 00055 mg/kg
B386PIT3CS0904	Concrete	13 0	04/09/2010	<0 0038J	Floor of pit proxy value for Aroclor 1016 of 0 00085 mg/kg proxy value for Aroclor 1242 of 0 00115 mg/kg proxy value for Aroclor 1254 of 0 0012J mg/kg proxy value for Aroclor 1260 of 0 00055 mg/kg
B386PIT3NCS0901	Concrete	4 0	04/09/2010	0 15	North sidewall proxy value for Aroclor 1016 of 0 00085 mg/kg proxy value for Aroclor 1242 of 0 00115 mg/kg Aroclor 1254 = 0 13 mg/kg Aroclor 1260 = 0 015 mg/kg
B386PIT3NCS0902	Concrete	4 0	04/09/2010	0 17	North sidewall proxy value for Aroclor 1016 of 0 00085 mg/kg proxy value for Aroclor 1242 of 0 00115 mg/kg Aroclor 1254 = 0 15 mg/kg Aroclor 1260 = 0 019 mg/kg
B386PIT3NCS0903	Concrete	4 0	04/09/2010	0 036J	North sidewall proxy value for Aroclor 1016 of 0 00085 mg/kg proxy value for Aroclor 1242 of 0 00115 mg/kg Aroclor 1254 = 0 03 mg/kg Aroclor 1260 = 0 0035J mg/kg

TABLE 3 1
Verification Sample Results for the 2010 Cleanup Actions at PCB Site Building 386 AL#01
Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL #01 Investigation Area C2 Lennar Mare Island Vallejo California

Sample Location	Sample Matrix	Sample Depth (feet bgs)	Sample Date	Total PCB Concentration[b] (mg/kg)	Comments
B386PIT3NCS0904	Concrete	7 0	04/09/2010	0 85	North sidewall proxy value for Aroclor 1016 of 0 00085 mg/kg proxy value for Aroclor 1242 of 0 00115 mg/kg Aroclor 1254 = 0 77 mg/kg Aroclor 1260 = 0 08 mg/kg
B386PIT3NCS0905	Concrete	7 0	04/09/2010	0 15	North sidewall proxy value for Aroclor 1016 of 0 00085 mg/kg proxy value for Aroclor 1242 of 0 00115 mg/kg Aroclor 1254 = 0 13 mg/kg Aroclor 1260 = 0 013 mg/kg
B386PIT3NCS0906	Concrete	7 0	04/09/2010	0 027J	North sidewall proxy value for Aroclor 1016 of 0 00085 mg/kg proxy value for Aroclor 1242 of 0 0011 mg/kg Aroclor 1254 = 0 021 mg/kg Aroclor 1260 = 0 0036J mg/kg
B386PIT3SCS0901	Concrete	4 0	04/09/2010	<0 0038J	South sidewall proxy value for Aroclor 1016 of 0 00085 mg/kg proxy value for Aroclor 1242 of 0 00115 mg/kg proxy value for Aroclor 1254 of 0 0012J mg/kg proxy value for Aroclor 1260 of 0 00055 mg/kg
B386PIT3SCS0902	Concrete	4 0	04/09/2010	0 06J	South sidewall proxy value for Aroclor 1016 of 0 00085 mg/kg proxy value for Aroclor 1242 of 0 0011 mg/kg Aroclor 1254 = 0 052 mg/kg Aroclor 1260 = 0 0064J mg/kg
B386PIT3SCS0903	Concrete	4 0	04/09/2010	<0 0034J	South sidewall proxy value for Aroclor 1016 of 0 00085 mg/kg proxy value for Aroclor 1242 of 0 00115 mg/kg proxy value for Aroclor 1254 of 0 0012J mg/kg proxy value for Aroclor 1260 of 0 00025 mg/kg
B386PIT3SCS0904	Concrete	7 0	04/09/2010	0 15	South sidewall proxy value for Aroclor 1016 of 0 00085 mg/kg proxy value for Aroclor 1242 of 0 0011 mg/kg Aroclor 1254 = 0 14 mg/kg Aroclor 1260 = 0 013 mg/kg

TABLE 3 1
Verification Sample Results for the 2010 Cleanup Actions at PCB Site Building 386 AL#01
Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL #01 Investigation Area C2 Lennar Mare Island Vallejo California

Sample Location	Sample Matrix	Sample Depth (feet bgs)	Sample Date	Total PCB Concentration[b] (mg/kg)	Comments
B386PIT3SCS0905	Concrete	7 0	04/09/2010	3	South sidewall proxy value for Aroclor 1016 of 0 00435 mg/kg proxy value for Aroclor 1242 of 0 0055 mg/kg Aroclor 1254 = 2 7 mg/kg Aroclor 1260 = 0 26 mg/kg
B386PIT3SCS0906	Concrete	7 0	04/09/2010	<0 0034J	South sidewall proxy value for Aroclor 1016 of 0 00085 mg/kg proxy value for Aroclor 1242 of 0 00115 mg/kg proxy value for Aroclor 1254 of 0 0012J mg/kg proxy value for Aroclor 1260 of 0 00024 mg/kg
B386PIT3CS0907	Concrete	1 5	04/16/2010	29	Sidewall sample removed on May 25 2010 proxy value for Aroclor 1016 of 0 0435 mg/kg Aroclor 1242 = 24 mg/kg Aroclor 1254 = 5 1 mg/kg proxy value for Aroclor 1260 of 0 012 mg/kg
B386PIT3CS0908	Concrete	3 0	04/16/2010	2 5J	Sidewall sample proxy value for Aroclor 1016 of 0 0435 mg/kg Aroclor 1242 = 0 44 mg/kg Aroclor 1254 = 1 8 mg/kg Aroclor 1260 = 0 24J mg/kg
B386PIT3CS0909	Concrete	8 0	04/16/2010	0 32J	Floor of pit proxy value for Aroclor 1016 of 0 017 mg/kg Aroclor 1242 = 0 11J mg/kg Aroclor 1254 = 0 16 mg/kg Aroclor 1260 = 0 03J mg/kg
B386PIT3CS0910	Concrete	5 0	04/16/2010	31	Sidewall of concrete shelf area removed on June 7 2010 proxy value for Aroclor 1016 of 0 043 mg/kg proxy value for Aroclor 1242 of 0 055 mg/kg Aroclor 1254 = 29 mg/kg Aroclor 1260 = 2 3 mg/kg
B386PIT3CS0911	Concrete	2 0	04/16/2010	6 2J	Floor of concrete shelf within Pit 3 proxy value for Aroclor 1016 of 0 043 mg/kg Aroclor 1242 = 3 3 mg/kg Aroclor 1254 = 2 5 mg/kg Aroclor 1260 = 0 34J mg/kg

TABLE 3 1
Verification Sample Results for the 2010 Cleanup Actions at PCB Site Building 386 AL#01
Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL #01 Investigation Area C2 Lennar Mare Island Vallejo California

Sample Location	Sample Matrix	Sample Depth (feet bgs)	Sample Date	Total PCB Concentration[b] (mg/kg)	Comments
B386PIT3CS0912	Concrete	4 0	04/16/2010	0 52J	Sidewall sample proxy value for Aroclor 1016 of 0 043 mg/kg proxy value for Aroclor 1242 of 0 055 mg/kg Aroclor 1254 = 0 37J mg/kg Aroclor 1260 = 0 052J mg/kg
B386PIT3CS0913	Concrete	3 0	04/16/2010	2 8J	Sidewall sample proxy value for Aroclor 1016 of 0 0435 mg/kg Aroclor 1242 = 0 28J mg/kg Aroclor 1254 = 2 2 mg/kg Aroclor 1260 = 0 32J mg/kg
B386PIT3CS0914	Concrete	4 0	06/10/2010	<0 0023	Sidewall of concrete shelf area proxy value for Aroclor 1016 of 0 00037 mg/kg proxy value for Aroclor 1242 of 0 00048 mg/kg proxy value for Aroclor 1254 of 0 0012 mg/kg proxy value for Aroclor 1260 of 0 00027 mg/kg
B386PIT3CS0915	Concrete	4 0	06/10/2010	0 1	Sidewall of concrete shelf area proxy value for Aroclor 1016 of 0 00037 mg/kg proxy value for Aroclor 1242 of 0 00048 mg/kg Aroclor 1254 = 0 1 mg/kg proxy value for Aroclor 1260 of 0 00027 mg/kg
B386PIT3CS0916	Concrete	4 0	06/10/2010	0 069	Sidewall of concrete shelf area proxy value for Aroclor 1016 of 0 00037 mg/kg proxy value for Aroclor 1242 of 0 00048 mg/kg Aroclor 1254 = 0 068 mg/kg proxy value for Aroclor 1260 of 0 00027 mg/kg
B386PIT3CS0917	Concrete	4 0	06/10/2010	0 013J	Sidewall of concrete shelf area proxy value for Aroclor 1016 of 0 00037 mg/kg proxy value for Aroclor 1242 of 0 00048 mg/kg Aroclor 1254 = 0 012J mg/kg proxy value for Aroclor 1260 of 0 00027 mg/kg

TABLE 3 1
Verification Sample Results for the 2010 Cleanup Actions at PCB Site Building 386 AL#01
Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL #01 Investigation Area C2 Lennar Mare Island Vallejo California

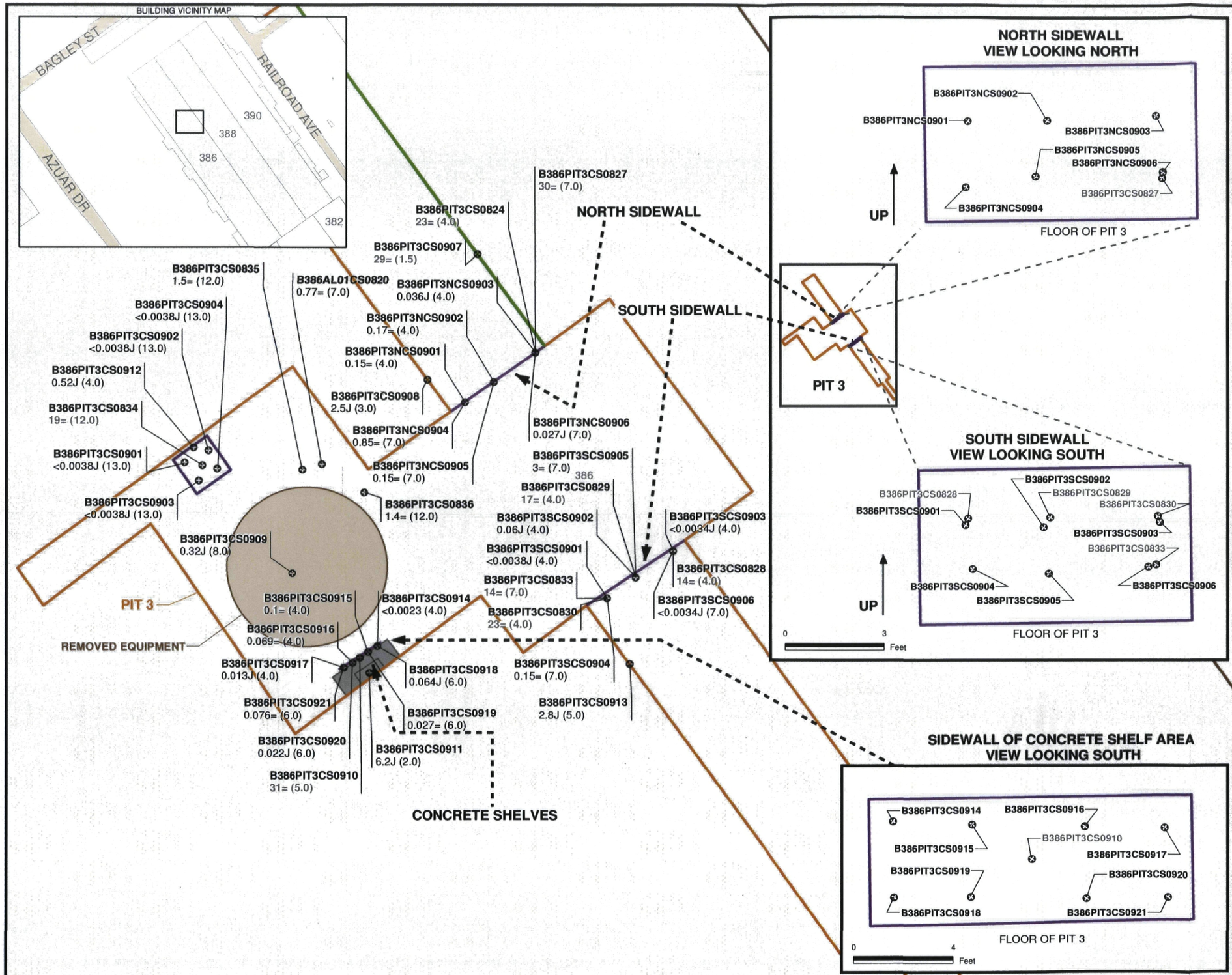
Sample Location	Sample Matrix	Sample Depth[a] (feet bgs)	Sample Date	Total PCB Concentration[b] (mg/kg)	Comments
B386PIT3CS0918	Concrete	6 0	06/10/2010	0 064J	Sidewall of concrete shelf area proxy value for Aroclor 1016 of 0 00037 mg/kg proxy value for Aroclor 1242 of 0 00048 mg/kg Aroclor 1254 = 0 063J mg/kg proxy value for Aroclor 1260 of 0 00027 mg/kg
B386PIT3CS0919	Concrete	6 0	06/10/2010	0 027	Sidewall of concrete shelf area proxy value for Aroclor 1016 of 0 00037 mg/kg proxy value for Aroclor 1242 of 0 00048 mg/kg Aroclor 1254 = 0 026 mg/kg proxy value for Aroclor 1260 of 0 00027 mg/kg
B386PIT3CS0920	Concrete	6 0	06/10/2010	0 022J	Sidewall of concrete shelf area proxy value for Aroclor 1016 of 0 00037 mg/kg proxy value for Aroclor 1242 of 0 00048 mg/kg Aroclor 1254 = 0 021J mg/kg proxy value for Aroclor 1260 of 0 00027 mg/kg
B386PIT3CS0921	Concrete	6 0	06/10/2010	0 076	Sidewall of concrete shelf area proxy value for Aroclor 1016 of 0 00037 mg/kg proxy value for Aroclor 1242 of 0 00048 mg/kg Aroclor 1254 = 0 075 mg/kg proxy value for Aroclor 1260 of 0 00027 mg/kg

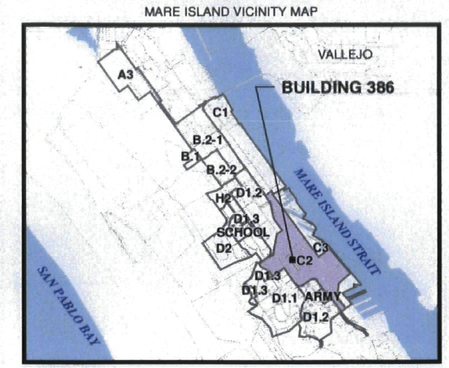
The measurement datum for sample depths is the floor of Building 386

[b]Total PCBs were calculated by summing the detected Aroclors and for nondetects by using a proxy value of one half the detection level for historically detected Aroclors and adding this to detected Aroclors

Note

bgs = below ground surface





LEGEND

- CONCRETE CHIP SAMPLE
- NORTHEAST WALL REMOVAL AREA
- PIT
- 2010 REMOVAL AREA
- STRUCTURE
- ROAD

SAMPLE LOCATION — IR14VB219
PCB CONCENTRATION (mg/kg) — 86FJ (2.8)
SAMPLE BEGINNING DEPTH (FEET BGS)

NOTES:

1. "<" = NOT DETECTED AT OR ABOVE THE INDICATED CONCENTRATION
2. "=" = ANALYTE WAS DETECTED
3. "J" = ESTIMATED DETECTED RESULT
4. ANALYTE = TOTAL PCBs
5. FOR SAMPLES COLLECTED BY CH2M HILL, TOTAL PCBs ARE CALCULATED BY SUMMING THE DETECTED AROCLORS AND, FOR NONDETECTS, BY USING A PROXY VALUE OF ONE-HALF THE DETECTION LEVEL FOR HISTORICALLY DETECTED AROCLORS AND ADDING THIS TO DETECTED AROCLORS
6. GRAY LABEL = REMOVED SAMPLE LOCATION
7. LMI REMOVED EQUIPMENT FROM PIT 3 IN JULY 2009
8. THE MEASUREMENT DATUM FOR SAMPLE DEPTHS IS THE FLOOR OF BUILDING 386
9. NORTHEAST WALL (30- BY 2-FOOT AREA, 8.5 INCHES THICK) REMOVED ON MAY 25, 2010.

0 7 Feet

N

FIGURE 3-1
PIT 3 IN PCB SITE BUILDING 386 AL#01
2010 VERIFICATION SAMPLING LOCATIONS AND REMAINING TOTAL PCB CONCENTRATIONS
LENNAR MARE ISLAND, VALLEJO, CALIFORNIA

CH2MHILL

\\BALDUR\PROJ\MARE_ISLAND_264204\MXDS\PCB\B386\DTSC\FIG_3-1_B386_PCB_PIT3_GPX_PART2.MXD ECLARK1 3/11/2011 10:48:10

4 0 Polychlorinated Biphenyl Site Closure Process

Under CERCLA and the Toxic Substances Control Act (TSCA) NFA is appropriate at a PCB site if no potential source and no PCB contamination are present (CH2M HILL 2006) Even if a potential source or PCB contamination is present in machinery or building materials NFA is appropriate under CERCLA if there has been no release of PCBs to soil or groundwater and no visible pathway exists for migration of PCBs to soil or groundwater (CH2M HILL 2006) such sites will be evaluated under the Toxic Substances Control Act for site closure in accordance with the Consent Agreement and Final Order (CA/FO) between the USEPA and the Navy with the City of Vallejo and LMI as intervenors (USEPA et al 2001) If there has been a known release to soil or groundwater NFA is also appropriate if the detected PCB concentrations in soil and groundwater do not exceed applicable screening levels or if results of a site specific risk evaluation demonstrate that potential risks associated with exposure to residual PCBs are within the risk management range generally used to determine whether cleanup is necessary

After the 2010 cleanup actions at PCB Site Building 386 AL#01 total PCBs do not remain at concentrations equal to or greater than the USEPA industrial regional screening level for high risk PCBs (0 74 mg/kg [USEPA 2010a]) except at Pit 3

A risk assessment was completed to evaluate the potential risk to human health from exposure to residual PCBs at Pit 3 The risk assessment approach consists of comparing measured concentrations of PCBs with the USEPA industrial RSL for high risk PCBs (USEPA 2010a) and includes conservative assumptions that likely overestimate potential risks The RSLs used for comparison are based on soil exposure and include inhalation dermal contact and ingestion exposure routes and an exposure frequency of 250 days per year For each of the exposure routes the exposure assumptions for intake of PCBs in soil likely overestimate intake of PCBs in the concrete floor for the following reasons

1 Inhalation - Fine particles containing PCBs are not as available for resuspension from the flooring (i e concrete) as from soil

2 Dermal Contact - The PCBs in concrete at Pit 3 are located on the floor where dermal exposure is likely to be limited to contact of workers hands However the RSL calculations assume an exposed skin surface area of 5 700 square centimeters which is larger than the surface area of an average workers hands

3 Ingestion - Incidental ingestion of PCBs would result from hand to mouth contact of dust and dirt particles However fine particles are not as available from building materials as from soil

The maximum total PCB concentration in concrete remaining at Pit 3 is 6 2J mg/kg (B386PIT3CS0911) The exposure point concentration (EPC) for total PCBs remaining at Pit 3 using the 95 percent upper confidence limit (UCL) on the mean is 2 9 mg/kg The

95 percent UCL on the mean was calculated using USEPA ProUCL Version 4 00 05 (USEPA 2010b) Using the 95 percent UCL on the mean (2 9 mg/kg) the estimated potential cumulative risk for PCBs in an industrial setting at the site is 3 9 x 10^{-6} (EPC for total PCBs [2 9 mg/kg] divided by the USEPA industrial RSL [0 74 mg/kg] times 10^{-6}) and the hazard index is less than 1 (EPC for total PCBs [2 9 mg/kg] divided by the RSL for noncancer effects for the industrial worker [11 mg/kg] = 0 26) Risk calculations for Pit 3 are provided in Appendix F

Total PCB concentrations remaining in concrete at Pit 3 exceed the USEPA RSL of 0 74 mg/kg However based on the risk assessment results and because conservative assumptions were used in the risk calculations for this site no further PCB cleanup is necessary at Pit 3 The estimated potential cumulative risk (3 9 x 10^{-6}) associated with exposure to residual PCBs at Pit 3 is at the low end of the risk management range generally used to assess whether cleanup is necessary (1 x 10^{-6} to 1 x 10^{-4}) and the hazard index (0 26) is less than 1 Risk calculations are not necessary for the rest of PCB Site Building 386 AL#01 because the total PCB concentrations remaining do not exceed the USEPA RSL of 0 74 mg/kg

Under CERCLA an NFA determination would be protective of human health and the environment at PCB Site Building 386 AL#01 The conditions for DTSC closure of PCB sites have been satisfied at this site

5 0 Conclusions

No further sampling or cleanup action is necessary at PCB Site Building 386 AL#01 From March through June 2010 CH2M HILL personnel conducted the following activities at Pit 3 scabbled concrete at three sidewalls (north and south sidewall and the sidewall of the concrete shelf) removed a 5 by 5 foot area where the concrete floor of Pit 3 is 12 feet deep and removed the 2 by 30 foot northeast wall After the cleanup actions were complete verification samples were collected and analyzed

The maximum remaining total PCB concentration in concrete samples collected from Pit 3 is 6 2J mg/kg (B386PIT3CS0911) (Table 3 1 and Figure 3 1) The results of a site specific risk evaluation for Pit 3 show that potential risks associated with exposure to residual PCBs in concrete are at the low end of the risk management range generally used to determine whether cleanup is necessary (1×10^{6} to 1×10^{-4}) In addition the hazard index (industrial worker scenario) is less than 1 According to the risk evaluation results and in accordance with the *Final Interim Removal Action Work Plan for Indoor Polychlorinated Biphenyl Sites in the Eastern Early Transfer Parcel* (CH2M HILL 2006) residual PCB concentrations at Pit 3 are within the acceptable risk management range As required by CERCLA an NFA determination would be protective of human health and the environment at PCB Site Building 386 AL#01

In February and March 2007 CH2M HILL removed concrete asphalt and soil from 17 areas of PCB Site Building 386 AL#01 The results were presented in the *Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL #01 Investigation Area C2 Lennar Mare Island Vallejo California* (CH2M HILL 2008) Maximum remaining total PCB concentrations at PCB Site Building 386 AL#01 with the exception of Pit 3 were 0 2J mg/kg in concrete (sample PC1732) 0 2 mg/kg in asphalt (sample PC1740) 0 17 mg/kg in soil (samples B386RA05CS0819 and B386RA05CS0822) and 6 6 micrograms per 100 square centimeters ($\mu g/100\ cm^2$) in wipe sample 6225 0056 (CH2M HILL 2008) These remaining PCB concentrations are below the industrial RSL of 0 74 mg/kg and the TSCA cleanup goal of 10 $\mu g/100\ cm^2$

The conditions for DTSC closure at PCB Site Building 386 AL#01 have been satisfied Residual PCB concentrations in concrete asphalt soil and wipe samples from Building 386 AL#01 meet the applicable industrial RSL and the TSCA cleanup goal At Pit 3 the residual PCB concentrations are within the risk management range and the conditions of risk based closure have been satisfied Therefore it is requested that DTSC issue concurrence that the remedial actions for PCB Site Building 386 AL#01 which includes Pit 3 meet applicable closure requirements as provided in the *Final Interim Removal Action Work Plan for Indoor Polychlorinated Biphenyl Sites in the Eastern Early Transfer Parcel* (CH2M HILL 2006)

6 0 References

CH2M HILL 2006 *Final Interim Removal Action Work Plan for Indoor Polychlorinated Biphenyl Sites in the Eastern Early Transfer Parcel* August 30

_____ 2008a *Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL#01 in Investigation Area C2 Lennar Mare Island Vallejo California* January 15

_____ 2008b Email from Michael Sanchez/CH2M HILL to Henry Chui/DTSC regarding Building 386 pit sampling July 16

_____ 2009a Letter Cleanup Plan for Pits in Polychlorinated Biphenyl Site Building 386 AL#01 in Investigation Area C2 Lennar Mare Island Vallejo California October 6

_____ 2009b Final Feasibility Study/Removal Action Work Plan for IR21 and the Buildings 386 388 and 390 Area Investigation Area C2 Lennar Mare Island Vallejo California September

_____ 2010a Draft Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL#01 Investigation Area C2 Lennar Mare Island Vallejo California November 23

_____ 2010b Discussion between Ms Gillian Semmer/CH2M HILL and Janet Naito/DTSC during walk through of PCB Site Building 386 AL#01 March 25

Lennar Mare Island LLC (LMI) the City of Vallejo and the State of California Environmental Protection Agency Department of Toxic Substances Control (DTSC) 2001 *Consent Agreement Between Lennar Mare Island the City of Vallejo and the State of California California Environmental Protection Agency Department of Toxic Substances Control* April 16

State of California Environmental Protection Agency Department of Toxic Substances Control (DTSC) 2009 Letter DTSC Determination and Approval September 29

_____ 2010a Letter Response to Cleanup Plan for Pits in Polychlorinated Biphenyl Site Building 386 AL#01 in Investigation Area C2 Lennar Mare Island Vallejo California dated October 6 2009 January 20

_____ 2010b Email from Ms Janet Naito/DTSC to Ms Jennifer Lindquist/ CH2M HILL regarding additional sampling locations at PCB Site Building 386 AL#01 Pit 3 April 15

_____ 2011 Email from Ms Janet Naito/DTSC to Ms Jennifer Lindquist/CH2M HILL SC&CASR Addendum for PCB Site Building 386 AL#01 IA C2 Comments January 11

SWA Group 2000 *Preliminary Land Use Plan* May 23

Tetra Tech Environmental Management Inc 1999 *Final Basewide Polychlorinated Biphenyl Confirmation Sampling Summary Report* Revised January

United States Environmental Protection Agency (USEPA) 2010a *Regional Screening Levels for Chemical Contaminants at Superfund Sites* http //epa prgs ornl gov chemicals/index shtml May 17

_____ 2010b ProUCL Version 4 00 05 User Guide (Draft) May

United States Environmental Protection Agency (USEPA) United States Department of the Navy (Navy) City of Vallejo and Lennar Mare Island LLC (LMI) 2001 *Complaint/ Consent Agreement and Final Order Between Lennar Mare Island the City of Vallejo the U S Department of the Navy and the U S Environmental Protection Agency Region IX* EPA Docket No TSCA 9 2002 0002 December 20

Appendix A
Response to Comments on Draft Report

Response to Comments on the

Draft Site Characterization and Cleanup Action Summary Report Addendum for Polychlorinated Biphenyl Site Building 386 AL#01 Investigation Area C2 Lennar Mare Island Vallejo

Dated November 23 2010

From

Department of Toxic Substances Control on January 11 2011

No	Section	Pages	Comments	Responses
Ms Janet Naito Senior Hazardous Substance Scientist				
General Comments				
1			Need a signature page for the person in responsible charge to sign off on the document	As discussed in a phone call between Ms Janet Naito and Ms Jennifer Lindquist on March 2 2011 a signature page is not necessary for this report and therefore a professional engineer or geologist will not be required to sign the document
2	3 0		Please discuss whether there were any cracks in the concrete or other features within the areas removed or scabbled that could have created a pathway to adjacent soil	Text has been added to Section 3 0 to address this comment
3			Please identify the stained area on a figure and clarify whether the entire northeast wall of the leg of trench extending beyond the north sidewall of Pit 3 in Figure 3 1 was removed Otherwise please provide pre remediation photographs to show the stained area that needed to be addressed	Text has been added to Section 3 0 to address this comment Photograph 5 showing the pre remediation stained area has been added to Appendix C of the Final SC&CASR
4			Last Paragraph Please clarify how much water was in the Pit 3 that was not from the pressure washing of the concrete surfaces after scabbling and where this water came from	Text has been added to Section 3 0 to address this comment
5	Appendix B		In Photograph 5 there appears to be soil on the bottom of the pit section where the northeast wall was being removed Please clarify whether this material was tested and/or addressed to ensure that PCBs from the sidewall being broken up were not released into this material	Soil on the bottom of the pit section depicted in Photograph 6 (previously Photograph 5) was disposed of at Keller Canyon Landfill with the concrete from the northeast wall removal action The soil was tested as part of the profiling for offsite disposal The manifest associated with the disposal of the concrete and soil is included as Appendix D (previously Appendix C) of the Final SC&CASR
6			In Photograph 6 there appears to be stained areas remaining in the sidewall toward the bottom right hand corner of the photograph This area is not represented by the confirmation sample collected at 4 feet bgs and of the south sidewall of concrete shelf that extended northwest into Pit 3 as well as photographs following site restoration	The apparent stained area in Photograph 7 (previously Photograph 6) is moisture in the concrete from water used for dust suppression during the concrete removal actions No oil staining was observed on the sidewall following scabbling As discussed in a phone conversation between Ms Janet Naito of DTSC and Ms Gillian Semmer of CH2M HILL on February 14 2011 (CH2M HILL 2011) the last partial sentence of this comment does not require a response

CH2M HILL 2011 Email from Janet Naito/DTSC to Gillian Semmer/CH2M HILL Re SC&CASR Addendum for PCB Site Building 386 AL#01 February 14

Appendix B
2010 Laboratory Analytical Reports and Verification Sampling Data

Appendix B

Analytical Results for Concrete Samples from PCB Site Building 386 AL#01

Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL#01 Investigation Area C2 Lennar Mare Island Vallejo California

Location of Sample	Sample Identifier	QA/QC Type	Value (mg/Kg)	Flag[a]	Date and Time of Sample	Sample Depths Beginning (feet bgs)	Sample Depths Ending (feet bgs)	Removed?	Type of Sample	Source of Measurement
PCB Compounds										
Analyte	**CAS Number**									
AROCLOR 1016	12674 11 2									
B386PIT3CS0901	B386PIT3CS0901 C0 1	ORIG	0 0017	U	04/09/10 14 15	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0902	B386PIT3CS0902 C0 1	ORIG	0 0017	U	04/09/10 14 17	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0903	B386PIT3CS0903 C0 1	ORIG	0 0017	U	04/09/10 14 21	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0904	B386PIT3CS0904 C0 1	ORIG	0 0017	U	04/09/10 14 24	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0907	B386PIT3CS0907 C1 5	ORIG	0 087	U	04/16/10 14 40	1 5	1 6	Y	Concrete Chip	Laboratory
B386PIT3CS0908	B386PIT3CS0908 C3	ORIG	0 087	U	04/16/10 14 45	3	3 1	N	Concrete Chip	Laboratory
B386PIT3CS0909	B386PIT3CS0909 C8	ORIG	0 034	U	04/16/10 15 05	8	8 1	N	Concrete Chip	Laboratory
B386PIT3CS0910	B386PIT3CS0910 C5	ORIG	0 086	U	04/16/10 15 10	5	5 1	Y	Concrete Chip	Laboratory
B386PIT3CS0911	B386PIT3CS0911 C2	ORIG	0 086	U	04/16/10 14 50	2	2 1	N	Concrete Chip	Laboratory
B386PIT3CS0912	B386PIT3CS0912 C4	ORIG	0 086	U	04/16/10 15 15	4	4 1	N	Concrete Chip	Laboratory
B386PIT3CS0913	B386PIT3CS0913 C3	ORIG	0 087	U	04/16/10 15 00	5	5 1	N	Concrete Chip	Laboratory
B386PIT3CS0914	B386PIT3CS0914 C4	ORIG	0 00074	U	06/10/10 15 00	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0915	B386PIT3CS0915 C4	ORIG	0 00074	U	06/10/10 15 05	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0916	B386PIT3CS0916 C4	ORIG	0 00073	U	06/10/10 15 10	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0917	B386PIT3CS0917 C4	ORIG	0 00074	U	06/10/10 15 15	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0918	B386PIT3CS0918 C6	ORIG	0 00073	U	06/10/10 15 20	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0919	B386PIT3CS0919 C6	ORIG	0 00074	U	06/10/10 15 25	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0920	B386PIT3CS0920 C6	ORIG	0 00074	U	06/10/10 15 30	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0921	B386PIT3CS0921 C6	ORIG	0 00074	U	06/10/10 15 35	6	6 1	N	Chip Sample	Laboratory
B386PIT3NCS0901	B386PIT3NCS0901 C1	ORIG	0 0017	U	04/09/10 14 35	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0902	B386PIT3NCS0902 C1	ORIG	0 0017	U	04/09/10 14 40	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0903	B386PIT3NCS0903 C1	ORIG	0 0017	U	04/09/10 14 45	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0904	B386PIT3NCS0904 C3	ORIG	0 0017	U	04/09/10 14 47	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0905	B386PIT3NCS0905 C3	ORIG	0 0017	U	04/09/10 14 50	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0906	B386PIT3NCS0906 C3	ORIG	0 0017	U	04/09/10 14 52	0 04	0 08	N	Concrete Chip	Laboratory

FLAGS

	Detected Result
J	Estimated Detected Result
U	Nondetect Result
UJ	Est mated Nondetect Result

Appendix B

Analytical Results for Concrete Samples from PCB Site Building 386 AL#01

Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL#01 Investigation Area C2 Lennar Mare Island Vallejo California

Location of Sample	Sample Identifier	QA/QC Type	Value (mg/Kg)	Flag[a]	Date and Time of Sample	Sample Depths Beginning (feet bgs)	Sample Depths Ending (feet bgs)	Removed?	Type of Sample	Source of Measurement
PCB Compounds										
Analyte	**CAS Number**									
AROCLOR 1016	12674 11 2									
B386PIT3SCS0901	B386PIT3SCS0901 C1	ORIG	0 0017	U	04/09/10 14 55	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0902	B386PIT3SCS0902 C1	ORIG	0 0017	U	04/09/10 14 57	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0903	B386PIT3SCS0903 1	ORIG	0 0017	U	04/09/10 14 58	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0904	B386PIT3SCS0904 C3	ORIG	0 0017	U	04/09/10 15 00	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0905	B386PIT3SCS0905 C3	ORIG	0 0087	U	04/09/10 15 02	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0906	B386PIT3SCS0906 C3	ORIG	0 0017	U	04/09/10 15 05	0 04	0 08	N	Concrete Chip	Laboratory
AROCLOR 1221	11104 28 2									
B386PIT3CS0901	B386PIT3CS0901 C0 1	ORIG	0 0079	U	04/09/10 14 15	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0902	B386PIT3CS0902 C0 1	ORIG	0 0079	U	04/09/10 14 17	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0903	B386PIT3CS0903 C0 1	ORIG	0 0079	U	04/09/10 14 21	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0904	B386PIT3CS0904 C0 1	ORIG	0 0079	U	04/09/10 14 24	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0907	B386PIT3CS0907 C1 5	ORIG	0 4	U	04/16/10 14 40	1 5	1 6	Y	Concrete Chip	Laboratory
B386PIT3CS0908	B386PIT3CS0908 C3	ORIG	0 4	U	04/16/10 14 45	3	3 1	N	Concrete Chip	Laboratory
B386PIT3CS0909	B386PIT3CS0909 C8	ORIG	0 16	U	04/16/10 15 05	8	8 1	N	Concrete Chip	Laboratory
B386PIT3CS0910	B386PIT3CS0910 C5	ORIG	0 39	U	04/16/10 15 10	5	5 1	Y	Concrete Chip	Laboratory
B386PIT3CS0911	B386PIT3CS0911 C2	ORIG	0 39	U	04/16/10 14 50	2	2 1	N	Concrete Chip	Laboratory
B386PIT3CS0912	B386PIT3CS0912 C4	ORIG	0 39	U	04/16/10 15 15	4	4 1	N	Concrete Chip	Laboratory
B386PIT3CS0913	B386PIT3CS0913 C3	ORIG	0 4	U	04/16/10 15 00	5	5 1	N	Concrete Chip	Laboratory
B386PIT3CS0914	B386PIT3CS0914 C4	ORIG	0 0048	U	06/10/10 15 00	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0915	B386PIT3CS0915 C4	ORIG	0 0048	U	06/10/10 15 05	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0916	B386PIT3CS0916 C4	ORIG	0 0047	U	06/10/10 15 10	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0917	B386PIT3CS0917 C4	ORIG	0 0048	U	06/10/10 15 15	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0918	B386PIT3CS0918 C6	ORIG	0 0048	U	06/10/10 15 20	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0919	B386PIT3CS0919 C6	ORIG	0 0048	U	06/10/10 15 25	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0920	B386PIT3CS0920 C6	ORIG	0 0048	U	06/10/10 15 30	6	6 1	N	Chip Sample	Laboratory

FLAGS

	Detected Result
J	Estimated Detected Result
U	Nondetect Result
UJ	Estimated Nondetect Result

Appendix B

Analytical Results for Concrete Samples from PCB Site Building 386 AL#01

Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL#01 Investigation Area C2 Lennar Mare Island Vallejo California

Location of Sample	Sample Identifier	QA/QC Type	Value (mg/Kg)	Flag[a]	Date and Time of Sample	Sample Depths Beginning (feet bgs)	Sample Depths Ending (feet bgs)	Removed?	Type of Sample	Source of Measurement
PCB Compounds										
Analyte	**CAS Number**									
AROCLOR 1221	11104 28 2									
B386PIT3CS0921	B386PIT3CS0921 C6	ORIG	0 0048	U	06/10/10 15 35	6	6 1	N	Chip Sample	Laboratory
B386PIT3NCS0901	B386PIT3NCS0901 C1	ORIG	0 0079	U	04/09/10 14 35	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0902	B386PIT3NCS0902 C1	ORIG	0 0079	U	04/09/10 14 40	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0903	B386PIT3NCS0903 C1	ORIG	0 0079	U	04/09/10 14 45	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0904	B386PIT3NCS0904 C3	ORIG	0 008	U	04/09/10 14 47	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0905	B386PIT3NCS0905 C3	ORIG	0 0079	U	04/09/10 14 50	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0906	B386PIT3NCS0906 C3	ORIG	0 0079	U	04/09/10 14 52	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0901	B386PIT3SCS0901 C1	ORIG	0 008	U	04/09/10 14 55	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0902	B386PIT3SCS0902 C1	ORIG	0 0079	U	04/09/10 14 57	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0903	B386PIT3SCS0903 1	ORIG	0 0079	U	04/09/10 14 58	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0904	B386PIT3SCS0904 C3	ORIG	0 0079	U	04/09/10 15 00	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0905	B386PIT3SCS0905 C3	ORIG	0 04	U	04/09/10 15 02	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0906	B386PIT3SCS0906 C3	ORIG	0 0079	U	04/09/10 15 05	0 04	0 08	N	Concrete Chip	Laboratory
AROCLOR 1232	11141 16 5									
B386PIT3CS0901	B386PIT3CS0901 C0 1	ORIG	0 0037	U	04/09/10 14 15	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0902	B386PIT3CS0902 C0 1	ORIG	0 0037	U	04/09/10 14 17	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0903	B386PIT3CS0903 C0 1	ORIG	0 0037	U	04/09/10 14 21	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0904	B386PIT3CS0904 C0 1	ORIG	0 0037	U	04/09/10 14 24	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0907	B386PIT3CS0907 C1 5	ORIG	0 18	U	04/16/10 14 40	1 5	1 6	Y	Concrete Chip	Laboratory
B386PIT3CS0908	B386PIT3CS0908 C3	ORIG	0 18	U	04/16/10 14 45	3	3 1	N	Concrete Chip	Laboratory
B386PIT3CS0909	B386PIT3CS0909 C8	ORIG	0 072	U	04/16/10 15 05	8	8 1	N	Concrete Chip	Laboratory
B386PIT3CS0910	B386PIT3CS0910 C5	ORIG	0 18	U	04/16/10 15 10	5	5 1	Y	Concrete Chip	Laboratory
B386PIT3CS0911	B386PIT3CS0911 C2	ORIG	0 18	U	04/16/10 14 50	2	2 1	N	Concrete Chip	Laboratory
B386PIT3CS0912	B386PIT3CS0912 C4	ORIG	0 18	U	04/16/10 15 15	4	4 1	N	Concrete Chip	Laboratory
B386PIT3CS0913	B386PIT3CS0913 C3	ORIG	0 18	U	04/16/10 15 00	5	5 1	N	Concrete Chip	Laboratory

FLAGS

	Detected Res It
J	Estimated Detected Result
U	Nondetect Result
UJ	Estimated Nondetect Re ult

Appendix B

Analytical Results for Concrete Samples from PCB Site Building 386 AL#01

Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL#01 Investigation Area C2 Lennar Mare Island Vallejo California

Location of Sample	Sample Identifier	QA/QC Type	Value (mg/Kg)	Flag[a]	Date and Time of Sample	Sample Depths Beginning (feet bgs)	Sample Depths Ending (feet bgs)	Removed?	Type of Sample	Source of Measurement
PCB Compounds										
Analyte	**CAS Number**									
AROCLOR 1232	11141 16 5									
B386PIT3CS0914	B386PIT3CS0914 C4	ORIG	0 0037	U	06/10/10 15 00	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0915	B386PIT3CS0915 C4	ORIG	0 0037	U	06/10/10 15 05	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0916	B386PIT3CS0916 C4	ORIG	0 0037	U	06/10/10 15 10	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0917	B386PIT3CS0917 C4	ORIG	0 0037	U	06/10/10 15 15	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0918	B386PIT3CS0918 C6	ORIG	0 0037	U	06/10/10 15 20	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0919	B386PIT3CS0919 C6	ORIG	0 0037	U	06/10/10 15 25	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0920	B386PIT3CS0920 C6	ORIG	0 0037	U	06/10/10 15 30	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0921	B386PIT3CS0921 C6	ORIG	0 0037	U	06/10/10 15 35	6	6 1	N	Chip Sample	Laboratory
B386PIT3NCS0901	B386PIT3NCS0901 C1	ORIG	0 0037	U	04/09/10 14 35	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0902	B386PIT3NCS0902 C1	ORIG	0 0036	U	04/09/10 14 40	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0903	B386PIT3NCS0903 C1	ORIG	0 0037	U	04/09/10 14 45	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0904	B386PIT3NCS0904 C3	ORIG	0 0037	U	04/09/10 14 47	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0905	B386PIT3NCS0905 C3	ORIG	0 0037	U	04/09/10 14 50	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0906	B386PIT3NCS0906 C3	ORIG	0 0036	U	04/09/10 14 52	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0901	B386PIT3SCS0901 C1	ORIG	0 0037	U	04/09/10 14 55	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0902	B386PIT3SCS0902 C1	ORIG	0 0036	U	04/09/10 14 57	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0903	B386PIT3SCS0903 1	ORIG	0 0037	U	04/09/10 14 58	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0904	B386PIT3SCS0904 C3	ORIG	0 0036	U	04/09/10 15 00	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0905	B386PIT3SCS0905 C3	ORIG	0 018	U	04/09/10 15 02	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0906	B386PIT3SCS0906 C3	ORIG	0 0036	U	04/09/10 15 05	0 04	0 08	N	Concrete Chip	Laboratory
AROCLOR 1242	53469 21 9									
B386PIT3CS0901	B386PIT3CS0901 C0 1	ORIG	0 0023	U	04/09/10 14 15	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0902	B386PIT3CS0902 C0 1	ORIG	0 0023	U	04/09/10 14 17	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0903	B386PIT3CS0903 C0 1	ORIG	0 0023	U	04/09/10 14 21	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0904	B386PIT3CS0904 C0 1	ORIG	0 0023	U	04/09/10 14 24	0 04	0 08	N	Concrete Chip	Laboratory

FLAGS

	Detected Result
J	Estimated Detected Result
U	Nondetect Result
UJ	Estimated Nondetect Result

Appendix B

Analytical Results for Concrete Samples from PCB Site Building 386 AL#01

Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL#01 Investigation Area C2 Lennar Mare Island Vallejo California

Location of Sample	Sample Identifier	QA/QC Type	Value (mg/Kg)	Flag[a]	Date and Time of Sample	Sample Depths Beginning (feet bgs)	Sample Depths Ending (feet bgs)	Removed?	Type of Sample	Source of Measurement
PCB Compounds										
Analyte	**CAS Number**									
AROCLOR 1242	53469 21 9									
B386PIT3CS0907	B386PIT3CS0907 C1 5	ORIG	24		04/16/10 14 40	1 5	1 6	Y	Concrete Chip	Laboratory
B386PIT3CS0908	B386PIT3CS0908 C3	ORIG	0 44		04/16/10 14 45	3	3 1	N	Concrete Chip	Laboratory
B386PIT3CS0909	B386PIT3CS0909 C8	ORIG	0 11	J	04/16/10 15 05	8	8 1	N	Concrete Chip	Laboratory
B386PIT3CS0910	B386PIT3CS0910 C5	ORIG	0 11	U	04/16/10 15 10	5	5 1	Y	Concrete Chip	Laboratory
B386PIT3CS0911	B386PIT3CS0911 C2	ORIG	3 3		04/16/10 14 50	2	2 1	N	Concrete Chip	Laboratory
B386PIT3CS0912	B386PIT3CS0912 C4	ORIG	0 11	U	04/16/10 15 15	4	4 1	N	Concrete Chip	Laboratory
B386PIT3CS0913	B386PIT3CS0913 C3	ORIG	0 28	J	04/16/10 15 00	5	5 1	N	Concrete Chip	Laboratory
B386PIT3CS0914	B386PIT3CS0914 C4	ORIG	0 00096	U	06/10/10 15 00	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0915	B386PIT3CS0915 C4	ORIG	0 00096	U	06/10/10 15 05	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0916	B386PIT3CS0916 C4	ORIG	0 00095	U	06/10/10 15 10	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0917	B386PIT3CS0917 C4	ORIG	0 00095	U	06/10/10 15 15	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0918	B386PIT3CS0918 C6	ORIG	0 00095	U	06/10/10 15 20	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0919	B386PIT3CS0919 C6	ORIG	0 00096	U	06/10/10 15 25	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0920	B386PIT3CS0920 C6	ORIG	0 00096	U	06/10/10 15 30	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0921	B386PIT3CS0921 C6	ORIG	0 00096	U	06/10/10 15 35	6	6 1	N	Chip Sample	Laboratory
B386PIT3NCS0901	B386PIT3NCS0901 C1	ORIG	0 0023	U	04/09/10 14 35	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0902	B386PIT3NCS0902 C1	ORIG	0 0023	U	04/09/10 14 40	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0903	B386PIT3NCS0903 C1	ORIG	0 0023	U	04/09/10 14 45	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0904	B386PIT3NCS0904 C3	ORIG	0 0023	U	04/09/10 14 47	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0905	B386PIT3NCS0905 C3	ORIG	0 0023	U	04/09/10 14 50	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0906	B386PIT3NCS0906 C3	ORIG	0 0022	U	04/09/10 14 52	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0901	B386PIT3SCS0901 C1	ORIG	0 0023	U	04/09/10 14 55	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0902	B386PIT3SCS0902 C1	ORIG	0 0022	U	04/09/10 14 57	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0903	B386PIT3SCS0903 1	ORIG	0 0023	U	04/09/10 14 58	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0904	B386PIT3SCS0904 C3	ORIG	0 0022	U	04/09/10 15 00	0 04	0 08	N	Concrete Chip	Laboratory

FLAGS

	Detected Result
J	Est mated Detected Result
U	Nondetect Result
UJ	Estimated Nondetect Result

Analytical Results for Concrete Samples from PCB Site Building 386 AL#01

Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL#01 Investigation Area C2 Lennar Mare Island Vallejo California

Location of Sample	Sample Identifier	QA/QC Type	Value (mg/Kg)	Flag[a]	Date and Time of Sample	Sample Depths Beginning (feet bgs)	Sample Depths Ending (feet bgs)	Removed?	Type of Sample	Source of Measurement
PCB Compounds										
Analyte	**CAS Number**									
AROCLOR 1242	53469 21 9									
B386PIT3SCS0905	B386PIT3SCS0905 C3	ORIG	0 011	U	04/09/10 15 02	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0906	B386PIT3SCS0906 C3	ORIG	0 0023	U	04/09/10 15 05	0 04	0 08	N	Concrete Chip	Laboratory
AROCLOR 1248	12672 29 6									
B386PIT3CS0901	B386PIT3CS0901 C0 1	ORIG	0 0021	U	04/09/10 14 15	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0902	B386PIT3CS0902 C0 1	ORIG	0 0021	U	04/09/10 14 17	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0903	B386PIT3CS0903 C0 1	ORIG	0 0021	U	04/09/10 14 21	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0904	B386PIT3CS0904 C0 1	ORIG	0 0021	U	04/09/10 14 24	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0907	B386PIT3CS0907 C1 5	ORIG	0 1	U	04/16/10 14 40	1 5	1 6	Y	Concrete Chip	Laboratory
B386PIT3CS0908	B386PIT3CS0908 C3	ORIG	0 1	U	04/16/10 14 45	3	3 1	N	Concrete Chip	Laboratory
B386PIT3CS0909	B386PIT3CS0909 C8	ORIG	0 041	U	04/16/10 15 05	8	8 1	N	Concrete Chip	Laboratory
B386PIT3CS0910	B386PIT3CS0910 C5	ORIG	0 1	U	04/16/10 15 10	5	5 1	Y	Concrete Chip	Laboratory
B386PIT3CS0911	B386PIT3CS0911 C2	ORIG	0 1	U	04/16/10 14 50	2	2 1	N	Concrete Chip	Laboratory
B386PIT3CS0912	B386PIT3CS0912 C4	ORIG	0 1	U	04/16/10 15 15	4	4 1	N	Concrete Chip	Laboratory
B386PIT3CS0913	B386PIT3CS0913 C3	ORIG	0 1	U	04/16/10 15 00	5	5 1	N	Concrete Chip	Laboratory
B386PIT3CS0914	B386PIT3CS0914 C4	ORIG	0 001	U	06/10/10 15 00	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0915	B386PIT3CS0915 C4	ORIG	0 001	U	06/10/10 15 05	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0916	B386PIT3CS0916 C4	ORIG	0 00099	U	06/10/10 15 10	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0917	B386PIT3CS0917 C4	ORIG	0 00099	U	06/10/10 15 15	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0918	B386PIT3CS0918 C6	ORIG	0 00099	U	06/10/10 15 20	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0919	B386PIT3CS0919 C6	ORIG	0 001	U	06/10/10 15 25	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0920	B386PIT3CS0920 C6	ORIG	0 001	U	06/10/10 15 30	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0921	B386PIT3CS0921 C6	ORIG	0 001	U	06/10/10 15 35	6	6 1	N	Chip Sample	Laboratory
B386PIT3NCS0901	B386PIT3NCS0901 C1	ORIG	0 0021	U	04/09/10 14 35	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0902	B386PIT3NCS0902 C1	ORIG	0 0021	U	04/09/10 14 40	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0903	B386PIT3NCS0903 C1	ORIG	0 0021	U	04/09/10 14 45	0 04	0 08	N	Concrete Chip	Laboratory

FLAGS

	Detected Result
J	Estimated Detected Result
U	Nondetect Result
UJ	Estimated Nondetect Result

Appendix B

Analytical Results for Concrete Samples from PCB Site Building 386 AL#01

Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL#01 Investigation Area C2 Lennar Mare Island Vallejo California

Location of Sample	Sample Identifier	QA/QC Type	Value (mg/Kg)	Flag[a]	Date and Time of Sample	Sample Depths Beginning (feet bgs)	Sample Depths Ending (feet bgs)	Removed?	Type of Sample	Source of Measurement
PCB Compounds										
Analyte	**CAS Number**									
AROCLOR 1248	12672 29 6									
B386PIT3NCS0904	B386PIT3NCS0904 C3	ORIG	0 0021	U	04/09/10 14 47	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0905	B386PIT3NCS0905 C3	ORIG	0 0021	U	04/09/10 14 50	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0906	B386PIT3NCS0906 C3	ORIG	0 0021	U	04/09/10 14 52	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0901	B386PIT3SCS0901 C1	ORIG	0 0021	U	04/09/10 14 55	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0902	B386PIT3SCS0902 C1	ORIG	0 0021	U	04/09/10 14 57	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0903	B386PIT3SCS0903 1	ORIG	0 0021	U	04/09/10 14 58	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0904	B386PIT3SCS0904 C3	ORIG	0 0021	U	04/09/10 15 00	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0905	B386PIT3SCS0905 C3	ORIG	0 01	U	04/09/10 15 02	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0906	B386PIT3SCS0906 C3	ORIG	0 0021	U	04/09/10 15 05	0 04	0 08	N	Concrete Chip	Laboratory
AROCLOR 1254	11097 69 1									
B386PIT3CS0901	B386PIT3CS0901 C0 1	ORIG	0 0024	UJ	04/09/10 14 15	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0902	B386PIT3CS0902 C0 1	ORIG	0 0024	UJ	04/09/10 14 17	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0903	B386PIT3CS0903 C0 1	ORIG	0 0024	UJ	04/09/10 14 21	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0904	B386PIT3CS0904 C0 1	ORIG	0 0024	UJ	04/09/10 14 24	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0907	B386PIT3CS0907 C1 5	ORIG	5 1		04/16/10 14 40	1 5	1 6	Y	Concrete Chip	Laboratory
B386PIT3CS0908	B386PIT3CS0908 C3	ORIG	1 8		04/16/10 14 45	3	3 1	N	Concrete Chip	Laboratory
B386PIT3CS0909	B386PIT3CS0909 C8	ORIG	0 16		04/16/10 15 05	8	8 1	N	Concrete Chip	Laboratory
B386PIT3CS0910	B386PIT3CS0910 C5	ORIG	29		04/16/10 15 10	5	5 1	Y	Concrete Chip	Laboratory
B386PIT3CS0911	B386PIT3CS0911 C2	ORIG	2 5		04/16/10 14 50	2	2 1	N	Concrete Chip	Laboratory
B386PIT3CS0912	B386PIT3CS0912 C4	ORIG	0 37	J	04/16/10 15 15	4	4 1	N	Concrete Chip	Laboratory
B386PIT3CS0913	B386PIT3CS0913 C3	ORIG	2 2		04/16/10 15 00	5	5 1	N	Concrete Chip	Laboratory
B386PIT3CS0914	B386PIT3CS0914 C4	ORIG	0 0024	U	06/10/10 15 00	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0915	B386PIT3CS0915 C4	ORIG	0 1		06/10/10 15 05	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0916	B386PIT3CS0916 C4	ORIG	0 068		06/10/10 15 10	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0917	B386PIT3CS0917 C4	ORIG	0 012	J	06/10/10 15 15	4	4 1	N	Chip Sample	Laboratory

FLAGS

	Detected Result
J	Estimated Detected Result
U	Nondetect Result
UJ	Estimated Nondetect Result

Appendix B

Analytical Results for Concrete Samples from PCB Site Building 386 AL#01

Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL#01 Investigation Area C2 Lennar Mare Island Vallejo California

Location of Sample	Sample Identifier	QA/QC Type	Value (mg/Kg)	Flag[a]	Date and Time of Sample	Sample Depths Beginning (feet bgs)	Sample Depths Ending (feet bgs)	Removed?	Type of Sample	Source of Measurement
PCB Compounds										
Analyte	**CAS Number**									
AROCLOR 1254	11097 69 1									
B386PIT3CS0918	B386PIT3CS0918 C6	ORIG	0 063	J	06/10/10 15 20	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0919	B386PIT3CS0919 C6	ORIG	0 026		06/10/10 15 25	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0920	B386PIT3CS0920 C6	ORIG	0 021	J	06/10/10 15 30	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0921	B386PIT3CS0921 C6	ORIG	0 075		06/10/10 15 35	6	6 1	N	Chip Sample	Laboratory
B386PIT3NCS0901	B386PIT3NCS0901 C1	ORIG	0 13		04/09/10 14 35	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0902	B386PIT3NCS0902 C1	ORIG	0 15		04/09/10 14 40	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0903	B386PIT3NCS0903 C1	ORIG	0 03		04/09/10 14 45	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0904	B386PIT3NCS0904 C3	ORIG	0 77		04/09/10 14 47	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0905	B386PIT3NCS0905 C3	ORIG	0 13		04/09/10 14 50	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0906	B386PIT3NCS0906 C3	ORIG	0 021		04/09/10 14 52	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0901	B386PIT3SCS0901 C1	ORIG	0 0024	UJ	04/09/10 14 55	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0902	B386PIT3SCS0902 C1	ORIG	0 052		04/09/10 14 57	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0903	B386PIT3SCS0903 1	ORIG	0 0024	UJ	04/09/10 14 58	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0904	B386PIT3SCS0904 C3	ORIG	0 14		04/09/10 15 00	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0905	B386PIT3SCS0905 C3	ORIG	2 7		04/09/10 15 02	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0906	B386PIT3SCS0906 C3	ORIG	0 0024	UJ	04/09/10 15 05	0 04	0 08	N	Concrete Chip	Laboratory
AROCLOR 1260	11096 82 5									
B386PIT3CS0901	B386PIT3CS0901 C0 1	ORIG	0 0011	U	04/09/10 14 15	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0902	B386PIT3CS0902 C0 1	ORIG	0 0011	U	04/09/10 14 17	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0903	B386PIT3CS0903 C0 1	ORIG	0 0011	U	04/09/10 14 21	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0904	B386PIT3CS0904 C0 1	ORIG	0 0011	U	04/09/10 14 24	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0907	B386PIT3CS0907 C1 5	ORIG	0 024	U	04/16/10 14 40	1 5	1 6	Y	Concrete Chip	Laboratory
B386PIT3CS0908	B386PIT3CS0908 C3	ORIG	0 24	J	04/16/10 14 45	3	3 1	N	Concrete Chip	Laboratory
B386PIT3CS0909	B386PIT3CS0909 C8	ORIG	0 03	J	04/16/10 15 05	8	8 1	N	Concrete Chip	Laboratory
B386PIT3CS0910	B386PIT3CS0910 C5	ORIG	2 3		04/16/10 15 10	5	5 1	Y	Concrete Chip	Laboratory

FLAGS

	Detected Result
J	Estimated Detected Result
U	Nondetect Result
UJ	Estimated Nondetect Result

Appendix B

Analytical Results for Concrete Samples from PCB Site Building 386 AL#01

Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL#01 Investigation Area C2 Lennar Mare Island Vallejo California

Location of Sample	Sample Identifier	QA/QC Type	Value (mg/Kg)	Flag[a]	Date and Time of Sample	Sample Depths Beginning (feet bgs)	Sample Depths Ending (feet bgs)	Removed?	Type of Sample	Source of Measurement
PCB Compounds										
Analyte	**CAS Number**									
AROCLOR 1260	11096 82 5									
B386PIT3CS0911	B386PIT3CS0911 C2	ORIG	0 34	J	04/16/10 14 50	2	2 1	N	Concrete Chip	Laboratory
B386PIT3CS0912	B386PIT3CS0912 C4	ORIG	0 052	J	04/16/10 15 15	4	4 1	N	Concrete Chip	Laboratory
B386PIT3CS0913	B386PIT3CS0913 C3	ORIG	0 32	J	04/16/10 15 00	5	5 1	N	Concrete Chip	Laboratory
B386PIT3CS0914	B386PIT3CS0914 C4	ORIG	0 00054	U	06/10/10 15 00	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0915	B386PIT3CS0915 C4	ORIG	0 00054	U	06/10/10 15 05	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0916	B386PIT3CS0916 C4	ORIG	0 00053	U	06/10/10 15 10	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0917	B386PIT3CS0917 C4	ORIG	0 00054	U	06/10/10 15 15	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0918	B386PIT3CS0918 C6	ORIG	0 00053	U	06/10/10 15 20	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0919	B386PIT3CS0919 C6	ORIG	0 00054	U	06/10/10 15 25	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0920	B386PIT3CS0920 C6	ORIG	0 00054	U	06/10/10 15 30	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0921	B386PIT3CS0921 C6	ORIG	0 00054	U	06/10/10 15 35	6	6 1	N	Chip Sample	Laboratory
B386PIT3NCS0901	B386PIT3NCS0901 C1	ORIG	0 015		04/09/10 14 35	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0902	B386PIT3NCS0902 C1	ORIG	0 019		04/09/10 14 40	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0903	B386PIT3NCS0903 C1	ORIG	0 0035	J	04/09/10 14 45	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0904	B386PIT3NCS0904 C3	ORIG	0 08		04/09/10 14 47	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0905	B386PIT3NCS0905 C3	ORIG	0 013		04/09/10 14 50	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0906	B386PIT3NCS0906 C3	ORIG	0 0036	J	04/09/10 14 52	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0901	B386PIT3SCS0901 C1	ORIG	0 0011	U	04/09/10 14 55	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0902	B386PIT3SCS0902 C1	ORIG	0 0064	J	04/09/10 14 57	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0903	B386PIT3SCS0903 1	ORIG	0 00049	U	04/09/10 14 58	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0904	B386PIT3SCS0904 C3	ORIG	0 013		04/09/10 15 00	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0905	B386PIT3SCS0905 C3	ORIG	0 26		04/09/10 15 02	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0906	B386PIT3SCS0906 C3	ORIG	0 00048	U	04/09/10 15 05	0 04	0 08	N	Concrete Chip	Laboratory
AROCLOR 1262	37324 23 5									
B386PIT3CS0901	B386PIT3CS0901 C0 1	ORIG	0 012	U	04/09/10 14 15	0 04	0 08	N	Concrete Chip	Laboratory

FLAGS

	Detected Result
J	Estimated Detected Result
U	Nondetect Result
UJ	Estimated Nondetect Result

Appendix B

Analytical Results for Concrete Samples from PCB Site Building 386 AL#01

Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL#01 Investigation Area C2 Lennar Mare Island Vallejo California

Location of Sample	Sample Identifier	QA/QC Type	Value (mg/Kg)	Flag[a]	Date and Time of Sample	Sample Depths Beginning (feet bgs)	Sample Depths Ending (feet bgs)	Removed?	Type of Sample	Source of Measurement
PCB Compounds										
Analyte	**CAS Number**									
AROCLOR 1262	37324 23 5									
B386PIT3CS0902	B386PIT3CS0902 C0 1	ORIG	0 012	U	04/09/10 14 17	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0903	B386PIT3CS0903 C0 1	ORIG	0 012	U	04/09/10 14 21	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0904	B386PIT3CS0904 C0 1	ORIG	0 012	U	04/09/10 14 24	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0907	B386PIT3CS0907 C1 5	ORIG	0 42	U	04/16/10 14 40	1 5	1 6	Y	Concrete Chip	Laboratory
B386PIT3CS0908	B386PIT3CS0908 C3	ORIG	0 41	U	04/16/10 14 45	3	3 1	N	Concrete Chip	Laboratory
B386PIT3CS0909	B386PIT3CS0909 C8	ORIG	0 16	U	04/16/10 15 05	8	8 1	N	Concrete Chip	Laboratory
B386PIT3CS0910	B386PIT3CS0910 C5	ORIG	0 41	U	04/16/10 15 10	5	5 1	Y	Concrete Chip	Laboratory
B386PIT3CS0911	B386PIT3CS0911 C2	ORIG	0 41	U	04/16/10 14 50	2	2 1	N	Concrete Chip	Laboratory
B386PIT3CS0912	B386PIT3CS0912 C4	ORIG	0 41	U	04/16/10 15 15	4	4 1	N	Concrete Chip	Laboratory
B386PIT3CS0913	B386PIT3CS0913 C3	ORIG	0 41	U	04/16/10 15 00	5	5 1	N	Concrete Chip	Laboratory
B386PIT3CS0914	B386PIT3CS0914 C4	ORIG	0 012	U	06/10/10 15 00	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0915	B386PIT3CS0915 C4	ORIG	0 012	U	06/10/10 15 05	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0916	B386PIT3CS0916 C4	ORIG	0 012	U	06/10/10 15 10	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0917	B386PIT3CS0917 C4	ORIG	0 012	U	06/10/10 15 15	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0918	B386PIT3CS0918 C6	ORIG	0 012	U	06/10/10 15 20	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0919	B386PIT3CS0919 C6	ORIG	0 012	U	06/10/10 15 25	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0920	B386PIT3CS0920 C6	ORIG	0 012	U	06/10/10 15 30	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0921	B386PIT3CS0921 C6	ORIG	0 012	U	06/10/10 15 35	6	6 1	N	Chip Sample	Laboratory
B386PIT3NCS0901	B386PIT3NCS0901 C1	ORIG	0 012	U	04/09/10 14 35	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0902	B386PIT3NCS0902 C1	ORIG	0 012	U	04/09/10 14 40	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0903	B386PIT3NCS0903 C1	ORIG	0 012	U	04/09/10 14 45	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0904	B386PIT3NCS0904 C3	ORIG	0 012	U	04/09/10 14 47	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0905	B386PIT3NCS0905 C3	ORIG	0 012	U	04/09/10 14 50	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0906	B386PIT3NCS0906 C3	ORIG	0 012	U	04/09/10 14 52	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0901	B386PIT3SCS0901 C1	ORIG	0 012	U	04/09/10 14 55	0 04	0 08	N	Concrete Chip	Laboratory

FLAGS

	Detected Result
J	Estimated Detected Result
U	Nondetect Result
UJ	Estimated Nondetect Result

Appendix B

Analytical Results for Concrete Samples from PCB Site Building 386 AL#01

Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL#01 Investigation Area C2 Lennar Mare Island Vallejo California

Location of Sample	Sample Identifier	QA/QC Type	Value (mg/Kg)	Flag[a]	Date and Time of Sample	Sample Depths Beginning (feet bgs)	Sample Depths Ending (feet bgs)	Removed?	Type of Sample	Source of Measurement
PCB Compounds										
Analyte	**CAS Number**									
AROCLOR 1262	37324 23 5									
B386PIT3SCS0902	B386PIT3SCS0902 C1	ORIG	0 012	U	04/09/10 14 57	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0903	B386PIT3SCS0903 1	ORIG	0 012	U	04/09/10 14 58	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0904	B386PIT3SCS0904 C3	ORIG	0 012	U	04/09/10 15 00	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0905	B386PIT3SCS0905 C3	ORIG	0 041	U	04/09/10 15 02	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0906	B386PIT3SCS0906 C3	ORIG	0 012	U	04/09/10 15 05	0 04	0 08	N	Concrete Chip	Laboratory
AROCLOR 1268	11100 14-4									
B386PIT3CS0901	B386PIT3CS0901 C0 1	ORIG	0 012	U	04/09/10 14 15	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0902	B386PIT3CS0902 C0 1	ORIG	0 012	U	04/09/10 14 17	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0903	B386PIT3CS0903 C0 1	ORIG	0 012	U	04/09/10 14 21	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0904	B386PIT3CS0904 C0 1	ORIG	0 012	U	04/09/10 14 24	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0907	B386PIT3CS0907 C1 5	ORIG	0 42	U	04/16/10 14 40	1 5	1 6	Y	Concrete Chip	Laboratory
B386PIT3CS0908	B386PIT3CS0908 C3	ORIG	0 41	U	04/16/10 14 45	3	3 1	N	Concrete Chip	Laboratory
B386PIT3CS0909	B386PIT3CS0909 C8	ORIG	0 16	U	04/16/10 15 05	8	8 1	N	Concrete Chip	Laboratory
B386PIT3CS0910	B386PIT3CS0910 C5	ORIG	0 41	U	04/16/10 15 10	5	5 1	Y	Concrete Chip	Laboratory
B386PIT3CS0911	B386PIT3CS0911 C2	ORIG	0 41	U	04/16/10 14 50	2	2 1	N	Concrete Chip	Laboratory
B386PIT3CS0912	B386PIT3CS0912 C4	ORIG	0 41	U	04/16/10 15 15	4	4 1	N	Concrete Chip	Laboratory
B386PIT3CS0913	B386PIT3CS0913 C3	ORIG	0 41	U	04/16/10 15 00	5	5 1	N	Concrete Chip	Laboratory
B386PIT3CS0914	B386PIT3CS0914 C4	ORIG	0 012	U	06/10/10 15 00	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0915	B386PIT3CS0915 C4	ORIG	0 012	U	06/10/10 15 05	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0916	B386PIT3CS0916 C4	ORIG	0 012	U	06/10/10 15 10	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0917	B386PIT3CS0917 C4	ORIG	0 012	U	06/10/10 15 15	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0918	B386PIT3CS0918 C6	ORIG	0 012	U	06/10/10 15 20	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0919	B386PIT3CS0919 C6	ORIG	0 012	U	06/10/10 15 25	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0920	B386PIT3CS0920 C6	ORIG	0 012	U	06/10/10 15 30	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0921	B386PIT3CS0921 C6	ORIG	0 012	U	06/10/10 15 35	6	6 1	N	Chip Sample	Laboratory

FLAGS

	Detected Result
J	Estimated Detected Result
U	Nondetect Result
UJ	Estimated Nondetect Result

Appendix B

Analytical Results for Concrete Samples from PCB Site Building 386 AL#01

Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL#01 Investigation Area C2 Lennar Mare Island Vallejo California

Location of Sample	Sample Identifier	QA/QC Type	Value (mg/Kg)	Flag[a]	Date and Time of Sample	Sample Depths Beginning (feet bgs)	Sample Depths Ending (feet bgs)	Removed?	Type of Sample	Source of Measurement
PCB Compounds										
Analyte	**CAS Number**									
AROCLOR 1268	11100 14-4									
B386PIT3NCS0901	B386PIT3NCS0901 C1	ORIG	0 012	U	04/09/10 14 35	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0902	B386PIT3NCS0902 C1	ORIG	0 012	U	04/09/10 14 40	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0903	B386PIT3NCS0903 C1	ORIG	0 012	U	04/09/10 14 45	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0904	B386PIT3NCS0904 C3	ORIG	0 012	U	04/09/10 14 47	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0905	B386PIT3NCS0905 C3	ORIG	0 012	U	04/09/10 14 50	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0906	B386PIT3NCS0906 C3	ORIG	0 012	U	04/09/10 14 52	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0901	B386PIT3SCS0901 C1	ORIG	0 012	U	04/09/10 14 55	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0902	B386PIT3SCS0902 C1	ORIG	0 012	U	04/09/10 14 57	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0903	B386PIT3SCS0903 1	ORIG	0 012	U	04/09/10 14 58	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0904	B386PIT3SCS0904 C3	ORIG	0 012	U	04/09/10 15 00	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0905	B386PIT3SCS0905 C3	ORIG	0 041	U	04/09/10 15 02	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0906	B386PIT3SCS0906 C3	ORIG	0 012	U	04/09/10 15 05	0 04	0 08	N	Concrete Chip	Laboratory
TOTAL PCB CALCULATION	TOTAL PCBS									
B386PIT3CS0901	B386PIT3CS0901 C0 1	ORIG	0 0038	UJ	04/09/10 14 15	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0902	B386PIT3CS0902 C0 1	ORIG	0 0038	UJ	04/09/10 14 17	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0903	B386PIT3CS0903 C0 1	ORIG	0 0038	UJ	04/09/10 14 21	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0904	B386PIT3CS0904 C0 1	ORIG	0 0038	UJ	04/09/10 14 24	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3CS0907	B386PIT3CS0907 C1 5	ORIG	29		04/16/10 14 40	1 5	1 6	Y	Concrete Chip	Laboratory
B386PIT3CS0908	B386PIT3CS0908 C3	ORIG	2 5	J	04/16/10 14 45	3	3 1	N	Concrete Chip	Laboratory
B386PIT3CS0909	B386PIT3CS0909 C8	ORIG	0 32	J	04/16/10 15 05	8	8 1	N	Concrete Chip	Laboratory
B386PIT3CS0910	B386PIT3CS0910 C5	ORIG	31		04/16/10 15 10	5	5 1	Y	Concrete Chip	Laboratory
B386PIT3CS0911	B386PIT3CS0911 C2	ORIG	6 2	J	04/16/10 14 50	2	2 1	N	Concrete Chip	Laboratory
B386PIT3CS0912	B386PIT3CS0912 C4	ORIG	0 52	J	04/16/10 15 15	4	4 1	N	Concrete Chip	Laboratory
B386PIT3CS0913	B386PIT3CS0913 C3	ORIG	2 8	J	04/16/10 15 00	5	5 1	N	Concrete Chip	Laboratory
B386PIT3CS0914	B386PIT3CS0914 C4	ORIG	0 0023	U	06/10/10 15 00	4	4 1	N	Chip Sample	Laboratory

FLAGS

	Detected Result
J	Estimated Detected Result
U	Nondetect Result
UJ	Estimated Nondetect Res It

Appendix B

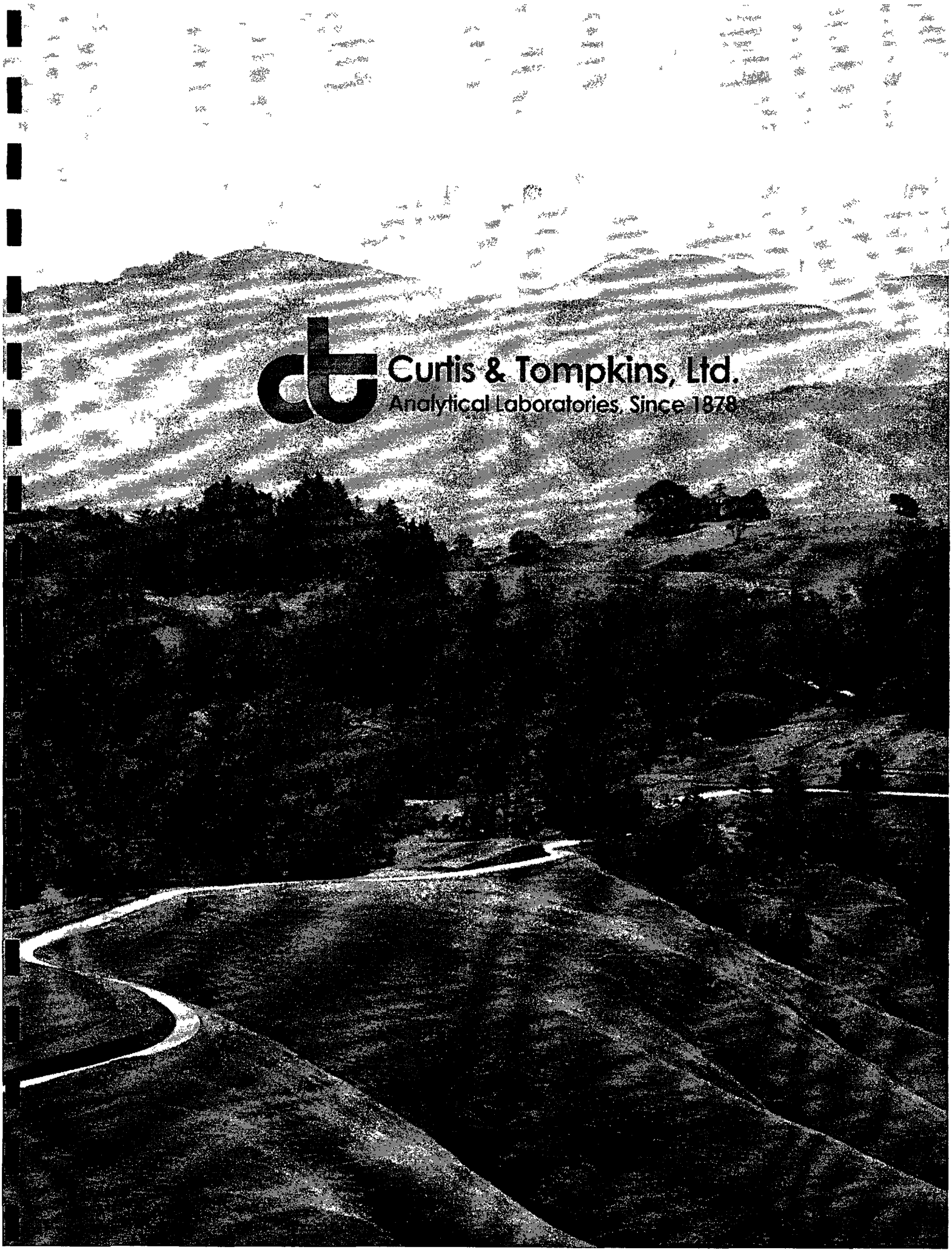
Analytical Results for Concrete Samples from PCB Site Building 386 AL#01

Addendum to Site Characterization and Cleanup Action Summary Report for Polychlorinated Biphenyl Site Building 386 AL#01 Investigation Area C2 Lennar Mare Island Vallejo California

Location of Sample	Sample Identifier	QA/QC Type	Value (mg/Kg)	Flag[a]	Date and Time of Sample	Sample Depths Beginning (feet bgs)	Sample Depths Ending (feet bgs)	Removed?	Type of Sample	Source of Measurement
PCB Compounds										
Analyte	**CAS Number**									
TOTAL PCB CALCULATION	TOTAL PCBS									
B386PIT3CS0915	B386PIT3CS0915 C4	ORIG	0 1		06/10/10 15 05	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0916	B386PIT3CS0916 C4	ORIG	0 069		06/10/10 15 10	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0917	B386PIT3CS0917 C4	ORIG	0 013	J	06/10/10 15 15	4	4 1	N	Chip Sample	Laboratory
B386PIT3CS0918	B386PIT3CS0918 C6	ORIG	0 064	J	06/10/10 15 20	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0919	B386PIT3CS0919 C6	ORIG	0 027		06/10/10 15 25	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0920	B386PIT3CS0920 C6	ORIG	0 022	J	06/10/10 15 30	6	6 1	N	Chip Sample	Laboratory
B386PIT3CS0921	B386PIT3CS0921 C6	ORIG	0 076		06/10/10 15 35	6	6 1	N	Chip Sample	Laboratory
B386PIT3NCS0901	B386PIT3NCS0901 C1	ORIG	0 15		04/09/10 14 35	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0902	B386PIT3NCS0902 C1	ORIG	0 17		04/09/10 14 40	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0903	B386PIT3NCS0903 C1	ORIG	0 036	J	04/09/10 14 45	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0904	B386PIT3NCS0904 C3	ORIG	0 85		04/09/10 14 47	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0905	B386PIT3NCS0905 C3	ORIG	0 15		04/09/10 14 50	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3NCS0906	B386PIT3NCS0906 C3	ORIG	0 027	J	04/09/10 14 52	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0901	B386PIT3SCS0901 C1	ORIG	0 0038	UJ	04/09/10 14 55	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0902	B386PIT3SCS0902 C1	ORIG	0 06	J	04/09/10 14 57	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0903	B386PIT3SCS0903 1	ORIG	0 0034	UJ	04/09/10 14 58	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0904	B386PIT3SCS0904 C3	ORIG	0 15		04/09/10 15 00	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0905	B386PIT3SCS0905 C3	ORIG	3 0		04/09/10 15 02	0 04	0 08	N	Concrete Chip	Laboratory
B386PIT3SCS0906	B386PIT3SCS0906 C3	ORIG	0 0034	UJ	04/09/10 15 05	0 04	0 08	N	Concrete Chip	Laboratory

FLAGS

	Detected Result
J	Estimated Detected Result
U	Nondetect Result
UJ	Estimated Nondetect Result


Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins Ltd Analytical Laboratories Since 1878
2323 Fifth Street Berkeley CA 94710 Phone (510) 486 0900

Laboratory Job Number 219375
ANALYTICAL REPORT

CH2M Hill Constructors Inc	Project	264204 19 H4 04
690 Walnut Ave	Location	PCB Removal Action-B386 AL01
Vallejo CA 94592	Level	III

Sample ID	Lab ID
B386PIT3CS0901-C0 1	219375-001
B386PIT3CS0902-C0 1	219375-002
B386PIT3CS0903-C0 1	219375-003
B386PIT3CS0904-C0 1	219375-004
B386PIT3NCS0901-C1	219375-005
B386PIT3NCS0902-C1	219375-006
B386PIT3NCS0903-C1	219375-007
B386PIT3NCS0903-C1FD	219375-008
B386PIT3NCS0904-C3	219375-009
B386PIT3NCS0905-C3	219375-010
B386PIT3NCS0906-C3	219375-011
B386PIT3SCS0901-C1	219375-012
B386PIT3SCS0901-C1FD	219375-013
B386PIT3SCS0902-C1	219375-014
B386PIT3SCS0903-1	219375-015
B386PIT3SCS0904-C3	219375-016
B386PIT3SCS0905-C3	219375-017
B386PIT3SCS0906-C3	219375-018

This data package has been reviewed for technical correctness and completeness Release of this data has been authorized by the Laboratory Manager or the Manager s designee as verified by the following signature The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis This report may be reproduced only in its entirety

Signature Denise N Tetrault Date 04/16/2010
Project Manager

NELAP # 01107CA

Curtis & Tompkins Ltd

CASE NARRATIVE

Laboratory number	**219375**
Client	**CH2M Hill Constructors Inc**
Project	**264204 19 H4 04**
Location	**PCB Removal Action-B386 AL01**
Request Date	**04/09/10**
Samples Received	**04/09/10**

This data package contains sample and QC results for eighteen concrete samples requested for the above referenced project on 04/09/10 See attached cooler receipt form for any sample receipt problems or discrepancies

PCBs (EPA 8082)

All samples underwent sulfuric acid cleanup using EPA Method 3665A

All samples underwent sulfur cleanup using the copper option in EPA Method 3660B

No analytical problems were encountered

Chain of Custody

219375

Chain of Custody Record

COC Number **CTL 709**

CH2MHILL *4/9/2010 3 28 08 PM* Page 1 of 5

Project Name Mare Island **Location** Mare Island
Task Order **Project** PCB Removal Action B386 AL01
Project Number 264204 19 H4 04
Project Manager Jenny Lindquist
Sample Manager Roger Lucich (510) 206-4177
Turnaround Time 5 Days
PO Number 264204 19 H4 04

	Sample ID	Sample Date/Time	Type	Matrix	# Containers	Preserv	SW8082
1	B386PIT3CS0901-C0 1	09 Apr 10 14 15	N	Soil			
			Field Filtered		1	4 C	✔
			Total Containers			1	
2	B386PIT3CS0902-C0 1	09 Apr 10 14 17	N	Soil			
			Field Filtered		1	4 C	✔
			Total Containers			1	
3	B386PIT3CS0903 C0 1	09-Apr 10 14 21	N	Soil			
			Field Filtered		1	4 C	✔
			Total Containers			1	
4	B386PIT3CS0904-C0 1	09 Apr 10 14 24	N	Soil			
			Field Filtered		1	4 C	✔
			Total Containers			1	

MS = Matrix Spike SD = Matrix Spike Duplicate

	Signatures	Date/Time
Approved by		
Sampled by		
Relinquished by	Roger Lucich	4 9-10/1541
Received by	[illegible]	4/9/10
Relinquished by		
Received by		

Shipping Details
Method of Shipment
On Ice yes / no
Airbill No
Lab Name Curtis & Tompkins Ltd
Lab Phone (510) 486 0925

ATTN
Sample Custody
and
Lisa Brooker

Special Instructions

Report Copy to
Mark Cichy
(530) 229 3274

219375

Chain of Custody Record

COC Number **CTL 709**

CH2MHILL *4/9/2010 3 28 08 PM* Page 2 of 5

Project Name Mare Island **Location** Mare Island
Task Order **Project** PCB Removal Action B386 AL01
Project Number 264204 19 H4 04
Project Manager Jenny Lindquist
Sample Manager Roger Lucich (510) 206-4177
Turnaround Time 5 Days
PO Number 264204 19 H4 04

	Sample ID	Sample Date/Time	Type	Matrix	# Containers	Preserv	SW8082
5	B386PIT3NCS0901 C1	09 Apr 10 14 35	N	Soil			
			Field Filtered		1	4 C	✓
			Total Containers		1		
6	B386PIT3NCS0902 C1	09 Apr 10 14 40	N	Soil			
			Field Filtered		1	4 C	✓
			Total Containers		1		
7	B386PIT3NCS0903 C1	09 Apr 10 14 45	N	Soil			
			Field Filtered		1	4 C	✓
			Total Containers		1		
8	B386PIT3NCS0903-C1FD	09 Apr 10 14 45	N	Soil			
			Field Filtered		1	4 C	✓
			Total Containers		1		

MS = Matrix Spike SD = Matrix Spike Duplicate

	Signatures	Date/Time
Approved by		
Sampled by		
Relinquished by		4 9-10/1545
Received by		4/9/10
Relinquished by		
Received by		

Shipping Details

Method of Shipment
On Ice yes / no
Airbill No
Lab Name Curtis & Tompkins Ltd
Lab Phone (510) 486 0925

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Chain of Custody Record

COC Number CTL 709

CH2MHILL 4/9/2010 3 28 08 PM

Project Name Mare Island **Location** Mare Island
Task Order **Project** PCB Removal Action B386 AL01
Project Number 264204 19 H4 04
Project Manager Jenny Lindquist
Sample Manager Roger Lucich (510) 206-4177
Turnaround Time 5 Days
PO Number 264204 19 H4 04

	Sample ID	Sample Date/Time	Type	Matrix	# Containers	Preserv	SW8082
9	B386PIT3NCS0904-C3	09 Apr 10 14 47	N	Soil			
			Field Filtered		1	4C	✔
			Total Containers			1	
10	B386PIT3NCS0905-C3	09 Apr 10 14 50	N	Soil			
			Field Filtered		1	4C	✔
			Total Containers			1	
11	B386PIT3NCS0906 C3	09 Apr 10 14 52	N	Soil			
			Field Filtered		1	4C	✔
			Total Containers			1	
12	B386PIT3SCS0901-C1	09 Apr 10 14 55	N	Soil			
			Field Filtered		1	4C	✔
			Total Containers			1	

MS = Matrix Spike SD = Matrix Spike Duplicate

	Signatures	Date/Time
Approved by		
Sampled by		
Relinquished by	Roger Dr	4-9-10/1540
Received by	[illegible]	4/9/10
Relinquished by		
Received by		

Shipping Details
Method of Shipment
On Ice yes / no
Airbill No
Lab Name Curtis & Tompkins Ltd
Lab Phone (510) 486 0925

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Chain of Custody Record

COC Number **CTL 709**

CH2MHILL 4/9/2010 3 28 08 PM

Project Name Mare Island **Location** Mare Island
Task Order **Project** PCB Removal Action B386 AL01
Project Number 264204 19 H4 04
Project Manager Jenny Lindquist
Sample Manager Roger Lucich (510) 206-4177
Turnaround Time 5 Days
PO Number 264204 19 H4 04

	Sample ID	Sample Date/Time	Type	Matrix	# Containers	Preserv	SM8082
13	B386PIT3SCS0901-C1FD	09 Apr 10 14 55	N	Soil			
			Field Filtered		1	4C	✓
			Total Containers		1		
12	B386PIT3SCS0901-C1MS	09 Apr 10 14 55	MS	Soil			
			Field Filtered		1	4C	✓
			Total Containers		1		
	B386PIT3SCS0901-C1SD	09 Apr 10 14 55	SD	Soil			
			Field Filtered		1	4C	✓
			Total Containers		1		
14	B386PIT3SCS0902-C1	09 Apr 10 14 57	N	Soil			
			Field Filtered		1	4C	✓
			Total Containers		1		

MS = Matrix Spike SD = Matrix Spike Duplicate

	Signatures	Date/Time
Approved by		
Sampled by		
Relinquished by	[signature]	4-9-10/1545
Received by	[signature]	4/9/10
Relinquished by		
Received by		

Shipping Details
Method of Shipment.
On Ice yes / no
Airbill No
Lab Name Curtis & Tompkins Ltd
Lab Phone (510) 486 0925

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Chain of Custody Record

COC Number CTL 709

CH2MHILL 4/9/2010 3 28 08 PM

Project Name Mare Island Location Mare Island
Task Order Project PCB Removal Action B386 AL01
Project Number 264204 19 H4 04
Project Manager Jenny Lindquist
Sample Manager Roger Lucich (510) 206-4177
Turnaround Time 5 Days
PO Number 264204 19 H4 04

	Sample ID	Sample Date/Time	Type	Matrix	# Containers	Preserv	SM8082
15	B386PIT3SCS0903 1	09 Apr 10 14 58	N	Soil			
			Field Filtered		1	4 C	✓
			Total Containers		1		
16	B386PIT3SCS0904-C3	09 Apr 10 15 00	N	Soil			
			Field Filtered		1	4 C	✓
			Total Containers		1		
17	B386PIT3SCS0905 C3	09 Apr 10 15 02	N	Soil			
			Field Filtered		1	4 C	✓
			Total Containers		1		
18	B386PIT3SCS0906-C3	09 Apr 10 15 05	N	Soil			
			Field Filtered		1	4 C	✓
			Total Containers		1		

MS = Matrix Spike SD = Matrix Spike Duplicate

	Signatures	Date/Time
Approved by		
Sampled by		
Relinquished by	Roger D[illegible]	4 9 10/1543
Received by	[illegible]	4/9/10
Relinquished by		
Received by		

Shipping Details

Method of Shipment
On Ice yes / no
Airbill No
Lab Name Curtis & Tompkins Ltd
Lab Phone (510) 486 0925

ATTN

Sample Custody
and
Lisa Brooker

Special Instructions

Report Copy to
Mark Cichy
(530) 229 3274

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd

Login # 219375 Date Received 4/9/10 Number of coolers 1
Client CCI Project MARE ISLAND

Date Opened 4/9/10 By (print) M VILLANUEVA (sign) [signature]
Date Logged in ↓ By (print) ↓ (sign) ↓

1 Did cooler come with a shipping slip (airbill etc) _____ YES (NO)
Shipping info _____

2A Were custody seals present? ☑ YES (circle) on cooler on samples ☐ NO
How many 1 Name SIGNATURE Date 4/9/10
2B Were custody seals intact upon arrival? _____ YES NO N/A
3 Were custody papers dry and intact when received? _____ YES NO
4 Were custody papers filled out properly (ink, signed, etc)? _____ YES NO
5 Is the project identifiable from custody papers? (If so fill out top of form) ___ YES NO
6 Indicate the packing in cooler (if other describe) _____

☑ Bubble Wrap ☐ Foam blocks ☐ Bags ☐ None
☐ Cloth material ☑ Cardboard ☐ Styrofoam ☐ Paper towels

7 Temperature documentation

Type of ice used ☑ Wet ☐ Blue/Gel ☐ None Temp(°C) 6.0

☐ Samples Received on ice & cold without a temperature blank

☐ Samples received on ice directly from the field Cooling process had begun

8 Were Method 5035 sampling containers present? _____ YES (NO)
If YES what time were they transferred to freezer? _____
9 Did all bottles arrive unbroken/unopened? _____ (YES) NO
10 Are samples in the appropriate containers for indicated tests? _____ (YES) NO
11 Are sample labels present, in good condition and complete? _____ (YES) NO
12 Do the sample labels agree with custody papers? _____ (YES) NO
13 Was sufficient amount of sample sent for tests requested? _____ (YES) NO
14 Are the samples appropriately preserved? _____ YES NO (N/A)
15 Are bubbles > 6mm absent in VOA samples? _____ YES NO (N/A)
16 Was the client contacted concerning this sample delivery? _____ YES NO
If YES, Who was called? _____ By _____ Date _____

COMMENTS

_____
_____
_____
_____
_____
_____
_____
_____

Laboratory Job Number 219375

ANALYTICAL REPORT

PCBs

Matrix Miscell

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	219375	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Units	ug/Kg	Sampled	04/09/10
Basis	as received	Received	04/09/10
Batch#	161986	Prepared	04/14/10

Field ID	B386PIT3CS0901-C0 1	Matrix	Miscell
Type	SAMPLE	Diln Fac	1 000
Lab ID	219375-001	Analyzed	04/15/10

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1 7
Aroclor-1221	ND	24	7 9
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	2 3
Aroclor-1248	ND	12	2 1
Aroclor-1254	ND	12	2 4
Aroclor-1260	ND	12	1 1
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	103	25-143
Decachlorobiphenyl	89	25-143

Field ID	B386PIT3CS0902-C0 1	Matrix	Miscell
Type	SAMPLE	Diln Fac	1 000
Lab ID	219375-002	Analyzed	04/15/10

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1 7
Aroclor-1221	ND	24	7 9
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	2 3
Aroclor-1248	ND	12	2 1
Aroclor-1254	ND	12	2 4
Aroclor-1260	ND	12	1 1
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	75	25-143
Decachlorobiphenyl	49	25-143

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	219375	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Units	ug/Kg	Sampled	04/09/10
Basis	as received	Received	04/09/10
Batch#	161986	Prepared	04/14/10

Field ID	B386PIT3CS0903-C0 1	Matrix	Miscell
Type	SAMPLE	Diln Fac	1 000
Lab ID	219375-003	Analyzed	04/15/10

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1 7
Aroclor-1221	ND	24	7 9
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	2 3
Aroclor-1248	ND	12	2 1
Aroclor-1254	ND	12	2 4
Aroclor-1260	ND	12	1 1
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	87	25-143
Decachlorobiphenyl	65	25-143

Field ID	B386PIT3CS0904-C0 1	Matrix	Miscell
Type	SAMPLE	Diln Fac	1 000
Lab ID	219375-004	Analyzed	04/15/10

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1 7
Aroclor-1221	ND	24	7 9
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	2 3
Aroclor-1248	ND	12	2 1
Aroclor-1254	ND	12	2 4
Aroclor-1260	ND	12	1 1
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	87	25-143
Decachlorobiphenyl	72	25-143

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	219375	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Units	ug/Kg	Sampled	04/09/10
Basis	as received	Received	04/09/10
Batch#	161986	Prepared	04/14/10

Field ID	B386PIT3NCS0901-C1	Matrix	Miscell
Type	SAMPLE	Dilu Fac	1 000
Lab ID	219375-005	Analyzed	04/15/10

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1 7
Aroclor-1221	ND	24	7 9
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	2 3
Aroclor-1248	ND	12	2 1
Aroclor-1254	130	12	3 0
Aroclor-1260	15	12	1 1
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	82	25-143
Decachlorobiphenyl	60	25-143

Field ID	B386PIT3NCS0902-C1	Matrix	Miscell
Type	SAMPLE	Dilu Fac	1 000
Lab ID	219375-006	Analyzed	04/15/10

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1 7
Aroclor-1221	ND	24	7 9
Aroclor-1232	ND	12	3 6
Aroclor-1242	ND	12	2 3
Aroclor-1248	ND	12	2 1
Aroclor-1254	150	12	3 0
Aroclor-1260	19	12	1 1
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	94	25-143
Decachlorobiphenyl	69	25-143

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	219375	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Units	ug/Kg	Sampled	04/09/10
Basis	as received	Received	04/09/10
Batch#	161986	Prepared	04/14/10

Field ID	B386PIT3NCS0903-C1	Matrix	Miscell
Type	SAMPLE	Diln Fac	1 000
Lab ID	219375-007	Analyzed	04/15/10

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1 7
Aroclor-1221	ND	24	7 9
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	2 3
Aroclor-1248	ND	12	2 1
Aroclor-1254	30	12	3 0
Aroclor-1260	3 5 J	12	1 1
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	81	25-143
Decachlorobiphenyl	58	25-143

Field ID	B386PIT3NCS0903-C1FD	Matrix	Miscell
Type	SAMPLE	Diln Fac	1 000
Lab ID	219375-008	Analyzed	04/15/10

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1 7
Aroclor-1221	ND	24	7 9
Aroclor-1232	ND	12	3 6
Aroclor-1242	ND	12	2 2
Aroclor-1248	ND	12	2 1
Aroclor-1254	19	12	3 0
Aroclor-1260	2 6 J	12	1 1
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	76	25-143
Decachlorobiphenyl	58	25-143

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	219375	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Units	ug/Kg	Sampled	04/09/10
Basis	as received	Received	04/09/10
Batch#	161986	Prepared	04/14/10

Field ID	B386PIT3NCS0904-C3	Matrix	Miscell
Type	SAMPLE	Diln Fac	1 000
Lab ID	219375-009	Analyzed	04/15/10

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1 7
Aroclor-1221	ND	24	8 0
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	2 3
Aroclor-1248	ND	12	2 1
Aroclor-1254	770	12	3 0
Aroclor-1260	80	12	1 1
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	77	25-143
Decachlorobiphenyl	61	25-143

Field ID	B386PIT3NCS0905-C3	Matrix	Miscell
Type	SAMPLE	Diln Fac	1 000
Lab ID	219375-010	Analyzed	04/15/10

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1 7
Aroclor-1221	ND	24	7 9
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	2 3
Aroclor-1248	ND	12	2 1
Aroclor-1254	130	12	3 0
Aroclor-1260	13	12	1 1
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	89	25-143
Decachlorobiphenyl	65	25-143

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	219375	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Units	ug/Kg	Sampled	04/09/10
Basis	as received	Received	04/09/10
Batch#	161986	Prepared	04/14/10

Field ID	B386PIT3NCS0906-C3	Matrix	Miscell
Type	SAMPLE	Diln Fac	1 000
Lab ID	219375-011	Analyzed	04/15/10

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1 7
Aroclor-1221	ND	24	7 9
Aroclor-1232	ND	12	3 6
Aroclor-1242	ND	12	2 2
Aroclor-1248	ND	12	2 1
Aroclor-1254	21	12	3 0
Aroclor-1260	3 6 J	12	0 48
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	87	25-143
Decachlorobiphenyl	74	25-143

Field ID	B386PIT3SCS0901-C1	Matrix	Miscell
Type	SAMPLE	Diln Fac	1 000
Lab ID	219375-012	Analyzed	04/15/10

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1 7
Aroclor-1221	ND	24	8 0
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	2 3
Aroclor-1248	ND	12	2 1
Aroclor-1254	ND	12	2 4
Aroclor-1260	ND	12	1 1
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	82	25-143
Decachlorobiphenyl	61	25-143

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	219375	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Units	ug/Kg	Sampled	04/09/10
Basis	as received	Received	04/09/10
Batch#	161986	Prepared	04/14/10

Field ID	B386PIT3SCS0901-C1FD	Matrix	Miscell
Type	SAMPLE	Diln Fac	1 000
Lab ID	219375-013	Analyzed	04/15/10

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1 7
Aroclor-1221	ND	24	7 9
Aroclor-1232	ND	12	3 6
Aroclor-1242	ND	12	2 2
Aroclor-1248	ND	12	2 1
Aroclor-1254	ND	12	2 4
Aroclor-1260	ND	12	0 48
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	78	25-143
Decachlorobiphenyl	58	25-143

Field ID	B386PIT3SCS0902-C1	Matrix	Miscell
Type	SAMPLE	Diln Fac	1 000
Lab ID	219375-014	Analyzed	04/15/10

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1 7
Aroclor-1221	ND	24	7 9
Aroclor-1232	ND	12	3 6
Aroclor-1242	ND	12	2 2
Aroclor-1248	ND	12	2 1
Aroclor-1254	52	12	3 0
Aroclor-1260	6 4 J	12	1 1
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	96	25-143
Decachlorobiphenyl	81	25-143

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	219375	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Units	ug/Kg	Sampled	04/09/10
Basis	as received	Received	04/09/10
Batch#	161986	Prepared	04/14/10

Field ID	B386PIT3SCS0903-1	Matrix	Miscell
Type	SAMPLE	Diln Fac	1 000
Lab ID	219375-015	Analyzed	04/15/10

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1 7
Aroclor-1221	ND	24	7 9
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	2 3
Aroclor-1248	ND	12	2 1
Aroclor-1254	ND	12	2 4
Aroclor-1260	ND	12	0 49
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	90	25-143
Decachlorobiphenyl	64	25-143

Field ID	B386PIT3SCS0904-C3	Matrix	Miscell
Type	SAMPLE	Diln Fac	1 000
Lab ID	219375-016	Analyzed	04/15/10

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1 7
Aroclor-1221	ND	24	7 9
Aroclor-1232	ND	12	3 6
Aroclor-1242	ND	12	2 2
Aroclor-1248	ND	12	2 1
Aroclor-1254	140	12	3 0
Aroclor-1260	13	12	1 1
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	82	25-143
Decachlorobiphenyl	58	25-143

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	219375	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Units	ug/Kg	Sampled	04/09/10
Basis	as received	Received	04/09/10
Batch#	161986	Prepared	04/14/10

Field ID	B386PIT3SCS0905-C3	Matrix	Miscell
Type	SAMPLE	Diln Fac	5 000
Lab ID	219375-017	Analyzed	04/16/10

Analyte	Result	RL	MDL
Aroclor-1016	ND	41	8 7
Aroclor-1221	ND	83	40
Aroclor-1232	ND	41	18
Aroclor-1242	ND	41	11
Aroclor-1248	ND	41	10
Aroclor-1254	2 700	41	15
Aroclor-1260	260	41	2 4
Aroclor-1262	ND	41	
Aroclor-1268	ND	41	

Surrogate	%REC	Limits
TCMX	116	25-143
Decachlorobiphenyl	110	25-143

Field ID	B386PIT3SCS0906-C3	Matrix	Miscell
Type	SAMPLE	Diln Fac	1 000
Lab ID	219375-018	Analyzed	04/15/10

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1 7
Aroclor-1221	ND	24	7 9
Aroclor-1232	ND	12	3 6
Aroclor-1242	ND	12	2 3
Aroclor-1248	ND	12	2 1
Aroclor-1254	ND	12	2 4
Aroclor-1260	ND	12	0 48
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	105	25-143
Decachlorobiphenyl	89	25-143

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	219375	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Units	ug/Kg	Sampled	04/09/10
Basis	as received	Received	04/09/10
Batch#	161986	Prepared	04/14/10

Type	BLANK	Diln Fac	1 000
Lab ID	QC540354	Analyzed	04/15/10
Matrix	Soil		

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1 7
Aroclor-1221	ND	24	7 9
Aroclor-1232	ND	12	3 6
Aroclor-1242	ND	12	2 2
Aroclor-1248	ND	12	2 1
Aroclor-1254	ND	12	2 4
Aroclor-1260	ND	12	1 1
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	108	25-143
Decachlorobiphenyl	87	25-143

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #	219375	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Type	LCS	Diln Fac	1 000
Lab ID	QC540355	Batch#	161986
Matrix	Soil	Prepared	04/14/10
Units	ug/Kg	Analyzed	04/15/10

Analyte	Spiked	Result	%REC	Limits
Aroclor-1016	165 4	172 6	104	44-127
Aroclor-1260	165 4	191 4	116	31-136

Surrogate	%REC	Limits
TCMX	110	25-143
Decachlorobiphenyl	95	25-143

Curtis & Tompkins Ltd

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #	219375	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Field ID	B386PIT3SCS0901-C1	Batch#	161986
MSS Lab ID	219375-012	Sampled	04/09/10
Matrix	Miscell	Received	04/09/10
Units	ug/Kg	Prepared	04/14/10
Basis	as received	Analyzed	04/15/10
Diln Fac	1 000		

Type MS Lab ID QC540356

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1016	<1 744	166 4	106 5	64	44-127
Aroclor-1260	<1 126	166 4	155 6	93	31-136

Surrogate	%REC	Limits
TCMX	98	25-143
Decachlorobiphenyl	85	25-143

Type MSD Lab ID QC540357

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1016	165 5	97 21	59	44-127	9	50
Aroclor-1260	165 5	141 1	85	31-136	9	50

Surrogate	%REC	Limits
TCMX	92	25-143
Decachlorobiphenyl	78	25-143

RPD= Relative Percent Difference

Confirmation Report for 219375 PCBS Miscell
Curtis & Tompkins Laboratories

Units ug/Kg

L b ID	Cl e t ID	A lyt	R lt	C f mat o	RPD	%D
219375 005	B386PIT3NCS0901 C1	A 1 1254	131 1	87 51	40	33
219375 005	B386PIT3NCS0901 C1	A 1 1260	14 52	9 853	38	32
219375 006	B386PIT3NCS0902 C1	A 1 1254	153 7	131 6	15	14
219375 006	B386PIT3NCS0902 C1	A 1 1260	18 74	13 72	31	27
219375 007	B386PIT3NCS0903 C1	A 1 1254	29 66	22 45	28	24
219375 008	B386PIT3NCS0903 C1FD	A 1 12 4	19 30	15 84	20	18
219375 009	B386PIT3NCS0904 C3	A 1 1254	774 7	565 5	31	27
219375 009	B386PIT3NCS0904 C3	A 1 1260	80 05	60 90	27	24
219375 010	B386PIT3NCS0905 C3	A o 1 1254	126 9	97 02	27	24
219375 010	B386PIT3NCS0905 C3	A cl 1260	12 76	9 702	27	24
219375 011	B386PIT3NCS0906 C3	A lo 1254	20 62	19 14	7	7
219375 014	B386PIT3SCS0902 C1	A 1 1254	52 37	44 24	17	16
219375 016	B386PIT3SCS0904 C3	A 1 1254	135 6	99 47	31	27
219375 017	B386PIT3SCS0905 C3	A 1 1254	2737	2158	24	21
219375 017	B386PIT3SCS0905 C3	A 1 1260	257 0	295 5	14	15

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 219375 PCBS Miscell EPA 8082

Inst GC22
Calnum 250137640001
Units pg/uL

Name ar1254_095-5pt
Date 06-APR-2010 09 49
X Axis R

L l	F l	q m	S mpl ID	A ly d	Std
L1	095_036	250137640036	AR2154_100	06 APR 2010 09 49	S14194
L2	095_037	250137640037	AR2154_250	06 APR 2010 10 15	S14195
L3	095_038	250137640038	AR2154_500	06 APR 2010 10 41	S14196
L4	095_039	250137640039	AR2154_1000	06 APR 2010 11 07	S14197
L5	095_041	250137640041	AR2154_10	06 APR 2010 12 07	S14193

A lyt	Ch	L1	L2	L3	L4	L5	Typ	0	1	2	A g	%RSD	M R 2	M RSD	Flg
A 1 1254 P k # 1	A	52 060	45 220	39 242	36 453	58 700	AVRG		0 0 158		46 335	20	99	20	
A 1 1254 P k # 2	A	70 160	60 176	52 548	49 311	79 100	AVRC		0 01606		62 259	20	99	20	
A 1 1254 P k # 3	A	60 950	52 700	46 102	43 74	64 600	AVRG		0 01866		53 585	17	99	20	
A 1 1254 P k # 4	A	99 30	85 584	75 586	70 897	110 20	AVRG		0 01133		88 299	19	99	20	
A 1 1254 P k # 5	A	80 880	68 680	60 554	57 979	64 200	AVRG		0 01419		70 459	17	99	20	
A 1 1254 P k # 1	B	17 930	19 348	17 768	15 981	17 800	AVRG		0 056 9		17 765	7	99	20	
A 1 1254 P k # 2	B	23 530	25 100	23 278	20 581	24 800	AVRC		0 04263		23 458	8	99	20	
A 1 r 1254 P k # 3	B	16 280	18 088	16 998	15 504	16 600	AVRG		0 0 990		16 694	6	99	20	
A 1 1254 P k # 4	B	30 990	33 63	31 136	27 896	31 900	AVRG		0 03214		31 111	7	99	20	
A 1 1254 P k # 5	B	31 490	34 700	32 778	29 191	30 200	AVRG		0 03157		31 672	7	99	20	

Sp k d Am t / D ft	Ch	L1	%D	L2	%D	L3	%D	L4	%D	L5	D
A 1 1254 P k # 1	A	100 0	12	250 0	2	500 0	15	1000	**21**	10 00	**27**
A 1 1254 P k # 2	A	100 0	13	2 0 0	3	500 0	16	1000	**21**	10 00	**27**
A 1 1254 P k # 3	A	100 0	14	250 0	2	500 0	14	1000	19	10 00	**21**
A 1 1254 P k # 4	A	100 0	12	250 0		500 0	14	1000	20	10 00	**25**
A 1 1254 P k # 5	A	100 0	15	250 0	3	500 0	14	1000	18	10 00	20
A 1 1254 P k # 1	B	100 0	1	250 0	9	500 0	0	1000	10	10 00	0
A 1 1254 P k # 2	B	100 0	0	2 0 0	7	500 0	1	1000	12	10 00	6
A 1 1254 P k # 3	B	100 0		250 0	8	500 0	2	1000	7	10 00	1
A 1 1254 P k # 4	B	100 0	0	250 0	8	500 0	0	1000	10	10 00	3
A 1 1254 P k # 5	B	100 0	1	250 0	10	500 0	3	1000	8	10 00	5

KMH 04/06/10 corrected automatically drawn baselines

KMH 04/06/10 re-ran level 1 to improve rsd

Analyst KMH Date 04/06/10 Reviewer EAH Date 04/06/10

I t m t m t 0 p 1 p 2 2 AVRC A g p f t

CURTIS & TOMPKINS 2ND SOURCE CALIBRATION SUMMARY FOR 219375 PCBS Miscell
EPA 8082

Inst GC22 Name ar1254_095-5pt
Calnum 250137640001 Cal Date 06-APR-2010

ICV 250137640043 (095_043 06-APR-2010) stds S13261

Analyte	Ch	Spiked	Quant	Units	%D	Max	Flags
Aroclor-1254	A	250 0	221 4	pg/uL	-11	15	
Aroclor-1254	B	250 0	232 5	pg/uL	-7	15	

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 219375 PCBS Miscell EPA 8082

Inst GC22
Calnum 250149469001
Units pg/uL

Name 1660_103
Date 13-APR-2010 23 58
X Axis R

L l	F l	S q m	S mpl ID	A ly d	td
L1	103_012	2 0149469012	PCB10_2	13 APR 2010 3 8	S139 8
L2	103_014	250149469014	PCB100_20	14 APR 2010 00 50	S13960
L	103_015	250149469015	P B250_50	14 APR 2010 01 16	13961
L4	103_016	250149469016	PCB500_100	14 APR 2010 01 43	S13962
L5	103_017	250149469017	PCB750_150	14 APR 2010 02 09	S13963
L6	103_018	250149469018	PCB1000_200	14 APR 2010 02 35	S13964
L7	103_032	250149469032	PCB25_5	14 APR 2010 11 28	S13959

A lyt	Ch	L1	L2	L3	L4	L5	L6	L7	Type	a0	1	2	Avg	%RSD	M R 2	M RSD	Flg
A 1 1016 P k # 1	A	20 800	23 440	20 872	19 498	17 481	17 777	24 240	AVRG		0 048 7		20 587	13	99	20	
A 1 1016 P k # 2	A	56 700	69 710	60 928	53 396	49 329	52 093	72 960	AVRG		0 01686		59 302	15	99	20	
A 1 1016 P k # 3	A	28 100	39 930	35 736	31 530	26 916	30 376	40 840	AVRG		0 02999		33 347	17	99	20	
A 1 1016 P k # 4	A	14 600	20 940	18 532	15 988	14 491	16 517	22 280	AVRG		0 05675		17 621	17	99	20	
A 1 1016 P k # 5	A	26 100	33 540	30 832	26 430	23 099	25 896	34 480	AVRG		0 03493		28 625	15	99	20	
A 1 1260 P k # 1	A	66 400	91 950	83 136	66 942	60 708	68 079	90 440	AVRG		0 01327		75 379	17	99	20	
A 1 1260 P k # 2	A	51 600	69 040	63 736	51 758	47 155	52 30	67 360	AVRG		0 01737		57 564	15	99	20	
A 1 1260 P k # 3	A	0 400	66 830	61 352	49 676	45 307	49 913	64 800	AVRG		0 01803		55 468	16	99	20	
A 1 1260 P k # 4	A	127 40	162 83	153 34	1 3 40	111 35	120 75	153 68	AVRG		0 00735		136 11	15	99	20	
A 1 1260 P k # 5	A	57 000	80 650	76 108	60 568	54 931	61 552	74 240	AVRG		0 01505		66 436	15	99	20	
TCMX	A	1233 0	1376 6	1217 6	1078 0	947 32	917 96	142 0	AVRG		8 4E 4		1170 8	17	99	20	
D hl b ph yl	A	998 00	1293 0	1228 7	990 50	879 49	989 93	1240 0	AVRG		9 19E 4		1088	15	99	20	
A 1 1016 P k # 1	B	8 0000	9 1600	5600	8 7400	8 6387	8 6940	8 5600	AVRG		0 11598		8 6218	4	99	20	
A 1 1016 P k # 2	B	25 300	27 500	25 616	25 622	24 085	25 805	32 520	AVRG		0 03754		26 635	10	99	20	
A 1 1016 P k # 3	B	9 2000	11 760	10 868	11 100	10 620	11 115	11 800	AVRC		0 09155		10 923	8	99	20	
A 1 1016 P k # 4	B	4 1000	5 4900	1360	5 2480	4 8400	3720	5 7 00	AVRC		0 19495		5 1294	10	99	20	
A 1 1016 P k # 5	B	7 3000	7 800	6 7 80	6 6120	6 2013	6 8200	7 1200	AVRG		0 14 6		6 8659	6	99	20	
A 1 1260 P k # 1	B	29 500	36 080	31 188	30 474	29 276	31 667	46 840	AVRG		0 02978		33 575	19	99	20	
A 1 1260 P k # 2	B	26 800	30 040	25 904	25 254	24 348	25 910	33 320	AVRG		0 036 4		27 368	12	99	20	
A 1 1260 P k # 3	B	19 900	23 270	19 920	19 604	19 039	20 384	25 880	AVRG		0 04730		21 142	12	99	20	
A 1 1 60 P k # 4	B	53 600	60 160	49 7 2	49 370	46 715	1 037	74 080	AVRC		0 01820		54 959	17	99	20	
A 1 1260 P k # 5	B	21 800	2 20	21 164	1 776	20 48	23 076	4 160	AVRG		0 04429		2 78	8	99	20	
TCMX	B	392 50	418 80	384 88	372 77	351 55	344 22	460 80	AVRG		0 00257		389 6	10	99	20	
D hl b ph yl	B	414 00	416 25	322 66	349 82	99 01	349 01	499 60	AVRG		0 00264		378 62	18	99	20	

Sp k d Am t / Dr ft	Ch	L1	%D	L2	D	L3	D	L4	D	L5	%D	L6	D	L7	%D
A 1 1016 P k # 1	A	10 00	1	100 0	14	250 0	1	500 0	5	750 0	15	1000	14	25 00	18
A 1 1016 P k # 2	A	10 00	4	100 0	18	250 0	3	500 0	10	7 0 0	17	1000	12	25 00	**23**
A 1 1016 P k # 3	A	10 00	16	100 0	20	250 0	7	500 0	5	750 0	19	1000	9	25 00	**22**
A 1 1016 P k # 4	A	10 00	17	100 0	19	250 0	5	500 0	9	750 0	18	1000	6	25 00	**26**
A 1 1016 P k # 5	A	10 00	9	100 0	17	250 0	8	500 0	8	750 0	19	1000	10	25 00	20
A 1 1260 P k # 1	A	10 00	12	100 0	**22**	250 0	10	500 0	11	750 0	19	1000	10	25 00	20
A 1 1260 P k # 2	A	10 00	10	100 0	20	2 0 0	11	00 0	10	7 0 0	18	1000	9	25 00	17
A 1 1260 P k # 3	A	10 00	9	100 0	20	250 0	11	500 0	10	750 0	18	1000	10	25 00	17
A 1 1260 P k # 4	A	10 00	6	100 0	20	250 0	13	500 0	9	750 0	18	1000	11	25 00	13
A 1 1260 P k # 5	A	10 00	14	100 0	**21**	250 0	15	500 0	9	750 0	17	1000	7	25 00	12
TCMX	A	2 000	5	20 00	18	50 00	4	100 0	8	150 0	19	200 0	**22**	5 000	**22**
D hl b ph yl	A	2 000	8	20 00	19	50 00	13	100 0	9	150 0	19	200 0	9	5 000	14
A 1 1016 P k # 1	B	10 00	7	100 0	6	250 0	1	500 0	1	750 0	0	1000	1	25 00	1
A 1 1016 P k # 2	B	10 00	5	100 0	3	250 0	4	500 0	4	750 0	10	1000	3	25 00	**22**
A 1 1016 P k # 3	B	10 00	16	100 0	8	250 0	1	500 0	2	750 0	3	1000	2	25 00	8
A 1 1016 P k # 4	B	10 00	20	100 0	7	250 0	0	500 0	2	750 0	6	1000	5	25 00	12
A 1 1016 P k # 5	B	10 00	6	100 0	6	2 0 0	2	500 0	4	750 0	10	1000	1	25 00	4
A 1 1260 P ak # 1	B	10 00	12	100 0	7	250 0	7	500 0	9	750 0	13	1000	6	25 00	**40**
A 1 1260 P k # 2	B	10 00	2	100 0	10	250 0	5	500 0	8	750 0	11	1000	5	25 00	**22**
A 1 1260 P k # 3	B	10 00	6	100 0	10	250 0	6	500 0	7	750 0	10	1000	4	25 00	**22**
A 1 1260 P k # 4	B	10 00	2	100 0	9	250 0	9	500 0	10	750 0	15	1000	7	25 00	**35**
A 1 1260 P k # 5	B	10 00	3	100 0	13	250 0	6	500 0	4	750 0	9	1000	2	25 00	7
TCMX	B	2 000	1	20 00	8	50 00	1	100 0	4	150 0	10	200 0	12	5 000	18
D hl b ph yl	B	2 000	9	20 00	10	50 00	15	100 0	8	150 0	**21**	200 0	8	5 000	**32**

KMH 04/14/10 corrected automatically drawn baselines

KMH 04/14/10 re-ran level 2 to improve -D

Analyst KMH Date 04/14/10 Reviewer EAH Date 04/14/10

I t m t m t - 0 p 1 p 2 AVRC A g p fact

CURTIS & TOMPKINS 2ND SOURCE CALIBRATION SUMMARY FOR 219375 PCBS Miscell
EPA 8082

Inst GC22 Name 1660_103
Calnum 250149469001 Cal Date 13-APR-2010

ICV 250149469021 (103_021 14-APR-2010) stds S14374

Analyte	Ch	Spiked	Quant	Units	%D	Max	Flags
Aroclor-1016	A	250 0	244 3	pg/uL	-2	15	
Aroclor-1260	A	250 0	229 1	pg/uL	-8	15	
Aroclor-1016	B	250 0	286 5	pg/uL	15	15	
Aroclor-1260	B	250 0	285 3	pg/uL	14	15	

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219375 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	PCB250_50	IDF	1 0
Seqnum	250151596002	File	105_002	Time	15-APR-2010 07 02
Cal	250149469001	Caldate	13-APR-2010		
Standards	S13961				

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1016	A			250 0	242 2	pg/uL	-3	15	
Aroclor-1260	A			250 0	226 8	pg/uL	-9	15	
TCMX	A	1170 8	1158 1	50 00	49 46	pg/uL	-1	15	
Decachlorobiphenyl	A	1088 5	966 74	50 00	44 41	pg/uL	-11	15	
Aroclor-1016	B			250 0	285 0	pg/uL	14	15	
Aroclor-1260	B			250 0	281 8	pg/uL	13	15	
TCMX	B	389 36	419 50	50 00	53 87	pg/uL	8	15	
Decachlorobiphenyl	B	378 62	423 64	50 00	55 95	pg/uL	12	15	

KMH 04/15/10 Corrected automatically drawn baseline

Analyst KMH Date 04/15/10 Reviewer EAH Date 04/15/10

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219375 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	PCB500_100	IDF	1 0
Seqnum	250151596011	File	105_011	Time	15-APR-2010 13 36
Cal	250149469001	Caldate	13-APR-2010		
Standards	S13962				

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1016	A			500 0	448 9	pg/uL	-10	15	
Aroclor-1260	A			500 0	418 0	pg/uL	**-16**	15	c- ***
TCMX	A	1170 8	1109 0	100 0	94 73	pg/uL	-5	15	
Decachlorobiphenyl	A	1088 5	923 97	100 0	84 88	pg/uL	-15	15	
Aroclor-1016	B			500 0	596 0	pg/uL	**19**	15	c+ ***
Aroclor-1260	B			500 0	568 2	pg/uL	14	15	
TCMX	B	389 36	429 16	100 0	110 2	pg/uL	10	15	
Decachlorobiphenyl	B	378 62	418 11	100 0	110 4	pg/uL	10	15	

KMH 04/15/10 Corrected automatically drawn baseline

Analyst KMH Date 04/15/10 Reviewer EAH Date 04/15/10

h gh b l w b CCV

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219375 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	AR2154	IDF	1 0
Seqnum	250151596012	File	105_012	Time	15-APR-2010 14 06
Cal	250137640001	Caldate	06-APR-2010		
Standards	S14195				

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1254	A	250 0	194 8	pg/uL	**-22**	15	c- ***
Aroclor-1254	B	250 0	244 4	pg/uL	-2	15	

Analyst KMH Date 04/15/10 Reviewer PRW Date 04/16/10

l w b CCV

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219375 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	PCB250_50	IDF	1 0
Seqnum	250151596024	File	105_024	Time	15-APR-2010 19 21
Cal	250149469001	Caldate	13-APR-2010		
Standards	S13961				

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1016	A			250 0	254 1	pg/uL	2	15	
Aroclor-1260	A			250 0	249 7	pg/uL	0	15	
TCMX	A	1170 8	1242 0	50 00	53 04	pg/uL	6	15	
Decachlorobiphenyl	A	1088 5	1116 3	50 00	51 28	pg/uL	3	15	
Aroclor-1016	B			250 0	270 2	pg/uL	8	15	
Aroclor-1260	B			250 0	279 4	pg/uL	12	15	
TCMX	B	389 36	422 02	50 00	54 19	pg/uL	8	15	
Decachlorobiphenyl	B	378 62	439 98	50 00	58 10	pg/uL	**16**	15	c+

KMH 04/16/10 Corrected automatically drawn baseline

Analyst KMH Date 04/16/10 Reviewer PRW Date 04/16/10

h gh b CCV

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219375 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	AR2154	IDF	1 0
Seqnum	250151596025	File	105_025	Time	15-APR-2010 19 48
Cal	250137640001	Caldate	06-APR-2010		
Standards	S14195				

Analyte	Ch	Spiked	Quant	Units	-D	Max -D	Flags
Aroclor-1254	A	250 0	196 8	pg/uL	**-21**	15	c- ***
Aroclor-1254	B	250 0	235 0	pg/uL	-6	15	

KMH 04/16/10 Corrected automatically drawn baseline

Analyst KMH Date 04/16/10 Reviewer PRW Date 04/16/10

1 w b CCV

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219375 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	PCB500_100	IDF	1 0
Seqnum	250151596037	File	105_037	Time	16-APR-2010 01 03
Cal	250149469001	Caldate	13-APR-2010		
Standards	S13962				

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1016	A			500 0	457 8	pg/uL	-8	15	
Aroclor-1260	A			500 0	477 9	pg/uL	-4	15	
TCMX	A	1170 8	1084 0	100 0	92 59	pg/uL	-7	15	
Decachlorobiphenyl	A	1088 5	990 03	100 0	90 95	pg/uL	-9	15	
Aroclor-1016	B			500 0	545 8	pg/uL	9	15	
Aroclor-1260	B			500 0	558 8	pg/uL	12	15	
TCMX	B	389 36	393 91	100 0	101 2	pg/uL	1	15	
Decachlorobiphenyl	B	378 62	404 93	100 0	106 9	pg/uL	7	15	

Analyst KMH Date 04/16/10 Reviewer PRW Date 04/16/10

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219375 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	AR2154	IDF	1 0
Seqnum	250151596039	File	105_039	Time	16-APR-2010 01 56
Cal	250137640001	Caldate	06-APR-2010		
Standards	S14195				

Analyte	Ch	Spiked	Quant	Units	-D	Max -D	Flags
Aroclor-1254	A	250 0	236 1	pg/uL	-6	15	
Aroclor-1254	B	250 0	251 8	pg/uL	1	15	

Analyst KMH Date 04/16/10 Reviewer PRW Date 04/16/10

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219375 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	PCB250_50	IDF	1 0
Seqnum	250151596050	File	105_050	Time	16-APR-2010 11 22
Cal	250149469001	Caldate	13-APR-2010		
Standards	S13961				

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1016	A			250 0	255 2	pg/uL	2	15	
Aroclor-1260	A			250 0	250 4	pg/uL	0	15	
TCMX	A	1170 8	1220 1	50 00	52 11	pg/uL	4	15	
Decachlorobiphenyl	A	1088 5	1077 9	50 00	49 51	pg/uL	-1	15	
Aroclor-1016	B			250 0	293 0	pg/uL	**17**	15	c+ ***
Aroclor-1260	B			250 0	303 6	pg/uL	**21**	15	c+ ***
TCMX	B	389 36	417 06	50 00	53 56	pg/uL	7	15	
Decachlorobiphenyl	B	378 62	468 02	50 00	61 81	pg/uL	**24**	15	c+

KMH 04/16/10 Corrected automatically drawn baseline

Analyst KMH Date 04/16/10 Reviewer PRW Date 04/16/10

h gh b CCV

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219375 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	AR2154	IDF	1 0
Seqnum	250151596051	File	105_051	Time	16-APR-2010 11 52
Cal	250137640001	Caldate	06-APR-2010		
Standards	S14195				

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1254	A	250 0	205 5	pg/uL	**-18**	15	c- ***
Aroclor-1254	B	250 0	250 2	pg/uL	0	15	

Analyst KMH Date 04/16/10 Reviewer PRW Date 04/16/10

low b CCV

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219375 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	PCB500_100	IDF	1 0
Seqnum	250151596055	File	105_055	Time	16-APR-2010 13 39
Cal	250149469001	Caldate	13-APR-2010		
Standards	S13962				

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1016	A			500 0	500 4	pg/uL	0	15	
Aroclor-1260	A			500 0	498 1	pg/uL	0	15	
TCMX	A	1170 8	1182 4	100 0	101 0	pg/uL	1	15	
Decachlorobiphenyl	A	1088 5	1185 2	100 0	108 9	pg/uL	9	15	
Aroclor-1016	B			500 0	592 1	pg/uL	**18**	15	c+ ***
Aroclor-1260	B			500 0	610 9	pg/uL	**22**	15	c+ ***
TCMX	B	389 36	417 41	100 0	107 2	pg/uL	7	15	
Decachlorobiphenyl	B	378 62	450 84	100 0	119 1	pg/uL	**19**	15	c+

KMH 04/16/10 Corrected automatically drawn baseline

Analyst KMH Date 04/16/10 Reviewer PRW Date 04/16/10

h gh b CCV

Pg 1 f 1 2501 1596055

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219375 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	AR2154	IDF	1 0
Seqnum	250151596056	File	105_056	Time	16-APR-2010 14 06
Cal	250137640001	Caldate	06-APR-2010		
Standards	S14195				

Analyte	Ch	Spiked	Quant	Units	-D	Max -D	Flags
Aroclor-1254	A	250 0	210 4	pg/uL	**-16**	15	c- ***
Aroclor-1254	B	250 0	246 5	pg/uL	-1	15	

Analyst KMH Date 04/16/10 Reviewer PRW Date 04/16/10

l w b CCV

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 250137640

Instrument GC22 Begun 04/05/10 14 00
Method EPA 8082 SOP Version pcb_rv 7

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used
001	095_001	X	HEX			04/05/10 14 00	1 0	
002	095_002	CCV	PCB250_50			04/05/10 14 27	1 0	1
003	095_003	CCV	AR2154			04/05/10 16 35	1 0	2
004	095_004	CCV	AR1248			04/05/10 17 01	1 0	3
005	095_005	SAMPLE	218999-029	Miscell	161318	04/05/10 20 10	1 0	
006	095_006	SAMPLE	218999-033	Miscell	161318	04/05/10 20 37	1 0	
007	095_007	SAMPLE	218999-001	Miscell	161416	04/05/10 21 03	1 0	
008	095_008	SAMPLE	218999-002	Miscell	161416	04/05/10 21 30	1 0	
009	095_009	SAMPLE	218999-003	Miscell	161416	04/05/10 21 56	1 0	
010	095_010	SAMPLE	218999-004	Miscell	161416	04/05/10 22 22	1 0	
011	095_011	SAMPLE	218999-005	Miscell	161416	04/05/10 22 49	1 0	
012	095_012	SAMPLE	218999-006	Miscell	161416	04/05/10 23 15	1 0	
013	095_013	SAMPLE	218999-007	Miscell	161416	04/05/10 23 41	1 0	
014	095_014	SAMPLE	218999-008	Miscell	161416	04/06/10 00 08	2 0	2 PCB1016#4=1100
015	095_015	CCV	PCB500_100			04/06/10 00 34	1 0	4
016	095_016	CCV	PCB500_100			04/06/10 01 00	1 0	4
017	095_017	CCV	AR2154			04/06/10 01 27	1 0	2
018	095_018	CCV	AR1248			04/06/10 01 53	1 0	3
019	095_019	SAMPLE	218999-013	Miscell	161416	04/06/10 02 20	5 0	
020	095_020	SAMPLE	218999-017	Miscell	161416	04/06/10 02 46	200 0	6 PCB1260#1=1300
021	095_021	BLANK	QC538677	Oil	161559	04/06/10 03 13	1 0	
022	095_022	BS	QC538678	Oil	161559	04/06/10 03 39	1 0	
023	095_023	BSD	QC538679	Oil	161559	04/06/10 04 05	1 0	
024	095_024	SAMPLE	219050-001	Oil	161559	04/06/10 04 32	1 0	
025	095_025	SAMPLE	219118-001	Oil	161559	04/06/10 04 58	1 0	
026	095_026	SAMPLE	219118-002	Oil	161559	04/06/10 05 25	1 0	
027	095_027	SAMPLE	219118-003	Oil	161559	04/06/10 05 51	1 0	
028	095_028	SAMPLE	219118-004	Oil	161559	04/06/10 06 17	1 0	
029	095_029	CCV	PCB250_50			04/06/10 06 44	1 0	1
030	095_030	CCV	PCB250_50			04/06/10 07 10	1 0	1
031	095_031	CCV	AR2154			04/06/10 07 36	1 0	2
032	095_032	CCV	AR1248			04/06/10 08 03	1 0	3
033	095_033	X	HEX			04/06/10 08 29	1 0	
034	095_034	IB	CAL			04/06/10 08 56	1 0	
035	095_035	ICAL	AR2154_10			04/06/10 09 22	1 0	5
036	095_036	ICAL	AR2154_100			04/06/10 09 49	1 0	6
037	095_037	ICAL	AR2154_250			04/06/10 10 15	1 0	2
038	095_038	ICAL	AR2154_500			04/06/10 10 41	1 0	7
039	095_039	ICAL	AR2154_1000			04/06/10 11 07	1 0	8
040	095_040	X	HEX			04/06/10 11 41	1 0	
041	095_041	ICAL	AR2154_10			04/06/10 12 07	1 0	5
042	095_042	X	HEX			04/06/10 12 34	1 0	
043	095_043	ICV	AR2154			04/06/10 13 00	1 0	9
044	095_044	CCV	PCB500_100			04/06/10 13 28	1 0	4
045	095_045	SAMPLE	219239-004	Miscell	161668	04/06/10 13 54	1 0	
046	095_046	CCV	PCB250_50			04/06/10 14 21	1 0	1
047	095_047	CCV	AR2154			04/06/10 14 47	1 0	2

KMH 04/06/10 I verified that the vials loaded on the instrument matched the sequence data entry for runs 1 through 47

St d d d 1 S13961 2 S14195 3 S13877 4 S13962 5 S14193 6 S14194 7 S14196 8 S14197 9 S13261

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CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 250149469

Instrument GC22 Begun 04/13/10 19 09
Method EPA 8082 SOP Version pcb_rv 7

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used
001	103_001	X	PRIMER			04/13/10 19 09	1 0	
002	103_002	X	PRIMER			04/13/10 19 35	1 0	
003	103_003	X	PRIMER			04/13/10 20 02	1 0	
004	103_004	X	PRIMER			04/13/10 20 28	1 0	
005	103_005	X	PRIMER			04/13/10 20 54	1 0	
006	103_006	X	PRIMER			04/13/10 21 20	1 0	
007	103_007	X	PRIMER			04/13/10 21 47	1 0	
008	103_008	X	HEX			04/13/10 22 13	1 0	
009	103_009	X	HEX			04/13/10 22 39	1 0	
010	103_010	X	HEX			04/13/10 23 05	1 0	
011	103_011	IB	CAL			04/13/10 23 32	1 0	
012	103_012	ICAL	PCB10_2			04/13/10 23 58	1 0	1
013	103_013	ICAL	PCB25_5			04/14/10 00 24	1 0	2
014	103_014	ICAL	PCB100_20			04/14/10 00 50	1 0	3
015	103_015	ICAL	PCB250_50			04/14/10 01 16	1 0	4
016	103_016	ICAL	PCB500_100			04/14/10 01 43	1 0	5
017	103_017	ICAL	PCB750_150			04/14/10 02 09	1 0	6
018	103_018	ICAL	PCB1000_200			04/14/10 02 35	1 0	7
019	103_019	X	HEX			04/14/10 03 02	1 0	
020	103_020	X	ULTRA_1660			04/14/10 03 28	1 0	8
021	103_021	ICV	ULTRA_1660			04/14/10 03 55	1 0	8
022	103_022	X	HEX			04/14/10 04 21	1 0	
023	103_023	ICAL	AR1016			04/14/10 04 47	1 0	9
024	103_024	ICAL	AR1232			04/14/10 05 13	1 0	10
025	103_025	ICAL	AR1242			04/14/10 05 40	1 0	11
026	103_026	ICAL	AR1248			04/14/10 06 06	1 0	12
027	103_027	ICAL	AR2154			04/14/10 06 32	1 0	13
028	103_028	ICAL	AR1262			04/14/10 06 59	1 0	14
029	103_029	ICAL	AR1268			04/14/10 07 25	1 0	15
030	103_030	X	HEX			04/14/10 07 51	1 0	
031	103_031	X	HEX			04/14/10 11 02	1 0	
032	103_032	ICAL	PCB25_5			04/14/10 11 28	1 0	2

KMH 04/14/10 I verified that the vials loaded on the instrument matched the sequence data entry for runs 1 through 32

St d d d 1 S13958 2 S13959 3 S13960 4 S13961 5 S13962 6 S13963 7 S13964 8 S14374 9 S14246 10 S13363 11 S13599
12 S13877 13 S14195 14 S14182 15 S12388

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 250151596

Instrument GC22 Begun 04/15/10 06 36
Method EPA 8082 SOP Version pcb_rv 7

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
001	105_001	X	HEX			04/15/10 06 36	1 0		
002	105_002	CCV	PCB250_50			04/15/10 07 02	1 0	1	
003	105_003	X	CCV			04/15/10 07 29	1 0	1	
004	105_004	CCV	AR2154			04/15/10 10 31	1 0	2	
005	105_005	BLANK	QC540354	Soil	161986	04/15/10 10 59	1 0		
006	105_006	LCS	QC540355	Soil	161986	04/15/10 11 25	1 0		
007	105_007	SAMPLE	219438-001	Soil	161986	04/15/10 11 51	20 0		
008	105_008	MSS	219375-012	Miscell	161986	04/15/10 12 18	1 0		
009	105_009	MS	QC540356	Miscell	161986	04/15/10 12 44	1 0		
010	105_010	MSD	QC540357	Miscell	161986	04/15/10 13 10	1 0		
011	105_011	CCV	PCB500_100			04/15/10 13 36	1 0	3	
012	105_012	CCV	AR2154			04/15/10 14 06	1 0	2	
013	105_013	SAMPLE	219375-001	Miscell	161986	04/15/10 14 32	1 0		
014	105_014	SAMPLE	219375-002	Miscell	161986	04/15/10 14 59	1 0		
015	105_015	SAMPLE	219375-003	Miscell	161986	04/15/10 15 25	1 0		
016	105_016	SAMPLE	219375-004	Miscell	161986	04/15/10 15 51	1 0		
017	105_017	SAMPLE	219375-005	Miscell	161986	04/15/10 16 17	1 0		
018	105_018	SAMPLE	219375-006	Miscell	161986	04/15/10 16 44	1 0		
019	105_019	SAMPLE	219375-007	Miscell	161986	04/15/10 17 10	1 0		
020	105_020	SAMPLE	219375-008	Miscell	161986	04/15/10 17 36	1 0		
021	105_021	SAMPLE	219375-009	Miscell	161986	04/15/10 18 03	1 0		4 PCB1016#4=1100
022	105_022	SAMPLE	219375-010	Miscell	161986	04/15/10 18 29	1 0		
023	105_023	X				04/15/10 18 55	1 0	1	
024	105_024	CCV	PCB250_50			04/15/10 19 21	1 0	1	
025	105_025	CCV	AR2154			04/15/10 19 48	1 0	2	
026	105_026	X	CCV			04/15/10 20 14	1 0	2	
027	105_027	SAMPLE	219375-011	Miscell	161986	04/15/10 20 40	1 0		
028	105_028	SAMPLE	219375-013	Miscell	161986	04/15/10 21 07	1 0		
029	105_029	SAMPLE	219375-014	Miscell	161986	04/15/10 21 33	1 0		
030	105_030	SAMPLE	219375-015	Miscell	161986	04/15/10 21 59	1 0		
031	105_031	SAMPLE	219375-016	Miscell	161986	04/15/10 22 25	1 0		
032	105_032	SAMPLE	219375-017	Miscell	161986	04/15/10 22 52	2 0		10 PCB1016#4=2500
033	105_033	SAMPLE	219375-018	Miscell	161986	04/15/10 23 18	1 0		
034	105_034	BLANK	QC538838	Miscell	161596	04/15/10 23 44	1 0		
035	105_035	LCS	QC538839	Miscell	161596	04/16/10 00 11	1 0		
036	105_036	MSS	219171-001	Miscell	161596	04/16/10 00 37	1 0		
037	105_037	CCV	PCB500_100			04/16/10 01 03	1 0	3	
038	105_038	X	CCV			04/16/10 01 29	1 0	3	
039	105_039	CCV	AR2154			04/16/10 01 56	1 0	2	
040	105_040	MS	QC538840	Miscell	161596	04/16/10 02 22	1 0		
041	105_041	MSD	QC538841	Miscell	161596	04/16/10 02 48	1 0		
042	105_042	SAMPLE	219176-003	Miscell	161596	04/16/10 03 15	1 0		
043	105_043	SAMPLE	219176-004	Miscell	161596	04/16/10 03 41	1 0		
044	105_044	SAMPLE	219176-005	Miscell	161596	04/16/10 04 07	1 0		
045	105_045	SAMPLE	219176-006	Miscell	161596	04/16/10 04 34	1 0		
046	105_046	SAMPLE	219176-007	Miscell	161596	04/16/10 05 00	1 0		
047	105_047	SAMPLE	219176-008	Miscell	161596	04/16/10 05 26	1 0		
048	105_048	SAMPLE	219176-009	Miscell	161596	04/16/10 05 53	1 0		
049	105_049	SAMPLE	219176-011	Miscell	161596	04/16/10 06 19	1 0		
050	105_050	CCV	PCB250_50			04/16/10 11 22	1 0	1	
051	105_051	CCV	AR2154			04/16/10 11 52	1 0	2	
052	105_052	X	CCV			04/16/10 12 19	1 0	1	

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 250151596

Instrument GC22 Begun 04/15/10 06 36
Method EPA 8082 SOP Version pcb_rv 7

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used
053	105_053	SAMPLE	219375-017	Miscell	161986	04/16/10 12 45	5 0	
054	105_054	SAMPLE	219176-011	Miscell	161596	04/16/10 13 12	2 0	
055	105_055	CCV	PCB500_100			04/16/10 13 39	1 0	3
056	105_056	CCV	AR2154			04/16/10 14 06	1 0	2
057	105_057	CCV	AR1242			04/16/10 14 32	1 0	4

KMH 04/16/10 I verified that the vials loaded on the instrument matched the sequence data entry for runs 1 through 57

St da d s d 1-S13961 2 S14195 3 S13962 4 S13599

SAMPLE PREPARATION SUMMARY

Batch #	161986			Analysis	PCB
Started By	KAL	Prep Date	14-APR-2010 12 30	Finished By	NAV
Method	3550B	SOP Version	PCB_3550_rv8	Units	g
Spike #1 ID	S14316	Spike #2 ID	S14375		

S mple	Styp	M t	I t al	F l	Cl DF	Pr p DF	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 V l	Cl a M th d	An ly s	Comme t
219375 001		Mi cell	30 17	25	1	0 8286		1				PCB	
219375 002		M c 11	30 1	25	1	0 8306		1				PCB	
219375 003		M 11	30 13	25	1	0 8297		1				PCB	
219375 004		M 11	30 12	25	1	0 83		1				PCB	
219375 005		M sc 11	30 13	25	1	0 8297		1				PCB	
219375 006		M 11	30 18	25	1	0 8284		1				PCB	
219375 007		M s 11	30 16	25	1	0 8289		1				PCB	
219375 008		M 11	30 31	25	1	0 8248		1				PCB	
219375 009		M 11	30 03	25	1	0 8325		1				PCB	
219375 010		M ell	30 11	25	1	0 8303		1				PCB	
219375 011		M ell	30 27	25	1	0 8259		1				PCB	
219375 012		M 11	30 04	25	1	0 8322		1				PCB	m
219375 013		M 11	30 28	25	1	0 8256		1				PCB	
219375 014		M cell	30 26	25	1	0 8262		1				PCB	
219375 015		M 11	30 17	25	1	0 8286		1				PCB	
219375 016		M cell	30 24	25	1	0 8267		1				PCB	
219375 017		M 11	30 13	25	1	0 8297		1				PCB	
219375 018		M scell	30 19	25	1	0 8281		1				PCB	
219438 001		S 1	15 13	25	1	1 652		1				PCB	
QC540354	BLANK	S 1	30 27	25	1	0 8259		1				PCB	
QC540355	LCS	So 1	30 23	25	1	0 827		1	1			PCB	
QC540356	MS	M cell	30 04	25	1	0 8322		1	1			PCB	
QC540357	MSD	M s 11	30 21	25	1	0 8275		1	1			PCB	

Analyst KMH Date 04/15/10 Reviewer EAH Date 04/15/10

Pg 1 f 1

PCB (8082) Soil Prep Log

Curtis & Tompkins Ltd

LIMS Batch No 161986

LIMS Analysis PCB

Date Extracted 4/14/10

☒ EPA 3550b Sonication

☐ EPA 3545 PFE (ASE Method# _____)

☐ Other _____

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BK 2999

Sample ID	Container ID	Sample Wt (g)	Final Vol (mL)	Comments
* 219375-001	A	30.17	250	
-002		30.10		
-003		30.13		
-004		30.12		
-005		30.13		
-006		30.18		
-007		30.16		
-008		30.31		
-009		30.03		
-010		30.11		
-011		30.27		KAL 4/14 ~~MSS~~
-012		30.04		MSS
-013		30.28		
-014		30.26		
-015		30.17		
-016		30.24		
-017		30.13		
-018		30.19		
219438-001		15.13		
MB QC540354		30.27		
LCS 5		30.23		
* MS 6		30.04		
MSD 7		30.21		

Kmt 4/15/10

	Mfg & Lot # / LIMS # / Time	Initials / Date
Solvent rinsed granular Na_2SO_4 weighed out for QC samples	EM49044931	KAL 4/14
dried with CH_2Cl_2 rinsed ☒ granular Na_2SO_4 ☐ diatomaceous earth	↓	
10 mL of surrogate solution was added to all samples	S14316B	
10 mL of spike solution AR16/60 was added to all spikes	S14375A	
PFE (ASE) Cellulose Filters used	NA	
1:1 CH_2Cl_2 (lot# EM49338) Acetone(lot# EM49317) was added to all	✓ *RM by EM49329	
Solvent added at (time)	1230	↓
☐ sonicated 3 times w/ ≥100mL ☐ PFE extracted ☐ soxhlet extractors on at	✓	NAW 4/14/10
Soxhlets off at	NA	
Extracts filtered through baked CH_2Cl_2 rinsed ~~powdered~~ granular Na_2SO_4	EM49044931	
Solvent exchanged with Hexane Lot#	JTB H47E07	
Concentrated to final volume at temperature (degrees C)	100	
EPA 3665A Clean up vortexed w/ H_2SO_4 Lot#	FS 095669	
Centrifuged for 1 min 10mL transferred to labelled vial	✓	
Relinquished to PCB group	✓	↓

4/14/10

Extraction Chemist / Date

Continued from page ___

Continued on page ___

Kmt 4/15/10

Reviewed by / Date

Project Soil Aliquot BK 3003

Continued from Page

SAMPLE ID	WEIGHT (g)	ANALYSIS	Batch #	COMMENTS
219375-001 A	30.17	PCB	J61986	Concrete
-002	30.10			
-003	30.13			
-004	30.12			
-005	30.13			
-006	30.18			
-007	30.16			
-008	30.31			
-009	30.03			
-010	30.11			
-011	30.27			
-012	30.04			MSS
-013	30.28			
-014	30.26			
-015	30.17			
-016	30.24			
-017	30.13			
-018	30.19			
MB	30.27			EM49044931
LCS	30.23			
MS	30.04			219375-012A
MSD	30.21			219375-012C

SHW 4/12/10

Continued on Page

Read and Understood By

Signed Date Signed Date

Project SOIL ALIQUOT BK3003

Continued from Page

SAMPLE ID	WEIGHT (g)	ANALYSIS	BATCH #	COMMENTS
219404-001 A	50.05	TEHM		
-002	50.17			
-003	50.48			
-004	50.49			MSS
-005	50.10			
-006	50.06			
-007	50.45			
-008	50.07			
MB CRD 4/13/10 -009	50.21			EM490449 31
LCS -010	50.12			219404 004A
MS	50.02			
MSD	50.28			
			CRD 4/13/10	
LCS	50.10			EM490449 31
			CRD 4/13/10	
219438-001 A	15.13	PCB	161986	
			KAL 4/14/10	

Continued on Page

Read and Understood By

Signed Date Signed Date

REPORTING SUMMARY FOR 219375 PCBS Miscell

Sample ID	Analyte	Inst ID	Ch	Date & Time
219375-001	Aroclor-1016	GC22	A	04/15/10 14 32
219375-001	Aroclor-1221	GC22	A	04/15/10 14 32
219375-001	Aroclor-1232	GC22	A	04/15/10 14 32
219375-001	Aroclor-1242	GC22	A	04/15/10 14 32
219375-001	Aroclor-1248	GC22	A	04/15/10 14 32
219375-001	Aroclor-1254	GC22	A	04/15/10 14 32
219375-001	Aroclor-1260	GC22	B	04/15/10 14 32
219375-001	Aroclor-1262	GC22	A	04/15/10 14 32
219375-001	Aroclor-1268	GC22	A	04/15/10 14 32
219375-001	TCMX	GC22	A	04/15/10 14 32
219375-001	Decachlorobiphenyl	GC22	A	04/15/10 14 32
219375-002	Aroclor-1016	GC22	A	04/15/10 14 59
219375-002	Aroclor-1221	GC22	A	04/15/10 14 59
219375-002	Aroclor-1232	GC22	A	04/15/10 14 59
219375-002	Aroclor-1242	GC22	A	04/15/10 14 59
219375-002	Aroclor-1248	GC22	A	04/15/10 14 59
219375-002	Aroclor-1254	GC22	A	04/15/10 14 59
219375-002	Aroclor-1260	GC22	B	04/15/10 14 59
219375-002	Aroclor-1262	GC22	A	04/15/10 14 59
219375-002	Aroclor-1268	GC22	A	04/15/10 14 59
219375-002	TCMX	GC22	A	04/15/10 14 59
219375-002	Decachlorobiphenyl	GC22	A	04/15/10 14 59
219375-003	Aroclor-1016	GC22	A	04/15/10 15 25
219375-003	Aroclor-1221	GC22	A	04/15/10 15 25
219375-003	Aroclor-1232	GC22	A	04/15/10 15 25
219375-003	Aroclor-1242	GC22	A	04/15/10 15 25
219375-003	Aroclor-1248	GC22	A	04/15/10 15 25
219375-003	Aroclor-1254	GC22	A	04/15/10 15 25
219375-003	Aroclor-1260	GC22	B	04/15/10 15 25
219375-003	Aroclor-1262	GC22	A	04/15/10 15 25
219375-003	Aroclor-1268	GC22	A	04/15/10 15 25
219375-003	TCMX	GC22	A	04/15/10 15 25
219375-003	Decachlorobiphenyl	GC22	A	04/15/10 15 25
219375-004	Aroclor-1016	GC22	A	04/15/10 15 51
219375-004	Aroclor-1221	GC22	A	04/15/10 15 51
219375-004	Aroclor-1232	GC22	A	04/15/10 15 51
219375-004	Aroclor-1242	GC22	A	04/15/10 15 51
219375-004	Aroclor-1248	GC22	A	04/15/10 15 51
219375-004	Aroclor-1254	GC22	A	04/15/10 15 51
219375-004	Aroclor-1260	GC22	B	04/15/10 15 51
219375-004	Aroclor-1262	GC22	A	04/15/10 15 51
219375-004	Aroclor-1268	GC22	A	04/15/10 15 51
219375-004	TCMX	GC22	A	04/15/10 15 51
219375-004	Decachlorobiphenyl	GC22	A	04/15/10 15 51
219375-005	Aroclor-1016	GC22	A	04/15/10 16 17
219375-005	Aroclor-1221	GC22	A	04/15/10 16 17
219375-005	Aroclor-1232	GC22	A	04/15/10 16 17
219375-005	Aroclor-1242	GC22	A	04/15/10 16 17
219375-005	Aroclor-1248	GC22	A	04/15/10 16 17
219375-005	Aroclor-1254	GC22	B	04/15/10 16 17

REPORTING SUMMARY FOR 219375 PCBS Miscell

Sample ID	Analyte	Inst ID	Ch	Date & Time
219375-005	Aroclor-1260	GC22	B	04/15/10 16 17
219375-005	Aroclor-1262	GC22	A	04/15/10 16 17
219375-005	Aroclor-1268	GC22	A	04/15/10 16 17
219375-005	TCMX	GC22	A	04/15/10 16 17
219375-005	Decachlorobiphenyl	GC22	A	04/15/10 16 17
219375-006	Aroclor-1016	GC22	A	04/15/10 16 44
219375-006	Aroclor-1221	GC22	A	04/15/10 16 44
219375-006	Aroclor-1232	GC22	A	04/15/10 16 44
219375-006	Aroclor-1242	GC22	A	04/15/10 16 44
219375-006	Aroclor-1248	GC22	A	04/15/10 16 44
219375-006	Aroclor-1254	GC22	B	04/15/10 16 44
219375-006	Aroclor-1260	GC22	B	04/15/10 16 44
219375-006	Aroclor-1262	GC22	A	04/15/10 16 44
219375-006	Aroclor-1268	GC22	A	04/15/10 16 44
219375-006	TCMX	GC22	A	04/15/10 16 44
219375-006	Decachlorobiphenyl	GC22	A	04/15/10 16 44
219375-007	Aroclor-1016	GC22	A	04/15/10 17 10
219375-007	Aroclor-1221	GC22	A	04/15/10 17 10
219375-007	Aroclor-1232	GC22	A	04/15/10 17 10
219375-007	Aroclor-1242	GC22	A	04/15/10 17 10
219375-007	Aroclor-1248	GC22	A	04/15/10 17 10
219375-007	Aroclor-1254	GC22	B	04/15/10 17 10
219375-007	Aroclor-1260	GC22	B	04/15/10 17 10
219375-007	Aroclor-1262	GC22	A	04/15/10 17 10
219375-007	Aroclor-1268	GC22	A	04/15/10 17 10
219375-007	TCMX	GC22	A	04/15/10 17 10
219375-007	Decachlorobiphenyl	GC22	A	04/15/10 17 10
219375-008	Aroclor-1016	GC22	A	04/15/10 17 36
219375-008	Aroclor-1221	GC22	A	04/15/10 17 36
219375-008	Aroclor-1232	GC22	A	04/15/10 17 36
219375-008	Aroclor-1242	GC22	A	04/15/10 17 36
219375-008	Aroclor-1248	GC22	A	04/15/10 17 36
219375-008	Aroclor-1254	GC22	B	04/15/10 17 36
219375-008	Aroclor-1260	GC22	B	04/15/10 17 36
219375-008	Aroclor-1262	GC22	A	04/15/10 17 36
219375-008	Aroclor-1268	GC22	A	04/15/10 17 36
219375-008	TCMX	GC22	A	04/15/10 17 36
219375-008	Decachlorobiphenyl	GC22	A	04/15/10 17 36
219375-009	Aroclor-1016	GC22	A	04/15/10 18 03
219375-009	Aroclor-1221	GC22	A	04/15/10 18 03
219375-009	Aroclor-1232	GC22	A	04/15/10 18 03
219375-009	Aroclor-1242	GC22	A	04/15/10 18 03
219375-009	Aroclor-1248	GC22	A	04/15/10 18 03
219375-009	Aroclor-1254	GC22	B	04/15/10 18 03
219375-009	Aroclor-1260	GC22	B	04/15/10 18 03
219375-009	Aroclor-1262	GC22	A	04/15/10 18 03
219375-009	Aroclor-1268	GC22	A	04/15/10 18 03
219375-009	TCMX	GC22	A	04/15/10 18 03
219375-009	Decachlorobiphenyl	GC22	A	04/15/10 18 03

REPORTING SUMMARY FOR 219375 PCBS Miscell

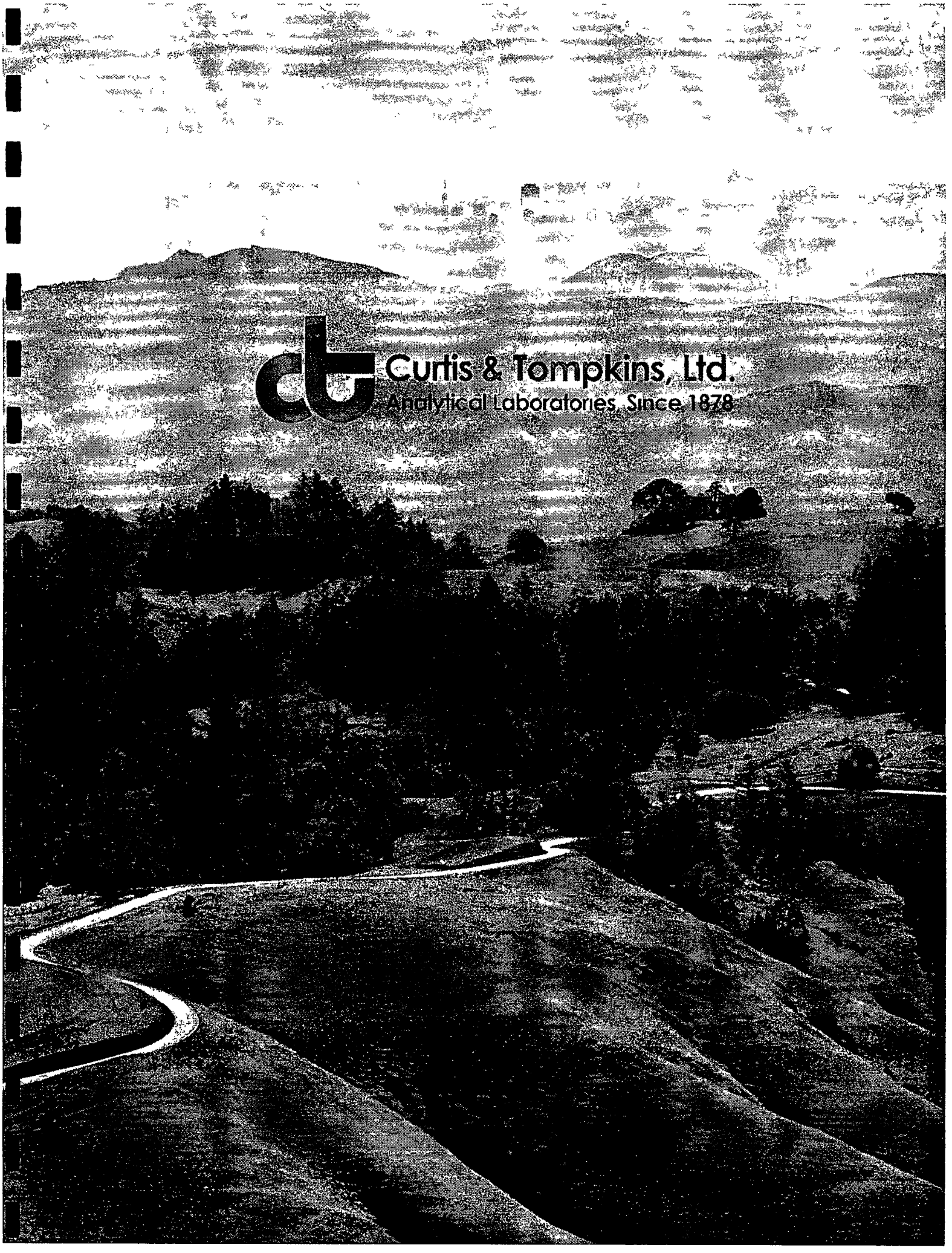
Sample ID	Analyte	Inst ID	Ch	Date & Time
219375-010	Aroclor-1016	GC22	A	04/15/10 18 29
219375-010	Aroclor-1221	GC22	A	04/15/10 18 29
219375-010	Aroclor-1232	GC22	A	04/15/10 18 29
219375-010	Aroclor-1242	GC22	A	04/15/10 18 29
219375-010	Aroclor-1248	GC22	A	04/15/10 18 29
219375-010	Aroclor-1254	GC22	B	04/15/10 18 29
219375-010	Aroclor-1260	GC22	B	04/15/10 18 29
219375-010	Aroclor-1262	GC22	A	04/15/10 18 29
219375-010	Aroclor-1268	GC22	A	04/15/10 18 29
219375-010	TCMX	GC22	A	04/15/10 18 29
219375-010	Decachlorobiphenyl	GC22	A	04/15/10 18 29
219375-011	Aroclor-1016	GC22	A	04/15/10 20 40
219375-011	Aroclor-1221	GC22	A	04/15/10 20 40
219375-011	Aroclor-1232	GC22	A	04/15/10 20 40
219375-011	Aroclor-1242	GC22	A	04/15/10 20 40
219375-011	Aroclor-1248	GC22	A	04/15/10 20 40
219375-011	Aroclor-1254	GC22	B	04/15/10 20 40
219375-011	Aroclor-1260	GC22	A	04/15/10 20 40
219375-011	Aroclor-1262	GC22	A	04/15/10 20 40
219375-011	Aroclor-1268	GC22	A	04/15/10 20 40
219375-011	TCMX	GC22	A	04/15/10 20 40
219375-011	Decachlorobiphenyl	GC22	A	04/15/10 20 40
219375-012	Aroclor-1016	GC22	A	04/15/10 12 18
219375-012	Aroclor-1221	GC22	A	04/15/10 12 18
219375-012	Aroclor-1232	GC22	A	04/15/10 12 18
219375-012	Aroclor-1242	GC22	A	04/15/10 12 18
219375-012	Aroclor-1248	GC22	A	04/15/10 12 18
219375-012	Aroclor-1254	GC22	A	04/15/10 12 18
219375-012	Aroclor-1260	GC22	B	04/15/10 12 18
219375-012	Aroclor-1262	GC22	A	04/15/10 12 18
219375-012	Aroclor-1268	GC22	A	04/15/10 12 18
219375-012	TCMX	GC22	A	04/15/10 12 18
219375-012	Decachlorobiphenyl	GC22	A	04/15/10 12 18
219375-013	Aroclor-1016	GC22	A	04/15/10 21 07
219375-013	Aroclor-1221	GC22	A	04/15/10 21 07
219375-013	Aroclor-1232	GC22	A	04/15/10 21 07
219375-013	Aroclor-1242	GC22	A	04/15/10 21 07
219375-013	Aroclor-1248	GC22	A	04/15/10 21 07
219375-013	Aroclor-1254	GC22	A	04/15/10 21 07
219375-013	Aroclor-1260	GC22	A	04/15/10 21 07
219375-013	Aroclor-1262	GC22	A	04/15/10 21 07
219375-013	Aroclor-1268	GC22	A	04/15/10 21 07
219375-013	TCMX	GC22	A	04/15/10 21 07
219375-013	Decachlorobiphenyl	GC22	A	04/15/10 21 07
219375-014	Aroclor-1016	GC22	A	04/15/10 21 33
219375-014	Aroclor-1221	GC22	A	04/15/10 21 33
219375-014	Aroclor-1232	GC22	A	04/15/10 21 33
219375-014	Aroclor-1242	GC22	A	04/15/10 21 33
219375-014	Aroclor-1248	GC22	A	04/15/10 21 33
219375-014	Aroclor-1254	GC22	B	04/15/10 21 33

REPORTING SUMMARY FOR 219375 PCBS Miscell

Sample ID	Analyte	Inst ID	Ch	Date & Time
219375-014	Aroclor-1260	GC22	A	04/15/10 21 33
219375-014	Aroclor-1262	GC22	A	04/15/10 21 33
219375-014	Aroclor-1268	GC22	A	04/15/10 21 33
219375-014	TCMX	GC22	A	04/15/10 21 33
219375-014	Decachlorobiphenyl	GC22	A	04/15/10 21 33
219375-015	Aroclor-1016	GC22	A	04/15/10 21 59
219375-015	Aroclor-1221	GC22	A	04/15/10 21 59
219375-015	Aroclor-1232	GC22	A	04/15/10 21 59
219375-015	Aroclor-1242	GC22	A	04/15/10 21 59
219375-015	Aroclor-1248	GC22	A	04/15/10 21 59
219375-015	Aroclor-1254	GC22	A	04/15/10 21 59
219375-015	Aroclor-1260	GC22	A	04/15/10 21 59
219375-015	Aroclor-1262	GC22	A	04/15/10 21 59
219375-015	Aroclor-1268	GC22	A	04/15/10 21 59
219375-015	TCMX	GC22	A	04/15/10 21 59
219375-015	Decachlorobiphenyl	GC22	A	04/15/10 21 59
219375-016	Aroclor-1016	GC22	A	04/15/10 22 25
219375-016	Aroclor-1221	GC22	A	04/15/10 22 25
219375-016	Aroclor-1232	GC22	A	04/15/10 22 25
219375-016	Aroclor-1242	GC22	A	04/15/10 22 25
219375-016	Aroclor-1248	GC22	A	04/15/10 22 25
219375-016	Aroclor-1254	GC22	B	04/15/10 22 25
219375-016	Aroclor-1260	GC22	A	04/15/10 22 25
219375-016	Aroclor-1262	GC22	A	04/15/10 22 25
219375-016	Aroclor-1268	GC22	A	04/15/10 22 25
219375-016	TCMX	GC22	A	04/15/10 22 25
219375-016	Decachlorobiphenyl	GC22	A	04/15/10 22 25
219375-017	Aroclor-1016	GC22	A	04/16/10 12 45
219375-017	Aroclor-1221	GC22	A	04/16/10 12 45
219375-017	Aroclor-1232	GC22	A	04/16/10 12 45
219375-017	Aroclor-1242	GC22	A	04/16/10 12 45
219375-017	Aroclor-1248	GC22	A	04/16/10 12 45
219375-017	Aroclor-1254	GC22	B	04/16/10 12 45
219375-017	Aroclor-1260	GC22	A	04/16/10 12 45
219375-017	Aroclor-1262	GC22	A	04/16/10 12 45
219375-017	Aroclor-1268	GC22	A	04/16/10 12 45
219375-017	TCMX	GC22	A	04/16/10 12 45
219375-017	Decachlorobiphenyl	GC22	A	04/16/10 12 45
219375-018	Aroclor-1016	GC22	A	04/15/10 23 18
219375-018	Aroclor-1221	GC22	A	04/15/10 23 18
219375-018	Aroclor-1232	GC22	A	04/15/10 23 18
219375-018	Aroclor-1242	GC22	A	04/15/10 23 18
219375-018	Aroclor-1248	GC22	A	04/15/10 23 18
219375-018	Aroclor-1254	GC22	A	04/15/10 23 18
219375-018	Aroclor-1260	GC22	A	04/15/10 23 18
219375-018	Aroclor-1262	GC22	A	04/15/10 23 18
219375-018	Aroclor-1268	GC22	A	04/15/10 23 18
219375-018	TCMX	GC22	A	04/15/10 23 18
219375-018	Decachlorobiphenyl	GC22	A	04/15/10 23 18

REPORTING SUMMARY FOR 219375 PCBS Miscell

Sample ID	Analyte	Inst ID	Ch	Date & Time
QC540354	Aroclor-1016	GC22	A	04/15/10 10 59
QC540354	Aroclor-1221	GC22	A	04/15/10 10 59
QC540354	Aroclor-1232	GC22	A	04/15/10 10 59
QC540354	Aroclor-1242	GC22	A	04/15/10 10 59
QC540354	Aroclor-1248	GC22	A	04/15/10 10 59
QC540354	Aroclor-1254	GC22	A	04/15/10 10 59
QC540354	Aroclor-1260	GC22	B	04/15/10 10 59
QC540354	Aroclor-1262	GC22	A	04/15/10 10 59
QC540354	Aroclor-1268	GC22	A	04/15/10 10 59
QC540354	TCMX	GC22	A	04/15/10 10 59
QC540354	Decachlorobiphenyl	GC22	A	04/15/10 10 59
QC540355	Aroclor-1016	GC22	A	04/15/10 11 25
QC540355	Aroclor-1260	GC22	B	04/15/10 11 25
QC540355	TCMX	GC22	A	04/15/10 11 25
QC540355	Decachlorobiphenyl	GC22	A	04/15/10 11 25
QC540356	Aroclor-1016	GC22	A	04/15/10 12 44
QC540356	Aroclor-1260	GC22	B	04/15/10 12 44
QC540356	TCMX	GC22	B	04/15/10 12 44
QC540356	Decachlorobiphenyl	GC22	B	04/15/10 12 44
QC540357	Aroclor-1016	GC22	A	04/15/10 13 10
QC540357	Aroclor-1260	GC22	B	04/15/10 13 10
QC540357	TCMX	GC22	B	04/15/10 13 10
QC540357	Decachlorobiphenyl	GC22	B	04/15/10 13 10


Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins Ltd Analytical Laboratories Since 1878
2323 Fifth Street Berkeley CA 94710 Phone (510) 486 0900

Laboratory Job Number 219556
ANALYTICAL REPORT

CH2M Hill Constructors Inc	Project	264204 19 H4 04
690 Walnut Ave	Location	PCB Removal Action-B386 AL01
Vallejo CA 94592	Level	III

Sample ID	Lab ID
B386PIT3CS0907-C1 5	219556-001
B386PIT3CS0907-C1 5FD	219556-002
B386PIT3CS0908-C3	219556-003
B386PIT3CS0909-C8	219556-004
B386PIT3CS0910-C5	219556-005
B386PIT3CS0911-C2	219556-006
B386PIT3CS0912-C4	219556-007
B386PIT3CS0913-C3	219556-008

This data package has been reviewed for technical correctness and completeness Release of this data has been authorized by the Laboratory Manager or the Manager s designee as verified by the following signature The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis This report may be reproduced only in its entirety

Signature Denise N Tetrault Date 04/26/2010
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**219556**
Client:	**CH2M Hill Constructors Inc.**
Project:	**264204.19.H4.04**
Location:	**PCB Removal Action-B386 AL01**
Request Date:	**04/16/10**
Samples Received:	**04/16/10**

This data package contains sample and QC results for eight concrete samples, requested for the above referenced project on 04/16/10. See attached cooler receipt form for any sample receipt problems or discrepancies.

PCBs (EPA 8082):

All samples underwent sulfuric acid cleanup using EPA Method 3665A.

All samples underwent sulfur cleanup using the copper option in EPA Method 3660B.

No analytical problems were encountered.

Chain of Custody

219556

Chain of Custody Record

COC Number CTL 717

CH2MHILL 4/16/2010 4 36 13 PM Page 1 of 3

Project Name Mare Island **Location** Mare Island
Task Order **Project** PCB Removal Action B386 AL01
Project Number 264204 19 H4 04
Project Manager Jenny Lindquist
Sample Manager Roger Lucich (510) 206 4177
Turnaround Time 5 Days
PO Number 264204 19 H4 04

Sample ID	Sample Date/Time	Type	Matrix	# Containers	Preserv	SW8082
B386PIT3CS0907-C1 5	16 Apr 10 14 40	N	Soil			
			Field Filtered	1	4 C	✔
			Total Containers		1	
B386PIT3CS0907-C1 5FD	16 Apr 10 14 40	N	Soil			
			Field Filtered	1	4 C	✔
			Total Containers		1	
B386PIT3CS0907 C1 5MS	16 Apr 10 14 40	MS	Soil			
			Field Filtered	1	4 C	✔
			Total Containers		1	
B386PIT3CS0907-C1 5SD	16 Apr 10 14 40	SD	Soil			
			Field Filtered	1	4 C	✔
			Total Containers		1	

MS = Matrix Spike SD = Matrix Spike Duplicate

	Signatures	Date/Time
Approved by		
Sampled by		
Relinquished by	[signature]	4-16 10/1745
Received by	[signature]	4/16/10 / 17 45
Relinquished by		
Received by		

Shipping Details

Method of Shipment
On ice yes / no
Airbill No
Lab Name Curtis & Tompkins Ltd
Lab Phone (510) 486 0925

ATTN
Sample Custody
and
Lisa Brooker

Special Instructions

Report Copy to
Mark Cichy
(530) 229 3274

Chain of Custody Record

COC Number CTL 717

CH2MHILL 4/16/2010 4 36 13 PM Page 2 of 3

Project Name Mare Island Location Mare Island
Task Order Project PCB Removal Action B386 AL01
Project Number 264204 19 H4 04
Project Manager Jenny Lindquist
Sample Manager Roger Lucich (510) 206-4177
Turnaround Time 5 Days
PO Number 264204 19 H4 04

	Sample ID	Sample Date/Time	Type	Matrix	# Containers	Preserv	SW8082
3	B386PIT3CS0908-C3	16 Apr 10 14 45	N	Soil			
			Field Filtered		1	4 C	✓
			Total Containers		1		
4	B386PIT3CS0909-C8	16 Apr 10 15 05	N	Soil			
			Field Filtered		1	4 C	✓
			Total Containers		1		
5	B386PIT3CS0910 C5	16 Apr 10 15 10	N	Soil			
			Field Filtered		1	4 C	✓
			Total Containers		1		
6	B386PIT3CS0911 C2	16 Apr 10 14 50	N	Soil			
			Field Filtered		1	4 C	✓
			Total Containers		1		

MS = Matrix Spike SD = Matrix Spike Duplicate

	Signatures	Date/Time
Approved by		
Sampled by		
Relinquished by		4-16 10/1745
Received by		4/16/10 1745
Relinquished by		
Received by		

Shipping Details
Method of Shipment
On Ice yes / no
Airbill No
Lab Name Curtis & Tompkins Ltd
Lab Phone (510) 486-0925

ATTN
Sample Custody
and
Lisa Brooker

Special Instructions

Report Copy to
Mark Cichy
(530) 229 3274

219556

Chain of Custody Record

COC Number CTL 717

CH2MHILL 4/16/2010 4 36 13 PM Page 3 of 3

Project Name Mare Island **Location** Mare Island
Task Order **Project** PCB Removal Action B386 AL01
Project Number 264204 19 H4 04
Project Manager Jenny Lindquist
Sample Manager Roger Lucich (510) 206-4177
Turnaround Time 5 Days
PO Number 264204 19 H4 04

	Sample ID	Sample Date/Time	Type	Matrix	# Containers	Preserv	8082 SM
7	B386PIT3CS0912-C4	16 Apr 10 15 15	N	Soil			
			Field Filtered		1	4 C	✔
			Total Containers		1		
8	B386PIT3CS0913-C3	16 Apr 10 15 00	N	Soil			
			Field Filtered		1	4 C	✔
			Total Containers		1		

MS = Matrix Spike SD = Matrix Spike Duplicate

	Signatures	Date/Time
Approved by		
Sampled by		
Relinquished by	Roger D Lucich	4-16-10/1745
Received by	[illegible]	4/16/10 17 45
Relinquished by		
Received by		

Shipping Details
Method of Shipment
On Ice yes / no
Airbill No
Lab Name Curtis & Tompkins Ltd
Lab Phone (510) 486 0925

Special Instructions
ATTN
Sample Custody
and
Lisa Brooker

Report Copy to
Mark Cichy
(530) 229 3274

COOLER RECEIPT CHECKLIST

Curtis & Tompkins Ltd

Login # 219556 Date Received 4/16/10 Number of coolers 1
Client CCI Project MARR ISLAND

Date Opened 4/16/10 By (print) M VILLANUEVA (sign)
Date Logged in By (print) (sign)

1 Did cooler come with a shipping slip (airbill etc) YES NO
Shipping info

2A Were custody seals present? ☐ YES (circle) on cooler on samples ☐ NO
How many Name Date
2B Were custody seals intact upon arrival? YES NO N/A
3 Were custody papers dry and intact when received? YES NO
4 Were custody papers filled out properly (ink signed etc)? YES NO
5 Is the project identifiable from custody papers? (If so fill out top of form) YES NO
6 Indicate the packing in cooler (if other describe)

☐ Bubble Wrap ☐ Foam blocks ☐ Bags ☐ None
☐ Cloth material ☑ Cardboard ☐ Styrofoam ☐ Paper towels

7 Temperature documentation

Type of ice used ☑ Wet ☐ Blue/Gel ☐ None Temp(°C) 6.0

☐ Samples Received on ice & cold without a temperature blank

☐ Samples received on ice directly from the field Cooling process had begun

8 Were Method 5035 sampling containers present? YES NO
If YES, what time were they transferred to freezer?
9 Did all bottles arrive unbroken/unopened? YES NO
10 Are samples in the appropriate containers for indicated tests? YES NO
11 Are sample labels present in good condition and complete? YES NO
12 Do the sample labels agree with custody papers? YES NO
13 Was sufficient amount of sample sent for tests requested? YES NO
14 Are the samples appropriately preserved? YES NO N/A
15 Are bubbles > 6mm absent in VOA samples? YES NO N/A
16 Was the client contacted concerning this sample delivery? YES NO
If YES Who was called? By Date

COMMENTS

Laboratory Job Number 219556

ANALYTICAL REPORT

PCBs

Matrix Miscell

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	219556	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Matrix	Miscell	Sampled	04/16/10
Units	ug/Kg	Received	04/16/10
Basis	as received	Prepared	04/20/10
Batch#	162203		

Field ID	B386PIT3CS0907-C1 5	Diln Fac	50 00
Type	SAMPLE	Analyzed	04/23/10
Lab ID	219556-001		

Analyte	Result	RL	MDL
Aroclor-1016	ND	420	87
Aroclor-1221	ND	830	400
Aroclor-1232	ND	420	180
Aroclor-1242	24 000	420	140
Aroclor-1248	ND	420	100
Aroclor-1254	5 100	420	150
Aroclor-1260	ND	420	24
Aroclor-1262	ND	420	
Aroclor-1268	ND	420	

Surrogate	%REC	Limits
TCMX	DO	25-143
Decachlorobiphenyl	DO	25-143

Field ID	B386PIT3CS0907-C1 5FD	Diln Fac	50 00
Type	SAMPLE	Analyzed	04/23/10
Lab ID	219556-002		

Analyte	Result	RL	MDL
Aroclor-1016	ND	420	61
Aroclor-1221	ND	840	400
Aroclor-1232	ND	420	190
Aroclor-1242	27 000	420	140
Aroclor-1248	ND	420	110
Aroclor-1254	5 500	420	150
Aroclor-1260	ND	420	25
Aroclor-1262	ND	420	
Aroclor-1268	ND	420	

Surrogate	%REC	Limits
TCMX	DO	25-143
Decachlorobiphenyl	DO	25-143

J= Estimated value
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	219556	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Matrix	Miscell	Sampled	04/16/10
Units	ug/Kg	Received	04/16/10
Basis	as received	Prepared	04/20/10
Batch#	162203		

Field ID	B386PIT3CS0908-C3	Diln Fac	50 00
Type	SAMPLE	Analyzed	04/23/10
Lab ID	219556-003		

Analyte	Result	RL	MDL
Aroclor-1016	ND	410	87
Aroclor-1221	ND	830	400
Aroclor-1232	ND	410	180
Aroclor-1242	440	410	110
Aroclor-1248	ND	410	100
Aroclor-1254	1 800	410	150
Aroclor-1260	240 J	410	24
Aroclor-1262	ND	410	
Aroclor-1268	ND	410	

Surrogate	%REC	Limits
TCMX	DO	25-143
Decachlorobiphenyl	DO	25-143

Field ID	B386PIT3CS0909-C8	Diln Fac	20 00
Type	SAMPLE	Analyzed	04/26/10
Lab ID	219556-004		

Analyte	Result	RL	MDL
Aroclor-1016	ND	160	34
Aroclor-1221	ND	330	160
Aroclor-1232	ND	160	72
Aroclor-1242	110 J	160	56
Aroclor-1248	ND	160	41
Aroclor-1254	160 J	160	47
Aroclor-1260	30 J	160	22
Aroclor-1262	ND	160	
Aroclor-1268	ND	160	

Surrogate	%REC	Limits
TCMX	DO	25-143
Decachlorobiphenyl	DO	25-143

J= Estimated value
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	219556	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Matrix	Miscell	Sampled	04/16/10
Units	ug/Kg	Received	04/16/10
Basis	as received	Prepared	04/20/10
Batch#	162203		

Field ID	B386PIT3CS0910-C5	Diln Fac	50 00
Type	SAMPLE	Analyzed	04/23/10
Lab ID	219556-005		

Analyte	Result	RL	MDL
Aroclor-1016	ND	410	86
Aroclor-1221	ND	830	390
Aroclor-1232	ND	410	180
Aroclor-1242	ND	410	110
Aroclor-1248	ND	410	100
Aroclor-1254	29 000	410	150
Aroclor-1260	2 300	410	24
Aroclor-1262	ND	410	
Aroclor-1268	ND	410	

Surrogate	%REC	Limits
TCMX	DO	25-143
Decachlorobiphenyl	DO	25-143

Field ID	B386PIT3CS0911-C2	Diln Fac	50 00
Type	SAMPLE	Analyzed	04/23/10
Lab ID	219556-006		

Analyte	Result	RL	MDL
Aroclor-1016	ND	410	86
Aroclor-1221	ND	820	390
Aroclor-1232	ND	410	180
Aroclor-1242	3 300	410	110
Aroclor-1248	ND	410	100
Aroclor-1254	2 500	410	150
Aroclor-1260	340 J	410	24
Aroclor-1262	ND	410	
Aroclor-1268	ND	410	

Surrogate	%REC	Limits
TCMX	DO	25-143
Decachlorobiphenyl	DO	25-143

J= Estimated value
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	219556	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Matrix	Miscell	Sampled	04/16/10
Units	ug/Kg	Received	04/16/10
Basis	as received	Prepared	04/20/10
Batch#	162203		

Field ID	B386PIT3CS0912-C4	Diln Fac	50 00
Type	SAMPLE	Analyzed	04/23/10
Lab ID	219556-007		

Analyte	Result	RL	MDL
Aroclor-1016	ND	410	86
Aroclor-1221	ND	820	390
Aroclor-1232	ND	410	180
Aroclor-1242	ND	410	110
Aroclor-1248	ND	410	100
Aroclor-1254	370 J	410	150
Aroclor-1260	52 J	410	24
Aroclor-1262	ND	410	
Aroclor-1268	ND	410	

Surrogate	%REC	Limits
TCMX	DO	25-143
Decachlorobiphenyl	DO	25-143

Field ID	B386PIT3CS0913-C3	Diln Fac	50 00
Type	SAMPLE	Analyzed	04/23/10
Lab ID	219556-008		

Analyte	Result	RL	MDL
Aroclor-1016	ND	410	87
Aroclor-1221	ND	830	400
Aroclor-1232	ND	410	180
Aroclor-1242	280 J	410	110
Aroclor-1248	ND	410	100
Aroclor-1254	2 200	410	150
Aroclor-1260	320 J	410	24
Aroclor-1262	ND	410	
Aroclor-1268	ND	410	

Surrogate	%REC	Limits
TCMX	DO	25-143
Decachlorobiphenyl	DO	25-143

J= Estimated value
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	219556	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Matrix	Miscell	Sampled	04/16/10
Units	ug/Kg	Received	04/16/10
Basis	as received	Prepared	04/20/10
Batch#	162203		

Type	BLANK	Diln Fac	1 000
Lab ID	QC541210	Analyzed	04/20/10

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1 7
Aroclor-1221	ND	24	7 9
Aroclor-1232	ND	12	3 6
Aroclor-1242	ND	12	2 2
Aroclor-1248	ND	12	2 1
Aroclor-1254	ND	12	2 4
Aroclor-1260	ND	12	0 48
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	132	25-143
Decachlorobiphenyl	111	25-143

J= Estimated value
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #	219556	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Type	LCS	Diln Fac	1 000
Lab ID	QC541211	Batch#	162203
Matrix	Miscell	Prepared	04/20/10
Units	ug/Kg	Analyzed	04/20/10

Analyte	Spiked	Result	%REC	Limits
Aroclor-1016	166 1	185 6	112	44-127
Aroclor-1260	166 1	191 5	115	31-136

Surrogate	%REC	Limits
TCMX	116	25-143
Decachlorobiphenyl	103	25-143

Confirmation Report for 219556 PCBS Miscell
Curtis & Tompkins Laboratories

Units ug/Kg

L b ID	Cl e t ID	An lyte	R lt	Co f m t	RPD	%D
219556 001	B386PIT3CS0907 Cl 5	A cl 1242	24230	19950	19	18
219556 001	B386PIT3CS0907 Cl 5	A lo 1254	5100	6808	29	33
219556 002	B386PIT3CS0907 Cl 5FD	A 1 1242	26570	22540	16	15
219556 002	B386PIT3CS0907 Cl 5FD	A 1 1254	5461	7437	31	36
219556 003	B386PIT3CS0908 C3	A 1 1242	438 5	438 9	0	0
219556 003	B386PIT3CS0908 C3	A lo 1254	1794	1910	6	6
219556 003	B386PIT3CS0908 C3	A cl 1260	238 3 J	234 6	2	2
219556 004	B386PIT3CS0909 C8	A 1 1242	105 5 J	68 59	42	35
219556 004	B386PIT3CS0909 C8	A cl 1254	161 8 J	137 7	16	15
219556 004	B386PIT3CS0909 C8	A 1 1260	9 98 J	22 79	27	24
219 56 005	B386PIT3CS0910 C5	A 1 12 4	28850	26640	8	8
219 56 005	B386PIT3CS0910 C5	A lo 1260	2326	2834	20	22
219556 006	B386PIT3CS0911 C2	A 1 1242	3340	3247	3	3
219556 006	B386PIT3CS0911 C2	A lo 1254	2524	2624	4	4
219556 006	B386PIT3CS0911 C2	A cl 1260	343 4 J	378 1	10	10
219556 007	B386PIT3CS0912 C4	A lo 1254	369 0 J	450 6	20	22
219556 007	B386PIT3CS0912 C4	A 1 1260	52 39 J	55 98	7	7
219556 008	B386PIT3CS0913 C3	A o lo 1242	284 2 J	241 9	16	15
219556 008	B386PIT3CS0913 C3	A 1 1254	2233	2660	17	19
219556 008	B386PIT3CS0913 C3	A 1 1260	316 7 J	345 3	9	9

J t m t d

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 219556 PCBS Miscell EPA 8082

Inst GC22
Calnum 250137640001
Units pg/uL

Name ar1254_095-5pt
Date 06-APR-2010 09 49
X Axis R

L l	F l	q m	S mpl ID	A ly d	td
L1	095_036	250137640036	AR2154_100	06 APR 2010 09 49	S14194
L2	095_037	250137640037	AR2154_250	06 APR 2010 10 15	S14195
L	095_038	250137640038	AR2154_500	06 APR 2010 10 41	S14196
L4	095_039	250137640039	AR2154_1000	06 APR 2010 11 07	S14197
L5	095_041	250137640041	AR2154_10	06 APR 2010 12 07	S14193

An lyt	Ch	L1	L2	L3	L4	L5	Typ	0	1	2	A g	r 2 %RSD	M R 2	M RSD	Flg
A 1 1254 P k # 1	A	52 060	45 220	39 242	36 453	58 700	AVRG		0 02158		46 335	20	99	20	
A 1 1254 P k # 2	A	70 160	60 176	52 548	49 311	79 100	AVRC		0 01606		62 259	20	99	20	
A 1 1254 P k # 3	A	60 950	2 700	46 102	43 574	64 600	AVRG		0 01866		53 585	17	99	20	
A 1 1254 P k # 4	A	99 30	85 584	75 586	70 897	110 20	AVRG		0 01133		88 299	19	99	20	
A 1 1254 P k # 5	A	80 880	68 660	60 554	57 979	84 200	AVRG		0 01419		70 459	17	99	20	
A 1 1254 P k # 1	B	17 930	19 348	17 768	15 981	17 800	AVRG		0 056 9		17 765	7	99	20	
A 1 1254 P k # 2	B	23 530	25 100	23 278	20 581	24 800	AVRC		0 04263		23 458	8	99	20	
A 1 1254 P k # 3	B	16 280	18 088	16 99	15 04	16 600	AVRG		0 0 990		16 694	6	99	20	
A 1 1254 P k # 4	B	30 990	33 632	31 136	27 896	1 900	AVRG		0 03214		31 111	7	99	20	
A 1 1254 P k # 5	B	31 490	34 700	32 778	9 191	30 200	AVRG		0 03157		31 672	7	99	20	

Sp ked Am nt / D ft	Ch	L1	D	L2	%D	L3	%D	L4	%D	L5	%D
A 1 1254 P k # 1	A	100 0	1	250 0	2	500 0	15	1000	**21**	10 00	**27**
A 1 1254 P k # 2	A	100 0	13	250 0	3	500 0	16	1000	**21**	10 00	**27**
A 1 1254 P k # 3	A	100 0	14	250 0	2	500 0	14	1000	19	10 00	**21**
A 1 1254 P k # 4	A	100 0	12	250 0		500 0	14	1000	20	10 00	**25**
A 1 1254 P k # 5	A	100 0	15	250 0	3	500 0	14	1000	18	10 00	20
A 1 1254 P k # 1	B	100 0	1	250 0	9	500 0	0	1000	10	10 00	0
A 1 1254 P k # 2	B	100 0	0	250 0	7	500 0	1	1000	12	10 00	6
A 1 1254 P k # 3	B	100 0	2	250 0	8	500 0	2	1000	7	10 00	1
A 1 1254 P k # 4	B	100 0	0	250 0	8	500 0	0	1000	10	10 00	3
A o 1 1254 P k # 5	B	100 0	1	250 0	10	500 0	3	1000	8	10 00	5

KMH 04/06/10 corrected automatically drawn baselines

KMH 04/06/10 re-ran level 1 to improve rsd

Analyst KMH Date 04/06/10 Reviewer EAH Date 04/06/10

I t m t m t 0 p 1 p 2 2 AVRC A g p f t

P g 2 f 2

2 0137640001

CURTIS & TOMPKINS 2ND SOURCE CALIBRATION SUMMARY FOR 219556 PCBS Miscell
EPA 8082

Inst GC22 Name ar1254_095-5pt
Calnum 250137640001 Cal Date 06-APR-2010

ICV 250137640043 (095_043 06-APR-2010) stds S13261

Analyte	Ch	Spiked	Quant	Units	%D	Max	Flags
Aroclor-1254	A	250 0	221 4	pg/uL	-11	15	
Aroclor-1254	B	250 0	232 5	pg/uL	-7	15	

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 219556 PCBS Miscell EPA 8082

Inst GC22
Calnum 250149469001
Units pg/uL

Name 1660_103
Date 13-APR-2010 23 58
X Axis R

L l	F l	S g m	S mpl ID	A ly d	Std
L1	103_012	250149469012	PCB10_2	13 APR 2010 23 8	S13958
L2	103_014	50149469014	PCB100_20	14 APR 2010 00 50	S13960
L3	103_015	250149469015	PCB250_50	14 APR 2010 01 16	S13961
L4	103_016	250149469016	PCB500_100	14 APR 2010 01 43	S13962
L5	103_017	250149469017	PCB750_150	14 APR 2010 02 09	S13963
L6	103_018	250149469018	PCB1000_200	14 APR 2010 02 35	S13964
L7	103_032	50149469032	PCB25_5	14 APR 2010 11 28	S13959

A lyt	Ch	L1	L2	L3	L4	L5	L6	L7	Typ	0	1	2	A g	RSD	M R 2	MxRSD	Flg
A o l 1016 P k # 1	A	20 800	23 440	20 872	19 498	17 481	17 777	24 240	AVRG		0 04857		20 587	13	99	20	
A l 1016 P k # 2	A	56 700	69 710	60 928	5 396	49 329	52 093	72 960	AVRG		0 01686		59 302	15	99	20	
A l 1016 P k # 3	A	28 100	39 930	35 736	31 530	6 916	30 376	40 840	AVRG		0 02999		33 347	17	99	20	
A l 1016 P k # 4	A	14 600	20 940	18 32	15 988	14 491	16 517	22 280	AVRG		0 05675		17 621	17	99	20	
A l 1016 P k # 5	A	26 100	33 540	30 83	26 430	23 099	25 896	34 480	AVRC		0 03493		28 625	15	99	20	
A l 1260 P k # 1	A	66 400	91 950	8 136	66 942	60 708	68 079	90 440	AVRG		0 01327		7 379	17	99	20	
A lo 1260 P k # 2	A	51 600	69 040	63 736	51 758	47 1 5	2 30	67 360	AVRG		0 01737		57 564	15	99	20	
A lo 1260 P k # 3	A	50 400	66 830	61 352	4 676	45 307	49 913	64 800	AVRG		0 01803		55 468	16	99	20	
A l 1260 P k # 4	A	127 40	162 83	153 34	1 3 40	111 35	120 75	153 68	AVRG		0 00735		136 11	15	99	20	
A l 1260 P k # 5	A	57 000	80 650	76 108	60 568	54 931	61 552	74 240	AVRG		0 01505		66 436	15	99	20	
TCMX	A	1233 0	1376 6	1217 6	1078 0	947 32	917 96	142 0	AVRG		8 54E 4		1170 8	17	99	20	
D hl b ph yl	A	998 00	1293 0	1228 7	990 50	879 49	989 93	1240 0	AVRG		9 19E 4		1088 5	15	99	20	
A lo 1016 P k # 1	B	8 0000	9 1600	8 5600	8 7400	8 6387	8 6940	8 5600	AVRG		0 11598		8 6218	4	99	20	
A l 1016 P k # 2	B	25 300	27 500	25 616	25 622	24 085	25 805	32 520	AVRG		0 03754		26 635	10	99	20	
A l 1016 P k # 3	B	9 2000	11 760	10 868	11 100	10 620	11 115	11 800	AVRG		0 09155		10 923	8	99	20	
A lo 1016 P k # 4	B	4 1000	5 4900	1360	5 2480	4 8400	3720	5 7 00	AVRG		0 19495		5 1294	10	99	20	
A l 1016 P k # 5	B	7 3000	7 2800	6 7280	6 6120	6 2013	6 8200	7 1200	AVRG		0 1456		6 8659	6	99	20	
A l 1260 P k # 1	B	29 500	36 080	31 188	30 474	29 276	31 667	46 840	AVRG		0 02978		33 575	19	99	20	
A l 1260 P k # 2	B	26 800	30 040	25 904	25 254	24 348	25 910	33 320	AVRG		0 03654		27 368	12	99	20	
A o l 1260 P k # 3	B	19 900	23 270	19 920	19 604	19 039	20 384	25 880	AVRG		0 04730		21 142	12	99	20	
A l 1 60 P k # 4	B	53 600	60 160	49 752	49 370	46 71	51 037	74 080	AVRG		0 01820		54 959	17	99	20	
A l 1260 P k # 5	B	21 800	0	21 164	21 776	20 48	3 076	4 160	AVRG		0 04429		2 578	8	99	20	
TCMX	B	392 50	418 80	384 88	372 77	351 55	344 22	460 80	AVRG		0 00257		389 36	10	99	20	
D hl b ph yl	B	414 00	416 25	322 66	349 8	99 01	349 01	499 60	AVRG		0 00264		378 62	18	99	20	

Sp k d Am ts / D ft	Ch	L1	D	L2	%D	L3	D	L4	D	L5	%D	L6	D	L7	%D
A 1 1016 P k # 1	A	10 00	1	100 0	14	250 0	1	500 0	5	750 0	15	1000	14	25 00	18
A 1 1016 P k # 2	A	10 00	4	100 0	18	2 0 0	3	00 0	10	7 0 0	17	1000	12	2 00	**23**
A 1 1016 P k # 3	A	10 00	16	100 0	20	250 0	7	500 0	5	750 0	19	1000	9	25 00	**22**
A 1 1016 P k # 4	A	10 00	17	100 0	19	250 0	5	500 0		750 0	18	1000	6	25 00	**26**
A 1 1016 P k # 5	A	10 00	9	100 0	17	250 0	8	500 0	8	750 0	19	1000	10	25 00	20
A 1 1260 P k # 1	A	10 00	12	100 0	**22**	250 0	10	500 0	11	750 0	19	1000	10	25 00	20
A 1 1260 P k # 2	A	10 00	10	100 0	20	2 0 0	11	500 0	10	7 0 0	18	1000	9	25 00	17
A 1 1260 P k # 3	A	10 00	9	100 0	20	250 0	11	500 0	10	750 0	18	1000	10	25 00	17
A 1 1260 P k # 4	A	10 00	6	100 0	20	250 0	13	500 0	9	750 0	18	1000	11	25 00	13
A 1 1260 P k # 5	A	10 00	14	100 0	**21**	250 0	15	500 0	9	750 0	17	1000	7	25 00	12
TCMX	A	2 000	5	20 00	18	50 00	4	100 0	8	150 0	19	200 0	**22**	5 000	**22**
D hl b ph yl	A	2 000	8	20 00	19	50 00	13	100 0	9	1 0 0	19	200 0	9	000	14
A 1 1016 P k # 1	B	10 00	7	100 0	6	250 0	1	500 0	1	750 0	0	1000	1	25 00	1
A 1 1016 P k # 2	B	10 00	5	100 0	3	250 0	4	500 0	4	750 0	10	1000	3	25 00	**22**
A 1 1016 P k # 3	B	10 00	16	100 0	8	250 0	1	500 0	2	750 0	3	1000	2	25 00	8
A 1 1016 P k # 4	B	10 00	20	100 0	7	250 0	0	500 0	2	750 0	6	1000	5	25 00	12
A 1 1016 P k # 5	B	10 00	6	100 0	6	250 0	2	500 0	4	750 0	10	1000	1	25 00	4
A 1 1260 P k # 1	B	10 00	12	100 0	7	250 0	7	500 0	9	750 0	13	1000	6	25 00	**40**
A 1 1260 P k # 2	B	10 00	2	100 0	10	250 0	5	500 0	8	750 0	11	1000	5	25 00	**22**
A 1 1260 P k # 3	B	10 00	6	100 0	10	250 0	6	500 0	7	750 0	10	1000	4	25 00	**22**
A 1 1260 P k # 4	B	10 00	2	100 0	9	250 0	9	500 0	10	750 0	15	1000	7	25 00	**35**
A 1 1260 P k # 5	B	10 00	3	100 0	13	2 0 0	6	500 0	4	750 0	9	1000	2	25 00	7
TCMX	B	2 000	1	20 00	8	50 00	1	100 0	4	150 0	10	200 0	12	5 000	18
D hl b ph yl	B	2 000	9	20 00	10	50 00	15	100 0	8	150 0	**21**	200 0	8	5 000	**32**

KMH 04/14/10 corrected automatically drawn baselines

KMH 04/14/10 re-ran level 2 to improve -D

Analyst KMH Date 04/14/10 Reviewer EAH Date 04/14/10

I t m t m t 0 p 1 p 2 AVRC A g p f t

CURTIS & TOMPKINS 2ND SOURCE CALIBRATION SUMMARY FOR 219556 PCBS Miscell
EPA 8082

Inst GC22 Name 1660_103
Calnum 250149469001 Cal Date 13-APR-2010

ICV 250149469021 (103_021 14-APR-2010) stds S14374

Analyte	Ch	Spiked	Quant	Units	%D	Max	Flags
Aroclor-1016	A	250 0	244 3	pg/uL	-2	15	
Aroclor-1260	A	250 0	229 1	pg/uL	-8	15	
Aroclor-1016	B	250 0	286 5	pg/uL	15	15	
Aroclor-1260	B	250 0	285 3	pg/uL	14	15	

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 219556 PCBS Miscell EPA 8082

Inst GC22
Calnum 250160380001
Units pg/uL

Name 1660_111
Date 21-APR-2010 10 46
X Axis R

L l	F l	S q m	S mpl ID	A ly d	Stds
L1	111_00	2 0160380005	PCB2 _	21 APR 2010 10 46	S139 9
L	111_006	250160380006	PCB100_20	21 APR 2010 11 1	S13960
L	111_007	250160380007	PCB250_50	21 APR 2010 11 39	S13961
L4	111_008	250160380008	PCB500_100	21 APR 2010 12 06	S13962
L5	111_009	250160380009	PCB750_150	21 APR 2010 12 32	S13963
L6	111_010	0160380010	PCB1000_200	21 APR 2010 12 8	S13964
L7	111_012	250160380012	PCB10_2	21 APR 2010 13 52	S13958

A lyt	Ch	L1	L2	L3	L4	L5	L6	L7	Typ	0 al 2 A g	%RSD	M R 2	M RSD	Flg
A 1 1016 P k # 1	A	30 960	27 660	25 428	23 128	20 712	20 411	29 400	AVRG	0 03939 25 386	16	99	20	
A 1 1016 P k # 2	A	95 040	82 440	74 580	65 492	60 851	58 147	92 800	AVRG	0 01322 75 621	20	99	20	
A 1 1016 P k # 3	A	52 040	46 760	42 524	40 66	34 707	33 612	53 200	AVRG	0 02309 43 301	18	99	20	
A 1 1016 P k # 4	A	27 720	25 230	23 732	20 636	18 835	17 727	30 800	AVRG	0 04251 23 526	20	99	20	
A 1 1016 P k # 5	A	43 840	41 310	37 840	33 222	30 019	28 380	42 100	AVRG	0 02727 36 673	17	99	20	
A 1 1260 P k # 1	A	112 80	109 30	97 060	94 802	81 129	76 862	116 70	AVRG	0 01016 98 379	16	99	20	
A 1 1260 P k # 2	A	88 880	83 690	76 712	71 494	63 411	59 099	8 300	AVRG	0 01324 7 12	15	99	20	
A 1 1260 P k # 3	A	87 680	91 190	74 720	68 918	61 107	7 152	85 100	AVRG	0 01331 75 124	18	99	20	
A cl 1260 P k # 4	A	208 00	196 15	186 60	174 26	150 20	137 35	216 20	AVRG	0 00552 181 25	16	99	20	
A 1 1260 P k # 5	A	103 32	98 710	93 060	87 012	75 952	70 553	108 30	AVRG	0 01099 90 987	15	99	20	
TCMX	A	1789 4	1558 6	1456 8	1269 9	1122 0		1837 0	AVRG	6 64E 4 1 05 6	19	99	20	
D hl b ph yl	A	1686 0	1584 3	1540 8	1448 8	1252 6	1159 8	1993 0	AVRG	6 6E 4 1523 6	18	99	20	
A 1 1016 P k # 1	B	11 040	9 9700	10 864	9 9260	9 7280	9 1650	11 400	AVRG	0 09710 10 299	8	99	20	
A 1 1016 P k # 2	B	33 040	30 000	29 032	28 866	28 620	26 690	29 900	AVRG	0 03396 29 450	7	99	20	
A 1 1016 P k # 3	B	14 960	12 900	13 012	12 816	12 615	11 784	14 500	AVRG	0 07560 13 227	8	99	20	
A 1 1016 P k # 4	B	8800	6 2600	6 15 0	6 1840	6 1213	5 69 0	5 6000	AVRG	0 16710 5 9846	4	99	20	
A 1 1016 P k # 5	B	8 0400	7 8700	7 8280	7 9840	8 1253	7 2580	8 1000	AVRG	0 12680 7 8865	4	99	20	
A 1 1260 P k # 1	B	39 440	42 670	37 256	36 93	36 443	32 126	38 500	AVRG	0 02658 37 624	9	99	20	
A cl 1260 P k # 2	B	36 800	34 390	30 380	29 662	29 163	25 665	37 600	AVRG	0 03130 31 951	14	99	20	
A 1 1260 P k # 3	B	25 120	26 670	24 080	23 808	23 393	20 746	28 100	AVRG	0 04072 24 560	10	99	20	
A 1 1260 P k # 4	B	68 760	71 690	63 028	60 778	59 440	4 066	75 000	AVRG	0 01 46 64 680	11	99	20	
A 1 1260 P k # 5	B	29 760	31 470	28 504	27 740	27 407	25 475	31 500	AVRG	0 03468 28 837	8	99	20	
TCMX	B	503 20	454 70	421 62	397 31	385 33	359 49	467 00	AVRG	0 00234 426 95	12	99	20	
D hl b ph yl	B	566 60	507 65	444 06	405 54	400 89	394 06	595 50	AVRG	0 00211 473 47	18	99	20	

Sp k d Am t / D ft	Ch	L1	%D	L2	%D	L3	%D	L4	%D	L5	D	L6	%D	L7	%D
A 1 1016 P k # 1	A	25 00	**22**	100 0	9	250 0	0	500 0	9	750 0	18	1000	20	10 00	16
A 1 1016 P k # 2	A	25 00	**26**	100 0	9	2 0 0	1	00 0	13	750 0	20	1000	**23**	10 00	**23**
A 1 1016 P k # 3	A	25 00	20	100 0	8	2 0 0	2	500 0	7	750 0	20	1000	**22**	10 00	**23**
A 1 1016 P k # 4	A	25 00	18	100 0	7	250 0	1	500 0	12	750 0	20	1000	**25**	10 00	**31**
A 1 1016 P k # 5	A	25 00	20	100 0	13	250 0	3	500 0	9	750 0	18	1000	**23**	10 00	15
A 1 1260 P k # 1	A	25 00	15	100 0	11	250 0	1	500 0	4	750 0	18	1000	**22**	10 00	19
A 1 1260 P k # 2	A	25 00	18	100 0	11	250 0	2	500 0	5	750 0	16	1000	**22**	10 00	13
A 1 1260 P k # 3	A	25 00	17	100 0	**21**	250 0	1	500 0	8	750 0	19	1000	**24**	10 00	13
A 1 1260 P k # 4	A	25 00	15	100 0	8	250 0	3	500 0	4	750 0	17	1000	**24**	10 00	19
A 1 1260 P k # 5	A	25 00	14	100 0	8	250 0	2	500 0	4	750 0	17	1000	**22**	10 00	19
TCMX	A	5 000	19	20 00	4	50 00	3	100 0	16	150 0	**25**			2 000	**22**
D hl b ph yl	A	5 000	11	20 00	4	50 00	1	100 0	5	150 0	18	200 0	**24**	2 000	**31**
A 1 1016 P k # 1	B	25 00	7	100 0	3	250 0	5	500 0	4	750 0	6	1000	11	10 00	11
A 1 1016 P k # 2	B	25 00	12	100 0	2	250 0	1	500 0	2	750 0	3	1000	9	10 00	2
A 1 1016 P k # 3	B	25 00	13	100 0	2	250 0	2	500 0	3	750 0	5	1000	11	10 00	10
A 1 1016 P k # 4	B	25 00	2	100 0	5	250 0	3	500 0	3	750 0	2	1000	5	10 00	6
A 1 1016 P k # 5	B	25 00	2	100 0	0	250 0	1	500 0	1	750 0	3	1000	8	10 00	3
A 1 1260 P k # 1	B	25 00	5	100 0	13	250 0	1	500 0	2	750 0	3	1000	15	10 00	2
A 1 1260 P k # 2	B	25 00	15	100 0	8	2 0 0	5	500 0	7	750 0	9	1000	20	10 00	18
A 1 1260 P k # 3	B	25 00	2	100 0	9	250 0	2	500 0	3	750 0	5	1000	16	10 00	14
A 1 1260 P k # 4	B	25 00	6	100 0	11	250 0	3	500 0	6	750 0	8	1000	16	10 00	16
A 1 1260 P k # 5	B	25 00	3	100 0	9	250 0	1	00 0	4	750 0	5	1000	12	10 00	9
TCMX	B	000	18	20 00	6	50 00	1	100 0	7	150 0	10	200 0	16	2 000	9
D hl b ph yl	B	5 000	20	20 00	7	50 00	6	100 0	14	150 0	15	200 0	17	2 000	**26**

KMH 04/21/10 corrected automatically drawn baselines

KMH 04/21/10 re-ran level 1 and dropped the high point of TCMX on ch a to pass RSD

Analyst KMH Date 04/21/10 Reviewer EAH Date 04/21/10

I t m t m t 0 p 1 p 2 a2 AVRG A g p f t

P 2 f 2

250160380001

CURTIS & TOMPKINS 2ND SOURCE CALIBRATION SUMMARY FOR 219556 PCBS Miscell
EPA 8082

Inst GC22 Name 1660_111
Calnum 250160380001 Cal Date 21-APR-2010

ICV 250160380014 (111_014 21-APR-2010) stds S14374

Analyte	Ch	Spiked	Quant	Units	%D	Max	Flags
Aroclor-1016	A	250 0	231 2	pg/uL	-8	15	
Aroclor-1260	A	250 0	218 1	pg/uL	-13	15	
Aroclor-1016	B	250 0	271 2	pg/uL	8	15	
Aroclor-1260	B	250 0	267 7	pg/uL	7	15	

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 219556 PCBS Miscell EPA 8082

Inst GC22
Calnum 250162270001
Units pg/uL

Name ar1242_112-5pt
Date 23-APR-2010 11 18
X Axis R

L l	F l	S q m	S mpl ID	A ly d	Std
L1	112_020	250162270020	AR1242_100	23 APR 2010 11 18	S13898
L	112_021	250162270021	AR1242_250	23 APR 2010 11 44	S13899
L3	112_022	250162270022	AR1242_500	23 APR 2010 12 11	13900
L4	112_023	250162270023	AR1242_1000	23 APR 2010 12 37	S13901
L5	112_025	250162270025	AR1242_10	23 APR 2010 13 36	S13897

A lyt	Ch	L1	L2	L3	L4	L5	Type	0	1	2	2 A g	%RSD	M R 2	M RSD	Flg
A 1 1242 P k # 1	A	24 560	21 752	19 578	18 107	27 800	AVRG		0 04472		22 359	17	99	20	
A 1 1242 P k # 2	A	71 850	63 008	56 726	53 355	87 000	AVRG		0 01506		66 388	20	99	20	
A 1 1242 P k # 3	A	42 240	37 316	32 940	30 506	47 100	AVRG		0 02630		38 020	18	99	20	
A 1 1242 P k # 4	A	23 120	20 788	18 184	16 798	27 000	AVRG		0 04722		21 178	19	99	20	
A 1 1242 P k # 5	A	37 550	32 536	29 330	26 453	43 100	AVRG		0 02959		33 794	20	99	20	
A 1 1242 P k # 1	B	9 1900	8 6160	8 0920	8 090	7 3000	AVRG		0 1 075		8 2814	8	99	20	
A 1 1242 P k # 2	B	27 200	25 732	24 850	24 040	24 800	AVRG		0 03949		25 324	5	99	20	
A 1 1242 P k # 3	B	12 660	11 476	11 192	10 620	10 100	AVRG		0 08921		11 210	9	99	20	
A 1 1242 P k # 4	B	5 9 00	5 120	5 4600	5 2660	3000	AVRG		0 18210		5 4916	5	99	20	
A 1 1242 P k # 5	B	8 3000	7 2600	7 1060	6 9 10	6 6000	AVRG		0 13794		7 2494	9	99	20	

Sp ked Am t / D ft	Ch	L1	%D	L2	%D	L3	%D	L4	%D	L5	D
A 1 1242 P k # 1	A	100 0	10	250 0	3	500 0	12	1000	19	10 00	**24**
A 1 1242 P k # 2	A	100 0	8	250 0	5	500 0	15	1000	20	10 00	**31**
A 1 1242 P k # 3	A	100 0	11	250 0	2	500 0	13	1000	20	10 00	**24**
A 1 1242 P k # 4	A	100 0	9	250 0	2	500 0	14	1000	**21**	10 00	**27**
A 1 1242 P k # 5	A	100 0	11	250 0	4	500 0	13	1000	**22**	10 00	**28**
A 1 1242 P k # 1	B	100 0	11	250 0	4	500 0	2	1000	1	10 00	12
A 1 1242 P k # 2	B	100 0	7	250 0	2	500 0	2	1000	5	10 00	2
A 1 1242 P k # 3	B	100 0	13	250 0	2	500 0	0	1000	5	10 00	10
A 1 1242 P k # 4	B	100 0	8	250 0	0	500 0	1	1000	4	10 00	3
A 1 1242 P k # 5	B	100 0	14	250 0	0	500 0	2	1000	4	10 00	9

KMH 04/23/10 re-ran level 1 for RSD

KMH 04/23/10 corrected automatically drawn baselines

Analyst KMH Date 04/23/10 Reviewer EAH Date 04/23/10

I t m t m t 0 p 1 p 2 2 AVRC A g p f t

2 0162270001

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219556 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	PCB250_50	IDF	1 0
Seqnum	250159257003	File	110_003	Time	20-APR-2010 15 10
Cal	250149469001	Caldate	13-APR-2010		
Standards	S13961				

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1016	A			250 0	257 0	pg/uL	3	15	
Aroclor-1260	A			250 0	255 4	pg/uL	2	15	
TCMX	A	1170 8	1253 5	50 00	53 53	pg/uL	7	15	
Decachlorobiphenyl	A	1088 5	1088 1	50 00	49 98	pg/uL	0	15	
Aroclor-1016	B			250 0	237 3	pg/uL	-5	15	
Aroclor-1260	B			250 0	221 2	pg/uL	-12	15	
TCMX	B	389 36	335 46	50 00	43 08	pg/uL	-14	15	
Decachlorobiphenyl	B	378 62	358 56	50 00	47 35	pg/uL	-5	15	

KMH 04/20/10 Corrected automatically drawn baseline

Analyst KMH Date 04/20/10 Reviewer EAH Date 04/21/10

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219556 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	PCB500_100	IDF	1 0
Seqnum	250159257019	File	110_019	Time	21-APR-2010 00 32
Cal	250149469001	Caldate	13-APR-2010		
Standards	S13962				

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1016	A			500 0	534 5	pg/uL	7	15	
Aroclor-1260	A			500 0	575 2	pg/uL	15	15	
TCMX	A	1170 8	1200 1	100 0	102 5	pg/uL	3	15	
Decachlorobiphenyl	A	1088 5	1340 3	100 0	123 1	pg/uL	**23**	15	c+
Aroclor-1016	B			500 0	563 0	pg/uL	13	15	
Aroclor-1260	B			500 0	553 7	pg/uL	11	15	
TCMX	B	389 36	386 84	100 0	99 35	pg/uL	-1	15	
Decachlorobiphenyl	B	378 62	438 79	100 0	115 9	pg/uL	**16**	15	c+

KMH 04/21/10 Corrected automatically drawn baseline

Analyst KMH Date 04/21/10 Reviewer EAH Date 04/21/10

h gh b CCV

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219556 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	PCB250_50	IDF	1 0
Seqnum	250163576002	File	113_002	Time	23-APR-2010 14 43
Cal	250160380001	Caldate	21-APR-2010		
Standards	S13961				

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1016	A			250 0	251 0	pg/uL	0	15	
Aroclor-1260	A			250 0	263 2	pg/uL	5	15	
TCMX	A	1505 6	1464 9	50 00	48 65	pg/uL	-3	15	
Decachlorobiphenyl	A	1523 6	1591 6	50 00	52 23	pg/uL	4	15	
Aroclor-1016	B			250 0	279 2	pg/uL	12	15	
Aroclor-1260	B			250 0	302 2	pg/uL	**21**	15	c+ ***
TCMX	B	426 95	461 04	50 00	53 99	pg/uL	8	15	
Decachlorobiphenyl	B	473 47	545 56	50 00	57 61	pg/uL	15	15	

KMH 04/23/10 Corrected automatically drawn baseline

Analyst KMH Date 04/23/10 Reviewer EAH Date 04/26/10

h gh b CCV

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219556 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	AR1242	IDF	1 0
Seqnum	250163576003	File	113_003	Time	23-APR-2010 15 12
Cal	250162270001	Caldate	23-APR-2010		
Standards	S13599				

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1242	A	250 0	216 4	pg/uL	-13	15	
Aroclor-1242	B	250 0	241 8	pg/uL	-3	15	

KMH 04/23/10 Corrected automatically drawn baseline

Analyst KMH Date 04/23/10 Reviewer EAH Date 04/26/10

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219556 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	AR2154	IDF	1 0
Seqnum	250163576004	File	113_004	Time	23-APR-2010 15 38
Cal	250137640001	Caldate	06-APR-2010		
Standards	S14195				

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1254	A	250 0	292 8	pg/uL	**17**	15	c+ ***
Aroclor-1254	B	250 0	274 8	pg/uL	10	15	

Analyst KMH Date 04/23/10 Reviewer EAH Date 04/26/10

+ high bias CCV

250163576004

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219556 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	PCB500_100	IDF	1 0
Seqnum	250163576014	File	113_014	Time	23-APR-2010 20 02
Cal	250160380001	Caldate	21-APR-2010		
Standards	S13962				

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1016	A			500 0	446 5	pg/uL	-11	15	
Aroclor-1260	A			500 0	474 4	pg/uL	-5	15	
TCMX	A	1505 6	1282 7	100 0	85 20	pg/uL	-15	15	
Decachlorobiphenyl	A	1523 6	1459 3	100 0	95 78	pg/uL	-4	15	
Aroclor-1016	B			500 0	497 9	pg/uL	0	15	
Aroclor-1260	B			500 0	510 6	pg/uL	2	15	
TCMX	B	426 95	402 98	100 0	94 39	pg/uL	-6	15	
Decachlorobiphenyl	B	473 47	433 13	100 0	91 48	pg/uL	-9	15	

TKB 04/25/10 Corrected automatically drawn baseline

Analyst KMH Date 04/26/10 Reviewer EAH Date 04/26/10

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219556 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	AR2154	IDF	1 0
Seqnum	250163576016	File	113_016	Time	23-APR-2010 20 55
Cal	250137640001	Caldate	06-APR-2010		
Standards	S14195				

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1254	A	250 0	281 0	pg/uL	12	15	
Aroclor-1254	B	250 0	255 1	pg/uL	2	15	

TKB 04/25/10 Corrected automatically drawn baseline

Analyst TKB Date 04/25/10 Reviewer EAH Date 04/26/10

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219556 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	AR1242	IDF	1 0
Seqnum	250163576018	File	113_018	Time	23-APR-2010 21 48
Cal	250162270001	Caldate	23-APR-2010		
Standards	S13599				

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1242	A	250 0	242 6	pg/uL	-3	15	
Aroclor-1242	B	250 0	226 5	pg/uL	-9	15	

TKB 04/25/10 Corrected automatically drawn baseline

Analyst TKB Date 04/25/10 Reviewer EAH Date 04/26/10

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219556 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	PCB250_50	IDF	1 0
Seqnum	250167502002	File	116_002	Time	26-APR-2010 08 08
Cal	250160380001	Caldate	21-APR-2010		
Standards	S13961				

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1016	A			250 0	233 6	pg/uL	-7	15	
Aroclor-1260	A			250 0	235 0	pg/uL	-6	15	
TCMX	A	1505 6	1365 0	50 00	45 33	pg/uL	-9	15	
Decachlorobiphenyl	A	1523 6	1409 5	50 00	46 26	pg/uL	-7	15	
Aroclor-1016	B			250 0	247 6	pg/uL	-1	15	
Aroclor-1260	B			250 0	279 2	pg/uL	12	15	
TCMX	B	426 95	439 90	50 00	51 52	pg/uL	3	15	
Decachlorobiphenyl	B	473 47	515 90	50 00	54 48	pg/uL	9	15	

KMH 04/26/10 Corrected automatically drawn baseline

Analyst KMH Date 04/26/10 Reviewer EAH Date 04/26/10

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219556 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	AR2154	IDF	1 0
Seqnum	250167502004	File	116_004	Time	26-APR-2010 11 12
Cal	250137640001	Caldate	06-APR-2010		
Standards	S14195				

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1254	A	250 0	230 4	pg/uL	-8	15	
Aroclor-1254	B	250 0	267 4	pg/uL	7	15	

KMH 04/26/10 Corrected automatically drawn baseline

Analyst KMH Date 04/26/10 Reviewer EAH Date 04/26/10

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219556 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	AR1242	IDF	1 0
Seqnum	250167502005	File	116_005	Time	26-APR-2010 11 39
Cal	250162270001	Caldate	23-APR-2010		
Standards	S13599				

Analyte	Ch	Spiked	Quant	Units	%-D	Max %-D	Flags
Aroclor-1242	A	250 0	214 1	pg/uL	-14	15	
Aroclor-1242	B	250 0	249 8	pg/uL	0	15	

KMH 04/26/10 Corrected automatically drawn baseline

Analyst KMH Date 04/26/10 Reviewer EAH Date 04/26/10

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219556 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	PCB500_100	IDF	1 0
Seqnum	250167502007	File	116_007	Time	26-APR-2010 12 34
Cal	250160380001	Caldate	21-APR-2010		
Standards	S13962				

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1016	A			500 0	424 5	pg/uL	-15	15	
Aroclor-1260	A			500 0	428 6	pg/uL	-14	15	
TCMX	A	1505 6	1196 5	100 0	79 47	pg/uL	**-21**	15	c-
Decachlorobiphenyl	A	1523 6	1323 8	100 0	86 88	pg/uL	-13	15	
Aroclor-1016	B			500 0	529 1	pg/uL	6	15	
Aroclor-1260	B			500 0	546 0	pg/uL	9	15	
TCMX	B	426 95	411 76	100 0	96 44	pg/uL	-4	15	
Decachlorobiphenyl	B	473 47	491 42	100 0	103 8	pg/uL	4	15	

KMH 04/26/10 Corrected automatically drawn baseline

Analyst KMH Date 04/26/10 Reviewer EAH Date 04/26/10

1 w b CCV

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219556 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	AR2154	IDF	1 0
Seqnum	250167502008	File	116_008	Time	26-APR-2010 13 01
Cal	250137640001	Caldate	06-APR-2010		
Standards	S14195				

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1254	A	250 0	265 2	pg/uL	6	15	
Aroclor-1254	B	250 0	265 7	pg/uL	6	15	

Analyst KMH Date 04/26/10 Reviewer EAH Date 04/26/10

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 219556 PCBS Miscell
EPA 8082

Inst	GC22	Run Name	AR1242	IDF	1 0
Seqnum	250167502009	File	116_009	Time	26-APR-2010 13 27
Cal	250162270001	Caldate	23-APR-2010		
Standards	S13599				

Analyte	Ch	Spiked	Quant	Units	-D	Max -D	Flags
Aroclor-1242	A	250 0	223 6	pg/uL	-11	15	
Aroclor-1242	B	250 0	247 6	pg/uL	-1	15	

KMH 04/26/10 Corrected automatically drawn baseline

Analyst KMH Date 04/26/10 Reviewer EAH Date 04/26/10

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 250137640

Instrument GC22 Begun 04/05/10 14 00
Method EPA 8082 SOP Version pcb_rv 7

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used
001	095_001	X	HEX			04/05/10 14 00	1 0	
002	095_002	CCV	PCB250_50			04/05/10 14 27	1 0	1
003	095_003	CCV	AR2154			04/05/10 16 35	1 0	2
004	095_004	CCV	AR1248			04/05/10 17 01	1 0	3
005	095_005	SAMPLE	218999-029	Miscell	161318	04/05/10 20 10	1 0	
006	095_006	SAMPLE	218999-033	Miscell	161318	04/05/10 20 37	1 0	
007	095_007	SAMPLE	218999-001	Miscell	161416	04/05/10 21 03	1 0	
008	095_008	SAMPLE	218999-002	Miscell	161416	04/05/10 21 30	1 0	
009	095_009	SAMPLE	218999-003	Miscell	161416	04/05/10 21 56	1 0	
010	095_010	SAMPLE	218999-004	Miscell	161416	04/05/10 22 22	1 0	
011	095_011	SAMPLE	218999-005	Miscell	161416	04/05/10 22 49	1 0	
012	095_012	SAMPLE	218999-006	Miscell	161416	04/05/10 23 15	1 0	
013	095_013	SAMPLE	218999-007	Miscell	161416	04/05/10 23 41	1 0	
014	095_014	SAMPLE	218999-008	Miscell	161416	04/06/10 00 08	2 0	2 PCB1016#4=1100
015	095_015	CCV	PCB500_100			04/06/10 00 34	1 0	4
016	095_016	CCV	PCB500_100			04/06/10 01 00	1 0	4
017	095_017	CCV	AR2154			04/06/10 01 27	1 0	2
018	095_018	CCV	AR1248			04/06/10 01 53	1 0	3
019	095_019	SAMPLE	218999-013	Miscell	161416	04/06/10 02 20	5 0	
020	095_020	SAMPLE	218999-017	Miscell	161416	04/06/10 02 46	200 0	6 PCB1260#1=1300
021	095_021	BLANK	QC538677	Oil	161559	04/06/10 03 13	1 0	
022	095_022	BS	QC538678	Oil	161559	04/06/10 03 39	1 0	
023	095_023	BSD	QC538679	Oil	161559	04/06/10 04 05	1 0	
024	095_024	SAMPLE	219050-001	Oil	161559	04/06/10 04 32	1 0	
025	095_025	SAMPLE	219118-001	Oil	161559	04/06/10 04 58	1 0	
026	095_026	SAMPLE	219118-002	Oil	161559	04/06/10 05 25	1 0	
027	095_027	SAMPLE	219118-003	Oil	161559	04/06/10 05 51	1 0	
028	095_028	SAMPLE	219118-004	Oil	161559	04/06/10 06 17	1 0	
029	095_029	CCV	PCB250_50			04/06/10 06 44	1 0	1
030	095_030	CCV	PCB250_50			04/06/10 07 10	1 0	1
031	095_031	CCV	AR2154			04/06/10 07 36	1 0	2
032	095_032	CCV	AR1248			04/06/10 08 03	1 0	3
033	095_033	X	HEX			04/06/10 08 29	1 0	
034	095_034	IB	CAL			04/06/10 08 56	1 0	
035	095_035	ICAL	AR2154_10			04/06/10 09 22	1 0	5
036	095_036	ICAL	AR2154_100			04/06/10 09 49	1 0	6
037	095_037	ICAL	AR2154_250			04/06/10 10 15	1 0	2
038	095_038	ICAL	AR2154_500			04/06/10 10 41	1 0	7
039	095_039	ICAL	AR2154_1000			04/06/10 11 07	1 0	8
040	095_040	X	HEX			04/06/10 11 41	1 0	
041	095_041	ICAL	AR2154_10			04/06/10 12 07	1 0	5
042	095_042	X	HEX			04/06/10 12 34	1 0	
043	095_043	ICV	AR2154			04/06/10 13 00	1 0	9
044	095_044	CCV	PCB500_100			04/06/10 13 28	1 0	4
045	095_045	SAMPLE	219239-004	Miscell	161668	04/06/10 13 54	1 0	
046	095_046	CCV	PCB250_50			04/06/10 14 21	1 0	1
047	095_047	CCV	AR2154			04/06/10 14 47	1 0	2

KMH 04/06/10 I verified that the vials loaded on the instrument matched the sequence data entry for runs 1 through 47

St da d d 1 S13961 2 S14195 3 S13877 4 S13962 5 S14193 6 S14194 7 S14196 8 S14197 9 S13261

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 250149469

Instrument GC22 Begun 04/13/10 19 09
Method EPA 8082 SOP Version pcb_rv 7

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used
001	103_001	X	PRIMER			04/13/10 19 09	1 0	
002	103_002	X	PRIMER			04/13/10 19 35	1 0	
003	103_003	X	PRIMER			04/13/10 20 02	1 0	
004	103_004	X	PRIMER			04/13/10 20 28	1 0	
005	103_005	X	PRIMER			04/13/10 20 54	1 0	
006	103_006	X	PRIMER			04/13/10 21 20	1 0	
007	103_007	X	PRIMER			04/13/10 21 47	1 0	
008	103_008	X	HEX			04/13/10 22 13	1 0	
009	103_009	X	HEX			04/13/10 22 39	1 0	
010	103_010	X	HEX			04/13/10 23 05	1 0	
011	103_011	IB	CAL			04/13/10 23 32	1 0	
012	103_012	ICAL	PCB10_2			04/13/10 23 58	1 0	1
013	103_013	ICAL	PCB25_5			04/14/10 00 24	1 0	2
014	103_014	ICAL	PCB100_20			04/14/10 00 50	1 0	3
015	103_015	ICAL	PCB250_50			04/14/10 01 16	1 0	4
016	103_016	ICAL	PCB500_100			04/14/10 01 43	1 0	5
017	103_017	ICAL	PCB750_150			04/14/10 02 09	1 0	6
018	103_018	ICAL	PCB1000_200			04/14/10 02 35	1 0	7
019	103_019	X	HEX			04/14/10 03 02	1 0	
020	103_020	X	ULTRA_1660			04/14/10 03 28	1 0	8
021	103_021	ICV	ULTRA_1660			04/14/10 03 55	1 0	8
022	103_022	X	HEX			04/14/10 04 21	1 0	
023	103_023	ICAL	AR1016			04/14/10 04 47	1 0	9
024	103_024	ICAL	AR1232			04/14/10 05 13	1 0	10
025	103_025	ICAL	AR1242			04/14/10 05 40	1 0	11
026	103_026	ICAL	AR1248			04/14/10 06 06	1 0	12
027	103_027	ICAL	AR2154			04/14/10 06 32	1 0	13
028	103_028	ICAL	AR1262			04/14/10 06 59	1 0	14
029	103_029	ICAL	AR1268			04/14/10 07 25	1 0	15
030	103_030	X	HEX			04/14/10 07 51	1 0	
031	103_031	X	HEX			04/14/10 11 02	1 0	
032	103_032	ICAL	PCB25_5			04/14/10 11 28	1 0	2

KMH 04/14/10 I verified that the vials loaded on the instrument matched the sequence data entry for runs 1 through 32

St d d d 1 S13958 2 S13959 3 S13960 4 S13961 5 S13962 6 S13963 7 S13964 8 S14374 9 S14246 10 S13363 11 S13599
12 S13877 13 S14195 14 S14182 15 S12388

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 250159257

Instrument GC22 Begun 04/20/10 14 17
Method EPA 8082 SOP Version pcb_rv 7

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used
001	110_001	X	HEX			04/20/10 14 17	1 0	
002	110_002	X	PCB250_50			04/20/10 14 44	1 0	1
003	110_003	CCV	PCB250_50			04/20/10 15 10	1 0	1
004	110_004	X	AR2154			04/20/10 15 58	1 0	2
005	110_005	CCV	AR1248			04/20/10 16 25	1 0	3
006	110_006	CCV	AR1242			04/20/10 16 51	1 0	4
007	110_007	CCV	AR2154			04/20/10 17 18	1 0	2
008	110_008	BLANK	QC541210	Miscell	162203	04/20/10 17 44	1 0	
009	110_009	LCS	QC541211	Miscell	162203	04/20/10 18 11	1 0	
010	110_010	SAMPLE	219586-001	Soil	162203	04/20/10 18 37	20 0	
011	110_011	MSS	219389-003	Soil	162203	04/20/10 19 04	1 0	
012	110_012	MS	QC541216	Soil	162203	04/20/10 19 30	1 0	
013	110_013	MSD	QC541217	Soil	162203	04/20/10 20 16	1 0	
014	110_014	MSS	219556-001	Miscell	162203	04/20/10 20 42	1 0	8 PCB1016#4=20000
015	110_015	MS	QC541218	Miscell	162203	04/20/10 21 09	1 0	9 PCB1016#4=19000
016	110_016	MSD	QC541219	Miscell	162203	04/20/10 21 35	1 0	9 PCB1016#4=24000
017	110_017	X	HEX			04/20/10 22 02	1 0	
018	110_018	BLANK	QC540556	Soil	162035	04/21/10 00 05	1 0	
019	110_019	CCV	PCB500_100			04/21/10 00 32	1 0	5
020	110_020	X	CCV			04/21/10 00 58	1 0	5
021	110_021	CCV	AR2154			04/21/10 01 25	1 0	2
022	110_022	CCV	AR1242			04/21/10 01 51	1 0	4
023	110_023	CCV	AR1248			04/21/10 02 17	1 0	3
024	110_024	LCS	QC540557	Soil	162035	04/21/10 02 43	1 0	
025	110_025	SAMPLE	219345-001	Soil	162035	04/21/10 03 10	1 0	
026	110_026	SAMPLE	219345-002	Soil	162035	04/21/10 03 36	1 0	
027	110_027	SAMPLE	219345-003	Soil	162035	04/21/10 04 03	1 0	
028	110_028	SAMPLE	219345-004	Soil	162035	04/21/10 04 29	1 0	
029	110_029	SAMPLE	219345-005	Soil	162035	04/21/10 04 55	1 0	
030	110_030	SAMPLE	219345-006	Soil	162035	04/21/10 05 22	1 0	
031	110_031	SAMPLE	219345-007	Soil	162035	04/21/10 05 48	1 0	
032	110_032	SAMPLE	219345-008	Soil	162035	04/21/10 06 15	1 0	
033	110_033	SAMPLE	219345-009	Soil	162035	04/21/10 06 41	1 0	
034	110_034	CCV	PCB250_50			04/21/10 07 08	1 0	1
035	110_035	X	CCV			04/21/10 07 34	1 0	1
036	110_036	CCV	AR2154			04/21/10 08 01	1 0	2
037	110_037	CCV	AR1248			04/21/10 08 27	1 0	3

KMH 04/21/10 I verified that the vials loaded on the instrument matched the sequence data entry for runs 1 through 37

Sta da ds sed 1 S13961 2 S14195 3 S13877 4 S13599 5 S13962

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 250160380

Instrument GC22 Begun 04/21/10 09 00
Method EPA 8082 SOP Version pcb_rv 7

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used
001	111_001	X	HEX			04/21/10 09 00	1 0	
002	111_002	X	HEX			04/21/10 09 26	1 0	
003	111_003	IB	CAL			04/21/10 09 53	1 0	
004	111_004	ICAL	PCB10_2			04/21/10 10 20	1 0	1
005	111_005	ICAL	PCB25_5			04/21/10 10 46	1 0	2
006	111_006	ICAL	PCB100_20			04/21/10 11 13	1 0	3
007	111_007	ICAL	PCB250_50			04/21/10 11 39	1 0	4
008	111_008	ICAL	PCB500_100			04/21/10 12 06	1 0	5
009	111_009	ICAL	PCB750_150			04/21/10 12 32	1 0	6
010	111_010	ICAL	PCB1000_200			04/21/10 12 58	1 0	7
011	111_011	X	HEX			04/21/10 13 25	1 0	
012	111_012	ICAL	PCB10_2			04/21/10 13 52	1 0	1
013	111_013	X	HEX			04/21/10 14 18	1 0	
014	111_014	ICV	ULTRA_1660			04/21/10 14 45	1 0	8
015	111_015	CCV	AR2154			04/21/10 16 08	1 0	9
016	111_016	CCV	AR1248			04/21/10 16 34	1 0	10
017	111_017	BLANK	QC539828	Soil	161843	04/21/10 17 30	1 0	
018	111_018	LCS	QC539829	Soil	161843	04/21/10 17 57	1 0	
019	111_019	SAMPLE	219312-001	Soil	161843	04/21/10 18 23	1 0	
020	111_020	SAMPLE	219312-002	Soil	161843	04/21/10 18 50	1 0	
021	111_021	SAMPLE	219312-003	Soil	161843	04/21/10 19 16	1 0	
022	111_022	SAMPLE	219312-004	Soil	161843	04/21/10 19 43	1 0	
023	111_023	SAMPLE	219312-005	Soil	161843	04/21/10 20 09	1 0	
024	111_024	SAMPLE	219312-006	Soil	161843	04/21/10 20 36	1 0	
025	111_025	SAMPLE	219312-007	Soil	161843	04/21/10 21 02	1 0	
026	111_026	SAMPLE	219312-008	Soil	161843	04/21/10 21 29	1 0	
027	111_027	CCV	PCB500_100			04/21/10 21 55	1 0	5
028	111_028	X	CCV			04/21/10 22 22	1 0	5
029	111_029	CCV	AR2154			04/21/10 22 48	1 0	9
030	111_030	CCV	AR1248			04/21/10 23 15	1 0	10
031	111_031	SAMPLE	219312-009	Soil	161843	04/21/10 23 41	1 0	
032	111_032	SAMPLE	219312-010	Soil	161843	04/22/10 00 08	1 0	
033	111_033	SAMPLE	219312-011	Soil	161843	04/22/10 00 34	1 0	
034	111_034	SAMPLE	219312-012	Soil	161843	04/22/10 01 00	1 0	
035	111_035	SAMPLE	219312-013	Soil	161843	04/22/10 01 27	1 0	
036	111_036	SAMPLE	219312-014	Soil	161843	04/22/10 01 53	1 0	
037	111_037	SAMPLE	219312-015	Soil	161843	04/22/10 02 20	1 0	
038	111_038	SAMPLE	219312-016	Soil	161843	04/22/10 02 46	1 0	
039	111_039	SAMPLE	219312-017	Soil	161843	04/22/10 03 13	1 0	
040	111_040	SAMPLE	219312-018	Soil	161843	04/22/10 03 39	1 0	
041	111_041	CCV	PCB250_50			04/22/10 04 05	1 0	4
042	111_042	X	CCV			04/22/10 04 32	1 0	4
043	111_043	CCV	AR2154			04/22/10 04 58	1 0	9
044	111_044	CCV	AR1248			04/22/10 05 25	1 0	10
045	111_045	SAMPLE	219312-019	Soil	161843	04/22/10 05 51	1 0	
046	111_046	MSS	219312-020	Soil	161843	04/22/10 06 18	1 0	
047	111_047	MS	QC539830	Soil	161843	04/22/10 06 44	1 0	
048	111_048	MSD	QC539831	Soil	161843	04/22/10 07 11	1 0	
049	111_049	CCV	PCB500_100			04/22/10 07 37	1 0	5
050	111_050	X	CCV			04/22/10 08 03	1 0	5
051	111_051	CCV	AR2154			04/22/10 08 30	1 0	9
052	111_052	CCV	AR1248			04/22/10 09 32	1 0	10

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 250160380

Instrument GC22 Begun 04/21/10 09 00
Method EPA 8082 SOP Version pcb_rv 7

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used
053	111_053	SAMPLE	219313-001	Soil	161888	04/22/10 09 58	5 0	
054	111_054	SAMPLE	219313-004	Soil	161888	04/22/10 10 25	5 0	
055	111_055	SAMPLE	219313-005	Soil	161888	04/22/10 10 51	5 0	
056	111_056	SAMPLE	219313-006	Soil	161888	04/22/10 11 20	5 0	
057	111_057	SAMPLE	219313-007	Soil	161888	04/22/10 11 47	100 0	6 PCB1260#5=2100
058	111_058	SAMPLE	219313-009	Soil	161888	04/22/10 12 13	10 0	
059	111_059	SAMPLE	219313-011	Soil	161888	04/22/10 12 40	5 0	
060	111_060	SAMPLE	219313-013	Soil	161888	04/22/10 13 25	2 0	
061	111_061	SAMPLE	219313-007	Soil	161888	04/22/10 14 01	500 0	
062	111_062	SAMPLE	219313-010	Soil	161888	04/22/10 14 27	1 0	
063	111_063	CCV	PCB250_50			04/22/10 14 54	1 0	4
064	111_064	CCV	AR2154			04/22/10 15 21	1 0	9
065	111_065	CCV	AR1248			04/22/10 15 49	1 0	10

KMH 04/22/10 I verified that the vials loaded on the instrument matched the sequence data entry for runs 1 through 65

Standa d sed 1 S13958 2 S13959 3 S13960 4 S13961 5 S13962 6 S13963 7 S13964 8 S14374 9 S14195 10 S13877
P g 2 f 2

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 250162270

Instrument GC22 Begun 04/22/10 16 30
Method EPA 8082 SOP Version pcb_rv 7

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
001	112_001	X	HEX			04/22/10 16 30	1 0		
002	112_002	CCV	PCB250_50			04/22/10 16 56	1 0	1	
003	112_003	CCV	AR2154			04/22/10 17 25	1 0	2	
004	112_004	SAMPLE	219556-002	Miscell	162203	04/22/10 17 59	1 0		2 PCB1016#2=12000
005	112_005	SAMPLE	219556-001	Miscell	162203	04/22/10 18 26	50 0		
006	112_006	SAMPLE	219604-001	Soil	162203	04/22/10 18 52	1 0		
007	112_007	MS	QC540000	Soil	161888	04/22/10 19 20	1 0		
008	112_008	MSD	QC540001	Soil	161888	04/22/10 19 46	1 0		
009	112_009	SAMPLE	219515-001	Soil	162203	04/22/10 20 12	1 0		
010	112_010	SAMPLE	219515-002	Soil	162203	04/22/10 20 38	1 0		
011	112_011	MS	QC541216	Soil	162203	04/22/10 21 05	1 0		
012	112_012	MSD	QC541217	Soil	162203	04/22/10 21 31	1 0		
013	112_013	CCV	PCB500_100			04/22/10 21 58	1 0	3	
014	112_014	X	CCV			04/22/10 22 24	1 0	3	
015	112_015	CCV	AR2154			04/22/10 22 51	1 0	2	
017	112_017	X	HEX			04/23/10 09 58	1 0		
018	112_018	IB	CAL			04/23/10 10 25	1 0		
019	112_019	ICAL	AR1242_10			04/23/10 10 51	1 0	4	
020	112_020	ICAL	AR1242_100			04/23/10 11 18	1 0	5	
021	112_021	ICAL	AR1242_250			04/23/10 11 44	1 0	6	
022	112_022	ICAL	AR1242_500			04/23/10 12 11	1 0	7	
023	112_023	ICAL	AR1242_1000			04/23/10 12 37	1 0	8	
024	112_024	X	HEX			04/23/10 13 09	1 0		
025	112_025	ICAL	AR1242_10			04/23/10 13 36	1 0	4	

KMH 04/23/10 I verified that the vials loaded on the instrument matched the sequence data entry for runs 1 through 25

St d d d 1 S13961 2 S14195 3 S13962 4 S13897 5 S13898 6 S13899 7 S13900 8 S13901

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 250163576

Instrument GC22 Begun 04/23/10 14 16
Method EPA 8082 SOP Version pcb_rv 7

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used
001	113_001	X	HEX			04/23/10 14 16	1 0	
002	113_002	CCV	PCB250_50			04/23/10 14 43	1 0	1
003	113_003	CCV	AR1242			04/23/10 15 12	1 0	2
004	113_004	CCV	AR2154			04/23/10 15 38	1 0	3
005	113_005	MSS	219556-001	Miscell	162203	04/23/10 16 05	50 0	
006	113_006	SAMPLE	219556-002	Miscell	162203	04/23/10 16 31	50 0	
007	113_007	SAMPLE	219556-003	Miscell	162203	04/23/10 16 57	50 0	
008	113_008	SAMPLE	219556-004	Miscell	162203	04/23/10 17 23	50 0	
009	113_009	SAMPLE	219556-005	Miscell	162203	04/23/10 17 50	50 0	
010	113_010	SAMPLE	219556-006	Miscell	162203	04/23/10 18 16	50 0	
011	113_011	SAMPLE	219556-007	Miscell	162203	04/23/10 18 42	50 0	
012	113_012	SAMPLE	219556-008	Miscell	162203	04/23/10 19 09	50 0	
013	113_013	X	HEX			04/23/10 19 35	1 0	
014	113_014	CCV	PCB500_100			04/23/10 20 02	1 0	4
015	113_015	X	CCV			04/23/10 20 28	1 0	4
016	113_016	CCV	AR2154			04/23/10 20 55	1 0	3
017	113_017	X	CCV			04/23/10 21 21	1 0	3
018	113_018	CCV	AR1242			04/23/10 21 48	1 0	2
019	113_019	X	CCV			04/23/10 22 14	1 0	2
020	113_020	SAMPLE	219389-001	Soil	162203	04/23/10 22 41	1 0	
021	113_021	SAMPLE	219389-002	Soil	162203	04/23/10 23 07	1 0	
022	113_022	SAMPLE	219389-004	Soil	162203	04/23/10 23 34	1 0	
023	113_023	SAMPLE	219467-001	Soil	162203	04/24/10 00 00	1 0	
024	113_024	SAMPLE	219467-002	Soil	162203	04/24/10 00 26	1 0	
025	113_025	CCV	PCB250_50			04/24/10 00 53	1 0	1
026	113_026	X	CCV			04/24/10 01 19	1 0	1
027	113_027	CCV	AR2154			04/24/10 01 46	1 0	3
028	113_028	X	CCV			04/24/10 02 12	1 0	3
029	113_029	X	HEX			04/24/10 02 39	1 0	

KMH 04/26/10 I verified that the vials loaded on the instrument matched the sequence data entry for runs 1 through 29

Sta d d sed 1 S13961 2 S13599 3 S14195 4 S13962

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 250167502

Instrument GC22 Begun 04/26/10 07 42
Method EPA 8082 SOP Version pcb_rv 7

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used
001	116_001	X	HEX			04/26/10 07 42	1 0	
002	116_002	CCV	PCB250_50			04/26/10 08 08	1 0	1
003	116_003	X	CCV			04/26/10 08 35	1 0	1
004	116_004	CCV	AR2154			04/26/10 11 12	1 0	2
005	116_005	CCV	AR1242			04/26/10 11 39	1 0	3
006	116_006	SAMPLE	219556-004	Miscell	162203	04/26/10 12 05	20 0	
007	116_007	CCV	PCB500_100			04/26/10 12 34	1 0	4
008	116_008	CCV	AR2154			04/26/10 13 01	1 0	2
009	116_009	CCV	AR1242			04/26/10 13 27	1 0	3
010	116_010	CCV	AR1248			04/26/10 17 55	1 0	5
011	116_011	BLANK	QC541491	Soil	162275	04/26/10 18 21	1 0	
012	116_012	LCS	QC541492	Soil	162275	04/26/10 18 47	1 0	
013	116_013	SAMPLE	219619-001	Miscell	162275	04/26/10 19 14	1 0	
014	116_014	MSS	219147-001	Soil	162275	04/26/10 19 40	1 0	
015	116_015	SAMPLE	219147-002	Soil	162275	04/26/10 20 06	1 0	
016	116_016	SAMPLE	219147-003	Soil	162275	04/26/10 20 33	1 0	
017	116_017	SAMPLE	219147-004	Soil	162275	04/26/10 20 59	1 0	
018	116_018	SAMPLE	219513-001	Soil	162275	04/27/10 06 19	1 0	
019	116_019	MS	QC541493	Soil	162275	04/27/10 06 45	1 0	
020	116_020	MSD	QC541494	Soil	162275	04/27/10 07 12	1 0	
021	116_021	CCV	PCB250_50			04/27/10 07 38	1 0	1
022	116_022	X	CCV			04/27/10 08 05	1 0	1
023	116_023	CCV	AR2154			04/27/10 08 31	1 0	2
024	116_024	CCV	AR1242			04/27/10 08 57	1 0	3
025	116_025	CCV	AR1248			04/27/10 09 24	1 0	5
026	116_026	X	HEX			04/27/10 09 50	1 0	

KMH 04/27/10 I verified that the vials loaded on the instrument matched the sequence data entry for runs 1 through 26

St d d d 1 S13961 2 S14195 3 S13599 4 S13962 5 S13877

SAMPLE PREPARATION SUMMARY

Batch #	162203			Analysis	PCB
Started By	KAL	Prep Date	20-APR-2010 10 30	Finished By	KAL
Method	3550B	SOP Version	PCB_3550_rv8	Units	g
Spike #1 ID	S14316	Spike #2 ID	S14375		

Sampl	Styp	M t	I t l	F al	Clea DF	P p DF	pH	Sp 1 V l	Sp 2 V l	Sp 3 Vol	Cle n Meth d	Analy s	Comments
219389 001		S l	30 03	25	1	0 8325		1				PCB	
219389 002		S l	30 17	25	1	0 8286		1				PCB	
219389 003		S l	30 16	25	1	0 8289		1				PCB	m
219389 004		S l	30 22	25	1	0 8273		1				PCB	
219467 001		S l	30 29	25	1	0 8254		1				PCB	
219467 002		S l	30 4	25	1	0 8224		1				PCB	
219515 001		S l	29 82	25	1	0 8384		1				PCB	
219515 002		S l	29 89	25	1	0 8364		1				PCB	
219556 001		M scell	30 01	25	1	0 8331		1				PCB	m cted w/ c d
219556 002		M scell	29 67	25	1	0 8426		1				PCB	
219556 003		M c ll	30 23	25	1	0 827		1				PCB	
219556 004		M ll	30 45	25	1	0 821		1				PCB	
219556 005		M c ll	30 29	25	1	0 8254		1				PCB	ea t d w/ a d
219556 006		M cell	30 34	25	1	0 824		1				PCB	ea t d w/ a d
219556 007		M ll	30 47	2	1	0 8205		1				PCB	
219556 008		M sc ll	30 16	25	1	0 8289		1				PCB	
219586 001		S l	15 09	2	1	1 657		1				PCB	
219604 001		S l	30 15	5	1	0 8292		1				PCB	
QC541210	BLANK	M ll	30 37	25	1	0 8232		1				PCB	
QC541211	LCS	M ll	30 11	2	1	0 8303		1	1			PCB	
QC541216	MS	S l	30 19	25	1	0 8281		1	1			PCB	
QC541217	MSD	So l	30 2	25	1	0 8273		1	1			PCB	
QC541218	MS	M ll	30 22	25	1	0 8273		1	1			PCB	e ct d w/ d
QC541219	MSD	M ell	30 2	2	1	0 8278		1	1			PCB	e t d w/ d

KMH 04/21/10 first ms/msd passes for job 219586

KMH 04/21/10 Matrix spikes QC541218 QC541219 (batch 162203) were not reported because the parent sample required a dilution that would have diluted out the spikes

Analyst KMH Date 04/21/10 Reviewer EAH Date 04/21/10

Pg 1 of 1

PCB (8082) Soil Prep Log

Curtis & Tompkins Ltd

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BK 2999

LIMS Batch No 162203

LIMS Analysis PCB

Date Extracted 4/20/10

☒ EPA 3550b Sonication

☐ EPA 3545 PFE (ASE Method# _____)

☐ Other _____

Sample ID	Container ID	Sample Wt (g)	Final Vol (mL)	Comments
219389-001	D	30.03	25.0	
-002		30.11		
-003	H	30.16		MSS
-004	D	30.22		
219467-001	A	30.29		
-002		30.40		
219515-001	C	29.82		
-002		29.89		
* 219556-001	A	30.01		MSS, reacted w/ acid
-002		29.67		
-003		30.03		
-004		30.45		
-005		30.29		reacted w/ acid
-006		30.34		
-007		30.47		
-008		30.16		
219586-001	A	15.09		
MB QC541210		30.37		
LCS 11		30.11		
MS 16		30.19		
MSD 17		30.22		
* MS 18		30.22		reacted w/ acid
MSD 19		30.20		reacted w/ acid
219604-001	B	30.15		

KAL 4/20/10

	Mfg & Lot # / LIMS # / Time	Initials / Date
Solvent rinsed granular Na_2SO_4 weighed out for QC samples	EM490044931	KAL 4/20/10
dried with CH_2Cl_2 rinsed ☒ granular Na_2SO_4 ☐ diatomaceous earth		
10 mL of surrogate solution was added to all samples	S14316B	
10 mL of spike solution AR16160 was added to all spikes	S14375A	
PFE (ASE) Cellulose Filters used	NA	
1 1 CH_2Cl_2 (lot# EM49338) Acetone (lot# EM49317) was added to all	✓ DCM/Acetone EM48148	
Solvent added at (time)	1030	
☒ sonicated 3 times w/ ≥100mL ☐ PFE extracted ☐ soxhlet extractors on at	EM 4/20	
Soxhlets off at	NA	
Extracts filtered through baked CH_2Cl_2 rinsed ~~powdered~~ granular Na_2SO_4	EM490044931	
Solvent exchanged with Hexane Lot#	JTB H19E36	
Concentrated to final volume at temperature (degrees C)	100	
EPA 3665A Clean up vortexed w/ H_2SO_4 Lot#	F5095669	
Centrifuged for 1 min 10mL transferred to labelled vial	✓	
Relinquished to PCB group	✓	

4/20/10

Extraction Chemist / Date

Continued from page ____

Continued on page ____

4/21/10

Reviewed by / Date

Project Soil Aliquot BOOK 3003 55

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SAMPLE ID		Weight(g)	Analysis	Batch #	Comments
219369-017	A	12.38	TEH/M		Limited sample qty used 219232-007A
018		50.49			219232-004
019		50.00			003A
020		50.15			005A
021		49.80			219166-001A
022		49.61			003A
219372-001	G	49.85			MSS
002		50.32			
003		49.78			
004		49.92			
005		49.53			
006		50.14			
007		50.20			
008		49.65			
009		49.60			
010		50.30			
011		50.14			
219373-001		49.70			
MB		50.05			EM4904931
LCS		50.03			
MS		49.78			219372-001G
MSD		50.25			
				MB2 4/13/10	
219389-001	D	30.03	PCB	162203	
002		30.17			
003	H	30.16			MSS
004	D	30.22			
MB		30.37			EM4904931
LCS		30.11			
MS		30.19			219389-003H
MSD		30.22			
					HW 4/13/10

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Read and Understood By

Signed Date Signed Date

Project Soil Aliquot BK3003

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SAMPLE ID	WEIGHT (g)	ANALYSIS	BATCH#	COMMENTS
219496-001A	30.40	8270-SIM		aliased 219320-012A MSS
002	30.42			219320 013A
003	30.00			219320-003A
004	30.48			219320-004A
005	30.00			219259 008A
006	29.90			219282-003A
007	30.05			219320-007A
008	30.14			219320-008A
009	30.30			219282-006A
010	30.47			219282-008A
219513-001	30.35			
219547-001	30.37			aliased 219336-003A
002	29.60			219336 004A
MB	29.95			EM49044931
LCS	29.99			
MS	30.13			219320-012A
MSD	30.11			
			MB2 4/19/10	
219467-001A	30.29	PCB	162203	
-002	30.40			
219515-001A	29.82			
-002	29.89			
219556-001A	30.01			MSS
-002	29.67			
-003	30.23			
-004	30.45			
-005	30.29			
-006	30.34			
-007	30.47			
-008	30.16			
MS	30.22			of 219556-001A
MSD	30.20			
			KAL 4/20/10	
219586-001A	15.09	PCB	162203	
			KAL 4/20/10	

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Signed Date Signed Date

Project Soil Aliquot BK3003

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Sample ID	Weight (g)	Analysis	Batch #	Comments
219496 001A	29.80	8081		aliquot 219282-003 ~~219496 KCL~~ 4/20/10
002	30.09			MSS 219282 006A
003	29.95			219282-008A
219513-001	30.45			
MB	30.10			EM49044931
LCS	30.08			
MS	30.38			219496 002A
MSD	30.22			
			KCL 4/20/10	
219179-001	50.00	TEH/M		
006	50.03			
219215-002A	50.00			MSS
219513-001	50.10			
219552-001	49.69			
219557-001	49.71			
002	50.20			
003	49.55			
004	49.62			
005	50.46			
006	50.39			
007	49.79			
008	50.00			
219579-001	50.00			
MB	50.02			EM49044931
LCS	50.03			
MS	50.00			219215-002A
MSD	50.30			
			MBZ 4/20/10	
219604-001B	30.15	PCB	162203	
			KAL 4/20/10	

Continued on Page

Read and Understood By

Signed Date Signed Date

REPORTING SUMMARY FOR 219556 PCBS Miscell

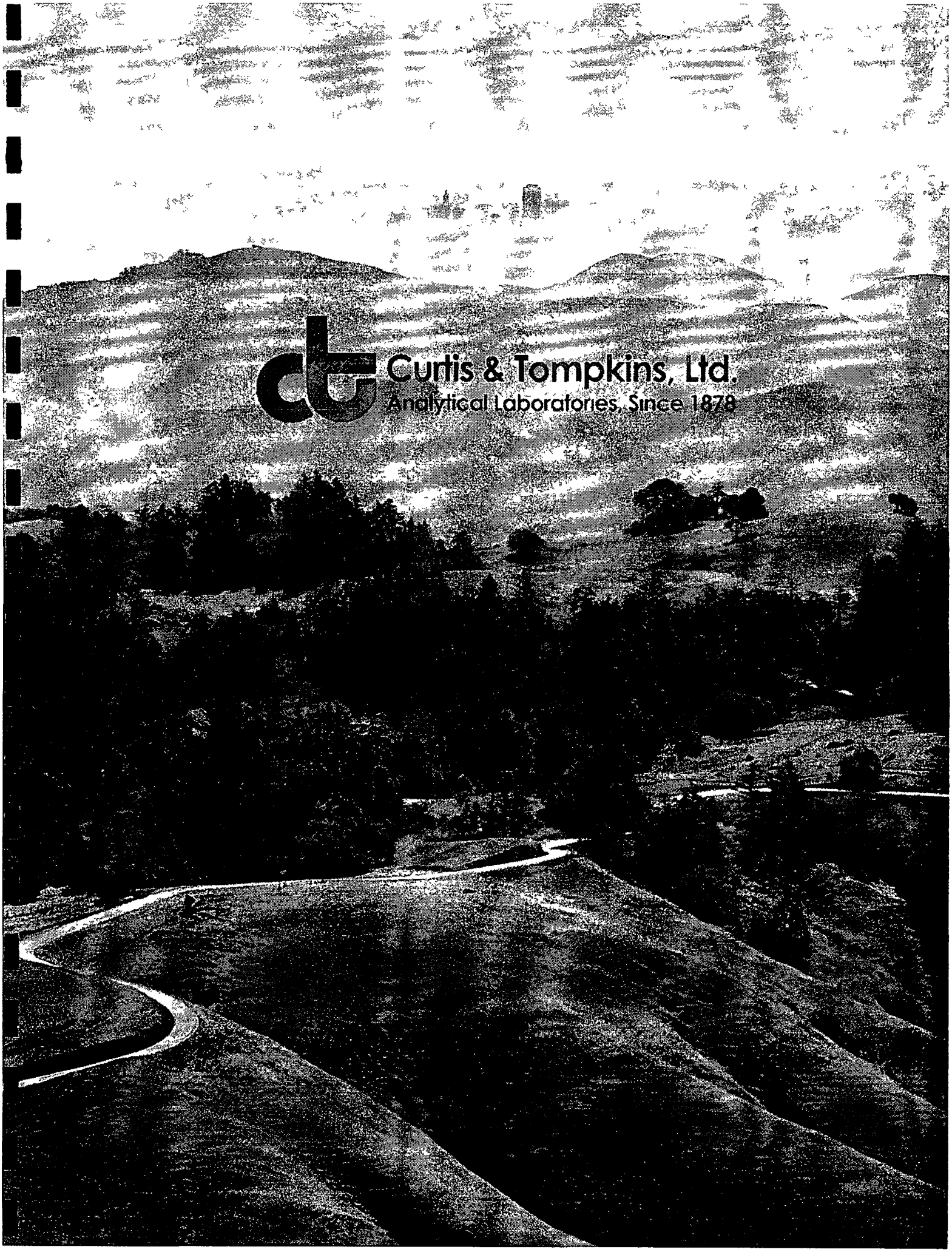
Sample ID	Analyte	Inst ID	Ch	Date & Time
219556-001	Aroclor-1016	GC22	A	04/23/10 16 05
219556-001	Aroclor-1221	GC22	A	04/23/10 16 05
219556-001	Aroclor-1232	GC22	A	04/23/10 16 05
219556-001	Aroclor-1242	GC22	B	04/23/10 16 05
219556-001	Aroclor-1248	GC22	A	04/23/10 16 05
219556-001	Aroclor-1254	GC22	B	04/23/10 16 05
219556-001	Aroclor-1260	GC22	A	04/23/10 16 05
219556-001	Aroclor-1262	GC22	A	04/23/10 16 05
219556-001	Aroclor-1268	GC22	A	04/23/10 16 05
219556-001	TCMX	GC22	A	04/23/10 16 05
219556-001	Decachlorobiphenyl	GC22	A	04/23/10 16 05
219556-002	Aroclor-1016	GC22	B	04/23/10 16 31
219556-002	Aroclor-1221	GC22	A	04/23/10 16 31
219556-002	Aroclor-1232	GC22	A	04/23/10 16 31
219556-002	Aroclor-1242	GC22	B	04/23/10 16 31
219556-002	Aroclor-1248	GC22	A	04/23/10 16 31
219556-002	Aroclor-1254	GC22	B	04/23/10 16 31
219556-002	Aroclor-1260	GC22	A	04/23/10 16 31
219556-002	Aroclor-1262	GC22	A	04/23/10 16 31
219556-002	Aroclor-1268	GC22	A	04/23/10 16 31
219556-002	TCMX	GC22	A	04/23/10 16 31
219556-002	Decachlorobiphenyl	GC22	A	04/23/10 16 31
219556-003	Aroclor-1016	GC22	A	04/23/10 16 57
219556-003	Aroclor-1221	GC22	A	04/23/10 16 57
219556-003	Aroclor-1232	GC22	A	04/23/10 16 57
219556-003	Aroclor-1242	GC22	A	04/23/10 16 57
219556-003	Aroclor-1248	GC22	A	04/23/10 16 57
219556-003	Aroclor-1254	GC22	B	04/23/10 16 57
219556-003	Aroclor-1260	GC22	A	04/23/10 16 57
219556-003	Aroclor-1262	GC22	A	04/23/10 16 57
219556-003	Aroclor-1268	GC22	A	04/23/10 16 57
219556-003	TCMX	GC22	A	04/23/10 16 57
219556-003	Decachlorobiphenyl	GC22	A	04/23/10 16 57
219556-004	Aroclor-1016	GC22	A	04/26/10 12 05
219556-004	Aroclor-1221	GC22	A	04/26/10 12 05
219556-004	Aroclor-1232	GC22	A	04/26/10 12 05
219556-004	Aroclor-1242	GC22	B	04/26/10 12 05
219556-004	Aroclor-1248	GC22	A	04/26/10 12 05
219556-004	Aroclor-1254	GC22	A	04/26/10 12 05
219556-004	Aroclor-1260	GC22	B	04/26/10 12 05
219556-004	Aroclor-1262	GC22	A	04/26/10 12 05
219556-004	Aroclor-1268	GC22	A	04/26/10 12 05
219556-004	TCMX	GC22	B	04/26/10 12 05
219556-004	Decachlorobiphenyl	GC22	A	04/26/10 12 05
219556-005	Aroclor-1016	GC22	A	04/23/10 17 50
219556-005	Aroclor-1221	GC22	A	04/23/10 17 50
219556-005	Aroclor-1232	GC22	A	04/23/10 17 50
219556-005	Aroclor-1242	GC22	A	04/23/10 17 50
219556-005	Aroclor-1248	GC22	A	04/23/10 17 50
219556-005	Aroclor-1254	GC22	B	04/23/10 17 50

REPORTING SUMMARY FOR 219556 PCBS Miscell

Sample ID	Analyte	Inst ID	Ch	Date & Time
219556-005	Aroclor-1260	GC22	A	04/23/10 17 50
219556-005	Aroclor-1262	GC22	A	04/23/10 17 50
219556-005	Aroclor-1268	GC22	A	04/23/10 17 50
219556-005	TCMX	GC22	A	04/23/10 17 50
219556-005	Decachlorobiphenyl	GC22	A	04/23/10 17 50
219556-006	Aroclor-1016	GC22	A	04/23/10 18 16
219556-006	Aroclor-1221	GC22	A	04/23/10 18 16
219556-006	Aroclor-1232	GC22	A	04/23/10 18 16
219556-006	Aroclor-1242	GC22	A	04/23/10 18 16
219556-006	Aroclor-1248	GC22	A	04/23/10 18 16
219556-006	Aroclor-1254	GC22	B	04/23/10 18 16
219556-006	Aroclor-1260	GC22	A	04/23/10 18 16
219556-006	Aroclor-1262	GC22	A	04/23/10 18 16
219556-006	Aroclor-1268	GC22	A	04/23/10 18 16
219556-006	TCMX	GC22	A	04/23/10 18 16
219556-006	Decachlorobiphenyl	GC22	A	04/23/10 18 16
219556-007	Aroclor-1016	GC22	A	04/23/10 18 42
219556-007	Aroclor-1221	GC22	A	04/23/10 18 42
219556-007	Aroclor-1232	GC22	A	04/23/10 18 42
219556-007	Aroclor-1242	GC22	A	04/23/10 18 42
219556-007	Aroclor-1248	GC22	A	04/23/10 18 42
219556-007	Aroclor-1254	GC22	B	04/23/10 18 42
219556-007	Aroclor-1260	GC22	A	04/23/10 18 42
219556-007	Aroclor-1262	GC22	A	04/23/10 18 42
219556-007	Aroclor-1268	GC22	A	04/23/10 18 42
219556-007	TCMX	GC22	A	04/23/10 18 42
219556-007	Decachlorobiphenyl	GC22	A	04/23/10 18 42
219556-008	Aroclor-1016	GC22	A	04/23/10 19 09
219556-008	Aroclor-1221	GC22	A	04/23/10 19 09
219556-008	Aroclor-1232	GC22	A	04/23/10 19 09
219556-008	Aroclor-1242	GC22	A	04/23/10 19 09
219556-008	Aroclor-1248	GC22	A	04/23/10 19 09
219556-008	Aroclor-1254	GC22	B	04/23/10 19 09
219556-008	Aroclor-1260	GC22	A	04/23/10 19 09
219556-008	Aroclor-1262	GC22	A	04/23/10 19 09
219556-008	Aroclor-1268	GC22	A	04/23/10 19 09
219556-008	TCMX	GC22	A	04/23/10 19 09
219556-008	Decachlorobiphenyl	GC22	A	04/23/10 19 09
QC541210	Aroclor-1016	GC22	A	04/20/10 17 44
QC541210	Aroclor-1221	GC22	A	04/20/10 17 44
QC541210	Aroclor-1232	GC22	A	04/20/10 17 44
QC541210	Aroclor-1242	GC22	A	04/20/10 17 44
QC541210	Aroclor-1248	GC22	A	04/20/10 17 44
QC541210	Aroclor-1254	GC22	A	04/20/10 17 44
QC541210	Aroclor-1260	GC22	A	04/20/10 17 44
QC541210	Aroclor-1262	GC22	A	04/20/10 17 44
QC541210	Aroclor-1268	GC22	A	04/20/10 17 44
QC541210	TCMX	GC22	A	04/20/10 17 44
QC541210	Decachlorobiphenyl	GC22	A	04/20/10 17 44

REPORTING SUMMARY FOR 219556 PCBS Miscell

Sample ID	Analyte	Inst ID	Ch	Date & Time
QC541211	Aroclor-1016	GC22	A	04/20/10 18 11
QC541211	Aroclor-1260	GC22	A	04/20/10 18 11
QC541211	TCMX	GC22	A	04/20/10 18 11
QC541211	Decachlorobiphenyl	GC22	A	04/20/10 18 11


Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins Ltd , Analytical Laboratories Since 1878
2323 Fifth Street Berkeley CA 94710 Phone (510) 486 0900

Laboratory Job Number 220666
ANALYTICAL REPORT

CH2M Hill Constructors Inc	Project	264204 19 H4 04
690 Walnut Ave	Location	PCB Removal Action-B386 AL01
Vallejo CA 94592	Level	III

Sample ID	Lab ID
B386PIT3CS0914-C4	220666-001
B386PIT3CS0914-C4FD	220666-002
B386PIT3CS0915-C4	220666-003
B386PIT3CS0916-C4	220666-004
B386PIT3CS0917-C4	220666-005
B386PIT3CS0918-C6	220666-006
B386PIT3CS0919-C6	220666-007
B386PIT3CS0920-C6	220666-008
B386PIT3CS0921-C6	220666-009

This data package has been reviewed for technical correctness and completeness Release of this data has been authorized by the Laboratory Manager or the Manager s designee as verified by the following signature The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis This report may be reproduced only in its entirety

Signature Denise N Tetrault Date 06/16/2010
Project Manager

NELAP # 01107CA

Curtis & Tompkins Ltd

CASE NARRATIVE

Laboratory number	**220666**
Client	**CH2M Hill Constructors Inc**
Project	**264204 19 H4 04**
Location	**PCB Removal Action-B386 AL01**
Request Date	**06/10/10**
Samples Received	**06/10/10**

This data package contains sample and QC results for nine concrete samples requested for the above referenced project on 06/10/10 See attached cooler receipt form for any sample receipt problems or discrepancies

PCBs (EPA 8082)

All samples underwent sulfuric acid cleanup using EPA Method 3665A

All samples underwent sulfur cleanup using the copper option in EPA Method 3660B

Low surrogate recoveries were observed for decachlorobiphenyl in the MS/MSD of B386PIT3CS0915-C4 (lab # 220666-003) the corresponding TCMX surrogate recoveries were within limits

No other analytical problems were encountered

Chain of Custody

2206666

Chain of Custody Record

COC Number CTL 763

CH2MHILL 6/10/2010 3 43 14 PM

Project Name Mare Island **Location** Mare Island
Task Order **Project** PCB Removal Action B386 AL01
Project Number 264204 19 H4 04
Project Manager Jennifer Lindquist
Sample Manager Roger Lucich (510) 206-4177
Turnaround Time 1 Days
PO Number 264204 19 H4 04

	Sample ID	Sample Date/Time	Type	Matrix	# Containers	Preserv	SW8082
1	B386PIT3CS0914 C4	10-Jun 10 15 00	N	Soil			
			Field Filtered		1	4C	☑
			Total Containers		1		
2	B386PIT3CS0914 C4FD	10 Jun 10 15 00	N	Soil			
			Field Filtered		1	4C	☑
			Total Containers		1		
3	B386PIT3CS0915 C4	10 Jun 10 15 05	N	Soil			
			Field Filtered		1	4C	☑
			Total Containers		1		
	B386PIT3CS0915 C4MS	10 Jun 10 15 05	MS	Soil			
			Field Filtered		1	4C	☑
			Total Containers		1		

MS = Matrix Spike SD = Matrix Spike Duplicate

	Signatures	Date/Time
Approved by		
Sampled by		
Relinquished by	[signature]	6/9/10
Received by	[signature]	6/10/10
Relinquished by		
Received by		

Shipping Details
Method of Shipment
On Ice yes / no
Airbill No
Lab Name Curtis & Tompkins Ltd
Lab Phone (510) 486 0925

ATTN
Sample Custody
and
Lisa Brooker

Special Instructions

Report Copy to
Mark Cichy
(530) 229 3274

220666

Chain of Custody Record

COC Number CTL 763

CH2MHILL 6/10/2010 3 43 14 PM Page 2 of 3

Project Name Mare Island **Location** Mare Island
Task Order **Project** PCB Removal Action B386 AL01
Project Number 264204 19 H4 04
Project Manager Jennifer Lindquist
Sample Manager Roger Lucich (510) 206-4177
Turnaround Time 1 Days
PO Number 264204 19 H4 04

	Sample ID	Sample Date/Time	Type	Matrix	# Containers	Preserv	SW8082
3	B386PIT3CS0915 C4SD	10 Jun 10 15 05	SD	Soil			
			Field Filtered ☐	1	4C		✔
			Total Containers		1		
4	B386PIT3CS0916-C4	10 Jun 10 15 10	N	Soil			
			Field Filtered ☐	1	4C		✔
			Total Containers		1		
5	B386PIT3CS0917-C4	10-Jun 10 15 15	N	Soil			
			Field Filtered ☐	1	4C		✔
			Total Containers		1		
4	B386PIT3CS0918 C6	10 Jun 10 15 20	N	Soil			
			Field Filtered ☐	1	4C		✔
			Total Containers		1		

MS = Matrix Spike SD = Matrix Spike Duplicate

	Signatures	Date/Time
Approved by		
Sampled by		
Relinquished by		6 10 10 1400
Received by		6/10/10
Relinquished by		
Received by		

Shipping Details
Method of Shipment
On Ice yes / no
Airbill No
Lab Name Curtis & Tompkins Ltd
Lab Phone (510) 486 0925

ATTN
Sample Custody
and
Lisa Brooker

Special Instructions

Report Copy to
Mark Cichy
(530) 229 3274

220666

Chain of Custody Record

COC Number CTL 763

CH2MHILL 6/10/2010 3 43 14 PM Page 3 of 3

Project Name Mare Island Location Mare Island
Task Order Project PCB Removal Action B386 AL01
Project Number 264204 19 H4 04
Project Manager Jennifer Lindquist
Sample Manager Roger Lucich (510) 206-4177
Turnaround Time 1 Days
PO Number 264204 19 H4 04

	Sample ID	Sample Date/Time	Type	Matrix	# Containers	Preserv	SW8082
7	B386PIT3CS0919-C6	10-Jun 10 15 25	N	Soil			
			Field Filtered ☐	1	4C		✓
			Total Containers		1		
8	B386PIT3CS0920 C6	10 Jun 10 15 30	N	Soil			
			Field Filtered ☐	1	4C		✓
			Total Containers		1		
9	B386PIT3CS0921 C6	10 Jun 10 15 35	N	Soil			
			Field Filtered ☐	1	4C		✓
			Total Containers		1		

MS = Matrix Spike SD = Matrix Spike Duplicate

	Signatures	Date/Time
Approved by		
Sampled by		
Relinquished by		6/10/10
Received by		6/10/10
Relinquished by		
Received by		

Shipping Details

Method of Shipment
On Ice yes / no
Airbill No
Lab Name Curtis & Tompkins Ltd
Lab Phone (510) 486 0925

ATTN
Sample Custody
and
Lisa Brooker

Special Instructions

Report Copy to
Mark Cichy
(530) 229 3274

COOLER RECEIPT CHECKLIST

Curtis & Tompkins Ltd

Login # 20666 Date Received 6/10/10 Number of coolers 1
Client CCI Project MARE ISLAND

Date Opened 6/10/10 By (print) M Villanueva (sign) [illegible]
Date Logged in ↓ By (print) ↓ (sign) ↓

1 Did cooler come with a shipping slip (airbill etc) _____ YES (NO)
Shipping info _____

2A Were custody seals present? ☑ YES (circle) on cooler on samples ☐ NO
How many 1 Name SIGNATURE Date 6/10/10

2B Were custody seals intact upon arrival? _____ (YES) NO N/A
3 Were custody papers dry and intact when received? _____ (YES) NO
4 Were custody papers filled out properly (ink signed etc)? _____ (YES) NO
5 Is the project identifiable from custody papers? (If so fill out top of form) ___ (YES) NO
6 Indicate the packing in cooler (if other describe) _____

☐ Bubble Wrap ☐ Foam blocks ☐ Bags ☑ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7 Temperature documentation

Type of ice used ☑ Wet ☐ Blue/Gel ☐ None Temp(°C) 6.0

☐ Samples Received on ice & cold without a temperature blank

☐ Samples received on ice directly from the field Cooling process had begun

8 Were Method 5035 sampling containers present? _____ YES (NO)
If YES what time were they transferred to freezer? _____
9 Did all bottles arrive unbroken/unopened? _____ (YES) NO
10 Are samples in the appropriate containers for indicated tests? _____ (YES) NO
11 Are sample labels present in good condition and complete? _____ (YES) NO
12 Do the sample labels agree with custody papers? _____ (YES) NO
13 Was sufficient amount of sample sent for tests requested? _____ (YES) NO
14 Are the samples appropriately preserved? _____ YES NO (N/A)
15 Are bubbles > 6mm absent in VOA samples? _____ YES NO (N/A)
16 Was the client contacted concerning this sample delivery? _____ YES (NO)
If YES Who was called? _____ By _____ Date _____

COMMENTS

_____

Laboratory Job Number 220666

ANALYTICAL REPORT

PCBs

Matrix Miscell

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	220666	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Matrix	Miscell	Sampled	06/10/10
Units	ug/Kg	Received	06/10/10
Basis	as received	Prepared	06/10/10
Diln Fac	1 000	Analyzed	06/11/10
Batch#	163910		

Field ID B386PIT3CS0914-C4 Lab ID 220666-001
Type SAMPLE

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	0 74
Aroclor-1221	ND	24	4 8
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	0 96
Aroclor-1248	ND	12	1 0
Aroclor-1254	ND	12	2 4
Aroclor-1260	ND	12	0 54
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	92	25-143
Decachlorobiphenyl	75	25-143

Field ID B386PIT3CS0914-C4FD Lab ID 220666-002
Type SAMPLE

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	0 74
Aroclor-1221	ND	24	4 8
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	0 96
Aroclor-1248	ND	12	1 0
Aroclor-1254	ND	12	2 4
Aroclor-1260	ND	12	0 54
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	92	25-143
Decachlorobiphenyl	83	25-143

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	220666	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Matrix	Miscell	Sampled	06/10/10
Units	ug/Kg	Received	06/10/10
Basis	as received	Prepared	06/10/10
Diln Fac	1 000	Analyzed	06/11/10
Batch#	163910		

Field ID B386PIT3CS0915-C4 Lab ID 220666-003
Type SAMPLE

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	0 74
Aroclor-1221	ND	24	4 8
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	0 96
Aroclor-1248	ND	12	1 0
Aroclor-1254	100	12	2 4
Aroclor-1260	ND	12	0 54
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	60	25-143
Decachlorobiphenyl	26	25-143

Field ID B386PIT3CS0916-C4 Lab ID 220666-004
Type SAMPLE

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	0 73
Aroclor-1221	ND	24	4 7
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	0 95
Aroclor-1248	ND	12	0 99
Aroclor-1254	68	12	2 4
Aroclor-1260	ND	12	0 53
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	63	25-143
Decachlorobiphenyl	26	25-143

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	220666	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Matrix	Miscell	Sampled	06/10/10
Units	ug/Kg	Received	06/10/10
Basis	as received	Prepared	06/10/10
Diln Fac	1 000	Analyzed	06/11/10
Batch#	163910		

Field ID B386PIT3CS0917-C4 Lab ID 220666-005
Type SAMPLE

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	0 74
Aroclor-1221	ND	24	4 8
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	0 95
Aroclor-1248	ND	12	0 99
Aroclor-1254	12 J	12	2 4
Aroclor-1260	ND	12	0 54
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	87	25-143
Decachlorobiphenyl	47	25-143

Field ID B386PIT3CS0918-C6 Lab ID 220666-006
Type SAMPLE

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	0 73
Aroclor-1221	ND	24	4 8
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	0 95
Aroclor-1248	ND	12	0 99
Aroclor-1254	63	12	2 4
Aroclor-1260	ND	12	0 53
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	77	25-143
Decachlorobiphenyl	62	25-143

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	220666	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Matrix	Miscell	Sampled	06/10/10
Units	ug/Kg	Received	06/10/10
Basis	as received	Prepared	06/10/10
Diln Fac	1 000	Analyzed	06/11/10
Batch#	163910		

Field ID B386PIT3CS0919-C6 Lab ID 220666-007
Type SAMPLE

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	0 74
Aroclor-1221	ND	24	4 8
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	0 96
Aroclor-1248	ND	12	1 0
Aroclor-1254	26	12	2 4
Aroclor-1260	ND	12	0 54
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	57	25-143
Decachlorobiphenyl	27	25-143

Field ID B386PIT3CS0920-C6 Lab ID 220666-008
Type SAMPLE

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	0 74
Aroclor-1221	ND	24	4 8
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	0 96
Aroclor-1248	ND	12	1 0
Aroclor-1254	21	12	2 4
Aroclor-1260	ND	12	0 54
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	71	25-143
Decachlorobiphenyl	57	25-143

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	220666	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Matrix	Miscell	Sampled	06/10/10
Units	ug/Kg	Received	06/10/10
Basis	as received	Prepared	06/10/10
Diln Fac	1 000	Analyzed	06/11/10
Batch#	163910		

Field ID B386PIT3CS0921-C6 Lab ID 220666-009
Type SAMPLE

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	0 74
Aroclor-1221	ND	24	4 8
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	0 96
Aroclor-1248	ND	12	1 0
Aroclor-1254	75	12	2 4
Aroclor-1260	ND	12	0 54
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	59	25-143
Decachlorobiphenyl	27	25-143

Type BLANK Lab ID QC548141

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	0 74
Aroclor-1221	ND	24	4 8
Aroclor-1232	ND	12	3 7
Aroclor-1242	ND	12	0 96
Aroclor-1248	ND	12	1 0
Aroclor-1254	ND	12	2 4
Aroclor-1260	ND	12	0 54
Aroclor-1262	ND	12	
Aroclor-1268	ND	12	

Surrogate	%REC	Limits
TCMX	113	25-143
Decachlorobiphenyl	103	25-143

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #	220666	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Type	LCS	Diln Fac	1 000
Lab ID	QC548142	Batch#	163910
Matrix	Miscell	Prepared	06/10/10
Units	ug/Kg	Analyzed	06/11/10

Analyte	Spiked	Result	%REC	Limits
Aroclor-1016	166 3	194 7	117	44-127
Aroclor-1260	166 3	200 1	120	31-136

Surrogate	%REC	Limits
TCMX	118	25-143
Decachlorobiphenyl	104	25-143

Curtis & Tompkins Ltd

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #	220666	Location	PCB Removal Action-B386 AL01
Client	CH2M Hill Constructors Inc	Prep	EPA 3550B
Project#	264204 19 H4 04	Analysis	EPA 8082
Field ID	B386PIT3CS0915-C4	Batch#	163910
MSS Lab ID	220666-003	Sampled	06/10/10
Matrix	Miscell	Received	06/10/10
Units	ug/Kg	Prepared	06/10/10
Basis	as received	Analyzed	06/14/10
Diln Fac	1 000		

Type MS Lab ID QC548143

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1016	<0 7411	166 4	131 2	79	44-127
Aroclor-1260	<0 5393	166 4	57 54	35	31-136

Surrogate	%REC	Limits
TCMX	61	25-143
Decachlorobiphenyl	23	25-143

Type MSD Lab ID QC548144

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1016	166 3	130 9	79	44-127	0	50
Aroclor-1260	166 3	55 77	34	31-136	3	50

Surrogate	%REC	Limits
TCMX	62	25-143
Decachlorobiphenyl	22	25-143

= Value outside of QC limits see narrative
RPD= Relative Percent Difference

Confirmation Report for 220666 PCBS Miscell
Curtis & Tompkins Laboratories

Units ug/Kg

Lab ID	Cl e t ID	A alyte	Res lt	Co f m t o	RPD	%D
220666 003	B386PIT3CS0915 C4	A 1 1254	101 7	120 6	17	19
220666 004	B386PIT3CS0916 C4	A o 1 1254	68 19	73 92	8	8
220666 005	B386PIT3CS0917 C4	A 1o 1254	11 63 J	16 07	32	38
220666 006	B386PIT3CS0918 C6	A 1 1254	62 59	44 81	33	28
220666 007	B386PIT3CS0919 C6	A 1 1254	26 42	30 63	15	16
220666 008	B386PIT3CS0920 C6	A 1 1254	20 84	3 991	136	81
220666 009	B386PIT3CS0921 C6	A 1 1254	75 44	84 88	12	13

J est m t d

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 220666 PCBS Miscell EPA 8082

Inst GC16
Calnum 230231524001
Units pg/ul

Name 1660_160
Date 10-JUN-2010 00 50

L l	F l	S q m	S mpl ID	A ly d	Std
L1	160_008	230231524008	PCB10_2	10 JUN 2010 00 0	S13958
L2	160_009	230231524009	PCB25_5	10 UN 2010 01 18	S13959
L3	160_010	230231524010	PCB100_20	10 JUN 2010 01 46	S13960
L4	160_011	230231524011	PCB250_50	10 JUN 2010 02 14	S13961
L5	160_012	230231524012	PCB500_100	10 JUN 2010 02 42	S13962
L6	160_013	230231524013	PCB750_150	10 JUN 2010 03 10	S13963
L7	160_014	230231524014	PCB1000_200	10 JUN 2010 03 37	S13964

A alyt	Ch	L1	L2	L3	L4	L5	L6	L7	Typ	X	0	1	a2	A g	r 2 %RSD	MnR 2	M RSD	Flg
A l 1016 Pe k # 1	A	290 90	232 80	207 74	205 97	25 78	232 43	220 27	AVRG	R		0 00433		230 84	12	99	20	
A l 1016 P k # 2	A	823 80	632 92	597 59	578 10	681 93	678 46	665 68	AVRG	R		0 00150		665 50	12	99	20	
A l 1016 P k # 3	A	505 40	385 64	360 45	349 29	404 2	417 05	391 35	AVRG	R		0 00249		401 92	13	99	20	
A l 1016 P k # 4	A	289 10	232 00	214 78	208 48	40 83	236 66	225 26	AVRG	R		0 00425		235 30	11	99	20	
A l 1016 P k # 5	A	385 10	320 16	285 94	275 68	333 52	335 40	318 00	AVRG	R		0 00311		321 97	11	99	20	
A l 1260 P k # 1	A	1617 9	949 52	717 09	630 26	890 48	895 1		QUAD	A	600 26	663 483	0 322 20	950 13	0 994	99	20	
A l 1260 P k # 2	A	1099 9	7 8 52	62 21	483 20	664 11	664 94		LINR	R	13 2 83	0 00150		705 48	0 991	99	20	
A l 1260 P k # 3	A	1088 7	751 04	468 20	475 04	593 85	636 26		LINR	R	15 90 9	0 001 9		668 85	0 991	99	20	
A l 1260 P k # 4	A	2248 8	1414 6	1121 4	968 3	1437 4	1440 3		QUAD	A	511 298	1056 38	0 542833	1438 5	0 993	99	20	
A l 1260 P k # 5	A	1005 6	618 00	484 56	426 03	683 10	701 76		QUAD	A	461 29	456 74	0 344277	653 17	0 992	99	20	
TCMX	A	11477	10055	10291	10632	12803	13066	12486	AVRG	R		8 66E		11544	11	99	20	
D hl b ph yl	A	1563	14129	10632	8487 7	12455	12084	10821	AVRG	R		8 31E		12035	20	99	20	
A l 1016 P k # 1	B	854 60	752 80	678 48	614 69	679 60	679 3	630 77	AVRG	R		0 00143		698 64	12	99	20	
A l 1016 P k # 2	B	2866 5	2154 8	2068 9	1869 6	104 7	2123 7	1985 7	AVRG	R		4 61E 4		2167 7	15	99	20	
A l 1016 P k # 3	B	1336 4	1029 5	932 38	836 32	922 51	929 28	859 77	AVRG	R		0 00102		978 02	17	99	20	
A l 1016 P k # 4	B	870 40	673 88	29 8	463 03	06 72	09 16	463 16	LINR	R	12 488	0 00211		573 66	0 996	99	20	
A l 1016 Pe k # 5	B	867 90	564 04	89 5	530 50	603 39	608 19	548 84	AVRG	R		0 00162		616 06	19	99	20	
A l 1260 P k # 1	B	3927 3	2215 7	1778 7	1397 7	1880 0	1877 2	1727 3	LINR	R	0 3195	5 61E 4		2114 9	0 993	99	20	
A l 1260 P k # 2	B	3031 7	1998 9	1485 0	1 14 9	1683 9	1676 0	1531 9	LINR	R	2 24208	6 29E 4		1803 2	0 992	99	20	
A l 1260 P k # 3	B	2177 5	1786 4	1152 8	915 14	1305 6	1292 3	1174 9	LINR	R	1 00326	8 19E 4		1400 7	0 990	99	20	
A l 1260 P k # 4	B	370 0	3406	2545 8	2142 8	3207 8	3231 0	2964 1	LINR	R	10 5344	3 23E 4		3266 8	0 990	99	20	
A l 1260 P k # 5	B	2812 9	1547 7	1185 4	987 00	1527 2	1542	1428 7	LINR	R	13 2734	6 72E 4		1575 9	0 990	99	20	
TCMX	B	28382	25184	23424	2 605	604	26072	24931	AVRG	R		3 96E 5		25235	8	99	20	
D hl b ph yl	B	29366	25695	19047	15114	22583	22208		QUAD	A	5476 93	17091 1	36 45872	22335	0 992	99	20	

Spik d Am t / D ft	Ch	L1	D	L2	D	L3	%D	L4	%D	L5	%D	L6	%D	L7	%D
A 1 1016 P k # 1	A	10 00	**26**	25 00	1	100 0	10	250 0	11	500 0	2	750 0	1	1000	5
A 1 1016 P k # 2	A	10 00	**24**	25 00	5	100 0	10	2 0 0	13	00 0	2	750 0	2	1000	0
A 1 1016 P k # 3	A	10 00	**26**	25 00	4	100 0	10	250 0	13	500 0	1	750 0	4	1000	3
A 1 1016 P k # 4	A	10 00	**23**	25 00	1	100 0	9	250 0	11	500 0	2	750 0	1	1000	4
A 1 1016 P k # 5	A	10 00	20	25 00	1	100 0	11	250 0	14	500 0	4	750 0	4	1000	1
A 1 1260 P k # 1	A	10 00	**103**	25 00	**26**	100 0	1	250 0	15	500 0	6	750 0	1		
A 1 1260 P k # 2	A	10 00	**197**	25 00	**67**	100 0	2	250 0	**22**	500 0	2	750 0	1		
A 1 1260 P k # 3	A	10 00	**232**	25 00	**83**	100 0	10	250 0	18	500 0	3	750 0	3		
A 1 1260 P k # 4	A	10 00	**106**	25 00	**30**	100 0	0	250 0	17	500 0	7	750 0	1		
A 1 1260 P k # 5	A	10 00	**127**	25 00	**36**	100 0	0	250 0	19	500 0	7	750 0	1		
TCMX	A	2 000	1	5 000	13	20 00	11	50 00	8	100 0	11	150 0	13	200 0	8
D hl b ph yl	A	2 000	**30**	000	17	20 00	12	50 00	**29**	100 0	3	150 0	0	200 0	10
A 1 1016 P k # 1	B	10 00	**22**	25 00	8	100 0	3	250 0	12	500 0	3	750 0	3	1000	10
A 1 1016 P k # 2	B	10 00	**32**	25 00	1	100 0	5	250 0	14	500 0	3	750 0	2	1000	8
A 1 1016 P k # 3	B	10 00	**37**	25 00	5	100 0	5	250 0	14	500 0	6	750 0	5	1000	12
A 1 1016 P k # 4	B	10 00	**42**	25 00	8	100 0	1	250 0	7	500 0	4	750 0	6	1000	4
A 1 1016 P k # 5	B	10 00	**41**	25 00	8	100 0	4	250 0	14	500 0	2	750 0	1	1000	11
A 1 1260 P k # 1	B	10 00	**117**	25 00	**23**	100 0	0	250 0	**22**	500 0	5	750 0	5	1000	3
A 1 1260 P k # 2	B	10 00	**113**	25 00	**35**	100 0	4	250 0	**23**	500 0	6	750 0	6	1000	3
A 1 1260 P k # 3	B	10 00	**88**	25 00	**50**	100 0	5	250 0	**25**	500 0	7	750 0	6	1000	4
A 1 1260 P k # 4	B	10 00	**179**	25 00	**52**	100 0	7	250 0	**26**	500 0	6	750 0	6	1000	3
A 1 1260 P k # 5	B	10 00	**222**	25 00	**57**	100 0	7	250 0	**28**	500 0	5	750 0	5	1000	3
TCMX	B	2 000	12	000	0	20 00	7	50 00	10	100 0	3	150 0	3	200 0	1
D hl b ph yl	B	2 000	**55**	5 000	**42**	20 00	5	50 00	19	100 0	7	150 0	1		

TKB 06/10/10 Corrected automatically drawn baseline for all ICAL levels

TKB 06/10/10 Changed fit types and dropped various high points to improve -rsd/r^2

Analyst TKB Date 06/10/10 Reviewer EAH Date 06/10/10

X A I t m t p 0 m t 1 m t 2 2 (t q t b f q t t t g) X R I t m t m t 0 p 1 p 2 2 AVRG A g

p f t LINR L g QUAD Q d t g

230231 24001

CURTIS & TOMPKINS 2ND SOURCE CALIBRATION SUMMARY FOR 220666 PCBS Miscell
EPA 8082

Inst GC16 Name 1660_160
Calnum 230231524001 Cal Date 10-JUN-2010

ICV 230231524016 (160_016 10-JUN-2010) stds S14374

Analyte	Ch	Spiked	Quant	Units	%D	Max	Flags
Aroclor-1016	A	250 0	281 2	pg/ul	12	15	
Aroclor-1260	A	250 0	250 1	pg/ul	0	15	
Aroclor-1016	B	250 0	274 3	pg/ul	10	15	
Aroclor-1260	B	250 0	240 5	pg/ul	-4	15	

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 220666 PCBS Miscell EPA 8082

Inst GC16
Calnum 230231524002
Units pg/ul

Name ar1254-5pt-160
Date 10-JUN-2010 06 57
X Axis R

L l	F l	S q m	S mpl ID	A ly d	Std
L1	160_019	230231524019	AR215410	10 JUN 2010 06 57	S14193
L2	160_020	230231524020	AR2154100	10 UN 2010 07 25	S14194
L	160_021	230231524021	AR2154250	10 JUN 2010 07 53	S14195
L4	160_022	230231524022	AR2154500	10 JUN 2010 08 22	S14196
L5	160_023	230231524023	AR21541000	10 JUN 2010 08 50	14197

Analyt	Ch	L1	L2	L3	L4	L5	Typ	a0	a1	2	A g	2 RSD	M R 2	M RSD	Flg
A 1 1254 Pe k # 1	A	596 70	574 71	495 10	431 08	411 10	AVRG		0 00199		501 74	17	99	20	
A 1 1254 P k # 2	A	839 90	797 54	698 26	598 53	560 89	AVRG		0 00143		699 02	17	99	20	
A lo 1254 P k # 3	A	197 30	517 50	485 48	429 72	429 98	LINR	14 006	0 00235		411 99	0 998	99	20	
A cl 1254 P k # 4	A	940 50	920 92	843 10	732 86	720 21	AVRG		0 00120		831 52	12	99	20	
A o 1 1254 P k # 5	A	774 10	775 92	712 66	610 05	600 56	AVRG		0 00144		694 66	12	99	20	
A 1 1254 P k # 1	B	1685 9	1506 5	1280 7	1103 7	1027 7	LINR	41 963	0 00100		1320 9	0 996	99	20	
Ar 1 1254 P k # 2	B	2108 9	1788 2	1509 5	1280 1	1188 0	LINR	46 098	8 69E 4		1575 0	0 996	99	20	
A 1 1254 P k # 3	B	943 10	1030 9	924 76	862 28	840 67	AVRG		0 00109		920 35	8	99	20	
A 1 1254 P k # 4	B	2075 1	2128 0	1881 5	1588 7	1 34 3	AVRG		5 43E 4		1841 5	15	99	20	
A 1 1254 P k # 5	B	2197 1	1938 3	1814 6	1 11 2	1497 3	AVRG		5 58E 4		1791 7	17	99	20	

Sp ked Am nt / D fts	Ch	L1	D	L2	D	L3	%D	L4	D	L5	D
A 1 1254 P k # 1	A	10 00	19	100 0	15	250 0	1	500 0	14	1000	18
A lo 1254 P k # 2	A	10 00	20	100 0	14	2 0 0	0	00 0	14	1000	20
A lo 1254 P k # 3	A	10 00	**194**	100 0	8	250 0	9	500 0	2	1000	0
A lo 1254 P k # 4	A	10 00	13	100 0	11	250 0	1	500 0	12	1000	13
A lo 1254 P k # 5	A	10 00	11	100 0	12	250 0	3	500 0	12	1000	14
A 1 1254 P k # 1	B	10 00	**351**	100 0	9	250 0	11	500 0	2	1000	1
A 1 1254 P k # 2	B	10 00	**378**	100 0	9	2 0 0	13	500 0	2	1000	1
A lo 1254 Pe k # 3	B	10 00	2	100 0	1	250 0	0	500 0	6	1000	9
A lo 1254 P k # 4	B	10 00	13	100 0	16	250 0	2	500 0	14	1000	17
A lo 1254 P k # 5	B	10 00	**23**	100 0	8	250 0	1	500 0	16	1000	16

TKB 06/10/10 Corrected automatically drawn baseline in all levels

TKB 06/10/10 CHANGED FIT TYPES TO IMPROVE -RSD

Analyst TKB Date 06/10/10 Reviewer EAH Date 06/10/10

I t m t m t 0 p 1 p 2 2 AVRC A g esp f t LINR L g e

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 220666 PCBS Miscell
EPA 8082

Inst	GC16	Run Name	PCB500_100	IDF	1 0
Seqnum	230232449016	File	161_016	Time	10-JUN-2010 17 33
Cal	230231524001	Caldate	10-JUN-2010		
Standards	S14603				

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1016	A			500 0	481 5	pg/ul	-4	15	
Aroclor-1260	A			500 0	497 0	pg/ul	-1	15	
TCMX	A	11544	12103	100 0	104 8	pg/ul	5	15	
Decachlorobiphenyl	A	12035	11232	100 0	93 33	pg/ul	-7	15	
Aroclor-1016	B			500 0	462 2	pg/ul	-8	15	
Aroclor-1260	B			500 0	498 7	pg/ul	0	15	
TCMX	B	25235	24689	100 0	97 84	pg/ul	-2	15	
Decachlorobiphenyl	B	22335	20168	100 0	97 43	pg/ul	-3	15	

KMH 06/10/10 Corrected automatically drawn baseline

Analyst KMH Date 06/10/10 Reviewer EAH Date 06/10/10

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 220666 PCBS Miscell
EPA 8082

Inst	GC16	Run Name	PCB250_50	IDF	1 0
Seqnum	230232449032	File	161_032	Time	11-JUN-2010 02 36
Cal	230231524001	Caldate	10-JUN-2010		
Standards	S14602				

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1016	A			250 0	267 3	pg/ul	7	15	
Aroclor-1260	A			250 0	284 9	pg/ul	14	15	
TCMX	A	11544	12835	50 00	55 59	pg/ul	11	15	
Decachlorobiphenyl	A	12035	12613	50 00	52 40	pg/ul	5	15	
Aroclor-1016	B			250 0	260 4	pg/ul	4	15	
Aroclor-1260	B			250 0	281 6	pg/ul	13	15	
TCMX	B	25235	27131	50 00	53 76	pg/ul	8	15	
Decachlorobiphenyl	B	22335	22431	50 00	58 10	pg/ul	**16**	15	c+

LTN 06/11/10 Corrected automatically drawn baseline

Analyst LTN Date 06/11/10 Reviewer EAH Date 06/11/10

h gh b CCV

230232449032

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 220666 PCBS Miscell
EPA 8082

Inst	GC16	Run Name	AR2154	IDF	1 0
Seqnum	230232449033	File	161_033	Time	11-JUN-2010 03 03
Cal	230231524002	Caldate	10-JUN-2010		
Standards	S14533				

Analyte	Ch	Spiked	Quant	Units	-D	Max -D	Flags
Aroclor-1254	A	250 0	270 8	pg/ul	8	15	
Aroclor-1254	B	250 0	300 2	pg/ul	**20**	15	c+ ***

LTN 06/11/10 Combined split peak

Analyst LTN Date 06/11/10 Reviewer EAH Date 06/11/10

h gh b CCV

230232449033

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 220666 PCBS Miscell
EPA 8082

Inst	GC16	Run Name	PCB500_100	IDF	1 0
Seqnum	230232449047	File	161_047	Time	11-JUN-2010 11 03
Cal	230231524001	Caldate	10-JUN-2010		
Standards	S14603				

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1016	A			500 0	479 9	pg/ul	-4	15	
Aroclor-1260	A			500 0	446 2	pg/ul	-11	15	
TCMX	A	11544	12723	100 0	110 2	pg/ul	10	15	
Decachlorobiphenyl	A	12035	8862 8	100 0	73 64	pg/ul	**-26**	15	c-
Aroclor-1016	B			500 0	496 0	pg/ul	-1	15	
Aroclor-1260	B			500 0	482 9	pg/ul	-3	15	
TCMX	B	25235	26992	100 0	107 0	pg/ul	7	15	
Decachlorobiphenyl	B	22335	16715	100 0	82 84	pg/ul	**-17**	15	c-

LTN 06/11/10 Corrected automatically drawn baseline

Analyst LTN Date 06/11/10 Reviewer EAH Date 06/11/10

1 w b CCV

Pg 1 f 1 230232449047

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 220666 PCBS Miscell
EPA 8082

Inst	GC16	Run Name	AR2154	IDF	1 0
Seqnum	230232449050	File	161_050	Time	11-JUN-2010 12 34
Cal	230231524002	Caldate	10-JUN-2010		
Standards	S14533				

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1254	A	250 0	225 2	pg/ul	-10	15	
Aroclor-1254	B	250 0	255 7	pg/ul	2	15	

LTN 06/11/10 Corrected automatically drawn baseline

Analyst LTN Date 06/11/10 Reviewer EAH Date 06/11/10

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 220666 PCBS Miscell
EPA 8082

Inst	GC16	Run Name	PCB250_50	IDF	1 0
Seqnum	230232449054 1	File	161_054	Time	11-JUN-2010 14 43
Cal	230231524001	Caldate	10-JUN-2010		
Standards	S14602				

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1016	A			250 0	224 6	pg/ul	-10	15	
Aroclor-1260	A			250 0	217 5	pg/ul	-13	15	
TCMX	A	11544	11360	50 00	49 20	pg/ul	-2	15	
Decachlorobiphenyl	A	12035	8916 7	50 00	37 05	pg/ul	**-26**	15	c-
Aroclor-1016	B			250 0	227 2	pg/ul	-9	15	
Aroclor-1260	B			250 0	212 4	pg/ul	-15	15	
TCMX	B	25235	24736	50 00	49 01	pg/ul	-2	15	
Decachlorobiphenyl	B	22335	15976	50 00	42 56	pg/ul	-15	15	

PRW 06/11/10 Corrected automatically drawn baseline

Analyst PRW Date 06/11/10 Reviewer CP Date 06/11/10

l w b CCV

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 220666 PCBS Miscell
EPA 8082

Inst	GC16	Run Name	AR2154	IDF	1 0
Seqnum	230232449055	File	161_055	Time	11-JUN-2010 15 12
Cal	230231524002	Caldate	10-JUN-2010		
Standards	S14533				

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1254	A	250 0	209 7	pg/ul	**-16**	15	c- ***
Aroclor-1254	B	250 0	222 4	pg/ul	-11	15	

PRW 06/11/10 Corrected automatically drawn baseline

Analyst PRW Date 06/11/10 Reviewer CP Date 06/11/10

1 w b CCV

Pg 1 f 1 230232449055

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 220666 PCBS Miscell
EPA 8082

Inst	GC16	Run Name	PCB500_100	IDF	1 0
Seqnum	230232449058	File	161_058	Time	11-JUN-2010 16 36
Cal	230231524001	Caldate	10-JUN-2010		
Standards	S14603				

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1016	A			500 0	494 4	pg/ul	-1	15	
Aroclor-1260	A			500 0	426 9	pg/ul	-15	15	
TCMX	A	11544	12630	100 0	109 4	pg/ul	9	15	
Decachlorobiphenyl	A	12035	8696 6	100 0	72 26	pg/ul	**-28**	15	c-
Aroclor-1016	B			500 0	477 1	pg/ul	-5	15	
Aroclor-1260	B			500 0	433 8	pg/ul	-13	15	
TCMX	B	25235	25719	100 0	101 9	pg/ul	2	15	
Decachlorobiphenyl	B	22335	15868	100 0	79 16	pg/ul	**-21**	15	c-

LTN 06/11/10 Corrected automatically drawn baseline

Analyst LTN Date 06/11/10 Reviewer PRW Date 06/11/10

1 w b CCV

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 220666 PCBS Miscell
EPA 8082

Inst	GC16	Run Name	AR2154	IDF	1 0
Seqnum	230232449059	File	161_059	Time	11-JUN-2010 17 04
Cal	230231524002	Caldate	10-JUN-2010		
Standards	S14533				

Analyte	Ch	Spiked	Quant	Units	-D	Max -D	Flags
Aroclor-1254	A	250 0	244 7	pg/ul	-2	15	
Aroclor-1254	B	250 0	263 6	pg/ul	5	15	

LTN 06/11/10 Corrected automatically drawn baseline

Analyst LTN Date 06/11/10 Reviewer PRW Date 06/11/10

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 220666 PCBS Miscell
EPA 8082

Inst	GC16	Run Name	PCB250_50	IDF	1 0
Seqnum	230238186002	File	165_002	Time	14-JUN-2010 10 14
Cal	230231524001	Caldate	10-JUN-2010		
Standards	S14602				

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Aroclor-1016	A			250 0	250 3	pg/ul	0	15	
Aroclor-1260	A			250 0	211 9	pg/ul	-15	15	
TCMX	A	11544	12134	50 00	52 55	pg/ul	5	15	
Decachlorobiphenyl	A	12035	7266 1	50 00	30 19	pg/ul	**-40**	15	c-
Aroclor-1016	B			250 0	251 3	pg/ul	1	15	
Aroclor-1260	B			250 0	204 2	pg/ul	**-18**	15	c- ***
TCMX	B	25235	25908	50 00	51 33	pg/ul	3	15	
Decachlorobiphenyl	B	22335	12983	50 00	35 04	pg/ul	**-30**	15	c-

LTN 06/14/10 Corrected automatically drawn baseline

Analyst LTN Date 06/14/10 Reviewer PRW Date 06/14/10

1 w b CCV

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 220666 PCBS Miscell
EPA 8082

Inst	GC16	Run Name	PCB500_100	IDF	1 0
Seqnum	230238186012	File	165_012	Time	14-JUN-2010 16 04
Cal	230231524001	Caldate	10-JUN-2010		
Standards	S14603				

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	-D	Max -D	Flags
Aroclor-1016	A			500 0	501 2	pg/ul	0	15	
Aroclor-1260	A			500 0	423 1	pg/ul	-15	15	
TCMX	A	11544	13063	100 0	113 2	pg/ul	13	15	
Decachlorobiphenyl	A	12035	7839 7	100 0	65 14	pg/ul	**-35**	15	c-
Aroclor-1016	B			500 0	502 9	pg/ul	1	15	
Aroclor-1260	B			500 0	448 9	pg/ul	-10	15	
TCMX	B	25235	27497	100 0	109 0	pg/ul	9	15	
Decachlorobiphenyl	B	22335	14364	100 0	72 51	pg/ul	**-27**	15	c-

LTN 06/14/10 Corrected automatically drawn baseline

Analyst LTN Date 06/14/10 Reviewer PRW Date 06/14/10

l w b CCV

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 230231524

Instrument GC16 Begun 06/09/10 18 44
Method EPA 8082 SOP Version pcb_rv 7

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used
001	160_001	X	HEX			06/09/10 18 44	1 0	
002	160_002	CCV	PCB250_50			06/09/10 19 11	1 0	1
003	160_003	CCV	PCB250_50			06/09/10 21 00	1 0	1
004	160_004	X	HEX			06/09/10 22 21	1 0	
005	160_005	CCV	PCB500_100			06/09/10 22 49	1 0	2
006	160_006	X	HEX			06/09/10 23 54	1 0	
007	160_007	IB	CALIB			06/10/10 00 22	1 0	
008	160_008	ICAL	PCB10_2			06/10/10 00 50	1 0	3
009	160_009	ICAL	PCB25_5			06/10/10 01 18	1 0	4
010	160_010	ICAL	PCB100_20			06/10/10 01 46	1 0	5
011	160_011	ICAL	PCB250_50			06/10/10 02 14	1 0	6
012	160_012	ICAL	PCB500_100			06/10/10 02 42	1 0	7
013	160_013	ICAL	PCB750_150			06/10/10 03 10	1 0	8
014	160_014	ICAL	PCB1000_200			06/10/10 03 37	1 0	9
015	160_015	X	HEX			06/10/10 04 05	1 0	
016	160_016	ICV	ULTRA 1660			06/10/10 04 34	1 0	10
017	160_017	X	ICV			06/10/10 05 02	1 0	10
018	160_018	X	HEX			06/10/10 06 29	1 0	
019	160_019	ICAL	AR215410			06/10/10 06 57	1 0	11
020	160_020	ICAL	AR2154100			06/10/10 07 25	1 0	12
021	160_021	ICAL	AR2154250			06/10/10 07 53	1 0	13
022	160_022	ICAL	AR2154500			06/10/10 08 22	1 0	14
023	160_023	ICAL	AR21541000			06/10/10 08 50	1 0	15
024	160_024	X	HEX			06/10/10 09 28	1 0	

TKB 06/10/10 I verified that the vials loaded on the instrument matched the sequence data entry for runs 1 through 24

St d d d 1 14602 2-S14603 3 S13958 4 S13959 5 S13960 6 S13961 7 S13962 8 S13963 9 S13964 10 S14374 11 S14193
12 S14194 13 S14195 14 S14196 15 S14197

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 230232449

Instrument GC16 Begun 06/10/10 10 09
Method EPA 8082 SOP Version pcb_rv 7

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used
001	161_001	X	HEX			06/10/10 10 09	1 0	
002	161_002	CCV	PCB250_50			06/10/10 10 37	1 0	1
003	161_003	X	AR2154			06/10/10 11 11	1 0	2
004	161_004	CCV	AR2154			06/10/10 11 44	1 0	2
005	161_005	CCV	AR2154			06/10/10 12 18	1 0	2
006	161_006	BLANK	QC547752	Soil	163818	06/10/10 12 54	1 0	
007	161_007	LCS	QC547753	Soil	163818	06/10/10 13 24	1 0	
008	161_008	MSS	220614-007	Soil	163818	06/10/10 13 52	1 0	
009	161_009	SAMPLE	220614-008	Soil	163818	06/10/10 14 19	1 0	
010	161_010	SAMPLE	220614-009	Soil	163818	06/10/10 14 47	1 0	
011	161_011	SAMPLE	220614-001	Soil	163816	06/10/10 15 15	1 0	
012	161_012	SAMPLE	220614-002	Soil	163816	06/10/10 15 42	1 0	
013	161_013	SAMPLE	220614-003	Soil	163816	06/10/10 16 10	1 0	
014	161_014	SAMPLE	220614-004	Soil	163816	06/10/10 16 38	1 0	
015	161_015	SAMPLE	220614-005	Soil	163816	06/10/10 17 05	1 0	
016	161_016	CCV	PCB500_100			06/10/10 17 33	1 0	3
017	161_017	CCV	AR2154			06/10/10 18 02	1 0	2
018	161_018	CCV	AR1248			06/10/10 19 40	1 0	4
019	161_019	X	MISINJECT	Soil	163887	06/10/10 20 08	1 0	
020	161_020	X	HEX			06/10/10 20 48	1 0	
021	161_021	BLANK	QC548055	Soil	163887	06/10/10 21 16	1 0	
022	161_022	LCS	QC548056	Soil	163887	06/10/10 21 44	1 0	
023	161_023	SAMPLE	220619-001	Soil	163887	06/10/10 22 11	1 0	
024	161_024	SAMPLE	220619-002	Soil	163887	06/10/10 22 54	1 0	
025	161_025	SAMPLE	220619-003	Soil	163887	06/10/10 23 22	1 0	
026	161_026	SAMPLE	220619-004	Soil	163887	06/10/10 23 50	1 0	
027	161_027	SAMPLE	220619-005	Soil	163887	06/11/10 00 17	1 0	
028	161_028	SAMPLE	220619-006	Soil	163887	06/11/10 00 45	1 0	
029	161_029	SAMPLE	220619-007	Soil	163887	06/11/10 01 13	1 0	
030	161_030	X	CCV			06/11/10 01 40	1 0	1
031	161_031	BLANK	QC548141	Miscell	163910	06/11/10 02 08	1 0	
032	161_032	CCV	PCB250_50			06/11/10 02 36	1 0	1
033	161_033	CCV	AR2154			06/11/10 03 03	1 0	2
034	161_034	X	CCV			06/11/10 03 31	1 0	2
035	161_035	CCV	AR1248			06/11/10 03 59	1 0	4
036	161_036	LCS	QC548142	Miscell	163910	06/11/10 04 28	1 0	
037	161_037	SAMPLE	220666-001	Miscell	163910	06/11/10 04 56	1 0	
038	161_038	SAMPLE	220666-002	Miscell	163910	06/11/10 05 24	1 0	
039	161_039	MSS	220666-003	Miscell	163910	06/11/10 05 53	1 0	
040	161_040	SAMPLE	220666-004	Miscell	163910	06/11/10 06 21	1 0	
041	161_041	SAMPLE	220666-005	Miscell	163910	06/11/10 06 49	1 0	
042	161_042	SAMPLE	220666-005	Miscell	163910	06/11/10 08 35	1 0	
043	161_043	SAMPLE	220666-006	Miscell	163910	06/11/10 09 03	1 0	
044	161_044	SAMPLE	220666-007	Miscell	163910	06/11/10 09 32	1 0	
045	161_045	SAMPLE	220666-008	Miscell	163910	06/11/10 10 01	1 0	
046	161_046	SAMPLE	220666-009	Miscell	163910	06/11/10 10 35	1 0	
047	161_047	CCV	PCB500_100			06/11/10 11 03	1 0	3
048	161_048	X	CCV			06/11/10 11 37	1 0	3
049	161_049	X	CCV			06/11/10 12 06	1 0	2
050	161_050	CCV	AR2154			06/11/10 12 34	1 0	2
051	161_051	SAMPLE	220666-006	Miscell	163910	06/11/10 13 09	1 0	
052	161_052	SAMPLE	220666-008	Miscell	163910	06/11/10 13 44	1 0	

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 230232449

Instrument GC16 Begun 06/10/10 10 09
Method EPA 8082 SOP Version pcb_rv 7

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used
053	161_053	X	CCV			06/11/10 14 14	1 0	
054	161_054	CCV	PCB250_50			06/11/10 14 43	1 0	1
055	161_055	CCV	AR2154			06/11/10 15 12	1 0	2
056	161_056	SAMPLE	220666-006	Miscell	163910	06/11/10 15 40	1 0	
057	161_057	SAMPLE	220666-008	Miscell	163910	06/11/10 16 07	1 0	
058	161_058	CCV	PCB500_100			06/11/10 16 36	1 0	3
059	161_059	CCV	AR2154			06/11/10 17 04	1 0	2

KMH 06/10/10 (3) 1254 ccvs mistakenly run at beginning of sequence, last 2 ccvs pass

KMH 06/10/10 I verified that the vials loaded on the instrument matched the sequence data entry for runs 1 through 17

LTN 06/11/10 I verified that the vials loaded on the instrument matched the sequence data entry for runs 18 through 53

LTN 06/11/10 I verified that the vials loaded on the instrument matched the sequence data entry for runs 54 through 59

St d d d 1 S14602 2 S14533 3 S14603 4 S14554

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 230238186

Instrument GC16 Begun 06/14/10 09 46
Method EPA 8082 SOP Version pcb_rv 7

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used
001	165_001	X	HEX			06/14/10 09 46	1 0	
002	165_002	CCV	PCB250_50			06/14/10 10 14	1 0	1
003	165_003	CCV	AR2154			06/14/10 11 03	1 0	2
004	165_004	MS	QC547750	Soil	163816	06/14/10 11 52	1 0	1 PCB1016#4=1500
005	165_005	MSD	QC547751	Soil	163816	06/14/10 12 20	1 0	1 PCB1016#4=1700
006	165_006	MSD	QC547755	Soil	163818	06/14/10 12 49	1 0	
007	165_007	SAMPLE	220557-010	Soil	163818	06/14/10 13 17	1 0	
008	165_008	MS	QC548143	Miscell	163910	06/14/10 13 45	1 0	
009	165_009	MSD	QC548144	Miscell	163910	06/14/10 14 13	1 0	
010	165_010	X	CCV			06/14/10 14 42	1 0	3
011	165_011	CCV	AR2154			06/14/10 15 33	1 0	2
012	165_012	CCV	PCB500_100			06/14/10 16 04	1 0	3
013	165_013	MSS	220682-002	Soil	163956	06/14/10 16 49	1 0	
014	165_014	SAMPLE	220682-009	Soil	163956	06/14/10 17 17	1 0	
015	165_015	MS	QC548304	Soil	163956	06/14/10 17 46	1 0	1 PCB1260#1=800
016	165_016	MSD	QC548305	Soil	163956	06/14/10 18 14	1 0	
017	165_017	CCV	PCB250_50			06/14/10 18 42	1 0	1
018	165_018	X	CCV			06/14/10 19 13	1 0	1
019	165_019	CCV	AR2154			06/14/10 19 41	1 0	2
020	165_020	MSS	220682-002	Soil	163956	06/14/10 20 10	1 0	
021	165_021	SAMPLE	220682-009	Soil	163956	06/14/10 20 38	1 0	
022	165_022	MS	QC548304	Soil	163956	06/14/10 21 06	1 0	2 PCB1260#1=790
023	165_023	MSD	QC548305	Soil	163956	06/14/10 21 34	1 0	
024	165_024	SAMPLE	220557-009	Soil	163818	06/14/10 22 01	1 0	
025	165_025	SAMPLE	220557-013	Soil	163818	06/14/10 22 30	1 0	
026	165_026	BLANK	QC547951	Oil	163866	06/14/10 22 57	1 0	
027	165_027	LCS	QC547952	Oil	163866	06/14/10 23 25	1 0	
028	165_028	SAMPLE	220624-001	Oil	163866	06/14/10 23 53	1 0	
029	165_029	SAMPLE	220624-002	Oil	163866	06/15/10 00 20	1 0	
030	165_030	CCV	PCB500_100			06/15/10 00 48	1 0	3
031	165_031	X	CCV			06/15/10 01 16	1 0	3
032	165_032	CCV	AR2154			06/15/10 01 43	1 0	2
033	165_033	SAMPLE	220624-003	Oil	163866	06/15/10 02 11	1 0	
034	165_034	SAMPLE	220624-004	Oil	163866	06/15/10 02 39	1 0	
035	165_035	SAMPLE	220624-006	Oil	163866	06/15/10 03 06	100 0	
036	165_036	BLANK	QC548291	Water	163953	06/15/10 03 34	1 0	
037	165_037	BS	QC548292	Water	163953	06/15/10 04 02	1 0	
038	165_038	BSD	QC548293	Water	163953	06/15/10 04 29	1 0	
039	165_039	SAMPLE	220596-001	Water	163953	06/15/10 04 57	1 0	
040	165_040	SAMPLE	220596-002	Water	163953	06/15/10 05 25	1 0	
041	165_041	SAMPLE	220624-047	Oil	163925	06/15/10 05 52	1 0	
042	165_042	SAMPLE	220624-048	Oil	163925	06/15/10 06 20	1 0	
043	165_043	X	CCV			06/15/10 06 48	1 0	1
044	165_044	CCV	PCB250_50			06/15/10 07 17	1 0	1
045	165_045	CCV	AR2154			06/15/10 07 45	1 0	2
046	165_046	X	HEX			06/15/10 08 13	1 0	

LTN 06/14/10 I verified that the vials loaded on the instrument matched the sequence data entry for runs 1 through 10

LTN 06/14/10 I verified that the vials loaded on the instrument matched the sequence data entry for runs 11 through 13

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 230238186

Instrument	GC16	Begun	06/14/10 09 46
Method	EPA 8082	SOP Version	pcb_rv 7

St d d d 1 S14602 2 S14533 3 S14603

SAMPLE PREPARATION SUMMARY

Batch #	163910			Analysis	PCB
Started By	CRD	Prep Date	10-JUN-2010 19 30	Finished By	CRD
Method	3550B	SOP Version	PCB_3550_rv8	Units	g
Spike #1 ID	S14795	Spike #2 ID	S14186		

Sampl	Styp	M t x	I t l	F l	Cl a DF	P ep DF	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Cl M th d	A ly	Comme t
220599 001		S l	30 3	25	1	0 8251		1				PCB	
220599 002		S l	30 11	25	1	0 8303		1				PCB	
220599 003		S l	30 17	25	1	0 8286		1				PCB	
220599 004		S l	30 2	25	1	0 8278		1				PCB	
220599 005		S l	30 19	25	1	0 8281		1				PCB	
220601 002		S l	30 06	25	1	0 8317		1				PCB	
220601 004		S l	30 12	25	1	0 83		1				PCB	
220601 006		S l	30 09	25	1	0 8308		1				PCB	
220601 007		S l	30 16	25	1	0 8289		1				PCB	
220601 008		S l	30 17	25	1	0 8286		1				PCB	
220604 001		S l	30 17	25	1	0 8286		1				(b t h d)	
220666 001		M c ll	30 07	25	1	0 8314		1				PCB	
220666 002		M ell	30 09	25	1	0 8308		1				PCB	
220666 003		M c ll	30 01	25	1	0 8331		1				PCB	MSS
220666 004		M ll	30 41	25	1	0 8221		1				PCB	
220666 005		M ell	30 2	25	1	0 8278		1				PCB	
220666 006		M ll	30 28	25	1	0 8256		1				PCB	
220666 007		M ll	30 04	25	1	0 8322		1				PCB	
220666 008		M ll	30 09	25	1	0 8308		1				PCB	
220666 009		M ell	30 12	25	1	0 83		1				PCB	
QC548141	BLANK	M ll	30 02	25	1	0 8328		1				PCB	
QC548142	LCS	M ll	30 06	25	1	0 8317		1	1			PCB	
QC548143	MS	M ll	30 04	25	1	0 8322		1	1			PCB	
QC548144	MSD	M ll	30 07	25	1	0 8314		1	1			PCB	

EAH 06/11/10 Batch was reviewed for 220666 still waiting for MS/MSD

Analyst LTN Date 06/14/10 Reviewer PRW Date 06/14/10

PCB (8082) Soil Prep Log

Curtis & Tompkins Ltd

LIMS Batch No 163910

LIMS Analysis PCB

Date Extracted 6/10/10

☒ EPA 3550b Sonication

☐ EPA 3545 PFE (ASE Method# _____)

☐ Other _____

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BK 3030

Sample ID	Container ID	Sample Wt (g)	Final Vol (mL)	Comments
220599-001	H	30.30	25 E	
2		30.11		Broken Receiver, lost ≈10mL before sonic
3		30.17		
4		30.20		
5		30.19		
220601-002	A	30.06		
4		30.12		
6		30.09		
7		30.16		
8		30.17		
220604-001	H	30.17		
220606-001	A	30.07		DCM ONLY
2		30.01		
3	A,B	30.01		MSS
4	A	30.41		
5		30.20		
6		30.28		
7		30.04		
8		30.09		
9		30.12		
MB QC548141		30.02		
LCS 2		30.06		
MS 3		30.04		DCM ONLY
MSD 4		30.07		
				LN 6/11/10

	Mfg & Lot # / LIMS # / Time	Initials / Date
Solvent rinsed granular Na_2SO_4 weighed out for QC samples	EM50042015	CD 6/10/10
dried with CH_2Cl_2 rinsed ☒ granular Na_2SO_4 ☐ diatomaceous earth		
10 mL of surrogate solution was added to all samples	S14795B	
10 mL of spike solution AR 16/60 was added to all spikes	S14186A	
PFE (ASE) Cellulose Filters used	NA	
1:1 CH_2Cl_2 (lot# EM50022) Acetone(lot# EM50043) was added to all	✓	
Solvent added at (time)	1930	
☒ sonicated 3 times w/ ≥100mL ☐ PFE extracted ☐ soxhlet extractors on at	✓	
Soxhlets off at	NA	
Extracts filtered through baked CH_2Cl_2 rinsed ~~Powdered~~ Grain Na_2SO_4	EM50042015	
Solvent exchanged with Hexane Lot#	JTB J11E13	
Concentrated to final volume at temperature (degrees C)	100	
EPA 3665A Clean-up vortexed w/ H_2SO_4 Lot#	FS100311	
Centrifuged for 1 min 10mL transferred to labelled vial	✓	
Relinquished to PCB group	✓	

6/10/10

Extraction Chemist / Date

Continued from page ____

Continued on page ____

6/11/10

Reviewed by / Date

Project Soil Aliquot BK 3003

Continued from Page

Sample	ID	Weight (g)	Analysis	Batch #	Comments
220644-001	A	30.38	PCB		
-002		30.23			
-003		30.24			
220630-001	F	50.35	~~VE~~ HM		
-002		50.19			
220604-001	H	50.30			
-		30.17	PCB		
220641-1	A	50.15	~~VE~~ HM		
220600-001	A	30.34	8270		
-001		30.12	8081		
-001		30.10	PCB		
220645-001	B	50.16	~~VE~~ HM		
-001		30.06	SIM		
-001		30.15	PCB		
					TW 6/9/10
220601-002	A	30.06	PCB	163910	
-004		30.12			
-006	E	30.09			
-007	A	30.16			
-008		30.17			
-010		30.16			
-011		30.25			
-012		30.45			
-014		30.14	CED 6/10/10		
-016		30.16	33		
-017		30.07			
					CRD 6/10/10

Continued on Page

Read and Understood By

Signed Date Signed Date

158 Project Soil Aliquot BK 3003

Continued from Page

SAMPLE	ID	WEIGHT (g)	ANALYSIS	Batch #	Comments
220644-001	A	30.38	PCB		
-002		30.23			
-003		30.24			
220630-001	F	50.35	~~VETHM~~		
-002		50.19			
220604-001	H	50.30			
-		30.17	PCB	163910	
220641-1	A	50.15	~~VETHM~~		
220600-001	B	30.34	8270		
-001		30.12	8081		
-001		30.10	PCB		
220645-001	B	50.16	~~VETHM~~		
-001		30.06	SIM		
-001		30.15	PCB		

TW 6/9/10

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Read and Understood By

Signed Date Signed Date

160 Project SOIL ALIQUOT BK3003

Continued from Page

SAMPLE ID	WEIGHT(g)	ANALYSIS	BATCH #	COMMENTS
220666-001 A	30.07	PCB	103910	CONCRETE
002 ↓	30.09			
003 A,B	30.01			MSS
004 A	30.41			
005	30.20			
006	30.28			
007	30.04			
008	30.09			
009 ↓	30.12			
MB	30.02			
LCS	30.06			
MS	30.04			220666-003A,B
MSD	30.07			

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Read and Understood By

Signed Date Signed Date

Project SOEI Aliquot BK3003 157

Continued from Page

Sample ID	Weight (g)	ANALYSIS	BATCH	Comments
220637-001A	30.06	PCB		MSS
-002	30.39			
-003	30.38			
-004	30.21			
-005	30.11			
-006	30.26			
-007	30.49			
-008	30.10			
-009	30.15			
-010	30.40			
-011	30.16			
-012	30.12			
-013	30.01			
-014	30.04			
-015	30.40			
-016	30.28			
MB	30.17			
LCS	30.26			EM 5002205
MS	30.00			220637-001A
MSD	30.08			NAV 6/9/10
220599-001H	29.93	8270-SIM		
-002	30.20			
-003	30.07			
-004	29.82			
-005	30.59			
				HAL 6/10/10
220599-001H	30.30	PCB	163910	
-002	30.11			
-003	30.17			
-004	30.20			
-005	30.19			
				SKW 6/9/10

Continued on Page

Read and Understood By

Signed Date Signed Date

REPORTING SUMMARY FOR 220666 PCBS Miscell

Sample ID	Analyte	Inst ID	Ch	Date & Time
220666-001	Aroclor-1016	GC16	A	06/11/10 04 56
220666-001	Aroclor-1221	GC16	A	06/11/10 04 56
220666-001	Aroclor-1232	GC16	A	06/11/10 04 56
220666-001	Aroclor-1242	GC16	A	06/11/10 04 56
220666-001	Aroclor-1248	GC16	A	06/11/10 04 56
220666-001	Aroclor-1254	GC16	A	06/11/10 04 56
220666-001	Aroclor-1260	GC16	A	06/11/10 04 56
220666-001	Aroclor-1262	GC16	A	06/11/10 04 56
220666-001	Aroclor-1268	GC16	A	06/11/10 04 56
220666-001	TCMX	GC16	A	06/11/10 04 56
220666-001	Decachlorobiphenyl	GC16	A	06/11/10 04 56
220666-002	Aroclor-1016	GC16	A	06/11/10 05 24
220666-002	Aroclor-1221	GC16	A	06/11/10 05 24
220666-002	Aroclor-1232	GC16	A	06/11/10 05 24
220666-002	Aroclor-1242	GC16	A	06/11/10 05 24
220666-002	Aroclor-1248	GC16	A	06/11/10 05 24
220666-002	Aroclor-1254	GC16	A	06/11/10 05 24
220666-002	Aroclor-1260	GC16	A	06/11/10 05 24
220666-002	Aroclor-1262	GC16	A	06/11/10 05 24
220666-002	Aroclor-1268	GC16	A	06/11/10 05 24
220666-002	TCMX	GC16	A	06/11/10 05 24
220666-002	Decachlorobiphenyl	GC16	A	06/11/10 05 24
220666-003	Aroclor-1016	GC16	A	06/11/10 05 53
220666-003	Aroclor-1221	GC16	A	06/11/10 05 53
220666-003	Aroclor-1232	GC16	A	06/11/10 05 53
220666-003	Aroclor-1242	GC16	A	06/11/10 05 53
220666-003	Aroclor-1248	GC16	A	06/11/10 05 53
220666-003	Aroclor-1254	GC16	A	06/11/10 05 53
220666-003	Aroclor-1260	GC16	A	06/11/10 05 53
220666-003	Aroclor-1262	GC16	A	06/11/10 05 53
220666-003	Aroclor-1268	GC16	A	06/11/10 05 53
220666-003	TCMX	GC16	A	06/11/10 05 53
220666-003	Decachlorobiphenyl	GC16	A	06/11/10 05 53
220666-004	Aroclor-1016	GC16	A	06/11/10 06 21
220666-004	Aroclor-1221	GC16	A	06/11/10 06 21
220666-004	Aroclor-1232	GC16	A	06/11/10 06 21
220666-004	Aroclor-1242	GC16	A	06/11/10 06 21
220666-004	Aroclor-1248	GC16	A	06/11/10 06 21
220666-004	Aroclor-1254	GC16	A	06/11/10 06 21
220666-004	Aroclor-1260	GC16	A	06/11/10 06 21
220666-004	Aroclor-1262	GC16	A	06/11/10 06 21
220666-004	Aroclor-1268	GC16	A	06/11/10 06 21
220666-004	TCMX	GC16	A	06/11/10 06 21
220666-004	Decachlorobiphenyl	GC16	A	06/11/10 06 21
220666-005	Aroclor-1016	GC16	A	06/11/10 08 35
220666-005	Aroclor-1221	GC16	A	06/11/10 08 35
220666-005	Aroclor-1232	GC16	A	06/11/10 08 35
220666-005	Aroclor-1242	GC16	A	06/11/10 08 35
220666-005	Aroclor-1248	GC16	A	06/11/10 08 35
220666-005	Aroclor-1254	GC16	A	06/11/10 08 35

REPORTING SUMMARY FOR 220666 PCBS Miscell

Sample ID	Analyte	Inst ID	Ch	Date & Time
220666-005	Aroclor-1260	GC16	A	06/11/10 08 35
220666-005	Aroclor-1262	GC16	A	06/11/10 08 35
220666-005	Aroclor-1268	GC16	A	06/11/10 08 35
220666-005	TCMX	GC16	A	06/11/10 08 35
220666-005	Decachlorobiphenyl	GC16	A	06/11/10 08 35
220666-006	Aroclor-1016	GC16	A	06/11/10 15 40
220666-006	Aroclor-1221	GC16	A	06/11/10 15 40
220666-006	Aroclor-1232	GC16	A	06/11/10 15 40
220666-006	Aroclor-1242	GC16	A	06/11/10 15 40
220666-006	Aroclor-1248	GC16	A	06/11/10 15 40
220666-006	Aroclor-1254	GC16	B	06/11/10 15 40
220666-006	Aroclor-1260	GC16	A	06/11/10 15 40
220666-006	Aroclor-1262	GC16	A	06/11/10 15 40
220666-006	Aroclor-1268	GC16	A	06/11/10 15 40
220666-006	TCMX	GC16	A	06/11/10 15 40
220666-006	Decachlorobiphenyl	GC16	A	06/11/10 15 40
220666-007	Aroclor-1016	GC16	A	06/11/10 09 32
220666-007	Aroclor-1221	GC16	A	06/11/10 09 32
220666-007	Aroclor-1232	GC16	A	06/11/10 09 32
220666-007	Aroclor-1242	GC16	A	06/11/10 09 32
220666-007	Aroclor-1248	GC16	A	06/11/10 09 32
220666-007	Aroclor-1254	GC16	A	06/11/10 09 32
220666-007	Aroclor-1260	GC16	A	06/11/10 09 32
220666-007	Aroclor-1262	GC16	A	06/11/10 09 32
220666-007	Aroclor-1268	GC16	A	06/11/10 09 32
220666-007	TCMX	GC16	A	06/11/10 09 32
220666-007	Decachlorobiphenyl	GC16	A	06/11/10 09 32
220666-008	Aroclor-1016	GC16	A	06/11/10 16 07
220666-008	Aroclor-1221	GC16	A	06/11/10 16 07
220666-008	Aroclor-1232	GC16	A	06/11/10 16 07
220666-008	Aroclor-1242	GC16	A	06/11/10 16 07
220666-008	Aroclor-1248	GC16	A	06/11/10 16 07
220666-008	Aroclor-1254	GC16	B	06/11/10 16 07
220666-008	Aroclor-1260	GC16	A	06/11/10 16 07
220666-008	Aroclor-1262	GC16	A	06/11/10 16 07
220666-008	Aroclor-1268	GC16	A	06/11/10 16 07
220666-008	TCMX	GC16	A	06/11/10 16 07
220666-008	Decachlorobiphenyl	GC16	A	06/11/10 16 07
220666-009	Aroclor-1016	GC16	A	06/11/10 10 35
220666-009	Aroclor-1221	GC16	A	06/11/10 10 35
220666-009	Aroclor-1232	GC16	A	06/11/10 10 35
220666-009	Aroclor-1242	GC16	A	06/11/10 10 35
220666-009	Aroclor-1248	GC16	A	06/11/10 10 35
220666-009	Aroclor-1254	GC16	A	06/11/10 10 35
220666-009	Aroclor-1260	GC16	A	06/11/10 10 35
220666-009	Aroclor-1262	GC16	A	06/11/10 10 35
220666-009	Aroclor-1268	GC16	A	06/11/10 10 35
220666-009	TCMX	GC16	A	06/11/10 10 35
220666-009	Decachlorobiphenyl	GC16	A	06/11/10 10 35

REPORTING SUMMARY FOR 220666 PCBS Miscell

Sample ID	Analyte	Inst ID	Ch	Date & Time
QC548141	Aroclor-1016	GC16	A	06/11/10 02 08
QC548141	Aroclor-1221	GC16	A	06/11/10 02 08
QC548141	Aroclor-1232	GC16	A	06/11/10 02 08
QC548141	Aroclor-1242	GC16	A	06/11/10 02 08
QC548141	Aroclor-1248	GC16	A	06/11/10 02 08
QC548141	Aroclor-1254	GC16	A	06/11/10 02 08
QC548141	Aroclor-1260	GC16	A	06/11/10 02 08
QC548141	Aroclor-1262	GC16	A	06/11/10 02 08
QC548141	Aroclor-1268	GC16	A	06/11/10 02 08
QC548141	TCMX	GC16	A	06/11/10 02 08
QC548141	Decachlorobiphenyl	GC16	A	06/11/10 02 08
QC548142	Aroclor-1016	GC16	A	06/11/10 04 28
QC548142	Aroclor-1260	GC16	A	06/11/10 04 28
QC548142	TCMX	GC16	A	06/11/10 04 28
QC548142	Decachlorobiphenyl	GC16	A	06/11/10 04 28
QC548143	Aroclor-1016	GC16	A	06/14/10 13 45
QC548143	Aroclor-1260	GC16	A	06/14/10 13 45
QC548143	TCMX	GC16	A	06/14/10 13 45
QC548143	Decachlorobiphenyl	GC16	A	06/14/10 13 45
QC548144	Aroclor-1016	GC16	A	06/14/10 14 13
QC548144	Aroclor-1260	GC16	A	06/14/10 14 13
QC548144	TCMX	GC16	A	06/14/10 14 13
QC548144	Decachlorobiphenyl	GC16	A	06/14/10 14 13

Curtis & Tompkins Ltd

Total Volatile Hydrocarbons

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	EPA 5030B
Project#	STANDARD	Analysis	EPA 8015B
Matrix	Water	Sampled	08/26/08
Units	ug/L	Received	08/26/08
Dilu Fac	1 000	Analyzed	08/28/08
Batch#	141919		

Field ID IR21B386PIT01-W Lab ID 205588-001
Type SAMPLE

Analyte	Result	RL	MDL
Gasoline C7-C12	18 J	100	14

Surrogate	%REC	Limits
Trifluorotoluene (FID)	110	74-138
Bromofluorobenzene (FID)	120	74-138

Field ID IR21B386PIT02-W Lab ID 205588-002
Type SAMPLE

Analyte	Result	RL	MDL
Gasoline C7-C12	17 J	100	14

Surrogate	%REC	Limits
Trifluorotoluene (FID)	108	74-138
Bromofluorobenzene (FID)	117	74-138

Field ID IR21B386PIT03-W Lab ID 205588-003
Type SAMPLE

Analyte	Result	RL	MDL
Gasoline C7-C12	18 J	100	14

Surrogate	%REC	Limits
Trifluorotoluene (FID)	105	74-138
Bromofluorobenzene (FID)	116	74-138

Type BLANK Lab ID QC457824

Analyte	Result	RL	MDL
Gasoline C7-C12	20 J	100	14

Surrogate	%REC	Limits
Trifluorotoluene (FID)	103	74-138
Bromofluorobenzene (FID)	109	74-138

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Batch QC Report

Total Volatile Hydrocarbons

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	EPA 5030B
Project#	STANDARD	Analysis	EPA 8015B
Field ID	IR21B386PIT03-W	Batch#	141919
MSS Lab ID	205588-003	Sampled	08/26/08
Matrix	Water	Received	08/26/08
Units	ug/L	Analyzed	08/28/08
Diln Fac	1 000		

Type MS Lab ID QC457827

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	18 37	2 000	2 090	104	67-136

Surrogate	%REC	Limits
Trifluorotoluene (FID)	136	74-138
Bromofluorobenzene (FID)	123	74-138

Type MSD Lab ID QC457828

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2 000	2 114	105	67-136	1	30

Surrogate	%REC	Limits
Trifluorotoluene (FID)	135	74-138
Bromofluorobenzene (FID)	121	74-138

RPD= Relative Percent Difference

Curtis & Tompkins Ltd

Batch QC Report

Total Volatile Hydrocarbons

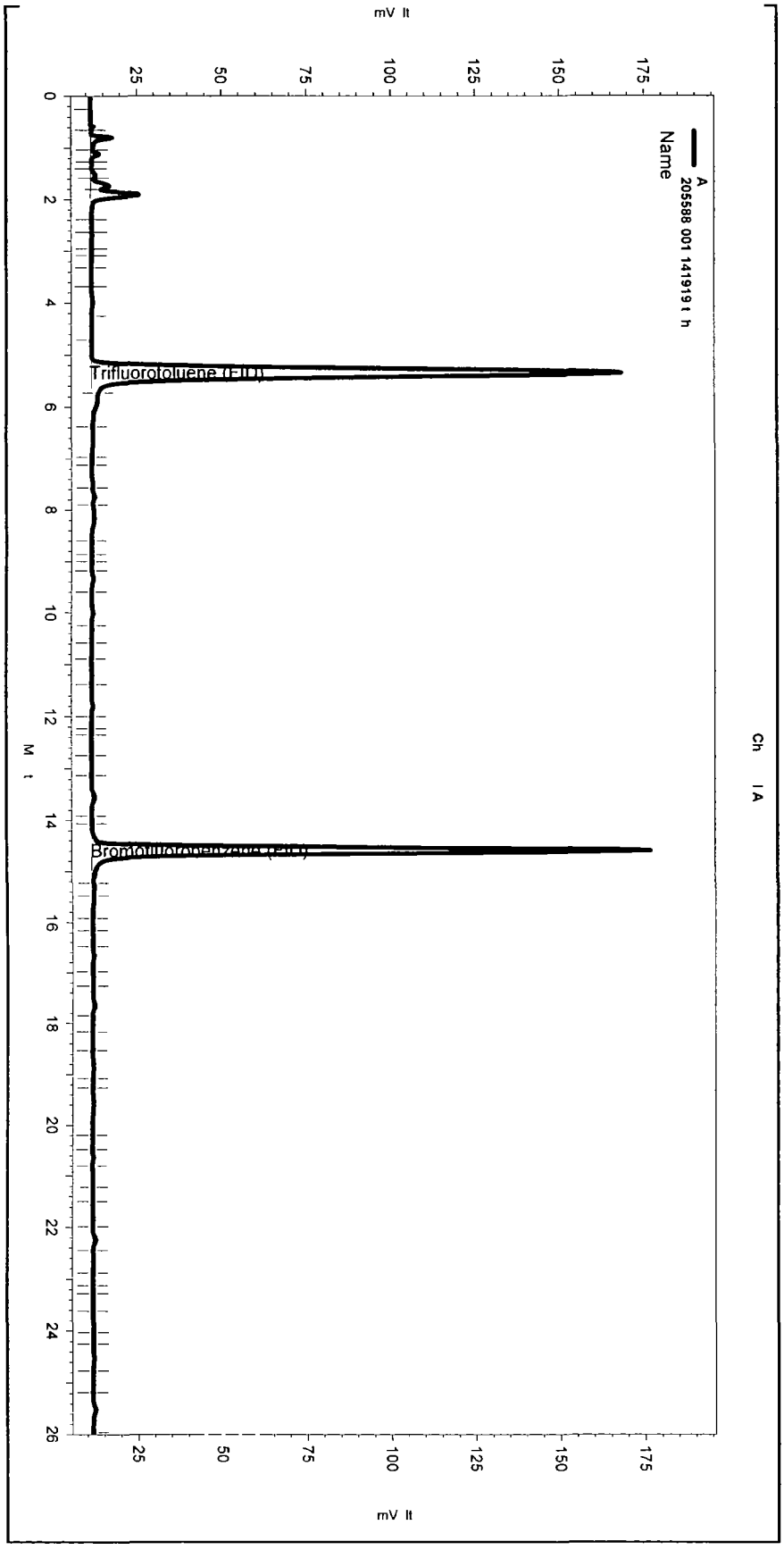
Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	EPA 5030B
Project#	STANDARD	Analysis	EPA 8015B
Type	LCS	Diln Fac	1 000
Lab ID	QC457854	Batch#	141919
Matrix	Water	Analyzed	08/28/08
Units	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1 000	1 012	101	67-136

Surrogate	%REC	Limits
Trifluorotoluene (FID)	121	74-138
Bromofluorobenzene (FID)	113	74-138

Sequence File \\Lims\gdr e\ezchrom\Projects\GC07\Sequence\241 seq
Sample Name **205588-001 141919 tvh**
Data File \\Lims\gdrive\ezchrom\Projects\GC07\Data\241_019
Instrument GC07 (Offline) Vial N/A Operator Tvh 2 Analyst (lims2k3\tvh2)
Method Name \\L ms\gd ı e\ezch om\Projects\GC07\Method\tvhbtxe224 met

Software Version 3 1 7
Run Date 8/28/2008 9 11 54 PM
Analys s Date 8/29/2008 7 31 30 AM
Sample Amo nt 5 M lt pl e 5
Vial & pH or Core ID a1 3



G IM th d P ram t

N t m l t d f th ti

A

N t m l t d f th ti

l t g t E t

E bl d E t Typ	St rt (M t)	St p (M t)	V l
Y W dth	0	0	0 2
Y Th h ld	0	0	50

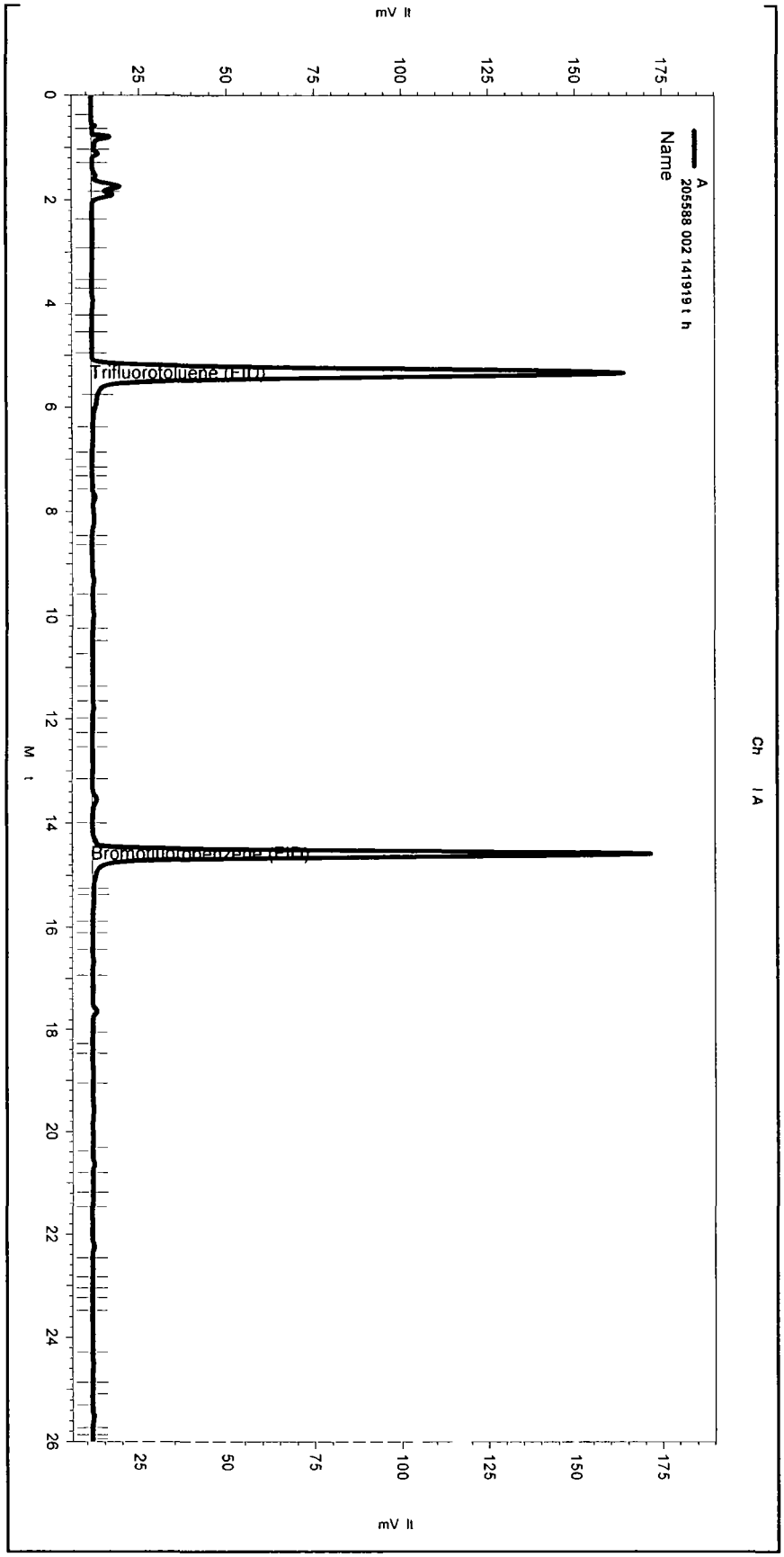
M l l t g tio F

D t F l \\L m \gd \ h m\P j t \GC07\D t \241 019

E bled E t Type	St rt (M t)	St p (M t)	V l
Y Spl t P k	5 733	0	0

Sequence File \\Lims\gdrive\ezchrom\Projects\GC07\Sequence\241 seq
Sample Name **205588-002 141919 tvh**
Data File \\Lims\gdrive\ezchrom\Projects\GC07\Data\241_020
Instrument GC07 (Offline) Vial N/A Operator Tvh 2 Analyst (lims2k3\t h2)
Method Name \\L ms\gdr e\ezchrom\Projects\GC07\Method\t hbtxe224 met

Software Version 3 1 7
Run Date 8/28/2008 9 48 42 PM
Analys s Date 8/29/2008 7 31 34 AM
Sample Amount 5 Multiplier 5
V al & pH or Core ID a1 3



G IM th d P m t

N t m l t d f th t

A

N t m l t d f th t

I t g t E t

E bl d E t Type	St rt (M t)	St p (M t)	V l
Y Wdth	0	0	0 2
Y Th h ld	0	0	50

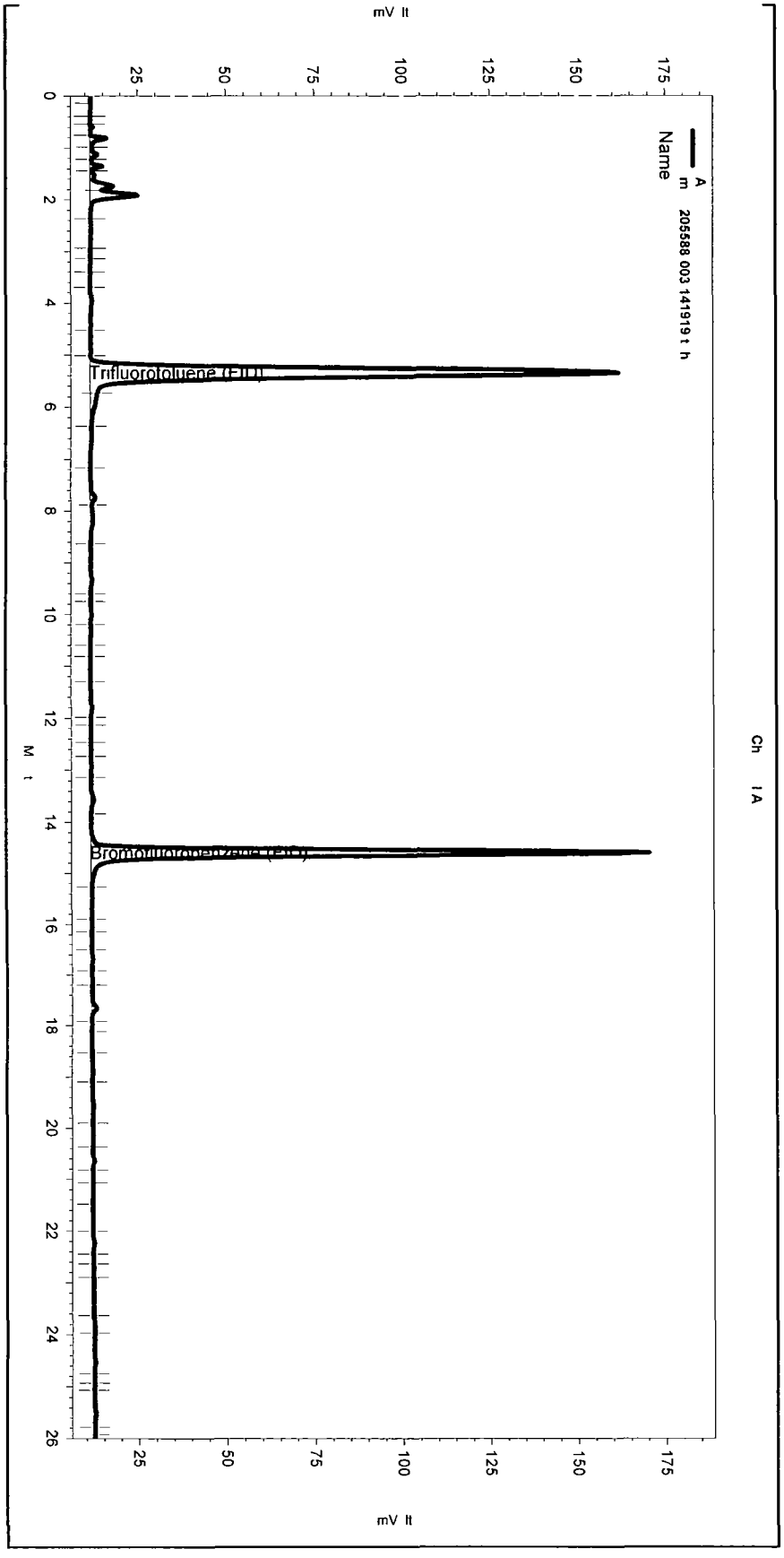
M ll t g t F

D t F l \\L m \gd \ ch m\P j t \GC07\D t \241 020

E bl d E t Type	St rt (M t)	St p (M t)	V l
Y SplitP k	5 746	0	0

Sequence F le \\Lıms\gdrıve\ezchrom\Projects\GC07\Seque ce\241 seq
Sample Name mss 205588-003 141919 tvh
Data File \\Lıms\gdrıve\e chrom\Projects\GC07\Data\241_021
Instrument GC07 (Offline) Vial N/A Operator Tvh 2 Analyst (l ms2k3\tvh2)
Method Name \\Lıms\gdr e\ezchrom\Proj cts\GC07\Method\t hbtxe224 met

Software Vers on 3 1 7
Run Date 8/28/2008 10 25 31 PM
Analysıs Date 8/29/2008 7 31 38 AM
Sample Amount 5 M lt pl r 5
Vial & pH or Core ID a1 3



G I M th d P m t

N t m I t d f th t

A

N t m I ct d f th t

I t g t E t

E bl d E t Type	St rt (M t)	St p (M t)	V t
Y W dth	0	0	0 2
Y Th h ld	0	0	50

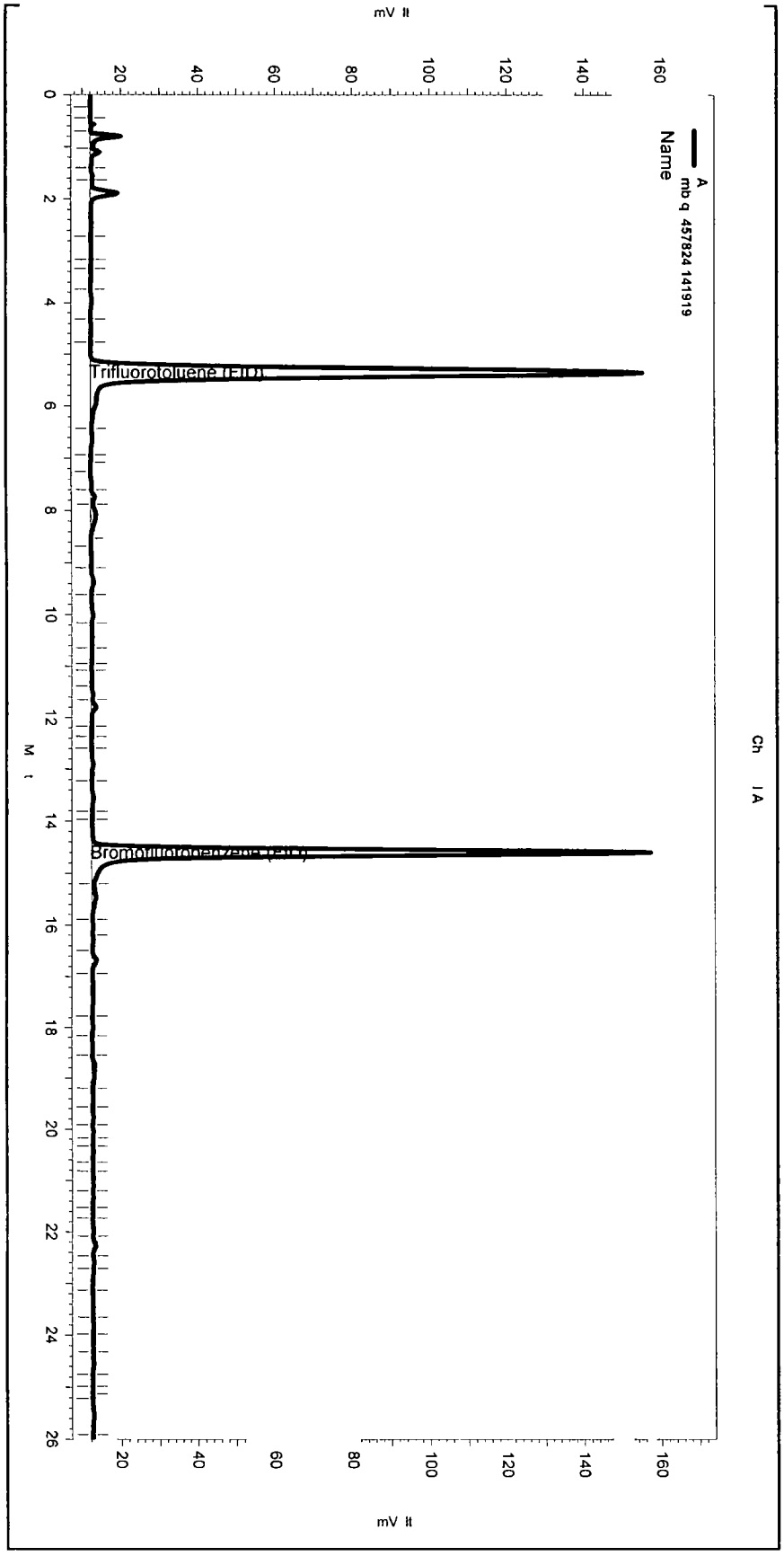
M I I t g tıo F

D t F I \\L m \gd \ ch m\P j ct \GC07\D ta\241 021

E bl d E t Type	St rt (M t)	St p (M t)	V l
Y Spl t P k	5 739	0	0

Sequence File \\Lims\gdrive\ezchrom\Projects\GC07\Sequence\241 seq
Sample Name **mb qc457824 141919**
Data File \\Lims\gdrive\ezchrom\Projects\GC07\Data\241_004
Instrument GC07 (Offline) Vial N/A Operator Tvh 2 Analyst (lims2k3\tvh2)
Method Name \\Lims\gdri e\ezchrom\Projects\GC07\Method\t hbtxe224 met

Software Version 3 1 7
Run Date 8/28/2008 11 39 06 AM
Analysis Date 8/28/2008 2 26 08 PM
Sample Amount 5 Multiplier 5
V al & pH or Core ID {Data Desc pt o }



G IM th d P m t

N t m l t d f th t

A

N t m l t d f th cti

I t g t E t

E bl d E t Typ	St rt (M t)	St p (M t)	V l
Y Wdth	0	0	0 2
Y Th h ld	0	0	50

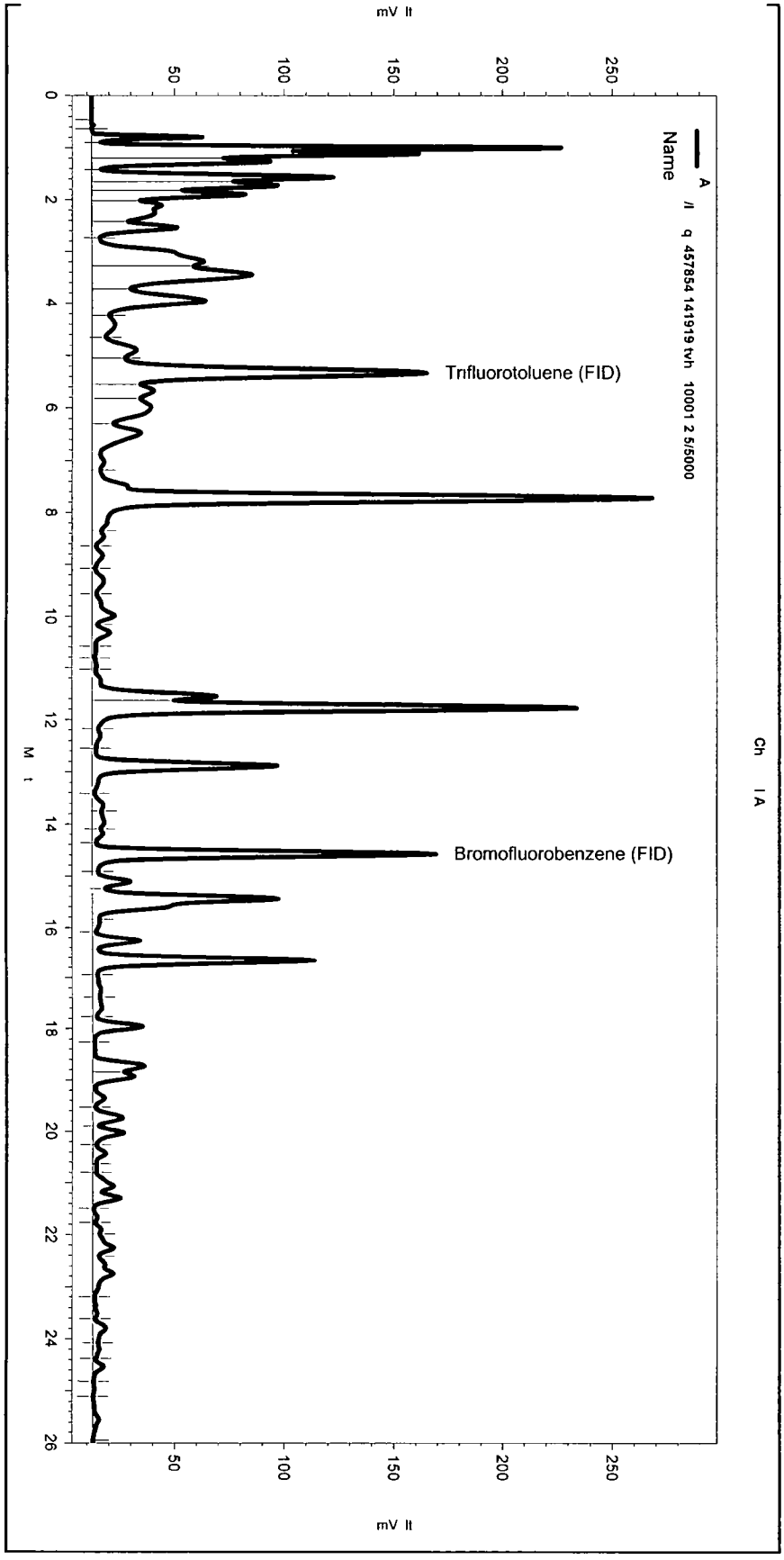
M I t g to F

D t F I \\L m \gd \ h m\P j t \GC07\D ta\241 004

E bl d E t Type	St rt (M t)	St p (M t)	V l
N			

Sequence File \\Lims\gdrive\ezchrom\Projects\GC07\Sequence\241 seq
Sample Name cc /lcs qc457854 141919 tvh s10001 2 5/5000
Data File \\Lims\gdrive\ezchrom\Projects\GC07\Data\241_003
Instrument GC07 (Offline) Vial N/A Operator Tvh 2 Analyst (lims2k3\tvh2)
Method Name \\Lims\gdrive\ezchrom\Projects\GC07\Method\thbtxe224 met

Software Version 3 1 7
Run Date 8/28/2008 10 43 59 AM
Analysis Date 8/28/2008 2 26 05 PM
Sample Amount 5 Multiplier 5
Vial & pH or Core ID {Data Description}



G IM th d P m t

N t m l t d f th t

A

N t m l t d f th t

I t g t E t

E bl d E t Typ	St rt (M t)	St p (M t)	V l
Y Width	0	0	0 2
Y Th h ld	0	0	50

M I I t g tio F

D t F I \\Lm \gd \ ch m\P j t \GC07\D t \241_003

E bl d E t Typ	St rt (M t)	St p (M t)	V l

N

Curtis & Tompkins Ltd

Total Extractable Hydrocarbons

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	EPA 3520C
Project#	STANDARD	Analysis	EPA 8015B
Matrix	Water	Sampled	08/26/08
Units	ug/L	Received	08/26/08
Diln Fac	1 000	Prepared	08/28/08
Batch#	141944	Analyzed	08/29/08

Field ID IR21B386PIT01-W Lab ID 205588-001
Type SAMPLE

Analyte	Result	RL	MDL
Diesel C10-C24	ND	500	14
Motor Oil C24-C36	500	500	55

Surrogate	%REC	Limits
Hexacosane	104	26-152

Field ID IR21B386PIT02-W Lab ID 205588-002
Type SAMPLE

Analyte	Result	RL	MDL
Diesel C10-C24	2 500 Y	500	14
Motor Oil C24-C36	2,800	500	55

Surrogate	%REC	Limits
Hexacosane	102	26-152

Field ID IR21B386PIT03-W Lab ID 205588-003
Type SAMPLE

Analyte	Result	RL	MDL
Diesel C10-C24	ND	500	14
Motor Oil C24-C36	ND	500	55

Surrogate	%REC	Limits
Hexacosane	102	26-152

Type BLANK Lab ID QC457932

Analyte	Result	RL	MDL
Diesel C10-C24	ND	500	14
Motor Oil C24-C36	ND	500	55

Surrogate	%REC	Limits
Hexacosane	107	26-152

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

14 0

Curtis & Tompkins Ltd

Batch QC Report

Total Extractable Hydrocarbons

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	EPA 3520C
Project#	STANDARD	Analysis	EPA 8015B
Matrix	Water	Batch#	141944
Units	ug/L	Prepared	08/28/08
Diln Fac	1 000	Analyzed	09/02/08

Type BS Cleanup Method EPA 3630C
Lab ID QC457933

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2 500	2 227	89	61-143

Surrogate	%REC	Limits
Hexacosane	102	26-152

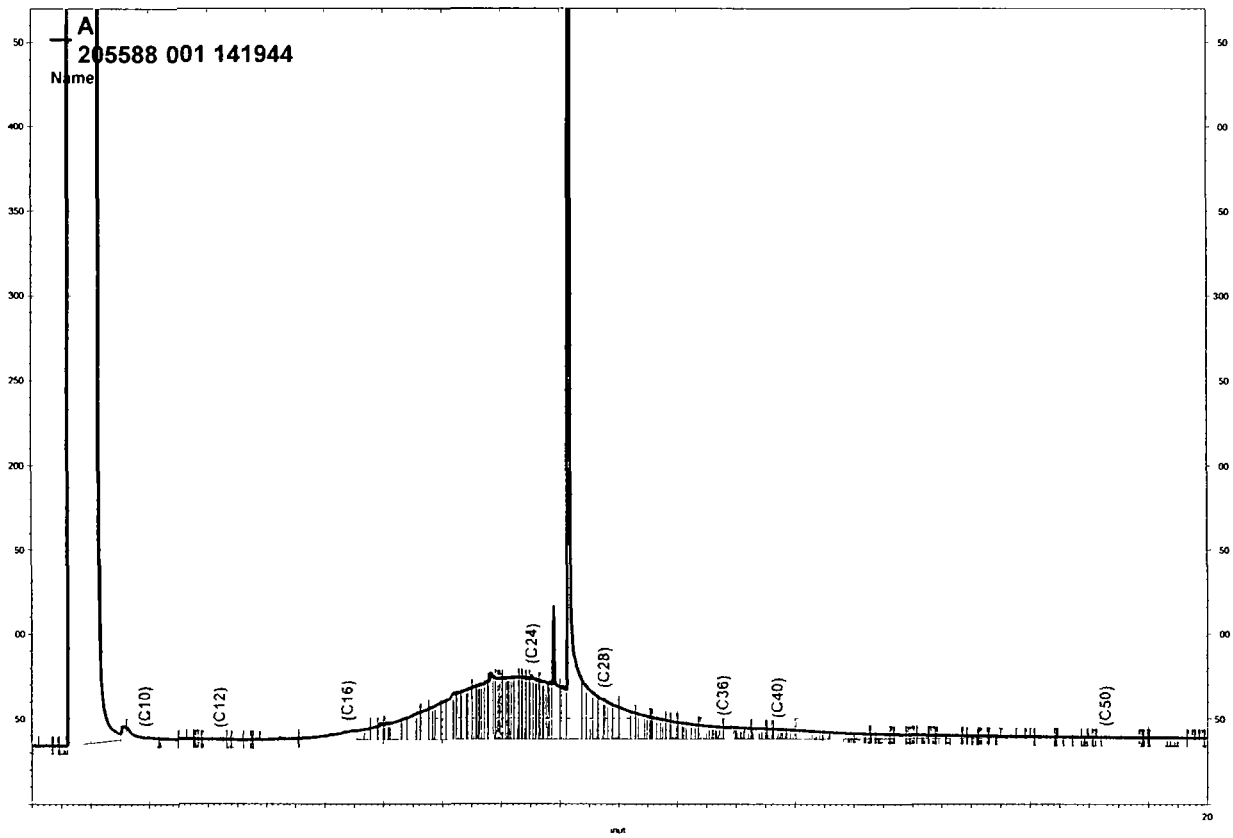
Type BSD Cleanup Method EPA 3630C
Lab ID QC457934

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2 500	2 215	89	61-143	1	30

Surrogate	%REC	Limits
Hexacosane	99	26-152

RPD= Relative Percent Difference

15 0



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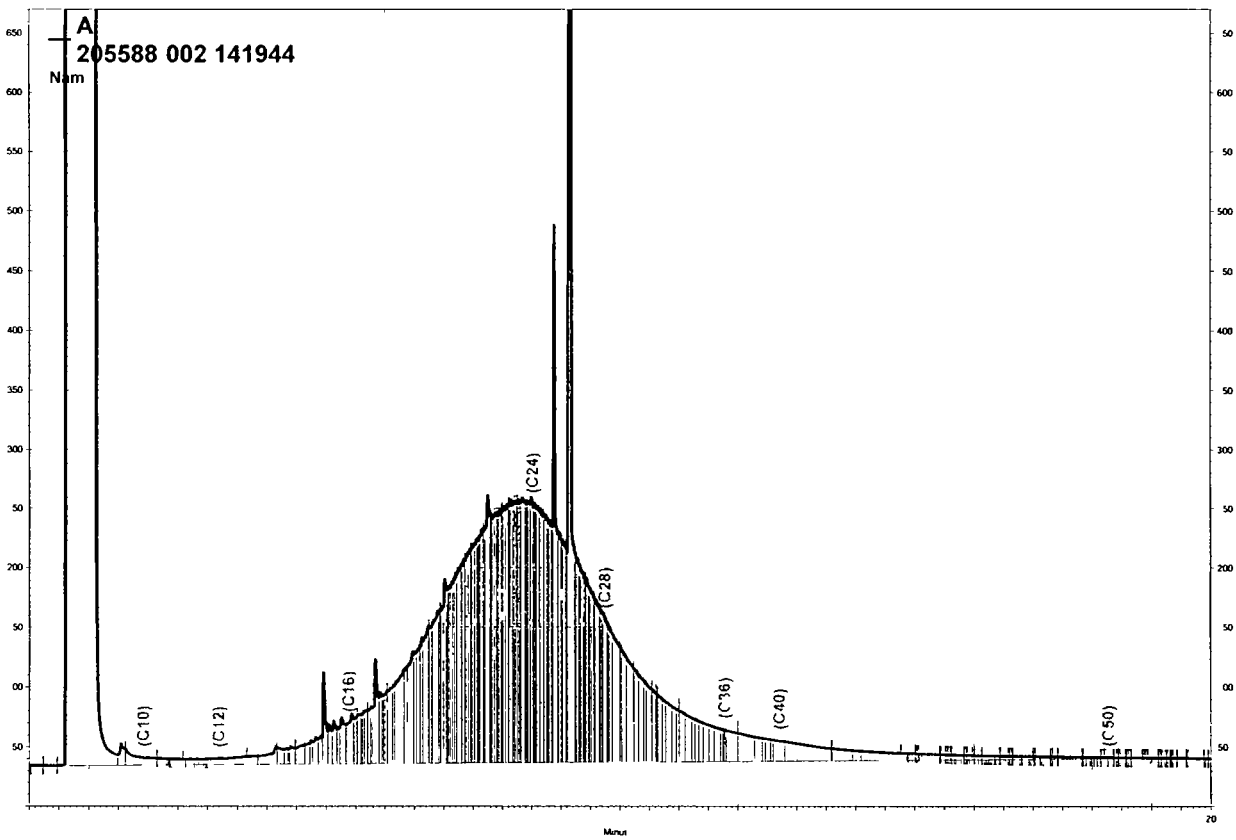

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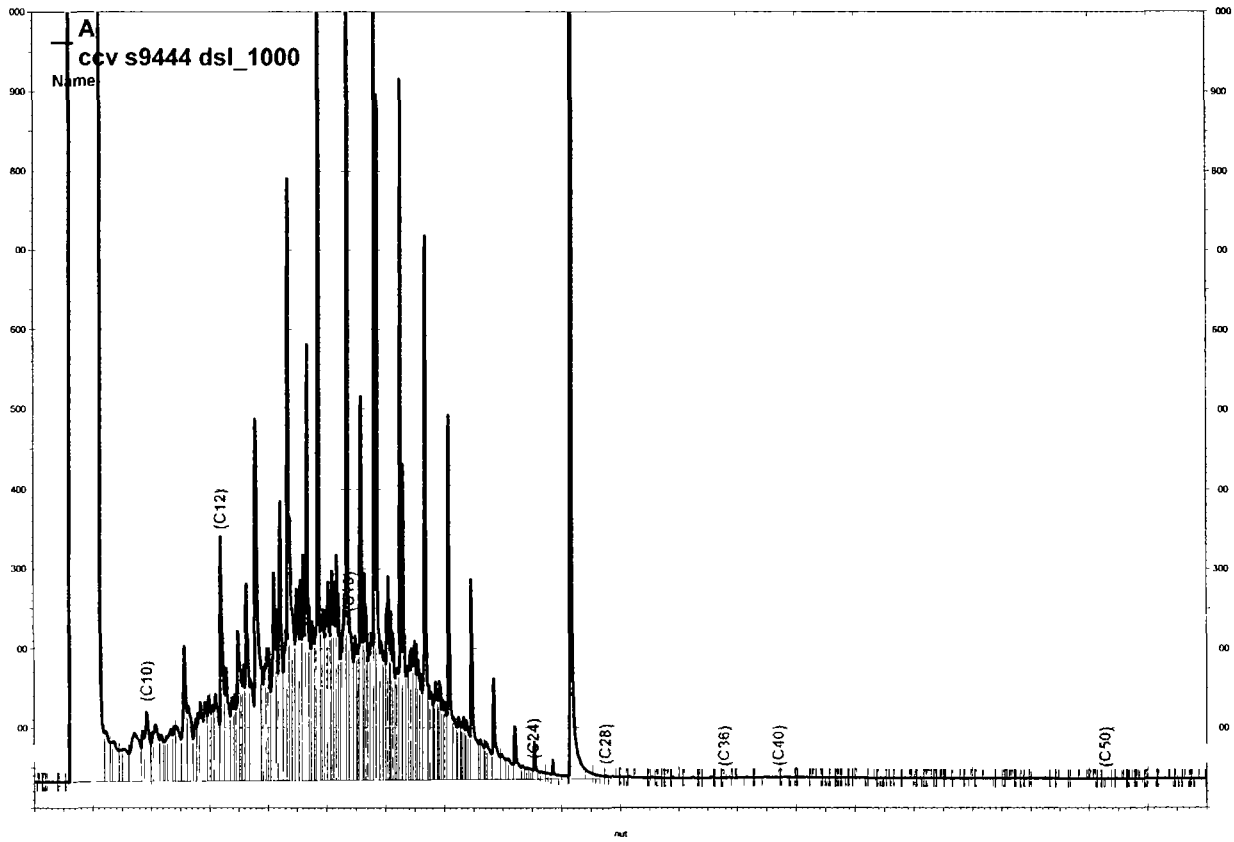

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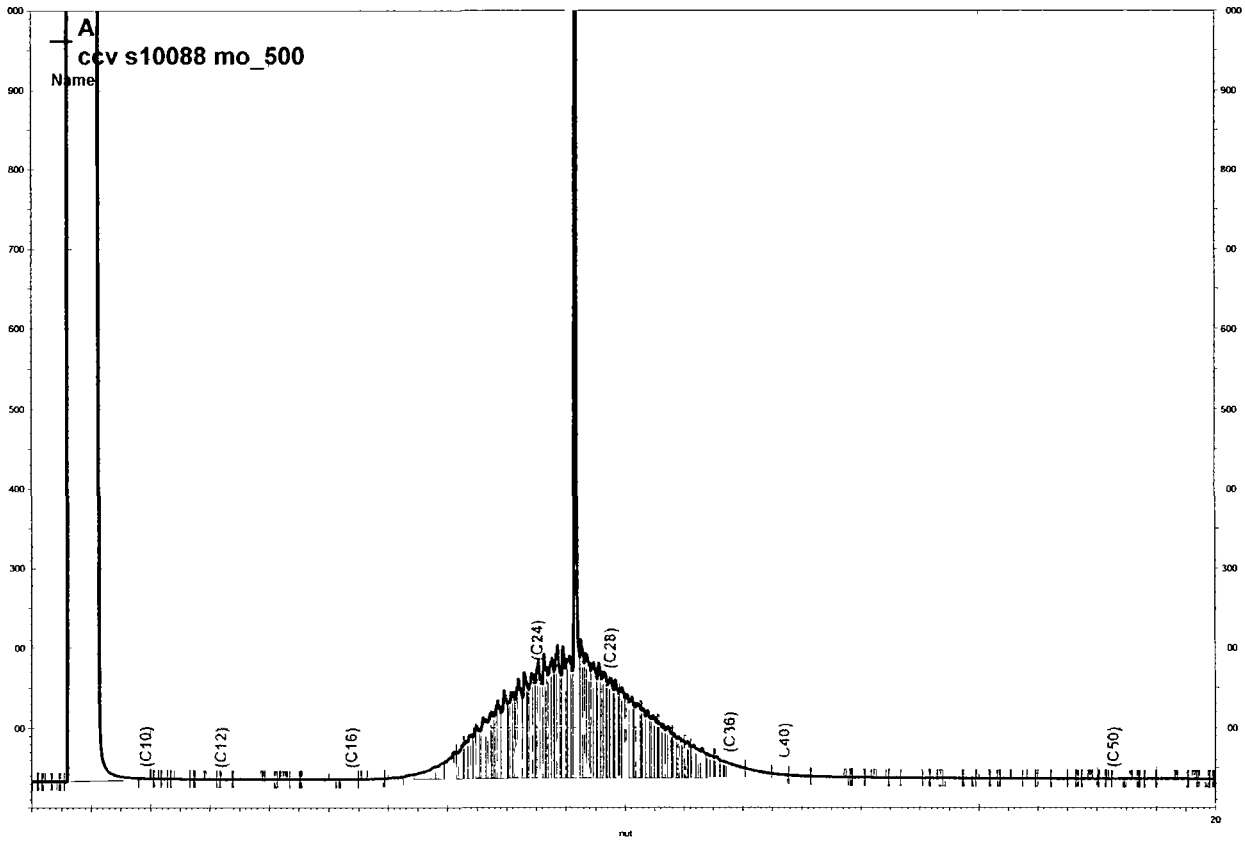

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Curtis & Tompkins Ltd

Purgeable Organics by GC/MS

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	EPA 5030B
Project#	STANDARD	Analysis	EPA 8260B
Field ID	IR21B386PIT01-W	Batch#	142216
Lab ID	205588-001	Sampled	08/26/08
Matrix	Water	Received	08/26/08
Units	ug/L	Analyzed	09/08/08
Diln Fac	1 000		

Analyte	Result	RL	MDL
Vinyl Chloride	ND	0 5	0 1
Bromomethane	ND	1 0	0 2
1 1-Dichloroethene	ND	0 5	0 1
Methylene Chloride	ND	5 0	1 0
trans-1 2-Dichloroethene	ND	0 5	0 1
Carbon Tetrachloride	ND	0 5	0 1
1 2-Dichloroethane	ND	0 5	0 1
Benzene	ND	0 5	0 1
Trichloroethene	ND	0 5	0 1
1 2-Dichloropropane	ND	0 5	0 1
Bromodichloromethane	ND	0 5	0 1
Toluene	ND	0 5	0 1
1 1 2-Trichloroethane	ND	0 5	0 1
Tetrachloroethene	ND	0 5	0 1
Dibromochloromethane	ND	0 5	0 1
Chlorobenzene	ND	0 5	0 1
Ethylbenzene	ND	0 5	0 1
Bromoform	ND	1 0	0 2
1 1 2 2-Tetrachloroethane	ND	0 5	0 1
para-Isopropyl Toluene	ND	0 5	0 1
1 3-Dichlorobenzene	ND	0 5	0 1
1 4-Dichlorobenzene	ND	0 5	0 1
1 2-Dichlorobenzene	ND	0 5	0 1

Surrogate	%REC	Limits
Dibromofluoromethane	113	75-125
1 2-Dichloroethane-d4	117	62-139
Bromofluorobenzene	105	75-125

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

23 0

Curtis & Tompkins Ltd

Purgeable Organics by GC/MS

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	EPA 5030B
Project#	STANDARD	Analysis	EPA 8260B
Field ID	IR21B386PIT02-W	Batch#	142216
Lab ID	205588-002	Sampled	08/26/08
Matrix	Water	Received	08/26/08
Units	ug/L	Analyzed	09/08/08
Diln Fac	1 000		

Analyte	Result	RL	MDL
Vinyl Chloride	ND	0 5	0 1
Bromomethane	ND	1 0	0 2
1 1-Dichloroethene	ND	0 5	0 1
Methylene Chloride	ND	5 0	1 0
trans-1 2-Dichloroethene	ND	0 5	0 1
Carbon Tetrachloride	ND	0 5	0 1
1 2-Dichloroethane	ND	0 5	0 1
Benzene	ND	0 5	0 1
Trichloroethene	ND	0 5	0 1
1 2-Dichloropropane	ND	0 5	0 1
Bromodichloromethane	ND	0 5	0 1
Toluene	ND	0 5	0 1
1 1 2-Trichloroethane	ND	0 5	0 1
Tetrachloroethene	ND	0 5	0 1
Dibromochloromethane	ND	0 5	0 1
Chlorobenzene	ND	0 5	0 1
Ethylbenzene	ND	0 5	0 1
Bromoform	ND	1 0	0 2
1 1 2 2-Tetrachloroethane	ND	0 5	0 1
para-Isopropyl Toluene	ND	0 5	0 1
1 3-Dichlorobenzene	ND	0 5	0 1
1 4-Dichlorobenzene	ND	0 5	0 1
1 2-Dichlorobenzene	ND	0 5	0 1

Surrogate	%REC	Limits
Dibromofluoromethane	108	75-125
1 2-Dichloroethane-d4	113	62-139
Bromofluorobenzene	103	75-125

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

24 0

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Purgeable Organics by GC/MS

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	EPA 5030B
Project#	STANDARD	Analysis	EPA 8260B
Field ID	IR21B386PIT03-W	Batch#	142216
Lab ID	205588-003	Sampled	08/26/08
Matrix	Water	Received	08/26/08
Units	ug/L	Analyzed	09/08/08
Dilu Fac	1 000		

Analyte	Result	RL	MDL
Vinyl Chloride	ND	0 5	0 1
Bromomethane	ND	1 0	0 2
1 1-Dichloroethene	ND	0 5	0 1
Methylene Chloride	ND	5 0	1 0
trans-1 2-Dichloroethene	ND	0 5	0 1
Carbon Tetrachloride	ND	0 5	0 1
1 2-Dichloroethane	ND	0 5	0 1
Benzene	ND	0 5	0 1
Trichloroethene	ND	0 5	0 1
1 2-Dichloropropane	ND	0 5	0 1
Bromodichloromethane	ND	0 5	0 1
Toluene	0 2 J	0 5	0 1
1 1 2-Trichloroethane	ND	0 5	0 1
Tetrachloroethene	ND	0 5	0 1
Dibromochloromethane	ND	0 5	0 1
Chlorobenzene	ND	0 5	0 1
Ethylbenzene	ND	0 5	0 1
Bromoform	ND	1 0	0 2
1 1 2 2-Tetrachloroethane	ND	0 5	0 1
para-Isopropyl Toluene	ND	0 5	0 1
1 3-Dichlorobenzene	ND	0 5	0 1
1 4-Dichlorobenzene	ND	0 5	0 1
1 2-Dichlorobenzene	ND	0 5	0 1

Surrogate	%REC	Limits
Dibromofluoromethane	123	75-125
1 2-Dichloroethane-d4	131	62-139
Bromofluorobenzene	104	75-125

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

25 0

Curtis & Tompkins Ltd

Purgeable Organics by GC/MS

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	EPA 5030B
Project#	STANDARD	Analysis	EPA 8260B
Field ID	IR21B386TB01	Batch#	142216
Lab ID	205588-004	Sampled	08/26/08
Matrix	Water	Received	08/26/08
Units	ug/L	Analyzed	09/08/08
Diln Fac	1 000		

Analyte	Result	RL	MDL
Vinyl Chloride	ND	0 5	0 1
Bromomethane	ND	1 0	0 2
1 1-Dichloroethene	ND	0 5	0 1
Methylene Chloride	ND	5 0	1 0
trans-1 2-Dichloroethene	ND	0 5	0 1
Carbon Tetrachloride	ND	0 5	0 1
1 2-Dichloroethane	ND	0 5	0 1
Benzene	ND	0 5	0 1
Trichloroethene	ND	0 5	0 1
1 2-Dichloropropane	ND	0 5	0 1
Bromodichloromethane	ND	0 5	0 1
Toluene	ND	0 5	0 1
1 1 2-Trichloroethane	ND	0 5	0 1
Tetrachloroethene	ND	0 5	0 1
Dibromochloromethane	ND	0 5	0 1
Chlorobenzene	ND	0 5	0 1
Ethylbenzene	ND	0 5	0 1
Bromoform	ND	1 0	0 2
1 1 2 2-Tetrachloroethane	ND	0 5	0 1
para-Isopropyl Toluene	ND	0 5	0 1
1 3-Dichlorobenzene	ND	0 5	0 1
1 4-Dichlorobenzene	ND	0 5	0 1
1 2-Dichlorobenzene	ND	0 5	0 1

Surrogate	%REC	Limits
Dibromofluoromethane	102	75-125
1 2-Dichloroethane-d4	110	62-139
Bromofluorobenzene	104	75-125

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

26 0

Curtis & Tompkins Ltd

Batch QC Report

Purgeable Organics by GC/MS

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	EPA 5030B
Project#	STANDARD	Analysis	EPA 8260B
Matrix	Water	Batch#	142216
Units	ug/L	Analyzed	09/08/08
Diln Fac	1 000		

Type BS Lab ID QC459086

Analyte	Spiked	Result	%REC	Limits
Vinyl Chloride	25 00	27 73	111	46-134
Bromomethane	25 00	24 43	98	72-125
1 1-Dichloroethene	25 00	24 94	100	75-125
Methylene Chloride	25 00	25 09	100	75-125
trans-1 2-Dichloroethene	25 00	25 68	103	75-125
Carbon Tetrachloride	25 00	28 77	115	62-125
1 2-Dichloroethane	25 00	25 78	103	59-125
Benzene	25 00	26 09	104	75-125
Trichloroethene	25 00	28 54	114	71-125
1 2-Dichloropropane	25 00	25 77	103	70-125
Bromodichloromethane	25 00	27 68	111	75-125
Toluene	25 00	26 63	107	74-125
1 1 2-Trichloroethane	25 00	27 06	108	75-127
Tetrachloroethene	25 00	27 87	111	71-125
Dibromochloromethane	25 00	25 79	103	73-125
Ethylbenzene	25 00	27 07	108	75-125
Bromoform	25 00	25 30	101	75-125
1 1 2 2-Tetrachloroethane	25 00	24 46	98	74-125
1 3-Dichlorobenzene	25 00	25 90	104	75-125
1 4-Dichlorobenzene	25 00	25 80	103	75-125
1 2-Dichlorobenzene	25 00	26 10	104	75-125

Surrogate	%REC	Limits
Dibromofluoromethane	102	75-125
1 2-Dichloroethane-d4	105	62-139
Bromofluorobenzene	100	75-125

RPD= Relative Percent Difference

Curtis & Tompkins Ltd

Batch QC Report

Purgeable Organics by GC/MS

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	EPA 5030B
Project#	STANDARD	Analysis	EPA 8260B
Matrix	Water	Batch#	142216
Units	ug/L	Analyzed	09/08/08
Diln Fac	1 000		

Type BSD Lab ID QC459087

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Vinyl Chloride	25 00	24 50	98	46-134	12	20
Bromomethane	25 00	27 83	111	72-125	13	20
1 1-Dichloroethene	25 00	26 91	108	75-125	8	20
Methylene Chloride	25 00	24 38	98	75-125	3	20
trans-1 2-Dichloroethene	25 00	27 08	108	75-125	5	20
Carbon Tetrachloride	25 00	26 37	105	62-125	9	20
1 2-Dichloroethane	25 00	26 50	106	59-125	3	20
Benzene	25 00	23 47	94	75-125	11	20
Trichloroethene	25 00	25 31	101	71-125	12	20
1 2-Dichloropropane	25 00	23 89	96	70-125	8	20
Bromodichloromethane	25 00	26 16	105	75-125	6	20
Toluene	25 00	23 18	93	74-125	14	20
1 1 2-Trichloroethane	25 00	25 62	102	75-127	5	20
Tetrachloroethene	25 00	25 24	101	71-125	10	20
Dibromochloromethane	25 00	24 59	98	73-125	5	20
Ethylbenzene	25 00	24 26	97	75-125	11	20
Bromoform	25 00	24 52	98	75-125	3	20
1 1 2 2-Tetrachloroethane	25 00	23 63	95	74-125	3	20
1 3-Dichlorobenzene	25 00	23 44	94	75-125	10	20
1 4-Dichlorobenzene	25 00	23 09	92	75-125	11	20
1 2-Dichlorobenzene	25 00	23 38	94	75-125	11	20

Surrogate	%REC	Limits
Dibromofluoromethane	117	75-125
1 2-Dichloroethane-d4	119	62-139
Bromofluorobenzene	100	75-125

RPD= Relative Percent Difference

28 0

Curtis & Tompkins Ltd

Batch QC Report

Purgeable Organics by GC/MS

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	EPA 5030B
Project#	STANDARD	Analysis	EPA 8260B
Type	BLANK	Diln Fac	1 000
Lab ID	QC459088	Batch#	142216
Matrix	Water	Analyzed	09/08/08
Units	ug/L		

Analyte	Result	RL	MDL
Vinyl Chloride	ND	0 5	0 1
Bromomethane	ND	1 0	0 2
1 1-Dichloroethene	ND	0 5	0 1
Methylene Chloride	ND	5 0	1 0
trans-1 2-Dichloroethene	ND	0 5	0 1
Carbon Tetrachloride	ND	0 5	0 1
1 2-Dichloroethane	ND	0 5	0 1
Benzene	ND	0 5	0 1
Trichloroethene	ND	0 5	0 1
1 2-Dichloropropane	ND	0 5	0 1
Bromodichloromethane	ND	0 5	0 1
Toluene	ND	0 5	0 1
1 1 2-Trichloroethane	ND	0 5	0 1
Tetrachloroethene	0 1 J	0 5	0 1
Dibromochloromethane	ND	0 5	0 1
Chlorobenzene	ND	0 5	0 1
Ethylbenzene	ND	0 5	0 1
Bromoform	ND	1 0	0 2
1 1 2 2-Tetrachloroethane	ND	0 5	0 1
para-Isopropyl Toluene	0 2 J	0 5	0 1
1 3-Dichlorobenzene	0 2 J	0 5	0 1
1 4-Dichlorobenzene	0 2 J	0 5	0 1
1 2-Dichlorobenzene	0 1 J	0 5	0 1

Surrogate	%REC	Limits
Dibromofluoromethane	98	75-125
1 2-Dichloroethane-d4	108	62-139
Bromofluorobenzene	101	75-125

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

27 0

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	EPA 3520C
Project#	STANDARD	Analysis	EPA 8082
Matrix	Water	Sampled	08/26/08
Units	ug/L	Received	08/26/08
Diln Fac	1 000	Prepared	08/27/08
Batch#	141888		

Field ID	IR21B386PIT01-W	Analyzed	08/29/08
Type	SAMPLE	Cleanup Method	EPA 3665A
Lab ID	205588-001		

Analyte	Result	RL	MDL
Aroclor-1016	ND	0 50	0 098
Aroclor-1221	ND	1 0	0 31
Aroclor-1232	ND	0 50	0 065
Aroclor-1242	ND	0 50	0 097
Aroclor-1248	ND	0 50	0 037
Aroclor-1254	ND	0 50	0 13
Aroclor-1260	ND	0 50	0 098

Surrogate	%REC	Limits
TCMX	101	34-133
Decachlorobiphenyl	108	34-133

Field ID	IR21B386PIT02-W	Analyzed	09/02/08
Type	SAMPLE	Cleanup Method	EPA 3665A
Lab ID	205588-002		

Analyte	Result	RL	MDL
Aroclor-1016	ND	0 50	0 098
Aroclor-1221	ND	1 0	0 31
Aroclor-1232	ND	0 50	0 065
Aroclor-1242	3 0	0 50	0 097
Aroclor-1248	ND	0 50	0 037
Aroclor-1254	ND	0 50	0 13
Aroclor-1260	ND	0 50	0 098

Surrogate	%REC	Limits
TCMX	106	34-133
Decachlorobiphenyl	81	34-133

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

12 1

Curtis & Tompkins Ltd

Polychlorinated Biphenyls (PCBs)

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	EPA 3520C
Project#	STANDARD	Analysis	EPA 8082
Matrix	Water	Sampled	08/26/08
Units	ug/L	Received	08/26/08
Dilu Fac	1 000	Prepared	08/27/08
Batch#	141888		

Field ID	IR21B386PIT03-W	Analyzed	08/29/08
Type	SAMPLE	Cleanup Method	EPA 3665A
Lab ID	205588-003		

Analyte	Result	RL	MDL
Aroclor-1016	ND	0 50	0 095
Aroclor-1221	ND	1 0	0 30
Aroclor-1232	ND	0 50	0 063
Aroclor-1242	ND	0 50	0 094
Aroclor-1248	ND	0 50	0 036
Aroclor-1254	ND	0 50	0 13
Aroclor-1260	ND	0 50	0 095

Surrogate	%REC	Limits
TCMX	99	34-133
Decachlorobiphenyl	90	34-133

Type	BLANK	Analyzed	08/28/08
Lab ID	QC457662	Cleanup Method	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	0 50	0 10
Aroclor-1221	ND	1 0	0 32
Aroclor-1232	ND	0 50	0 066
Aroclor-1242	ND	0 50	0 099
Aroclor-1248	ND	0 50	0 037
Aroclor-1254	ND	0 50	0 13
Aroclor-1260	ND	0 50	0 10

Surrogate	%REC	Limits
TCMX	90	34-133
Decachlorobiphenyl	56	34-133

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

12 1

Curtis & Tompkins Ltd

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	EPA 3520C
Project#	STANDARD	Analysis	EPA 8082
Matrix	Water	Batch#	141888
Units	ug/L	Prepared	08/27/08
Diln Fac	1 000	Analyzed	08/28/08

Type BS Cleanup Method EPA 3665A
Lab ID QC457663

Analyte	Spiked	Result	%REC	Limits
Aroclor-1016	5 000	5 193	104	54-125
Aroclor-1260	5 000	4 848	97	41-126

Surrogate	%REC	Limits
TCMX	97	34-133
Decachlorobiphenyl	53	34-133

Type BSD Cleanup Method EPA 3665A
Lab ID QC457664

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1016	5 000	5 027	101	54-125	3	30
Aroclor-1260	5 000	4 719	94	41-126	3	30

Surrogate	%REC	Limits
TCMX	96	34-133
Decachlorobiphenyl	59	34-133

RPD= Relative Percent Difference

Curtis & Tompkins Ltd

California Title 22 Metals

Lab #	205588	Project#	STANDARD
Client	CH2M Hill Constructors Inc	Location	IR21-B386 Pit/Tank Sampling
Field ID	IR21B386PIT01-W	Units	ug/L
Lab ID	205588-001	Sampled	08/26/08
Matrix	Water	Received	08/26/08

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	1 2	1 0	0 072	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Arsenic	ND	1 0	0 11	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Barium	85	1 0	0 071	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Beryllium	ND	1 0	0 053	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Cadmium	ND	1 0	0 041	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Chromium	ND	1 0	0 11	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Cobalt	ND	1 0	0 033	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Copper	18	1 0	0 18	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Lead	1 8	1 0	0 073	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Mercury	ND	0 20	0 045	1 000	142095	09/03/08	09/04/08	METHOD	EPA 7470A
Molybdenum	28	1 0	0 18	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Nickel	4 1	1 0	0 16	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Selenium	ND	1 0	0 074	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Silver	ND	1 0	0 027	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Thallium	ND	1 0	0 019	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Vanadium	1 1	1 0	0 070	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Zinc	26	5 0	1 6	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

California Title 22 Metals

Lab #	205588	Project#	STANDARD
Client	CH2M Hill Constructors Inc	Location	IR21-B386 Pit/Tank Sampling
Field ID	IR21B386PIT02-W	Units	ug/L
Lab ID	205588-002	Sampled	08/26/08
Matrix	Water	Received	08/26/08

Analyte	Result	RL	MDL	Dilu Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	2 0	1 0	0 072	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Arsenic	ND	1 0	0 11	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Barium	98	1 0	0 071	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Beryllium	ND	1 0	0 053	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Cadmium	ND	1 0	0 041	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Chromium	ND	1 0	0 11	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Cobalt	ND	1 0	0 033	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Copper	27	1 0	0 18	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Lead	7 0	1 0	0 073	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Mercury	ND	0 20	0 045	1 000	142095	09/03/08	09/04/08	METHOD	EPA 7470A
Molybdenum	170	1 0	0 18	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Nickel	13	1 0	0 16	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Selenium	ND	1 0	0 074	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Silver	ND	1 0	0 027	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Thallium	ND	1 0	0 019	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Vanadium	1 8	1 0	0 070	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Zinc	16	5 0	1 6	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

California Title 22 Metals

Lab #	205588	Project#	STANDARD
Client	CH2M Hill Constructors Inc	Location	IR21-B386 Pit/Tank Sampling
Field ID	IR21B386PIT03-W	Units	ug/L
Lab ID	205588-003	Sampled	08/26/08
Matrix	Water	Received	08/26/08

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	1 0	0 072	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Arsenic	ND	1 0	0 11	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Barium	32	1 0	0 071	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Beryllium	ND	1 0	0 053	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Cadmium	ND	1 0	0 041	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Chromium	1 3	1 0	0 11	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Cobalt	ND	1 0	0 033	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Copper	2 7	1 0	0 18	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Lead	1 1	1 0	0 073	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Mercury	ND	0 20	0 045	1 000	142095	09/03/08	09/04/08	METHOD	EPA 7470A
Molybdenum	5 6	1 0	0 18	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Nickel	1 2	1 0	0 16	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Selenium	ND	1 0	0 074	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Silver	ND	1 0	0 027	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Thallium	ND	1 0	0 019	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Vanadium	4 2	1 0	0 070	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020
Zinc	220	5 0	1 6	5 000	141881	08/27/08	08/28/08	EPA 200 8	EPA 6020

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Batch QC Report

California Title 22 Metals

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	EPA 200 8
Project#	STANDARD	Analysis	EPA 6020
Type	BLANK	Diln Fac	1 000
Lab ID	QC457626	Batch#	141881
Matrix	Water	Prepared	08/27/08
Units	ug/L	Analyzed	08/27/08

Analyte	Result	RL	MDL
Antimony	ND	1 0	0 014
Arsenic	ND	1 0	0 022
Barium	ND	1 0	0 014
Beryllium	ND	1 0	0 011
Cadmium	ND	1 0	0 0082
Chromium	ND	1 0	0 022
Cobalt	ND	1 0	0 0066
Copper	ND	1 0	0 036
Lead	ND	1 0	0 015
Molybdenum	ND	1 0	0 035
Nickel	ND	1 0	0 033
Selenium	ND	1 0	0 015
Silver	ND	1 0	0 0055
Thallium	ND	1 0	0 0039
Vanadium	ND	1 0	0 014
Zinc	ND	5 0	0 32

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins Ltd

Batch QC Report

California Title 22 Metals

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	EPA 200 8
Project#	STANDARD	Analysis	EPA 6020
Matrix	Water	Batch#	141881
Units	ug/L	Prepared	08/27/08
Diln Fac	1 000		

Type BS Lab ID QC457627

Analyte	Spiked	Result	%REC	Limits	Analyzed
Antimony	100 0	94 32	94	80-120	08/27/08
Arsenic	100 0	95 36	95	80-120	08/27/08
Barium	100 0	101 2	101	80-120	08/27/08
Beryllium	100 0	105 4	105	80-120	08/27/08
Cadmium	100 0	99 65	100	80-120	08/27/08
Chromium	100 0	101 8	102	80-120	08/27/08
Cobalt	100 0	101 8	102	80-120	08/27/08
Copper	100 0	101 7	102	80-120	08/27/08
Lead	100 0	104 6	105	80-120	08/27/08
Molybdenum	100 0	95 64	96	80-120	08/27/08
Nickel	100 0	102 0	102	80-120	08/27/08
Selenium	100 0	93 49	93	80-120	08/28/08
Silver	100 0	95 48	95	80-120	08/27/08
Thallium	50 00	49 00	98	80-120	08/27/08
Vanadium	100 0	99 49	99	80-120	08/27/08
Zinc	100 0	97 35	97	80-120	08/28/08

Type BSD Lab ID QC457628

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analyzed
Antimony	100 0	97 35	97	80-120	3	20	08/27/08
Arsenic	100 0	97 07	97	80-120	2	20	08/27/08
Barium	100 0	103 6	104	80-120	2	20	08/27/08
Beryllium	100 0	110 4	110	80-120	5	20	08/27/08
Cadmium	100 0	102 3	102	80-120	3	20	08/27/08
Chromium	100 0	102 1	102	80-120	0	20	08/27/08
Cobalt	100 0	102 8	103	80-120	1	20	08/27/08
Copper	100 0	102 8	103	80-120	1	20	08/27/08
Lead	100 0	106 8	107	80-120	2	20	08/27/08
Molybdenum	100 0	97 26	97	80-120	2	20	08/27/08
Nickel	100 0	102 4	102	80-120	0	20	08/27/08
Selenium	100 0	97 68	98	80-120	4	20	08/28/08
Silver	100 0	103 4	103	80-120	8	20	08/27/08
Thallium	50 00	50 42	101	80-120	3	20	08/27/08
Vanadium	100 0	100 8	101	80-120	1	20	08/27/08
Zinc	100 0	98 20	98	80-120	1	20	08/28/08

RPD= Relative Percent Difference

Curtis & Tompkins Ltd

Batch QC Report

California Title 22 Metals

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	EPA 200 8
Project#	STANDARD	Analysis	EPA 6020
Field ID	ZZZZZZZZZZ	Batch#	141881
MSS Lab ID	205538-011	Sampled	08/21/08
Matrix	Water	Received	08/21/08
Units	ug/L	Prepared	08/27/08
Diln Fac	5 000	Analyzed	08/28/08

Type MS Lab ID QC457629

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	0 2825	100 0	93 95	94	80-120
Arsenic	<0 1112	100 0	100 9	101	80-120
Barium	0 3850	100 0	100 1	100	80-120
Beryllium	0 2435	100 0	104 3	104	80-120
Cadmium	0 2935	100 0	100 6	100	80-120
Chromium	0 2755	100 0	98 60	98	80-120
Cobalt	0 2280	100 0	100 6	100	80-120
Copper	0 3485	100 0	100 9	101	80-120
Lead	0 3355	100 0	102 0	102	80-120
Molybdenum	0 4725	100 0	92 00	92	80-120
Nickel	1 741	100 0	104 0	102	80-120
Selenium	0 2110	100 0	100 9	101	80-120
Silver	0 2325	100 0	94 60	94	80-120
Thallium	0 1805	50 00	46 14	92	80-120
Vanadium	0 3665	100 0	97 60	97	80-120
Zinc	7 790	100 0	105 4	98	80-120

Type MSD Lab ID QC457630

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100 0	93 50	93	80-120	0	20
Arsenic	100 0	102 8	103	80-120	2	20
Barium	100 0	101 1	101	80-120	1	20
Beryllium	100 0	104 7	104	80-120	0	20
Cadmium	100 0	101 0	101	80-120	0	20
Chromium	100 0	105 8	106	80-120	7	20
Cobalt	100 0	105 1	105	80-120	4	20
Copper	100 0	102 6	102	80-120	2	20
Lead	100 0	102 7	102	80-120	1	20
Molybdenum	100 0	93 35	93	80-120	1	20
Nickel	100 0	107 8	106	80-120	4	20
Selenium	100 0	102 6	102	80-120	2	20
Silver	100 0	94 90	95	80-120	0	20
Thallium	50 00	46 38	92	80-120	1	20
Vanadium	100 0	101 3	101	80-120	4	20
Zinc	100 0	103 5	96	80-120	2	20

RPD= Relative Percent Difference

Curtis & Tompkins Ltd

Batch QC Report

California Title 22 Metals

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	EPA 200 8
Project#	STANDARD	Analysis	EPA 6020
Field ID	ZZZZZZZZZZ	Diln Fac	25 00
Type	Serial Dilution	Batch#	141881
MSS Lab ID	205538-011	Sampled	08/21/08
Lab ID	QC457631	Received	08/21/08
Matrix	Water	Analyzed	08/28/08
Units	ug/L		

Analyte	MSS Result	MSS RL	Result	RL	% Diff	Lim
Antimony	0 2825	1 000	ND	2 500	NC	10
Arsenic	ND	1 000	ND	2 500	NC	10
Barium	0 3850	1 000	ND	2 500	NC	10
Beryllium	0 2435	1 000	ND	2 500	NC	10
Cadmium	0 2935	1 000	ND	2 500	NC	10
Chromium	0 2755	1 000	ND	2 500	NC	10
Cobalt	0 2280	1 000	0 3275 J	2 500	NC	10
Copper	0 3485	1 000	ND	2 704	NC	10
Lead	0 3355	1 000	ND	2 500	NC	10
Molybdenum	0 4725	1 000	ND	2 634	NC	10
Nickel	1 741	1 000	1 778 J	2 500	NC	10
Selenium	0 2110	1 000	ND	2 500	NC	10
Silver	0 2325	1 000	ND	2 500	NC	10
Thallium	0 1805	1 000	ND	1 250	NC	10
Vanadium	0 3665	1 000	ND	2 500	NC	10
Zinc	7 790	5 000	9 415 J	24 08	NC	10

J= Estimated value
NC= Not Calculated
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins Ltd

Batch QC Report

California Title 22 Metals

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	METHOD
Project#	STANDARD	Analysis	EPA 7470A
Analyte	Mercury	Diln Fac	1 000
Type	BLANK	Batch#	142095
Lab ID	QC458571	Prepared	09/03/08
Matrix	Water	Analyzed	09/04/08
Units	ug/L		

Result	RL	MDL
ND	0 20	0 045

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

16 0

Curtis & Tompkins Ltd

Batch QC Report

California Title 22 Metals

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	METHOD
Project#	STANDARD	Analysis	EPA 7470A
Analyte	Mercury	Batch#	142095
Matrix	Water	Prepared	09/03/08
Units	ug/L	Analyzed	09/04/08
Diln Fac	1 000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC458572	5 000	5 530	111	80-120		
BSD	QC458573	5 000	5 370	107	80-120	3	20

RPD= Relative Percent Difference

Curtis & Tompkins Ltd

Batch QC Report

California Title 22 Metals

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	METHOD
Project#	STANDARD	Analysis	EPA 7470A
Analyte	Mercury	Units	ug/L
Field ID	ZZZZZZZZZZ	Diln Fac	5 000
Type	Serial Dilution	Batch#	142095
MSS Lab ID	205643-001	Sampled	08/27/08
Lab ID	QC458574	Received	08/28/08
Matrix	Water	Analyzed	09/04/08

MSS Result	MSS RL	Result	RL	% Diff	Lim
ND	0 2000	0 2850 J	1 000	NC	10

J= Estimated value
NC= Not Calculated
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins Ltd

Batch QC Report

California Title 22 Metals

Lab #	205588	Location	IR21-B386 Pit/Tank Sampling
Client	CH2M Hill Constructors Inc	Prep	METHOD
Project#	STANDARD	Analysis	EPA 7470A
Analyte	Mercury	Batch#	142095
Field ID	ZZZZZZZZZZ	Sampled	08/27/08
MSS Lab ID	205643-001	Received	08/28/08
Matrix	Water	Prepared	09/03/08
Units	ug/L	Analyzed	09/04/08
Diln Fac	1 000		

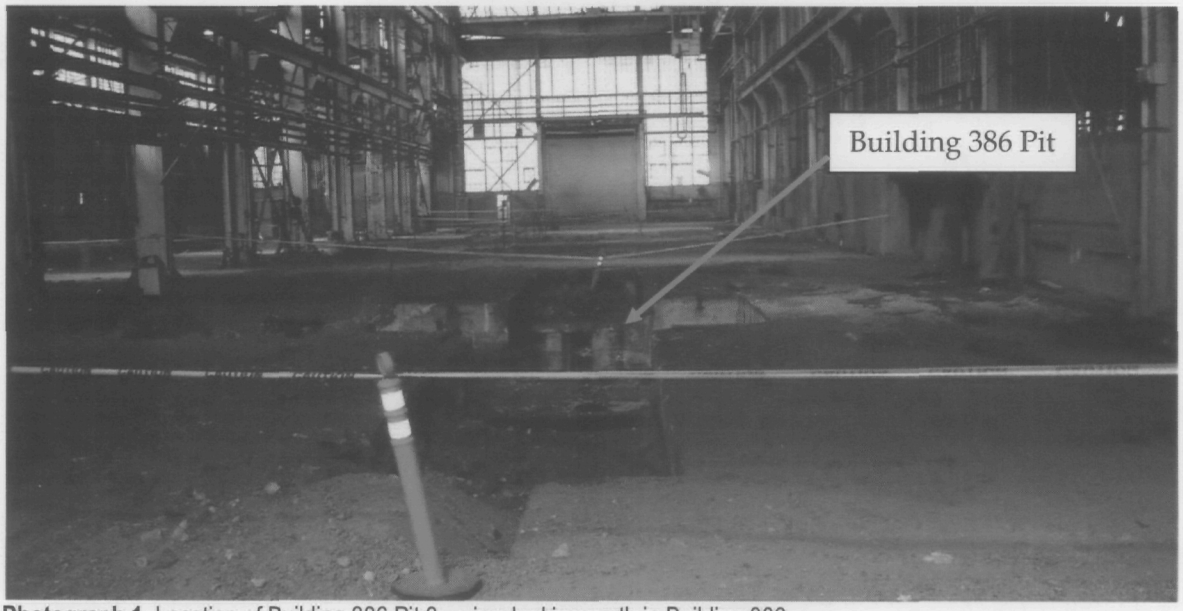
Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC458575	<0 04502	5 000	5 300	106	80-120		
MSD	QC458576		5 000	5 540	111	80-120	4	20

RPD= Relative Percent Difference

Appendix C
Photographs from 2010 Cleanup Actions at Pit 3 in PCB Site Building 386 AL#01

APPENDIX C

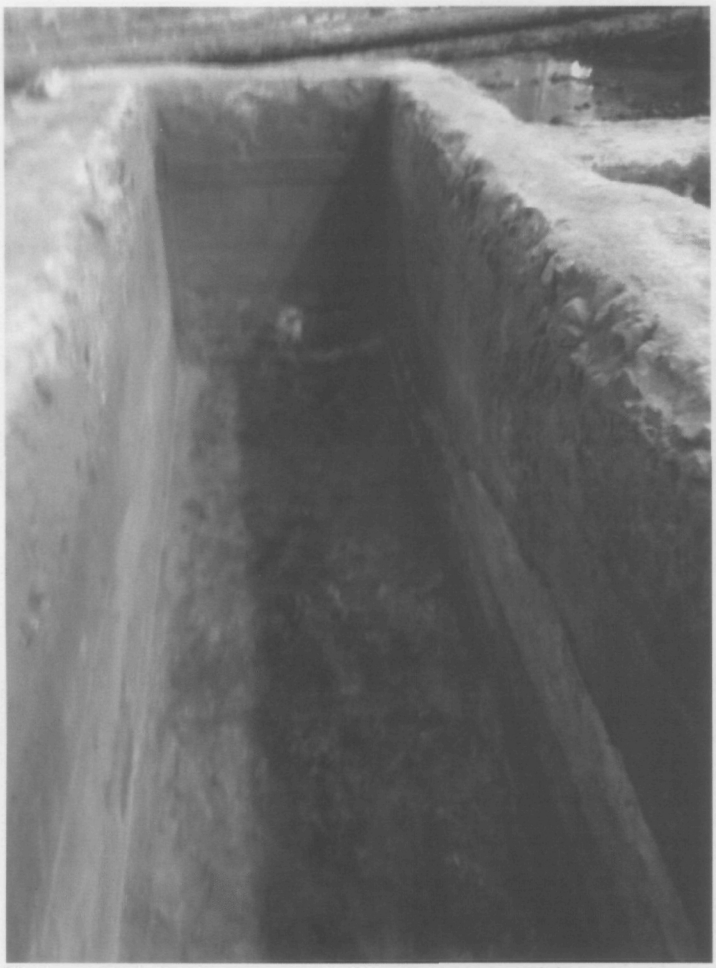
Photographs from 2010 Cleanup Actions at Pit 3 in PCB Site Building 386 AL#01



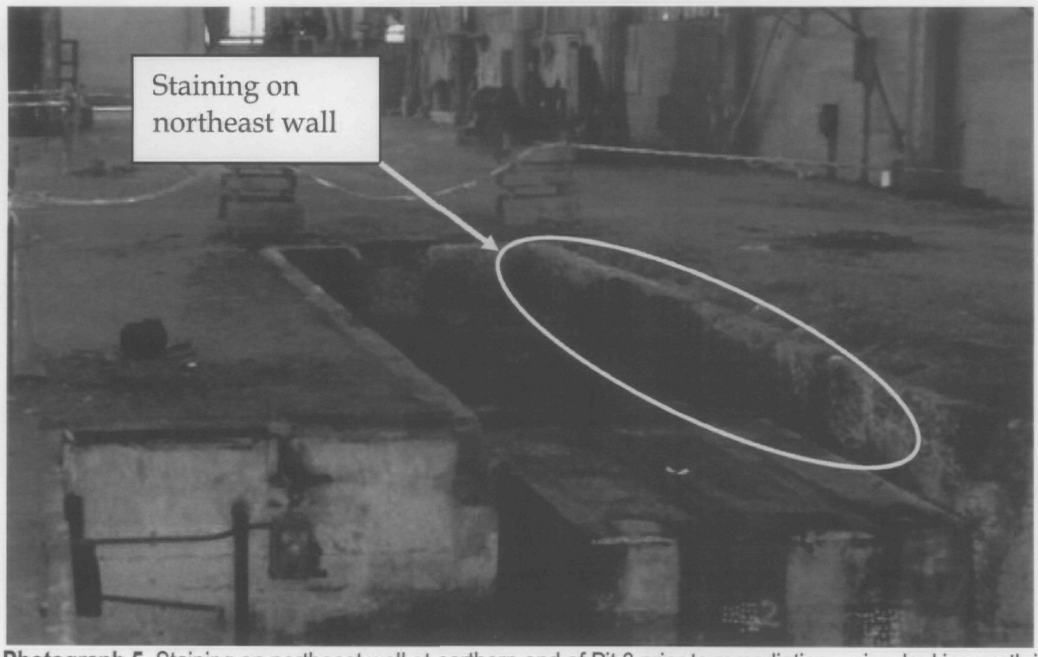
Photograph 1. Location of Building 386 Pit 3 – view looking north in Building 386.

Photograph 2. South sidewall of Building 386 Pit 3 after scabbling – view looking south in Building 386.

Photograph 3. Location of the 5-foot by 5-foot by 12-inch deep concrete removal area from the floor of Building 386 Pit 3. Northwest sidewall is at top of photo – view looking north in Building 386.



Photograph 4. Southernmost end of Pit 3 where no staining was observed – view looking south in Building 386.



Photograph 5. Staining on northeast wall at northern end of Pit 3 prior to remediation – view looking north in Building 386.

Photograph 6. Break- up and removal of northeast wall of Building 386 Pit 3 – view looking southeast in Building 386.

Photograph 7. South sidewall of concrete shelf area in Building 386 Pit 3 after scabbling – view looking south in Building 386.

Photograph 8. Sampling locations from sidewall of concrete shelf area in Building 386 Pit 3 – view looking south in Building 386.

Appendix D
Waste Manifests for 2010 Cleanup Actions at Pit 3 in PCB Site Building 386 AL#01

NON HAZARDOUS WASTE MANIFEST	1 Generator ID Numbe	2 Page 1 of 1	3 Emergency Response Phone	4 Waste Tracking Number
	[illegible]		[illegible]	[illegible]

GENERATOR

5 Gene ator's Name and Mai ng Address

Ge erator's S te Address (f diffe ent than mailing add s)

Generator's Phone [illegible] 562-[illegible]

6 Transporter 1 Company Name — U S EPA ID Number

7 Transporte 2 Company Name — U S EPA ID Number

8 Designated Facility Name and Site Address — U S EPA ID Numbe

Facility's Phone [illegible] 732

	9 Waste Shipping Name and Descript on	10 Containers No	10 Containers Type	11 Total Quantity	12 Unit Wt/Vol	
1	[illegible]	[illegible]	DM	[illegible]	P	
2						
3						
4						

13 Spec al Ha dl ng Instructions and Addit onal Information

[illegible]

14 GENERATOR S CERTIFICATION I certify the materials described above on this manifest are not subject to federal regulations for reporting proper d sposal of Hazardous Waste

Gene ator's/Offeror s P inted/Typed Name — Signature — Month Day Year: 6 24 10

INT L

15 International Shipments ☐ Import to U S ☐ Export from U S Port of entry/exit

Transporter Signature (for exports only) Date leaving U S

TRANSPORTER

16 T a sporte Ackn wledgm t f Rece pt of M t rials

Transporter 1 Printed/Typed Name — Signature — Month Day Year

T p rte 2 P ted/Typed N me — Signatu e — Month Day Year

GNATED FACILITY

17 Discrepancy

17a D screpancy Indication Space ☐ Q ant ty ☐ Type ☐ R s due ☐ Partial Rejectio ☐ Full Rejection

Manifest Reference Number

17b Alternate Fac lity (o Gene ator) — U S EPA ID Number

Fac l h s Phone

17c Signature of Alternate Facility (or Generator) — Month Day Year

18 Des g t d Facil ty Owner or Operator Certificat on of rece pt of materials co ered by the manifest except as noted Item 17

P inted/Typed Name — Signature — Month Day Year

☐ Keller Canyon Sanitary Landfill	☐ Coffin Butte Landfill	☐ Ox Mountain Sanitary Landfill	☐ Newby Island Sanitary Landfill	☐ Forward Landfill
901 Bailey Road Pittsburg CA 94565 Phone (925) 458 9800 Fax (925) 458 9891	28972 Coffin Butte Road Corvallis OR 97330 Phone (541) 745 2018 Fax (541) 745 3826	12310 San Mateo Road Half Moon Bay CA 94019 Phone (650) 726 1819 Fax (650) 726 9183	1601 Dixon Landing Road Milpitas CA 95035 Phone (408) 945 2800 Fax (408) 262 2871	9999 S. Austin Road Manteca CA 95336 Phone (209) 984 4 98 Fax (209) 982 1009

NON HAZARDOUS WASTE MANIFEST

GENERATOR
Lennar Mare Island

MAILING ADDRESS
690 Walnut Ave Ste 100

CITY, STATE, ZIP
Vallejo CA 94592

PHONE
(707) 562-4000

CONTACT PERSON
Neil Siler

SIGNATURE OF AUTHORIZED AGENT / TITLE | DATE
[illegible] (Agent for Lennar Mare Island) 7/28/10

GENERATOR'S CERTIFICATION: I hereby certify that the [illegible] are not [illegible] as defined by 40 CFR Part 261 or 22 of the California Code of Regulations. I have properly described, classified and packaged the [illegible] for transportation according to applicable regulations. AND if the waste is a hazardous waste, it is subject to the Land Disposal Restrictions, I certify that the waste has been treated in accordance with the requirements of 40 CFR Part 268 [illegible] 40 CFR Part 261

WASTE ACCEPTANCE NO
4212101181

REQUIRED PERSONAL PROTECTIVE EQUIPMENT
☐ GLOVES ☐ GOGGLES ☐ RESPIRATOR ☒ HARD HAT
☐ APRON ☒ SAFETY VEST

SPECIAL HANDLING PROCEDURES

B386 Pt

RECEIVING FACILITY

WASTE TYPE
☐ DISPOSAL ☐ FOOD
☐ CONSTRUCTION ☐ WOOD
☐ DEBRIS ☒ OTHER
☐ SPECIAL WASTE Concrete

GENERATING FACILITY
690 Walnut Ave VALLEJO

TRANSPORTER
Fighteen Trucking

ADDRESS
P.O. Box 881116

CITY, STATE, ZIP
San Francisco CA 941881116

PHONE
X 650 321836

NOTES | TRUCK LICENSE NUMBER | TRUCK NUMBER
7G44443 | X 181

SIGNATURE OF AUTHORIZED AGENT OR DRIVER | DATE
Kalman A Nip | 7/28/10

UNLOADING: ☒ ROLL OFF ☐ | BOTTOM DUMP: ☐ FLAT BED ☐ | TRANSFER: ☐ VAN ☐ TRUCK ☐

I hereby certify that the [illegible] accepted and to the best of my knowledge the foregoing is true and accurate.

CUBIC YARDS

REMARKS

FACILITY TICKET NUMBER

SIGNATURE OF AUTHORIZED AGENT | DATE

CONCRETE
DEBRIS
ROOFING
ASPHALT
WOOD
DIRT
[illegible]

☐ Keller Canyon Sanitary Landfill
901 Bailey Road
Pittsburg CA 9456
Phone (925) 458 9800
Fax (925) 458 9891

☐ Coffin Butte Landfill
28072 Coffin Butte Road
Corvallis OR 97330
Phone (541) 745 2018
Fax (541) 745 3826

☐ Ox Mountain Sanitary Landfill
12310 San Mateo Road
Half Moon Bay CA 94019
Phone (650) 726 1819
Fax (650) 726 9183

☐ Newby Island Sanitary Landfill
1601 Dixon Landing Road
Milpitas CA 95035
Phone (408) 945 2800
Fax (408) 262 2871

☐ Forward Landfill
9999 S Austin Road
Manteca CA 95336
Phone (209) 982 4298
Fax (209) 982 1009

NON HAZARDOUS WASTE MANIFEST

GENERATOR
Lennar Mare Island

MAILING ADDRESS
690 Walnut Ave Ste 100

CITY STATE ZIP
Vallejo CA 94592

PHONE
(707) 562 4000

CONTACT PERSON
Neil Siler

SIGNATURE OF AUTHORIZED AGENT / TITLE | DATE
(Agent for Lennar Mare Island) 7/28/10

GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national government regulations. AND if the waste is a limited quantity or a waste subject to the notification requirements of 40 CFR Part 261 Subpart D, I hereby certify that I have been in compliance with the requirements of 40 CFR Part 262 in accordance with the requirements of 40 CFR Part 262 Subpart E or 40 CFR Part 261.

WASTE TYPE
☐ DISPOSAL
☐ CONSTRUCTION
☐ DEBRIS
☐ SPECIAL WASTE

SLUDGE
☐ WOOD
~~☐ OTHER~~
Concrete

GENERATING FACILITY
690 Walnut Av VALLEJO

WASTE ACCEPTANCE NO
42121011181

REQUIRED PERSONAL PROTECTIVE EQUIPMENT
☒ GLOVES ☐ GOGGLES ☐ RESPIRATOR ☐ HARD HAT
☐ TY VEK ☒ SAFETY VEST

SPECIAL HANDLING PROCEDURES

B38674

RECEIVING FACILITY

TRANSPORTER
Eagley Trucking

ADDRESS
PO Box 981110

CITY STATE ZIP
San Francisco CA 94189-1110

PHONE 408 561 5860

SIGNATURE OF AUTHORIZED AGENT OR DRIVER | DATE
7/28/10

NOTES | VEHICLE LICENSE NUMBER | TRUCK NUMBER
9D12421 727
Canyan Trucking

END DUMP | BOTTOM DUMP
ROLL OFF | FLATBED | VAN | DRY

I hereby certify that the above-named materials are properly classified, described, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national government regulations.

REMARKS

FACILITY TICKET NUMBER

SIGNATURE OF AUTHORIZED AGENT | DATE

Appendix E
Vallejo Sanitation and Flood Control District
Special Wastewater Discharge Permit

VALLEJO SANITATION & FLOOD CONTROL DISTRICT
SPECIAL WASTEWATER DISCHARGE PERMIT

ISSUED TO

CH2MHILL – John Blasco – Jeff Paik

DESCRIPTION OF PERMITTED DISCHARGE

Less than 10 000 gallons of treated wastewater from flushing the storm system at Bldg 386 Discharging into a sanitary sewer manhole on the 'southwest' corner of Bldg 386 MI

EFFECTIVE DATE	EXPIRATION DATE	INSPECTOR
04/06/10	**05/06/10**	**K Barnett**

The above named permittee is hereby authorized to discharge wastewater to the Vallejo Sanitation and Flood Control District sanitary sewer system This discharge will be in accordance with the Standard Terms and Conditions of this permit See reverse

The permittee shall report to the District s Pollution Control Department any changes (permanent or temporary) in operations that may significantly change the quantity and/or quality of the discharge

This permit is not transferable to any other organization or owner Any change in ownership will require a new application to be completed and a new permit issued

This permit is subject to revocation for reasons of falsification or violation of the terms of this agreement or other applicable regulations

AGREEMENT TO COMPLY

I agree to be bound by and comply with each and every provision of this permit and I understand acknowledge and agree that this permit is a binding agreement enforceable in a court of law

I also agree that this discharge permit may be terminated by the District as a consequence of my failure to comply with the terms and conditions stated herein

I understand that no part of this permit may be assigned or transferred without prior written consent of the Vallejo Sanitation and Flood Control District and that I shall defend indemnify and hold harmle s the Vallejo Sanitation and Flood Control District its officers employees and agents against any claim loss or liability arising out of this agreement due to my own willful or negligent acts or omission(s) I further agree to comply with all applicable laws ordinances codes and regulations of the Federal state and local governments I certify that I am fully authorized and competent to enter this agreement on behalf of the person company entity or organization that I represent

Signature John C Blasco **Date** April 7, 2010

Supporting lab report is located

k \pcd\files\bustype\specialdischargepermits\CH2MHILL\bldg386stormflushing\bldg386permit

STANDARD TERMS AND CONDITIONS FOR SPECIAL WASTEWATER DISCHARGES

1 40 CFR Part 136 methods must be used and must demonstrate compliance with the discharge limit The analyst(s) initials must be included with results

2 No person shall discharge wastewater with a pH below 6 0 or above 9 0

3 No person shall discharge any liquid or waste containing more than 100 mg/L of petroleum based oil and grease or containing any fat oil grease or other substance that will become solid or visibly viscous at temperatures between 0 degrees and 60 degrees Centigrade

4 Discharge to the sanitary sewer shall be conducted at the entry point approved by the District Discharge to any other location is prohibited

5 Discharge at a rate which causes an hydraulic overload of the sanitary sewer system is strictly prohibited

6 The permittee shall make every effort to reduce or mitigate any odors resulting from the discharge of wastewater to the sanitary sewer system

7 The District shall inspect the facilities at the address of the discharge to ascertain whether all requirements terms and conditions of wastewater discharge are being complied with Persons or occupants of the premises where wastewater is being created or discharged shall allow duly appointed District personnel ready access at all reasonable times to all parts of the premises for the purpose of inspection sampling or the performance of any of their duties The District or its designated representatives shall have the right to examine and copy those records necessary to fulfill any of their duties

8 A discharge permit is subject to revocation for reasons of falsification of data violation of the terms of agreement or other applicable regulations The District may also fine the permit holder a minimum of **$1000 per day** for each violation of wastewater discharge requirements

9 The permittee shall maintain any pretreatment units on a regular basis as stipulated in the manufacturer's specifications A file which documents all maintenance activity shall be available to the District within 24 hours of the initial request

10 Spills to the sanitary sewer or the storm collection system shall be immediately reported to the District at (707) 644-8949 A written report shall be submitted to the District within 10 calendar days The report shall describe the event the start time the specific source quantity discharged the point of entry to the sanitary sewer or storm collection system the time the spillage ceased and steps taken to prevent another incident

11 The discharge of non-stormwater discharges to the District s storm drain system or to any public drainage system that drains to the District's storm drain system is prohibited

12 In order to prevent pollution of the storm drain the permittee shall implement and maintain good housekeeping practices No equipment washing shall be permitted at this location

13 The District reserves the right to direct the permittee to cease the discharge at any time during the discharge period

Appendix F
Risk Calculations for Pit 3 in PCB Site
Building 386 AL#01

TABLE F 2
Gene I UCL St t st cs fo Data Sets w th Nondetects
Adde d m to S t Ch ter at o a d Clea p Act on S mmary Report for Polychlor n t d B phe yl S te Bu ld g 386 AL#01 In est gat on Area C2
Le M Isla d Vallejo Californ a

Use Selected Opt s

From F le	Wo kSheet wst
Full P ec s on	OFF
Co fdence Coeff c ent	95 /
Number of Bootstrap Ope at ons	10000

PCBs

Gene I Stat st cs

Numbe of Val d Dat	33	N mber of Dete ted D t	25
N mbe of D st ct Detected Data	23	N mbe of No detect Data	8
		P t N d t t	24 24 /

Raw Stat st cs		Log t a sfo med Stat st cs	
M m m Detected	0 013	M m m D t ct d	-4 343
Ma mum Detected	6 2	Ma m m Detected	1 825
Mea of Detected	0 84	Mea of Detected	1 548
SD of Detected	1 439	SD of D t cted	1 774
M m m No detect	0 0023	M mum No detect	-6 075
Ma m m No detect	0 0038	M mum No detect	5 573

Note D ta ha e mult ple DLs Use of KM M thod mme ded		N mbe t eated as No detect	8
For all method (c pt KM DL/2 a d ROS Method)		N mb t t d as Detected	25
Observat o s La gest ND a e t eat d ND		S gle DL No detect Pe centage	24 24 /

UCL St t st s		Log o mal D st b to T st w th D t t d V l O ly	
N m l D st b to Test w th Det t d V l O ly			
Sh p W lk Test Stat st c	0 63	Sh p o W lk Test Stat st c	0 944
5 / Shap o W lk Cr t cal Val	0 918	5 / Shap o W lk C it l V l	0 918
t N m i l		D ta pp m a S f t l	

Ass m g Normal Di t b t		Ass m ng L g m l D t but o	
DL/2 Substitut on Method		DL/2 S bst t t on Method	
Mean	0 637	Mean	2 713
SD	1 299	SD	2 597
95 / DL/2 (t) UCL	1 02	95 / H Stat (DL/2) UCL	17 45

M mum L kel hood Est mate(MLE) Meth d		Log ROS Method	
Mea	0 369	Mea Log Scal	2 54
SD	1 544	SD Log S l	2 369
95 / MLE (t) UCL	0 824	Mean O g l Scale	0 638
95 / MLE (T ku) UCL	0 826	SD O g al Scale	1 299
		95 / t UCL	1 021
		95 / Percent le Bootst ap UCL	1 036
		95 / BCA Bootstrap UCL	1 161

Gamm D st b t Test w th Detected Val es Only		D ta D t b to Test w th Detected Val es O ly	
k t (b s co ected)	0 438	D t f S L l	
Theta Star	1 919		
sta	21 89		

A D Test Stat st	1 182	No pa ametr c St t t	
5 / A D C t cal Val e	0 814	Kapla Me e (KM) Method	
K S Test Stat st c	0 814	M	0 64
5 / K-S Cr t cal Val e	0 185	SD	1 278
t C ~ t c al u to t c c		SE of Mea	0 227
		95 / KM (t) UCL	1 024
		95 / KM ( ) UCL	1 013
		95 / KM (jackk fe) UCL	1 021
Ass m g Gamma D st b t o			
Gamma ROS Stat st cs s g E t apolated Data			
M mum	1 00E 12	95 / KM (bootstrap t) UCL	1 301
Ma m m	6 2	95 / KM (BCA) UCL	1 078
Mean	0 637	95 / KM (Pe ce t le Bootstrap) UCL	1 039
Med an	0 069	95 / KM (Chebyshe) UCL	1 629
SD	1 299	97 5 / KM (Ch by h) UCL	2 057
k sta	0 119	99 / KM (Chebyshe) UCL	2 898

TABLE F 2

Ge e al UCL Stat stics fo Data Sets w th Nondetects

Adde d m to S te Character at on and Clean p Act on Summary Report for Polychlor ated B phenyl S te B ld ng 386 AL#01 I est gat o A ea C2
L M e Isla d Vallejo Califor a

Th t sta	5 363		
Nu sta	7 834	Pote t al UCLs to Use	
AppCh 2	2 639	99 KM (Chebyshe) UCL	2 898
95 / Gamma App o mate UCL	1 89		
95 / Adjusted Gamma UCL	2 006		

Notes

DL/2 s ot a ecomme ded method

S ggest ons gard g the sele t o of a 95 / UCL a e p o ded to help the ser to select the most pp op ate 95 / UCL
These ecomme dat o s a based p th lts of the s mulat o st d es s mma ed S ngh Ma chle d L e (2006)
Fo dd t I ght the use may wa t to co s lt a stat st c an