FINAL COMPLETION REPORT

PCB Cleanup and Disposal

Soils

University of Massachusetts

Lederle Graduate Research Center

Amherst, Massachusetts

210918.00

UMass LGRC

July 17, 2009

1.866.702.6371
35 New England Business Center
Andover, MA

TABLE OF CONTENTS

SECTION **PAGE NO.**

1. INTRODUCTION 1-1

1.1 Background 1-1
1.2 Report Objectives 1-2

2. REMEDIAL ACTION IMPLEMENTATION 2-1

2.1 Site Preparations and Controls 2-1
2.1.1 Public Communications 2-1
2.2 Supplemental Soil Characterization Sampling 2-1
2.2.1 Horizontal Delineation 2-1
2.2.2 Vertical Delineation in Hot Spot Areas 2-2
2.3 Soil Removal and Verification 2-2
2.3.1 Methods 2-2
2.3.2 Removal Areas 2-4
2.3.2.1 Southeast Low-Rise 2-4
2.3.2.2 East/Northeast Low-Rise 2-4
2.3.2.3 Northwest Low-Rise 2-5
2.3.2.4 West Low-Rise 2-5
2.3.2.5 East High-Rise 2-5
2.3.2.6 West High-Rise 2-6
2.3.3 Removal Summary 2-6
2.3.4 Air Monitoring 2-7
2.3.5 MassDEP Inspection 2-7
2.4 Storage & Disposal 2-7
2.5 Site Restoration 2-8

3. DATA USABILITY ASSESSMENT 3-1

3.1 Precision 3-1
3.2 Accuracy 3-1
3.3 Representativeness 3-1
3.4 Completeness 3-2
3.5 Comparability 3-2
3.6 Sensitivity 3-2
3.7 Conclusion 3-2

4. SUMMARY & CONCLUSIONS 4-1

LIST OF TABLES

TABLE

Table 2-1: Supplemental Soil Characterization Data

Table 2-2: Soil Verification Data

Table 2-3: Backfill Characterization Data

LIST OF FIGURES

FIGURE

Figure 1-1: Site Locus

Figure 2-1: Soil Characterization Sample Locations

Figure 2-2: Proposed Soil Removal Areas

Figure 2-3: First Round Soil Removal and Verification Sample Locations

Figure 2-4: Second Round Soil Removal and Verification Sample Locations

Figure 2-5: Final Excavation Areas

APPENDICES

APPENDIX

Appendix A: EPA Approval, Notices, & Certifications

Appendix B: Laboratory Data

Appendix C: Air Monitoring Logs

Appendix D: UMass Letter to MassDEP

Appendix E: Waste Shipment Records

Appendix F: Data Validation Summaries

1. INTRODUCTION

This Final Completion Report has been prepared by Woodard & Curran (W&C) on behalf of the University of Massachusetts (UMass) to comply with the requirements set forth in the March 25, 2009 PCB Cleanup and Disposal Approval (Approval) under 40 CFR 761.61(a) and (c) issued by the U.S. Environmental Protection Agency (EPA). This report concerns the cleanup and disposal of soils classified as PCB remediation waste at the UMass Lederle Graduate Research Center (LGRC), located at 710-740 North Pleasant Street on the UMass campus in Amherst, Massachusetts. A Site Locus Map is included as Figure 1-1.

1.1 BACKGROUND

The LGRC was constructed in the early 1970's as a facility for classroom, library, laboratory, and office space. The portion of the LGRC subject to PCB remediation consists of a three-story low-rise building ("the low-rise") and an attached 17-story tower identified as Tower A ("the high-rise"). A photograph of the typical building construction is shown below, depicting the south face of the low rise in foreground, and the east face of the high rise in background.

Certain joint caulking used as part of standard construction practices for masonry buildings and concrete structures erected between the 1940's and late 1970's is known to have been manufactured with PCBs. PCBs were added to caulking for durability, resistance to degradation, and as a softener/plasticizer for application. Due to the porous nature of concrete and other masonry surfaces, PCBs in caulking may penetrate into adjacent building materials during application or over time, may leach and/or weather, and/or may be disturbed during renovations or other building work. As such, PCB-containing caulking may come to be located in adjacent materials, such as concrete, other masonry surfaces, or surface soils adjacent to the buildings.

A building renovation project conducted at LGRC from 2006 to 2008 included façade pressure washing and the removal and replacement of the original building expansion joint caulking and window caulking. Samples collected during the renovation project detected the presence of PCBs at regulated concentrations in the caulk from the low-rise and from Tower A, indicating that these buildings were constructed with PCB-containing caulking. Caulk samples collected from LGRC Towers B and C did not find PCBs at regulated concentrations, and as such, PCB remediation activities did not include these two towers.

UMass completed the remediation and decontamination of the PCB impacted building materials at the LGRC buildings under a 40 CFR Part 761 approval issued by EPA; however, this approval did not address the cleanup of any PCB impacted soils surrounding the buildings. Specifically, EPA's June 22, 2007 approval letter stated:

> "Please also note that this Approval **does not** address cleanup of potential PCB-contaminated soils located within the proposed caulking removal areas around the building exteriors. Following completion of the activities authorized under this Approval, UMass shall be responsible for investigating PCB contamination in these areas. In the event that this sampling identifies PCB contamination > 1 ppm, UMass must submit a plan to address the PCB contamination in accordance with 40 CFR 761 and in accordance with applicable state, local, and/or other federal regulations."

In preparation of this plan submittal, soil characterization sampling was conducted in 2008 and 2009. Based on these results and given the condition stated above, a Self-Implementing Cleanup and Disposal Plan was prepared and submitted to EPA on March 4, 2009.

Previous soil sampling conducted in July 2006 detected PCBs in exceedance of the reportable concentrations set forth in the Massachusetts Contingency Plan (MCP; 310 CMR 40.0000). A Release Notification Form (RNF) was submitted to the Massachusetts Department of Environmental Protection (MassDEP) on August 1, 2006, and Release Tracking Number (RTN 1-16269) was assigned to the Site. A Phase 1 Initial Site Investigation and Tier Classification was prepared and submitted to MassDEP in July 2007, classifying the Site as a Tier II Disposal Site. An Immediate Response Action (IRA) implemented at the Site consisted of installing chain link fencing around soils adjacent to the buildings, additional soil sampling, and catch basin sampling and cleaning. An IRA Completion Report was submitted to the MassDEP in February 2008. A Release Abatement Measure (RAM) Plan was prepared to remediate the PCB impacted soils and submitted to the MassDEP on April 9, 2009.

The soil removal activities were conducted in April-May 2009 under an EPA approved Self-Implementing On-Site Cleanup and Disposal Plan (SIP) and MassDEP Release Abatement Measure Plan. The remediation activities included the following:

- Removal and off-site disposal of impacted soils (PCBs > 1 ppm) as bulk PCB remediation waste;
- Collection of verification samples for PCB analysis; and
- Final restoration of soil excavation areas to their original ground surface coverings.

1.2 REPORT OBJECTIVES

This Report provides a description of the project activities as they were performed in accordance with the Notification[1] and subsequent PCB Cleanup and Disposal Approval issued by EPA under 40 CFR 761.61(a) and (c) on March 25, 2009. A copy of the Approval is provided in Appendix A. This Report is being submitted to meet the requirements pursuant to Recordkeeping and Reporting Condition 19 as described in EPA's March 25, 2009 Approval.

[1] The "Notification" consists of information submitted by Woodard & Curran on behalf of UMass to satisfy the notification requirements under 40 CFR 761.61(a). Information provided was dated March 4, 2009; and, March 5, 2009, March 10, 2009, March 11, 2009, March 13, 2009, March 17, 2009, and March 23, 2009 (via email).

2. REMEDIAL ACTION IMPLEMENTATION

This section describes the PCB cleanup and disposal activities conducted at the Site under the Approval, consistent with the requirements of 40 CFR 761.61(a) and (c). Accordingly, PCB-affected soils are identified, described, and depicted on site maps that identify sampling locations and remediation areas to provide a cross-reference to data summary tables.

2.1 SITE PREPARATIONS AND CONTROLS

Prior to initiating the soil excavation, site controls were implemented as described in Section 3.2 of the SIP. These preparations included the development of a Health & Safety Plan, filing notices and certifications with EPA pursuant to Conditions 9 and 11 of the Approval (see Appendix A), preparation and submittal of an MCP Release Abatement Measure (RAM) Plan, Dig Safe marking and notification, securing perimeter fences around the proposed excavation areas, and removal of excessive vegetation and small-diameter trees within excavation areas.

2.1.1 Public Communications

The UMass Environmental Health & Safety (EHS) office maintains a project-specific website (located at http://www.ehs.umass.edu/PCB-information.htm) to provide interested parties with information on PCBs and the remedial actions conducted at LGRC. The EHS office posted copies of the SIP, the Approval, soil remediation activity schedules and status updates on this website. Additionally, an informational public meeting prior to SIP implementation was held by UMass on April 9, 2009. Representatives from UMass, W&C, and the remediation contractor gave a presentation of the proposed work activities and were available for questions from interested parties.

2.2 SUPPLEMENTAL SOIL CHARACTERIZATION SAMPLING

As proposed in Section 3.3 of the SIP, 18 additional soil characterization samples were collected in April 2009 to supplement the characterization data set gathered by Woodard & Curran from October 2008 to January 2009. These additional samples were collected prior to soil removal in some areas and as excavation progressed in other areas, depending on the objective of the data collection. The complete characterization data set is presented on Figure 2-1, and the supplemental analytical results collected in April 2009 are presented on Table 2-1. Electronic versions of the complete laboratory analytical packages for these supplemental samples are provided in CD format in Appendix B.

A presentation of the results from these supplemental samples is provided in the following sections.

2.2.1 Horizontal Delineation

Characterization samples were collected prior to soil removal to complete the delineation of the horizontal excavation limits beyond SS62 and SS76, i.e., the only two areas where samples collected 12.5 feet away from the building were greater than 1 ppm. One 0-6" below ground surface (bgs) delineation sample was collected on the southeast side of the low-rise at a distance of 15 feet from the building (LGRC-SS82-120, 0.13 ppm), and three 0-6" bgs delineation samples were collected on the east side of the high-rise (LGRC-SS81-119, 1.15 ppm; LGRC-SS87-135, 6.16 ppm; and LGRC-SS88-136, 1.36 ppm) at distances of 15, 20, and 30 feet from the building, respectively.

The outcome of this sampling program on the proposed excavation areas was as follows:

- LGRC-SS82-120: PCBs ≤ 1 ppm achieved horizontal delineation goal. Excavation width extended to 15' from building along a length from the northern edge of excavation to a southern point halfway between SS82 and SS60 (see Figure 2-2).
- LGRC-SS81-119: PCBs > 1 ppm did not achieve horizontal delineation goal. Additional sample collected at SS87.
- LGRC-SS87-135: PCBs > 1 ppm did not achieve horizontal delineation goal. Additional sample collected at SS88.
- LGRC-SS88-136: PCBs > 1 ppm did not achieve horizontal delineation goal. Excavation area expanded to include all soils within the fenced area (approximately 23' x 44'; see Figure 2-2).

2.2.2 Vertical Delineation in Hot Spot Areas

Characterization samples were collected as excavation activities progressed to complete delineation of the vertical limits of hotspot soils (> 50ppm total PCBs) in five of the six hotspot soil areas; additional samples were not collected on the east side of the high-rise because vertical delineation was completed for this hotspot soil area in October 2008. Samples were collected from 6-12" bgs to confirm that soils at depths greater than 6" bgs contained PCBs at concentrations less than 50 ppm and should be managed as such. Analytical data confirmed that soils at depths greater than 6" bgs in hotspot surface soil areas were less than 50 ppm at all but one location (SS47). As a result, soils beneath 6" bgs in all hotspot soil areas were managed and disposed as < 50 ppm waste with the exception of soils in the SS47 area as described in Section 2.3.2.6.

2.3 SOIL REMOVAL AND VERIFICATION

The soil removal activities were conducted by Triumvirate Environmental Incorporated (TEI) of Somerville, Massachusetts in April-May 2009. All ambient air monitoring and verification soil sampling activities were conducted by Woodard & Curran. Soil removal activities began on April 14, 2009.

2.3.1 Methods

All soil removal areas were marked and confirmed by Woodard & Curran prior to beginning excavation. TEI primarily used a Caterpillar 305CR mini hydraulic excavator for soil removal activities, and occasionally used a Caterpillar 446 backhoe loader to assist the 305CR. Soils were live-loaded from the excavation areas into lined 20-yard roll-off containers. If the swing radius of the equipment bucket traveled over soils not scheduled for excavation between the removal area and the roll-off container, these soils were covered with clean polyethylene sheeting to protect the area in the event that any excess soils fell from the bucket.

All soil removal was conducted with one operator in the machine and a second man on foot in the excavation area. The responsibility of the man in the excavation was to mist soils with a water sprayer as needed, perform finishing work with a shovel in corners or sidewalls that were difficult to reach with a bucket, and confirm soil removal depth as the excavation progressed. All TEI and W&C personnel donned disposable plastic booties and Nitrile gloves upon entering the excavation areas, and doffed the disposable PPE upon exiting the excavation areas at designated locations set up with a polyethylene sheet on the ground and a plastic bag for spent PPE. A photo of a typical excavation area (on the east/northeast side of the low-rise) is provided below.

Upon achieving the proposed excavation depth in a given area, post-excavation samples were collected in accordance with a modified 40 CFR 761.280 (Subpart O) sampling plan as described in the SIP. Verification samples within excavation areas extending to a distance of 10 feet from the building edge were collected 10 feet apart at a distance of 2.5 feet from the building; in each of the two excavation areas that extended to a distance greater than 10 feet from the building, additional verification samples were collected on a 10-foot grid. Discrete verification samples were collected as described in the SIP from a depth of 0-3" bgs at the base of excavation, and were collected from the top to bottom of exposed soils for sidewalls (e.g., from 3-14" bgs in a 14" deep excavation area where the top three inches were covered by pavement at the edge of excavation).

If initial verification sample results indicated that PCB concentrations exceeded 1 ppm, additional soil removal was conducted and additional verification sampling (at an off-set grid) was performed until results confirmed that residual PCB levels were ≤ 1 ppm. Each sample's area of inference extended the full 10' width of each 10' wide excavation area, and extended a length on either side to a point halfway between samples (i.e., a single sample with PCBs > 1 ppm located between two samples with PCBs ≤ 1 ppm in a 10-foot sample spacing pattern would have a horizontal length of inference of 10 feet [5 feet on either side]). Additional removals that occurred in areas other than along linear building faces (e.g., in a corner or at a sidewall) were conservatively delineated on a case-by-case basis, as described below. All samples were transferred on ice to Analytics Environmental Laboratory of Portsmouth, New Hampshire under standard chain of custody procedures. Samples were extracted using USEPA Method 3540C

(Soxhlet extraction) and analyzed for PCBs using USEPA Method 8082. Electronic versions of the complete laboratory analytical packages are provided in CD format in Appendix B.

2.3.2 Removal Areas

Cleanup and disposal of PCB-impacted soils were proposed over an estimated area of 9,950 square feet. The horizontal limits of excavation extended to a distance of 10 feet from the building in most areas and to a greater distance in select areas. Initial excavation depths were proposed to either 14 or 20 inches bgs. Refer to Figure 2-2 for the proposed removal areas and depths; this figure has been modified from the proposed soil removal area figure included in the SIP (Figure 3-1) to reflect the results of the additional characterization data collected in April 2009. In describing each excavation area in the paragraphs below, the former characterization sample IDs are used to describe the general extent of an area, and are not meant to describe actual extents as depicted on the figures.

2.3.2.1 Southeast Low-Rise

The initial soil removal extended to a depth of 20" bgs along the south face of the low-rise (approximately SS1 to SS6) and to a depth of 14" along the east face of the low-rise (approximately SS7 to SS10). The width of excavation extended to 10' from the building in all areas except at SS62 where the width of excavation extended to 15' from the building (to SS82). Soils excavated from the top 6" of material north of SS8 and west of SS62 were managed as hazardous waste (PCBs ≥ 50 ppm) in accordance with the SIP. All other soils from the southeast low-rise, including the soils deeper than 6" bgs in the SS8-SS62 area, were managed as non-hazardous waste (PCBs < 50 ppm).

After initial soil removal activities were completed, 22 verification samples were collected on a 10-foot grid as shown on Figure 2-3; this also included a sidewall sample at each of the two short edges of the excavation area. Upon review of the analytical data (Table 2-2), 6 of the 22 samples were reported with PCB concentrations > 1 ppm (1.15 to 11.2 ppm), and an additional 6" lift of soil was removed in the areas represented by these samples. The western sidewall soils were removed by extending the length of the excavation another 12" beyond its former edge at the sidewalk. New verification samples were collected from these areas at off-set locations as shown on Figure 2-4. Each of these six samples was reported with PCB concentrations ≤ 1 ppm, confirming that cleanup levels were met in this area. The final excavation depths and areas at the southeast low-rise are shown on Figure 2-5.

2.3.2.2 East/Northeast Low-Rise

The initial soil removal extended to a depth of 14" bgs along the majority of the east/northeast face of the low-rise, and to a depth of 20" in two areas (approximately SS13 to SS15 and SS23 to SS25). The width of excavation extended to 10' from the building in all areas. Soils excavated from the top 6" of material north of SS23 and around the corner beyond SS25 to the end of this removal area were managed as hazardous waste (PCBs ≥ 50 ppm) in accordance with the SIP. All other soils from the east/northeast low-rise, including the soils deeper than 6" bgs in the SS23-SS25 area, were managed as non-hazardous waste (PCBs < 50 ppm).

After initial soil removal activities were completed, 32 verification samples were collected on a 10-foot grid[2] as shown on Figure 2-3; this also included a sidewall sample at the northern short edge of the excavation, and a sample from beneath the generator pad near the southern portion of the area. Upon review of the analytical data (Table 2-2), 2 of

[2] Samples were collected on a 10-foot grid from LGRC-VSS-001 to LGRC-VSS-015; however, the sample location layout was inadvertently set at a 12-foot spacing between samples LGRC-VSS-016 to LGRC-VSS-025. This condition was not realized until after samples had already been analyzed by the laboratory.

the 32 samples were reported with PCB concentrations > 1 ppm (1.76 and 1.79 ppm), and additional soils were removed in the areas represented by these samples. Another 6" of soil was removed from the locations, and new verification samples were collected from these areas at off-set locations as shown on Figure 2-4. Both of these samples were reported with PCB concentrations ≤ 1 ppm, confirming that cleanup levels were met in this area. The final excavation depths and areas at the east/northeast low-rise are shown on Figure 2-5.

2.3.2.3 Northwest Low-Rise

The initial soil removal extended to a depth of 14" bgs and a width of 10' from the building along the entire northwest low-rise area (approximately SS26 to SS32). All soils from the northwest low-rise were managed as non-hazardous waste (PCBs < 50 ppm) in accordance with the SIP.

After initial soil removal activities were completed, 17 verification samples were collected on a 10-foot grid as shown on Figure 2-3; this also included a sidewall sample at each of the two short edges of the excavation. Upon review of the analytical data (Table 2-2), 5 of the 17 samples were reported with PCB concentrations > 1 ppm (1.13 to 15.5 ppm), and additional soils were removed in the areas represented by these samples. Another 6" of soil was removed from the four base of excavation locations, and soils were removed at the eastern sidewall by extending the length of the excavation another 12" beyond its former edge at the sidewalk. New verification samples were collected from these areas at off-set locations as shown on Figure 2-4. Each of the five samples was reported with PCB concentrations ≤ 1 ppm, confirming that cleanup levels were met in this area. The final excavation depths and areas at the northwest low-rise are shown on Figure 2-5.

2.3.2.4 West Low-Rise

The initial soil removal extended to a depth of 14" bgs and a width of 10' from the building along the entire west low-rise area (approximately SS33 to SS41). Soils excavated from the top 6" of material in the two hot spot areas (SS33 to SS35 and SS39 to SS41) were managed as hazardous waste (PCBs ≥ 50 ppm) in accordance with the SIP. All other soils from the west low-rise, including the soils deeper than 6" bgs in the two hot spot areas, were managed as non-hazardous waste (PCBs < 50 ppm).

After initial soil removal activities were completed, 20 verification samples were collected on a 10-foot grid as shown on Figure 2-3; this also included a sidewall sample at each of the two short edges of the excavation. Upon review of the analytical data (Table 2-2), 5 of the 20 samples were reported with PCB concentrations > 1 ppm (1.44 to 32.3 ppm), and additional soils were removed in the areas represented by these samples. Another 6" of soil was removed from the five locations, and new verification samples were collected from these areas at off-set locations as shown on Figure 2-4. Each of the five samples was reported with PCB concentrations ≤ 1 ppm, confirming that cleanup levels were met in this area. The final excavation depths and areas at the west low-rise are shown on Figure 2-5.

2.3.2.5 East High-Rise

The initial soil removal extended to a depth of 14" bgs within an area measuring approximately 23' x 44' on the east side of the high-rise. Soils excavated from the top 6" of material between SS42 and SS43 were managed as hazardous waste (PCBs ≥ 50 ppm) in accordance with the SIP. All other soils from the east side of the high-rise, including the soils deeper than 6" bgs in the SS42-SS43 area, were managed as non-hazardous waste (PCBs < 50 ppm).

After initial soil removal activities were completed, 10 verification samples were collected on a 10-foot grid as shown on Figure 2-3. Upon review of the analytical data (Table 2-2), 2 of the 10 samples were reported with PCB

concentrations > 1 ppm (2.30 and 11.5 ppm), and additional soils were removed in the areas represented by these samples. Another 6" of soil was removed from the two locations, and new verification samples were collected from these areas at off-set locations as shown on Figure 2-4. One of the samples was reported with PCB concentrations ≤ 1 ppm confirming that cleanup levels were met in this area, but the second sample (LGRC-VSS-137) was reported with PCBs at 3.56 ppm. As a result, an additional 6" of soil was removed from the base of excavation in the LGRC-VSS-137 area. Results of the final verification sample collected in this area were reported with PCB concentrations ≤ 1 ppm (0.284 ppm), confirming that cleanup levels were met in this area. The final excavation depths and areas at the east side of the high-rise are shown on Figure 2-5.

2.3.2.6 West High-Rise

The initial soil removal extended to a depth of 14" bgs along the majority of the west side of the high-rise, and to a depth of 20" in one area (SS48 to SS49). The width of excavation extended to 10' from the building in all areas. An additional 5' x 8' isolated soil area on the southwest corner of the high-rise was also excavated to a depth of 14" bgs. Soils removed from the top 6" of material in a portion of the hot spot area (SS48 to SS50) and 14" of soils in the hot spot area (SS47 to SS48; see Section 2.2.2) were managed as hazardous waste (PCBs ≥ 50 ppm) in accordance with the SIP. All other soils from the west side of the high-rise, including the soils deeper than 6" bgs in the SS48 to SS50 hot spot area, were managed as non-hazardous waste (PCBs < 50 ppm).

After initial soil removal activities were completed, 15 verification samples were collected on a 10-foot grid as shown on Figure 2-3; no sidewall samples were collected as each short edge of the excavation terminated at a concrete retaining wall. Upon review of the analytical data (Table 2-2), 1 of the 15 samples was reported with PCB concentrations > 1 ppm (5.46 ppm). An additional 6" of soil was removed from this location, and a new verification sample was collected from this area at an off-set location as shown on Figure 2-4. The new verification sample was reported with PCB concentrations ≤ 1 ppm, confirming that cleanup levels were met in this area. The final excavation depths and areas at the west side of the high-rise are shown on Figure 2-5.

2.3.3 Removal Summary

The initial set of verification data included 116 primary soil samples. Analytical results indicated that 94 of these samples contained PCBs ≤ 1 ppm. Additional soil removal was conducted at 21 locations (22 verification samples), representing 18% of the soil removal areas.

The final depth of excavation did not exceed 26 inches bgs in any area of the Site. Approximately 69% of the area (7,360 ft^2) was excavated to 14 inches bgs, 25% of the area (2,700 ft^2) was excavated to 20 inches bgs, and 6% of the area (615 ft^2) was excavated to 26 inches bgs. In addition, approximately 25% of the area (2,700 ft^2) was removed as hazardous waste soil from the top 6 inches of material, and 3% of the area (300 ft^2) was removed as hazardous waste soil from the top 14 inches of material. The removal depths and areas are depicted on Figure 2-5.

The volume of in-place soils excavated from the Site totaled 535 cubic yards (470 cy non-hazardous waste, 65 cy hazardous waste). This number was calculated given the excavation area (10,670 ft^2) and known excavation depths in each area as shown on Figure 2-5. This 535 cubic yard volume is 3.8% greater than the 515 cubic yards estimated in the SIP, primarily because of the expanded removal area on the east side of the high-rise. Given the density of soils and slight volumetric expansion expected upon removal from the ground, this figure is consistent with the total weight of soils (833.5 tons) as measured at the disposal facilities. Refer to Section 2.4 for complete disposal documentation.

2.3.4 Air Monitoring

Air monitoring was conducted in accordance with the perimeter air monitoring plan included in Appendix D of the SIP. Hourly readings were recorded at one background and at least three perimeter air monitoring locations during the soil removal activities. Readings were collected over 30-second intervals at each location using a DustTrak Model 8520 aerosol monitor. When excavation activities were conducted near the LGRC building's air intake locations, at least one perimeter monitoring station was located at the air intake. Other monitoring locations were specifically placed in areas of high pedestrian traffic (i.e., crosswalks or building entrances) in order to monitor air conditions in the breathing zone of nearby potential receptors.

There were no instances of visible dust generation from the soil removal area during any site activities, as soils that appeared dry on the ground were misted with water prior to removal. There were no exceedances of the total airborne particulate action limit (0.1 mg/m^3 above background) during any site activities with the exception of two readings collected at location Q on April 27, 2009 during work on the west side of the high-rise building. However, the air monitoring logs indicate that these two readings (0.123 mg/m^3 at 12:54 and 0.148 mg/m^3 at 14:32) were likely caused by exhaust fumes from the nearby excavator and not by dust from the excavation. Follow-up readings collected after the excavator turned away were reported at levels below the action limit (0.039 mg/m^3 at 12:55 and 0.047 mg/m^3 at 14:36); as such, no corrective actions were taken.

A copy of the air monitoring logs and an air monitoring location figure are provided in Appendix C.

2.3.5 MassDEP Inspection

During excavation work on April 30, 2009, Catherine Wanat of MassDEP visited the Site to inspect the activities being conducted under the MCP RAM Plan submitted to MassDEP. W&C gave Ms. Wanat a site health & safety briefing and general overview of site activities. Theresa Bechta of UMass accompanied W&C and MassDEP on a brief site walk and inspection. Ms. Wanat was generally satisfied with site conditions and made two comments on minor issues:

1) A small gap between two sections of perimeter fence, big enough for pedestrian entry, was tied together with a piece of rope; and,
2) While all full roll-off containers on-site were appropriately closed and labeled with hazardous or non-hazardous waste labels, the partially-full container that was actively being loaded during MassDEP's site visit was not labeled.

Each of these issues were remedied immediately (the fence sections were adjusted and correctly braced together, and the partially full roll-off was labeled), and Ms. Wanat had no further issues. These work practices were upheld throughout the remainder of soil removal activities on-site.

A copy of a letter written from UMass to MassDEP regarding the site visit is provided in Appendix D.

2.4 STORAGE & DISPOSAL

Storage and disposal activities were completed in accordance with the procedures outlined in Section 3.5 of the SIP. All proposed and active excavation areas were secured by perimeter chain-link fencing throughout the duration of the work activities. All soils and other PCB remediation wastes generated in association with removal activities (i.e. polyethylene sheeting, PPE) were placed in secure, lined, covered, and marked 20-yard roll-off waste containers that

were kept within fence perimeters while on-site if the space was available. The PCB wastes were managed in accordance with 40 CFR 761.65 and marked in accordance with 40 CFR 761.40.

Filled roll-off containers were transported off-site by Ameritech Environmental Services, Inc. of Eliot, Maine. Soils classified as hazardous waste (≥ 50 ppm PCBs) were transported under manifest to the Chemical Waste Management hazardous waste facility in Model City, New York. Soils classified as non-hazardous waste (< 50 ppm PCBs) were segregated for disposal and transported under bills of lading to the Turnkey Recycling and Environmental Enterprises (TREE) non-hazardous waste disposal facility in Rochester, New Hampshire. Six trucks (each carrying a single roll-off) delivered a total weight of 95.9 tons of hazardous waste soils to the Model City facility, and 39 trucks (each carrying a single roll-off) delivered a total weight of 737.6 tons of non-hazardous soils to the TREE facility. An overall weight of 833.5 tons of material was removed for off-site disposal, with the first load shipped on April 17, 2009 and the last load shipped on May 22, 2009.

Pursuant to Recordkeeping and Reporting Condition 19 of the Approval, copies of all waste shipment records including manifests, bills of lading, and certificates of disposal are provided in Appendix E.

2.5 SITE RESTORATION

Following completion of the removal activities and verification that the cleanup levels had been met, TEI backfilled all soil excavation areas with imported loam from Delta Sand and Gravel of Sunderland, Massachusetts. Prior to delivery, TEI submitted a sample of the loam to Con-Test Analytical Laboratory of East Longmeadow, Massachusetts for analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), PCBs, RCRA-8 Metals and total petroleum hydrocarbons (TPH). Upon comparing the data to MCP Method 1 S-1 soil standards, no exceedances were found, confirming that the backfill material was acceptable for use on-site. A summary of the backfill analytical data is provided as Table 2-3.

TEI dismantled the site controls (perimeter fencing) after the excavation was backfilled and compacted to surface grade. TEI then restored the ground surface to its original condition (grass, landscaping, etc.). Backfilling was finished on May 22, 2009, signifying the official completion date of the excavation activities as the last shipment of waste material had already been removed from the Site. A photo of the restored area on the south side of the low-rise is provided below.

3. DATA USABILITY ASSESSMENT

This data quality and data usability assessment reviews the results of the 18 additional characterization samples (see Section 2.2) and 138 post-excavation soil verification samples (see Section 2.3) collected by W&C personnel in April-May 2009 at UMass. This precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) parameter evaluation includes an assessment of the parameters and QA/QC samples as they affect the usability of site sample results. These indicators have been examined in the context of the intended use of the data, and an overall assessment of site soil conditions.

Data validation was conducted by a third-party validator, Data Check, Inc. of New Durham, New Hampshire, according to a modified Tier II validation procedure. This review included a completeness check of field documentation including sample collection and preservation methods, a completeness check of the laboratory data and documentation, a review of the internal laboratory QA/QC procedures and results including surrogate recoveries, matrix spike and matrix spike duplicate results, blank results, and laboratory control standard results, and an evaluation of sample holding times, trip blank results, and field duplicate results. The assessment was performed in general conformance with USEPA Region I Guidelines and the Quality Control Guidelines for the Acquisition. Data Check's data validation summaries are provided in Appendix F.

Sample extraction and analysis was performed by Analytics Environmental Laboratory of Portsmouth, New Hampshire. All samples were extracted by USEPA Method 3540C (Soxhlet Extraction) and analyzed for PCBs by USEPA Method 8082.

3.1 PRECISION

Field duplicate samples were collected at a frequency of one duplicate sample per twenty primary samples during the verification sampling event. A total of seven duplicate samples (LGRC-VSS-501 through 507) were collected to analyze the precision of the 138 primary verification sample results. Relative percent differences (RPDs) between the primary and associated duplicate samples were within acceptance criteria for all samples; no qualifications were applied to the data as a result of field duplicate sample results.

As a result of the data validation process, data qualifiers were attached to certain sample results to indicate that the concentration is estimated. Data was qualified with a "J" if the RPD between the column results was outside of the acceptance criteria (≤25%); column results typically differ in soil analyses due to heterogeneities inherent to the sample matrix. Whether or not the RPD meets acceptance criteria, the laboratory reports the higher of the two column results. A "J" qualifier was applied to 24 of 138 primary verification samples and 7 of 18 additional characterization samples.

3.2 ACCURACY

Accuracy of the analytical data was assessed by reviewing recoveries for matrix spikes (MS), matrix spike duplicates (MSD), surrogates, laboratory control samples (LCS) and laboratory control sample duplicates (LCSD). After review of this information, no qualifications were applied to the data as a result of MS/MSD, surrogate, or LCS/LCSD percent recoveries.

3.3 REPRESENTATIVENESS

Consistent procedures and laboratory analysis of the data were achieved. Sample containers were packed on ice and were accompanied by complete chain of custody forms from the time of sample collection until laboratory

delivery. All samples were extracted and analyzed within the allowable holding time for the method. No analytes were detected in the laboratory method blank analyses, indicating that there were no interferences introduced at the laboratory during sample analysis. Field equipment blank samples, collected at a frequency of one per twenty primary samples during this sampling event, were non-detect for all samples; no qualifications were applied to the data.

3.4 COMPLETENESS

Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount of valid data expected. The data packages from Analytics were reviewed to ensure that all sample and associated quality assurance results were available. Results of the completeness review indicated that all collected samples were analyzed and all quality control results were available to complete the data validation process.

3.5 COMPARABILITY

Comparability measures the degree of confidence with which one data set can be compared to a related set of data. Based on a review of established standard methods and procedures for collection, analysis, and reporting of data, the data collected by W&C during this sampling event are considered to have met the requirements for comparability.

3.6 SENSITIVITY

Sensitivity was evaluated based on a review of the sample quantitation and reported quantitation limits. Laboratory reported detection limits typically met the site data quality objective (reporting limit ≤ 1 ppm), but sample dilutions due to elevated PCB concentrations did not make it possible to meet this objective for 3 of the 138 verification samples (LGRC-VSS-044, LGRC-VSS-082, and LGRC-VSS-089) and for 1 of the 18 additional characterization samples (LGRC-SS47-131). In these instances, soils associated with these samples were subsequently excavated and resampled. Verification samples collected after additional soil removal at these four locations were all reported with detection limits below 1 ppm.

3.7 CONCLUSION

Based on a review of the analytical results with regard to the PARCCS parameters, this data quality / data usability assessment indicates that the data is of sufficient quality for use in rendering an opinion of soil conditions at the Site.

4. SUMMARY & CONCLUSIONS

This Report details the PCB cleanup and disposal activities conducted at the Lederle Graduate Research Center in accordance with the Notification and EPA's March 25, 2009 PCB Cleanup and Disposal Approval. On behalf of UMass, W&C oversaw the soil remediation activities conducted by Triumvirate Environmental between April 14 and May 22, 2009.

Cleanup and disposal of PCB-impacted soils were conducted over an area of 10,670 square feet. The horizontal limits of excavation extended to a minimum distance of 10 feet from the building, and vertical limits of excavation ranged between 14 and 26 inches bgs. All soils and other PCB remediation wastes generated in association with removal activities were placed in secure, lined, covered, and marked waste containers in accordance with 40 CFR 761.65 and 40 CFR 761.40.

Woodard & Curran conducted post-excavation verification sampling in accordance with a modified 40 CFR 761.280 (Subpart O) sampling plan as described in the SIP. Of the 116 initial verification samples, results indicated that PCB concentrations exceeded the 1 ppm cleanup level at 21 locations. Additional soil removal was conducted and additional verification sampling was performed until results confirmed that all residual PCB levels were less than 1 ppm. A data quality / data usability assessment indicated that the data is of sufficient quality for use in rendering an opinion of soil conditions at the Site.

The volume of in-place soils excavated from the Site totaled 535 cubic yards (65 cy hazardous waste, 470 cy non-hazardous waste). A total weight of 95.9 tons of hazardous waste soils were shipped off-site for disposal at the Model City facility, and a total weight of 737.6 tons of non-hazardous waste soils were shipped off-site for disposal at the TREE facility. Overall, 833.5 tons of soils were removed for off-site disposal between April 17, 2009 and May 22, 2009. After removal activities were complete, TEI backfilled all excavation areas with clean fill.

Based on the results of the removal activities and verification data, the work met the conditions of the Approval and no additional soil remediation work is warranted at the Site.

Table 2-1
Supplemental Soil Characterization Data
UMass Amherst LGRC Final Completion Report

Sample ID	Depth	Date	Detection Limit	Total PCBs	Location
Southeast Low-Rise					
LGRC-SS83-121	6 - 12	4/17/09	0.033	< 0.033	Adjacent to building
LGRC-SS9-122	6 - 12	4/17/09	0.76	**14.2 J**	Adjacent to building
LGRC-SS10-123	6 - 12	4/17/09	0.360	**4.42**	Adjacent to building
LGRC-SS82-120	0 - 6	4/13/09	0.046	0.131 J	15' from building
East/Northeast Low-Rise					
LGRC-SS23-058*	6 - 12	11/24/08	0.170	**2.19**	Adjacent to building
LGRC-SS24-059*	6 - 12	11/24/08	0.330	**9.56**	Adjacent to building
LGRC-SS25-060*	6 - 12	11/24/08	0.066	**1.04**	Adjacent to building
LGRC-SS84-124	6 - 12	4/17/09	0.033	0.353	Adjacent to building
West Low-Rise					
LGRC-SS33-125	6 - 12	4/22/09	0.170	**1.90**	Adjacent to building
LGRC-SS34-126	6 - 12	4/22/09	0.400	**4.99**	Adjacent to building
LGRC-SS85-127	6 - 12	4/23/09	0.040	0.893	First soil adjacent to building
LGRC-SS86-128	6 - 12	4/23/09	0.040	0.248 J	First soil adjacent to building
LGRC-SS40-129	6 - 12	4/23/09	0.200	**3.18**	First soil adjacent to building
LGRC-SS41-130	6 - 12	4/23/09	0.040	0.997	First soil adjacent to building
East High-Rise					
LGRC-SS43-045*	6 - 12	10/30/08	0.330	**10.7**	Adjacent to building
LGRC-SS81-119	0 - 6	4/13/09	0.040	**1.15**	15' from building
LGRC-SS87-135	0 - 6	4/24/09	0.430	**6.16 J**	20' from building
LGRC-SS88-136	0 - 6	4/30/09	0.083	**1.36**	30' from building
West High-Rise					
LGRC-SS47-131	6 - 12	4/27/09	3.630	**51.9 J**	Flush with overhang
LGRC-SS48-132	6 - 12	4/27/09	0.790	**10.7 J**	Flush with overhang
LGRC-SS49-133	6 - 12	4/27/09	0.690	**15.7 J**	Flush with overhang
LGRC-SS50-134	6 - 12	4/27/09	0.760	**16.1**	Adjacent to building

Notes:
A **bold** concentration indicates an exceedance of the 1 ppm cleanup level.
J = Detected results estimated based on data validation.
< = Detected below the laboratory's reporting limit.
* = Although these four samples were collected in Oct.-Nov. 2008, they are included on this table to present the complete 6-12" interval data set for the soils beneath 0-6" hazardous soils.
All samples extracted by Soxhlet Method 3540C and analyzed by USEPA Method 8082.
All sample results are presented in milligrams per kilogram (mg/kg).
Depth is measured in inches below ground surface, where 0 represents ground surface.
All PCBs detected are Aroclor 1254; no other Aroclors were detected in any samples.
All soils represented by the samples listed in this Table were removed in April-May 2009.

Table 2-2
Soil Verification Data
UMass Amherst LGRC Final Completion Report

Sample ID	Depth	Date	Detection Limit	Aroclor 1254	Aroclor 1260	Total PCBs	Notes
Southeast Low-Rise							
LGRC-VSS-052*	5-20	4/24/09	0.066	**1.41**	ND	**1.41 J**	Sidewall
LGRC-VSS-077	5-20	4/30/09	0.033	0.738	ND	0.738	Redig of VSS-052 area
LGRC-VSS-026	20-23	4/20/09	0.040	0.971	ND	0.971 J	
LGRC-VSS-027	20-23	4/22/09	0.033	0.137	ND	0.137	
LGRC-VSS-028	20-23	4/22/09	0.033	0.270	ND	0.270	
LGRC-VSS-029*	20-23	4/22/09	0.069	**1.15**	ND	**1.15**	
LGRC-VSS-105	26-29	5/4/09	0.033	0.116	ND	0.116	Redig of VSS-029 area
LGRC-VSS-030	20-23	4/22/09	0.033	0.907	ND	0.907	
LGRC-VSS-031*	20-23	4/20/09	0.170	**1.78**	ND	**1.78**	
LGRC-VSS-107	26-29	5/4/09	0.033	0.173	ND	0.173	Redig of VSS-031 area
LGRC-VSS-032*	20-23	4/22/09	0.690	**11.2**	ND	**11.2**	
LGRC-VSS-106	26-29	5/4/09	0.033	ND	ND	< 0.033	Redig of VSS-032 area
LGRC-VSS-033*	20-23	4/22/09	0.170	**2.10**	ND	**2.10**	
LGRC-VSS-108	26-29	5/4/09	0.033	0.145	ND	0.145	Redig of VSS-033 area
LGRC-VSS-034*	20-23	4/22/09	0.170	**1.84**	ND	**1.84**	
LGRC-VSS-109	26-29	5/4/09	0.033	0.022 J	ND	0.022 J	Redig of VSS-034 area
LGRC-VSS-035	14-17	4/22/09	0.036	0.363	ND	0.363	
LGRC-VSS-036	14-17	4/22/09	0.033	0.605	ND	0.605	
LGRC-VSS-037	14-17	4/22/09	0.033	0.144	ND	0.144	
LGRC-VSS-038	14-17	4/22/09	0.033	0.179	ND	0.179	
LGRC-VSS-039	14-17	4/22/09	0.040	0.972	ND	0.972	
LGRC-VSS-112	14-17	5/5/09	0.033	0.380	ND	0.380	
LGRC-VSS-111	14-17	5/5/09	0.033	0.353	ND	0.353	
LGRC-VSS-110	14-17	5/5/09	0.033	0.350	ND	0.350	
LGRC-VSS-103	14-17	5/4/09	0.036	0.030 J	ND	0.030 J	
LGRC-VSS-104	14-17	5/4/09	0.036	0.024 J	ND	0.024 J	
LGRC-VSS-079	14-17	4/30/09	0.036	ND	ND	< 0.036	
LGRC-VSS-080	3-14	4/30/09	0.036	0.405	ND	0.405 J	Sidewall
East/Northeast Low-Rise							
LGRC-VSS-001	14-17	4/15/09	0.033	0.107	ND	0.107	
LGRC-VSS-002	14-17	4/15/09	0.033	0.257	ND	0.257	
LGRC-VSS-003	14-17	4/15/09	0.033	0.054	ND	0.054	
LGRC-VSS-004	14-17	4/15/09	0.033	ND	ND	< 0.033	
LGRC-VSS-005	14-17	4/15/09	0.033	ND	ND	< 0.033	
LGRC-VSS-006	20-23	5/1/09	0.033	0.103	ND	0.103 J	
LGRC-VSS-007	20-23	5/1/09	0.033	0.935	ND	0.935	
LGRC-VSS-062	9-12	4/27/09	0.033	0.139	ND	0.139	Beneath generator pad
LGRC-VSS-008	20-23	4/15/09	0.033	0.100	ND	0.100	
LGRC-VSS-009	14-17	4/15/09	0.033	0.103	ND	0.103	
LGRC-VSS-010	14-17	4/15/09	0.033	0.527	ND	0.527	
LGRC-VSS-011	14-17	4/15/09	0.033	ND	ND	< 0.033	
LGRC-VSS-012	14-17	4/15/09	0.036	0.237	ND	0.237 J	
LGRC-VSS-013	14-17	4/15/09	0.033	0.120	ND	0.120	
LGRC-VSS-014	14-17	4/15/09	0.033	0.903	ND	0.903 J	
LGRC-VSS-015	14-17	4/15/09	0.033	0.261	ND	0.261	
LGRC-VSS-016	14-17	4/16/09	0.033	0.173	ND	0.173	
LGRC-VSS-017	14-17	4/16/09	0.033	0.401	ND	0.401	
LGRC-VSS-018	14-17	4/16/09	0.036	0.457	ND	0.457	
LGRC-VSS-019	14-17	4/16/09	0.033	0.065	ND	0.065 J	
LGRC-VSS-020	14-17	4/16/09	0.033	0.199	ND	0.199 J	
LGRC-VSS-021	14-17	4/17/09	0.033	0.171	ND	0.171	

Table 2-2
Soil Verification Data
UMass Amherst LGRC Final Completion Report

Sample ID	Depth	Date	Detection Limit	Aroclor 1254	Aroclor 1260	Total PCBs	Notes
LGRC-VSS-022	14-17	4/17/09	0.033	0.573	ND	0.573	
LGRC-VSS-023	14-17	4/17/09	0.033	0.064	ND	0.064	
LGRC-VSS-024	14-17	4/17/09	0.033	0.158	ND	0.158	
LGRC-VSS-025*	14-17	4/17/09	0.170	**1.79**	ND	**1.79**	
LGRC-VSS-075	20-23	4/29/09	0.033	0.245	ND	0.245 J	Redig of VSS-025 area
LGRC-VSS-074	20-23	4/29/09	0.033	0.974	ND	0.974	
LGRC-VSS-073	20-23	4/29/09	0.033	0.446	ND	0.446 J	
LGRC-VSS-072	20-23	4/29/09	0.033	0.025 J	ND	0.025 J	
LGRC-VSS-071*	14-17	4/29/09	0.170	**1.76**	ND	**1.76**	
LGRC-VSS-113	20-23	5/5/09	0.033	0.070	ND	0.070	Redig of VSS-071 area
LGRC-VSS-070	14-17	4/29/09	0.033	0.431	ND	0.431	
LGRC-VSS-076	4-14	4/29/09	0.033	0.353	ND	0.353	Sidewall
Northwest Low-Rise							
LGRC-VSS-047*	4-14	4/24/09	0.066	**1.14**	ND	**1.14**	Sidewall
LGRC-VSS-078	4-14	4/30/09	0.033	0.224	ND	0.224	Redig of VSS-047 area
LGRC-VSS-040	14-17	4/22/09	0.036	0.376	ND	0.376	
LGRC-VSS-041	14-17	4/22/09	0.036	0.401	ND	0.401	
LGRC-VSS-042	14-17	4/22/09	0.033	0.247	ND	0.247	
LGRC-VSS-043	14-17	4/22/09	0.036	0.508	ND	0.508	
LGRC-VSS-044*	14-17	4/22/09	1.65	**15.5**	ND	**15.5**	
LGRC-VSS-099	20-23	5/4/09	0.033	0.061	ND	0.061	Redig of VSS-044 area
LGRC-VSS-045	14-17	4/22/09	0.040	0.561	ND	0.561	
LGRC-VSS-046*	14-17	4/22/09	0.036	**1.13**	ND	**1.13**	
LGRC-VSS-100	20-23	5/4/09	0.033	ND	ND	< 0.033	Redig of VSS-046 area
LGRC-VSS-048	14-17	4/24/09	0.036	0.974	ND	0.974	
LGRC-VSS-049	14-17	4/24/09	0.033	0.529	ND	0.529	
LGRC-VSS-050	14-17	4/24/09	0.033	1.03	ND	1.03	
LGRC-VSS-051*	14-17	4/24/09	0.069	**1.49**	ND	**1.49**	
LGRC-VSS-101	20-23	5/4/09	0.033	0.042	ND	0.042	Redig of VSS-051 area
LGRC-VSS-057	14-17	4/27/09	0.036	0.239	ND	0.239	
LGRC-VSS-058*	14-17	4/27/09	0.170	**1.83**	ND	**1.83**	
LGRC-VSS-102	20-23	5/4/09	0.040	0.058	ND	0.058	Redig of VSS-058 area
LGRC-VSS-059	14-17	4/27/09	0.033	0.052	ND	0.052	
LGRC-VSS-060	14-17	4/27/09	0.036	0.897	ND	0.897	
LGRC-VSS-061	14-17	4/27/09	0.033	0.096	ND	0.096	Sidewall
West Low-Rise							
LGRC-VSS-091	14-17	5/1/09	0.033	0.173	ND	0.173 J	Sidewall
LGRC-VSS-090	14-17	5/1/09	0.036	0.734	ND	0.734 J	
LGRC-VSS-089*	14-17	5/1/09	1.78	**19.9**	ND	**19.9 J**	
LGRC-VSS-124	20-23	5/8/09	0.036	0.163	ND	0.163 J	Redig of VSS-089 area
LGRC-VSS-088	14-17	5/1/09	0.033	0.478	ND	0.478 J	
LGRC-VSS-087*	14-17	5/1/09	0.069	**1.44**	ND	**1.44**	
LGRC-VSS-125	20-23	5/8/09	0.036	0.103	ND	0.103	Redig of VSS-087 area
LGRC-VSS-086	14-17	5/1/09	0.036	0.844	ND	0.844	
LGRC-VSS-085*	14-17	5/1/09	0.360	**4.68**	ND	**4.68**	
LGRC-VSS-126	20-23	5/8/09	0.050	0.120	ND	0.120	Redig of VSS-085 area
LGRC-VSS-084*	14-17	5/1/09	0.200	**2.54**	ND	**2.54**	
LGRC-VSS-127	20-23	5/8/09	0.033	0.249	ND	0.249	Redig of VSS-084 area
LGRC-VSS-083	14-17	5/1/09	0.033	0.081	ND	0.081	
LGRC-VSS-082*	14-17	5/1/09	1.82	**32.34**	ND	**32.3 J**	
LGRC-VSS-128	20-23	5/8/09	0.033	0.572	ND	0.572	Redig of VSS-082 area
LGRC-VSS-056	14-17	4/24/09	0.033	0.177	ND	0.177	

Table 2-2
Soil Verification Data
UMass Amherst LGRC Final Completion Report

Sample ID	Depth	Date	Detection Limit	Aroclor 1254	Aroclor 1260	Total PCBs	Notes
LGRC-VSS-055	14-17	4/24/09	0.033	0.743	ND	0.743	
LGRC-VSS-054	14-17	4/24/09	0.033	0.601	ND	0.601	
LGRC-VSS-053	14-17	4/24/09	0.033	0.541	ND	0.541	
LGRC-VSS-098	14-17	5/4/09	0.033	0.058	ND	0.058	
LGRC-VSS-097	14-17	5/4/09	0.033	ND	ND	< 0.033	
LGRC-VSS-096	14-17	5/4/09	0.033	0.780	ND	0.780	
LGRC-VSS-095	14-17	5/4/09	0.033	0.090	ND	0.090	
LGRC-VSS-094	14-17	5/4/09	0.036	0.727	ND	0.727 J	
LGRC-VSS-093	6-14	5/4/09	0.033	0.869	ND	0.869	Sidewall
East High-Rise							
LGRC-VSS-114	14-17	5/5/09	0.033	0.817	ND	0.817	
LGRC-VSS-115*	14-17	5/5/09	0.630	**11.5**	ND	**11.5**	
LGRC-VSS-137*	20-23	5/13/09	0.330	**3.56**	ND	**3.56**	Redig of VSS-115 area
LGRC-VSS-140	26-29	5/18/09	0.033	0.284	ND	0.284 J	Redig of VSS-137 area
LGRC-VSS-116	14-17	5/8/09	0.033	0.082	ND	0.082	
LGRC-VSS-117*	14-17	5/8/09	0.200	**2.30**	ND	**2.30 J**	
LGRC-VSS-138	20-23	5/13/09	0.033	0.664	ND	0.664	Redig of VSS-117 area
LGRC-VSS-118	14-17	5/8/09	0.033	0.101	ND	0.101 J	
LGRC-VSS-119	14-17	5/8/09	0.043	0.543	ND	0.543	
LGRC-VSS-120	14-17	5/8/09	0.033	ND	ND	< 0.033	
LGRC-VSS-121	14-17	5/8/09	0.033	ND	ND	< 0.033	
LGRC-VSS-122	14-17	5/8/09	0.033	0.164	ND	0.164 J	
LGRC-VSS-123	14-17	5/8/09	0.033	ND	ND	< 0.033	
West High-Rise							
LGRC-VSS-063	14-17	4/27/09	0.033	0.364	ND	0.364 J	
LGRC-VSS-064	14-17	4/27/09	0.036	0.133	ND	0.133	
LGRC-VSS-065	14-17	4/27/09	0.036	0.259	ND	0.259	
LGRC-VSS-066	14-17	4/27/09	0.043	ND	0.125	0.125 J	
LGRC-VSS-067	14-17	4/28/09	0.036	ND	0.059	0.059	
LGRC-VSS-068	14-17	4/28/09	0.036	0.177	0.112	0.289	
LGRC-VSS-069	14-17	4/28/09	0.036	0.054	ND	0.054	
LGRC-VSS-129	14-17	5/8/09	0.033	0.195	ND	0.195	
LGRC-VSS-130	14-17	5/8/09	0.033	0.946	ND	0.946	
LGRC-VSS-131*	14-17	5/8/09	0.360	**5.46**	ND	**5.46 J**	
LGRC-VSS-139	20-23	5/13/09	0.033	0.790	ND	0.790	Redig of VSS-131 area
LGRC-VSS-132	14-17	5/8/09	0.033	0.241	ND	0.241	
LGRC-VSS-133	20-23	5/8/09	0.033	0.345	ND	0.345	
LGRC-VSS-134	20-23	5/8/09	0.036	0.203	ND	0.203	
LGRC-VSS-135	20-23	5/8/09	0.033	0.684	ND	0.684	
LGRC-VSS-136	14-17	5/8/09	0.036	0.543	ND	0.543	

Notes:
A **bold** concentration indicates an exceedance of the 1 ppm cleanup level.
J = Detected results estimated based on data validation.
ND = Non-detect.
< = Detected below the laboratory's reporting limit.
* = Soils represented by this sample were subsequently excavated and resampled.
All samples extracted by Soxhlet Method 3540C and analyzed by USEPA Method 8082.
All sample results are presented in milligrams per kilogram (mg/kg).
Depth is measured in inches below ground surface, where 0 represents ground surface.

Table 2-3
Imported Backfill Data
UMass Amherst LGRC Final Completion Report

Analysis	Result	RCS-1 Standard
PCBs (Method 8082)		
PCB 1016	<0.117	2
PCB-1221	<0.117	2
PCB-1232	<0.117	2
PCB-1242	<0.117	2
PCB-1248	<0.117	2
PCB-1254	<0.117	2
PCB-1260	<0.117	2
PCB 1262	<0.117	2
PCB 1268	<0.117	2
Volatile Organic Compounds (Method 8260)		
Acetone	<0.062	6
Acrylonitrile	<0.004	NE
tert-Amylmethyl Ether	<0.001	NE
Benzene	<0.002	2
Bromobenzene	<0.002	NE
Bromochloromethane	<0.002	NE
Bromodichloromethane	<0.002	0.1
Bromoform	<0.002	0
Bromomethane	<0.007	0.5
2-Butanone (MEK)	<0.025	NE
tert-Butyl Alcohol	<0.025	NE
n-Butylbenzene	<0.002	NE
sec-Butylbenzene	<0.002	NE
tert-Butylbenzene	<0.002	NE
tert-Butylethyl Ether	<0.001	NE
Carbon Disulfide	<0.004	NE
Carbon Tetrachloride	<0.002	5
Chlorobenzene	<0.002	1
Chlorodibromomethane	<0.001	NE
Chloroethane	<0.013	NE
Chloroform	<0.003	0.3
Chloromethane	<0.007	NE
2-Chlorotoluene	<0.002	NE
4-Chlorotoluene	<0.002	NE
1,2-Dibromo-3-Chloropropane	<0.007	NE
1,2-Dibromoethane	<0.001	NE
Dibromomethane	<0.002	NE
1,2-Dichlorobenzene	<0.002	9
1,3-Dichlorobenzene	<0.002	1
1,4-Dichlorobenzene	<0.002	0.7
trans-1,4-Dichloro-2-Butene	<0.003	NE
Dichlorodifluoromethane	<0.013	NE
1,1-Dichloroethane	<0.002	0.4
1,2-Dichloroethane	<0.002	0.1
1,1-Dichloroethylene	<0.003	3
cis-1,2-Dichloroethylene	<0.002	0.3
trans-1,2-Dichloroethylene	<0.002	1
1,2-Dichloropropane	<0.002	0.1
1,3-Dichloropropane	<0.001	0.01
2,2-Dichloropropane	<0.002	NE
1,1-Dichloropropene	<0.002	NE
cis-1,3-Dichloropropene	<0.002	NE
trans-1,3-Dichloropropene	<0.001	NE
Diethyl Ether	<0.013	NE
Diisopropyl Ether	<0.001	NE
1,4-Dioxane	<0.062	NE
Ethyl Benzene	<0.002	40
Hexachlorobutadiene	<0.002	NE

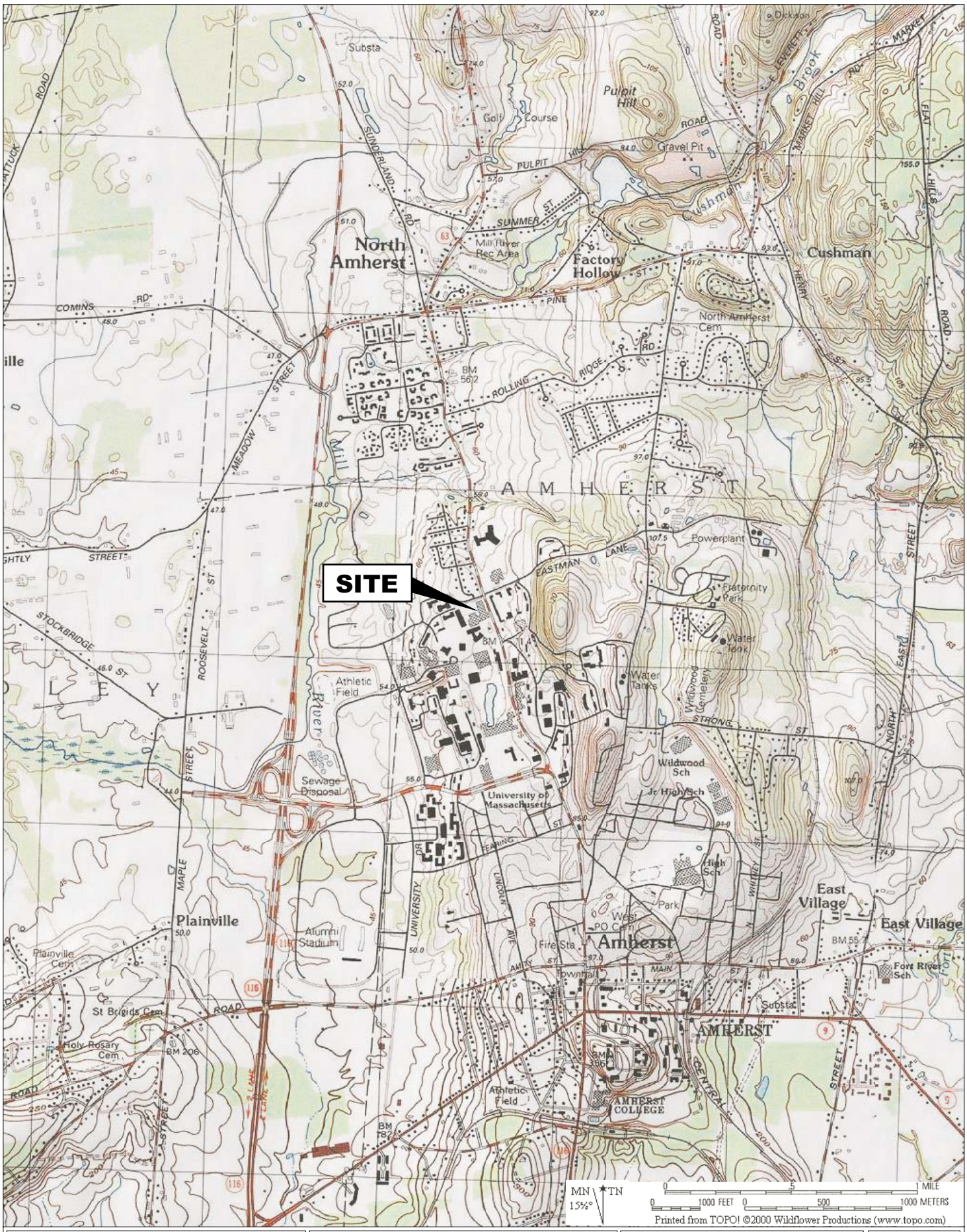
Table 2-3
Imported Backfill Data
UMass Amherst LGRC Final Completion Report

Analysis	Result	RCS-1 Standard
2-Hexanone	<0.013	NE
Isopropylbenzene	<0.002	NE
p-Isopropyltoluene	<0.002	NE
MTBE	<0.003	0.1
Methylene Chloride	<0.013	0.1
MIBK	<0.013	0.4
Naphthalene	<0.007	4
n-Propylbenzene	<0.002	NE
Styrene	<0.002	3
1,1,1,2-Tetrachloroethane	<0.002	0.1
1,1,2,2-Tetrachloroethane	<0.001	0.005
Tetrachloroethylene	<0.002	1
Tetrahydrofuran	<0.007	NE
Toluene	<0.002	30
1,2,3-Trichlorobenzene	<0.007	NE
1,2,4-Trichlorobenzene	<0.007	2
1,3,5-Trichlorobenzene	<0.002	NE
1,1,1-Trichloroethane	<0.002	30
1,1,2-Trichloroethane	<0.002	0.1
Trichloroethylene	<0.002	0.3
Trichlorofluoromethane	<0.007	NE
1,2,3-Trichloropropane	<0.002	NE
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.007	NE
1,2,4-Trimethylbenzene	<0.002	NE
1,3,5-Trimethylbenzene	<0.002	NE
Vinyl Chloride	<0.007	0.6
m + p Xylene	<0.003	300
o-Xylene	<0.002	300
Semivolatile Organic Compounds (Method 8270)		
Acenaphthene	<0.195	4
Acenaphthylene	<0.195	1
Acetophenone	<0.39	NE
Aniline	<0.39	NE
Anthracene	<0.195	1,000
Benzoic Acid	<1.17	NE
Benzo(a)anthracene	<0.195	7
Benzo(a)pyrene	<0.195	2
Benzo(b)fluoranthene	**0.233**	7
Benzo(g,h,i)perylene	<0.195	1,000
Benzo(k)fluoranthene	<0.195	70
Bis(2-chloroethoxy)methane	<0.39	NE
Bis(2-chloroethyl)ether	<0.39	0.7
Bis(2-chloroisopropyl)ether	<0.39	0.7
Bis(2-ethylhexyl)phthalate	<0.39	200
4-Bromophenyl phenyl ether	<0.39	NE
Butylbenzylphthalate	<0.78	NE
Carbazole	<0.20	NE
4-Chloroaniline	<0.78	1
4-Chloro-3-methylphenol	<0.78	NE
2-Chloronaphthalene	<0.39	NE
2-Chlorophenol	<0.39	0.7
4-Chlorophenylphenyl ether	<0.39	NE
Chrysene	**0.216**	NE
Dibenzofuran	<0.39	NE
Dibenz(a,h)anthracene	<0.195	0.7
1,2-Dichlorobenzene	<0.39	NE
1,3-Dichlorobenzene	<0.39	NE
1,4-Dichlorobenzene	<0.39	NE
3,3'-Dichlorobenzidine	<0.20	1

Table 2-3
Imported Backfill Data
UMass Amherst LGRC Final Completion Report

Analysis	Result	RCS-1 Standard
2,4-Dichlorophenol	<0.39	NE
Diethylphthalate	<0.39	10
2,4-Dimethylphenol	<0.39	0.7
Dimethylphthalate	<0.78	30
Di-n-butylphthalate	<0.39	NE
Di-n-octylphthalate	<0.78	NE
4,6-Dinitro-2-methylphenol	<0.39	NE
2,4-Dinitrophenol	<0.78	3
2,4-Dinitrotoluene	<0.39	0.7
2,6-Dinitrotoluene	<0.39	NE
1,2-Diphenylhydrazine	<0.39	NE
Fluoranthene	**0.278**	1,000
Fluorene	<0.195	1,000
Hexachlorobenzene	<0.39	0.7
Hexachlorobutadiene	<0.39	6
Hexachlorocyclopentadiene	<0.78	NE
Hexachloroethane	<0.39	0.7
Indeno(1,2,3-cd)pyrene	<0.195	NE
Isophorone	<0.39	NE
o-cresol	<0.39	NE
m & p-cresol(s)	<0.39	NE
2-Methylnaphthalene	<0.195	0.7
Naphthalene	<0.195	4
2-Nitroaniline	<0.39	NE
3-Nitroaniline	<0.39	NE
4-Nitroaniline	<0.39	NE
Nitrobenzene	<0.39	NE
2-Nitrophenol	<0.39	NE
4-Nitrophenol	<0.78	NE
N-Nitrosodiphenylamine	<0.39	NE
N-Nitroso-di-n-propylamine	<0.39	NE
Pentachloronitrobenzene	<0.39	NE
Pentachlorophenol	<0.39	3
Phenanthrene	<0.195	10
Phenol	<0.39	1
Pyrene	**0.310**	1,000
Pyridine	<0.20	NE
1,2,4,5-Tetrachlorobenzene	<0.39	NE
1,2,4-Trichlorobenzene	<0.39	2
2,4,5-Trichlorophenol	<0.39	4
2,4,6-Trichlorophenol	<0.39	0.7
RCRA-8 Metals		
Arsenic	**5.76**	20
Barium	**53.1**	1,000
Cadmium	**0.33**	2
Chromium	**13.2**	30
Lead	**52.4**	300
Mercury	**0.052**	20
Selenium	<5.83	400
Silver	**0.62**	100
Total Solids (%)	**85.8**	NE
Total Petroleum Hydrocarbons		
Unknown Hydrocarbons	**40**	1,000

Notes:
All results are presented in mg/kg dry weight unless otherwise indicated.
"NE" = No established criteria.
"RCS-1" = MassDEP Soil Reporting Category RCS-1.
"<" = Detected below the laboratory's minimum reporting limit as indicated.
A **bold** concentration indicates a detection above the laboratory's minimum reporting limit.



WOODARD & CURRAN
35 New England Business Center
Andover, MA 01810
COMMITMENT & INTEGRITY DRIVE RESULTS

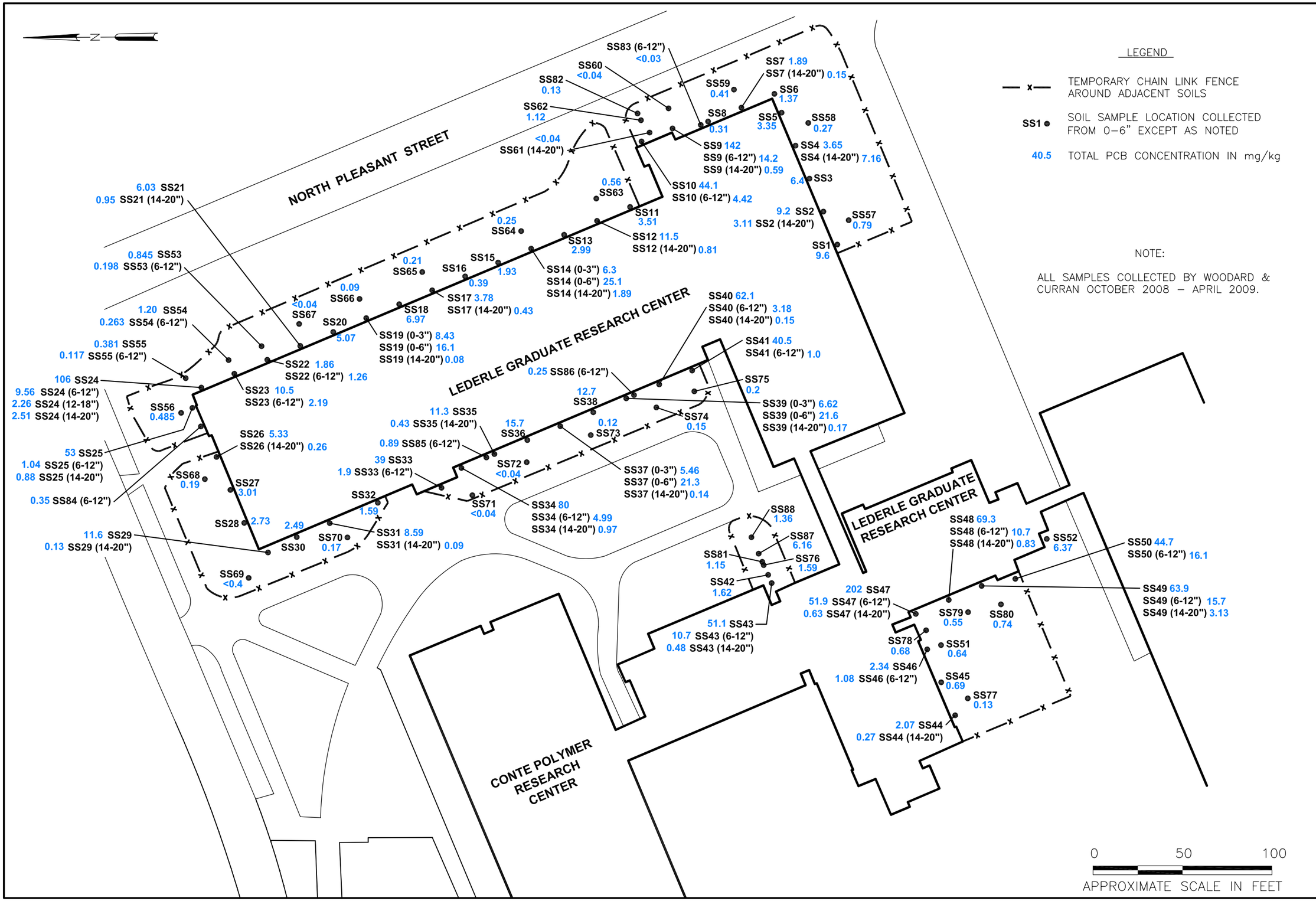
UMASS AMHERST
LEDERLE GRADUATE RESEARCH CENTER
AMHERST, MASSACHUSETTS

SCALE: AS NOTED	JOB NO.: 210918
DATE: FEBRUARY 2009	FILE: Figure 1-1.cnv

SITE LOCUS

DES.BY: EVR
DR.BY: EVR
CK.BY: AM

1-1



LEGEND

— x — TEMPORARY CHAIN LINK FENCE AROUND ADJACENT SOILS

SS1 ● SOIL SAMPLE LOCATION COLLECTED FROM 0–6" EXCEPT AS NOTED

40.5 TOTAL PCB CONCENTRATION IN mg/kg

NOTE:

ALL SAMPLES COLLECTED BY WOODARD & CURRAN OCTOBER 2008 – APRIL 2009.

35 NEW ENGLAND BUSINES CENTER
ANDOVER, MASSACHUSETTS 01810
866.702.6371 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WOODARD & CURRAN

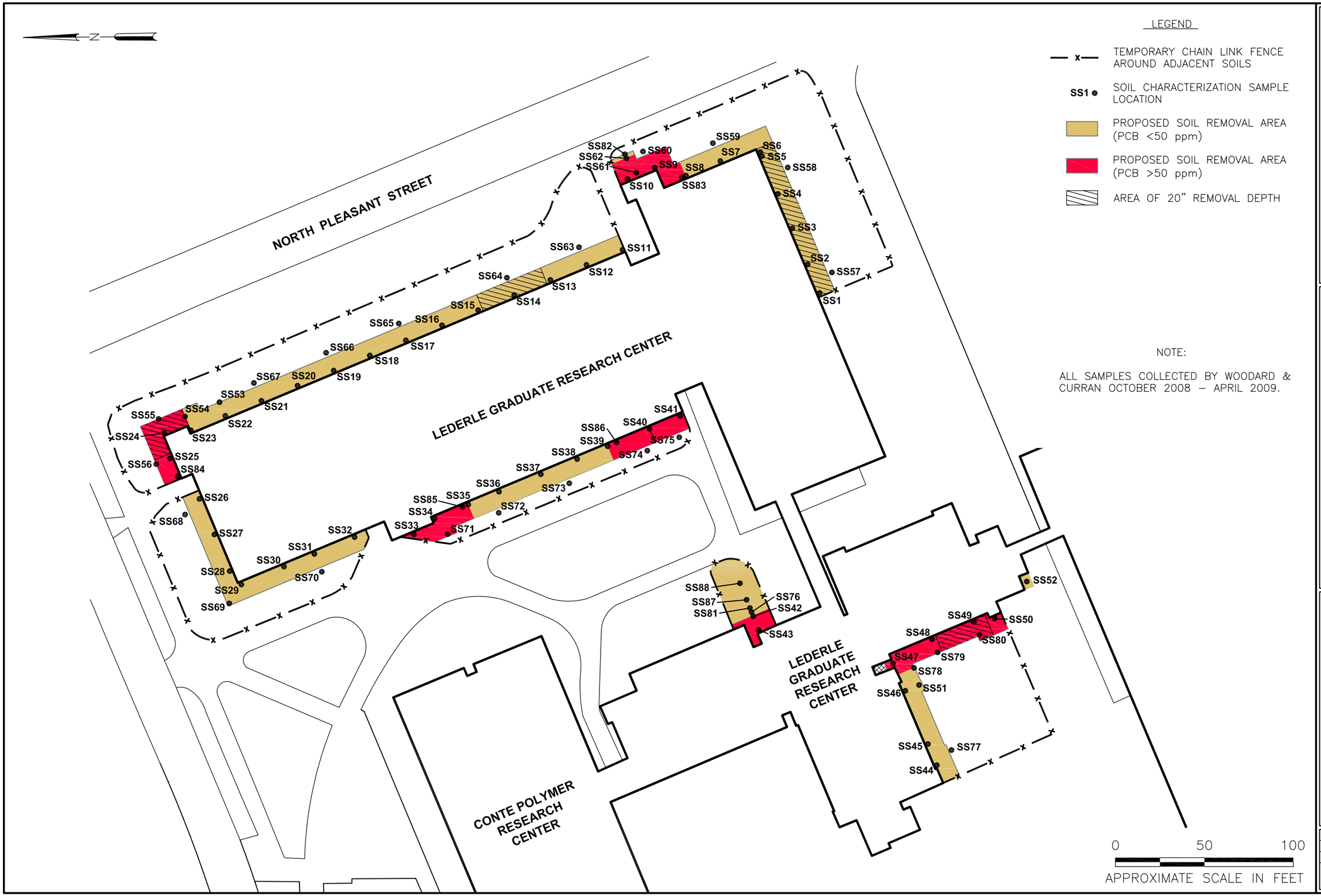
SOIL CHARACTERIZATION SAMPLE LOCATIONS

DESIGNED BY: ALW
DRAWN BY: EVR
CHECKED BY: JAH
Figure 2–1.dwg

UMASS AMHERST
LEDERLE GRADUATE RESEARCH CENTER

JOB NO: 210918
DATE: JUNE 2009
SCALE: AS NOTED

FIGURE 2-1



LEGEND

- TEMPORARY CHAIN LINK FENCE AROUND ADJACENT SOILS
- SS1 ● SOIL CHARACTERIZATION SAMPLE LOCATION
- PROPOSED SOIL REMOVAL AREA (PCB <50 ppm)
- PROPOSED SOIL REMOVAL AREA (PCB >50 ppm)
- AREA OF 20" REMOVAL DEPTH

NOTE:

ALL SAMPLES COLLECTED BY WOODARD & CURRAN OCTOBER 2008 – APRIL 2009.

35 NEW ENGLAND BUSINES CENTER
ANDOVER, MASSACHUSETTS 01810
866.702.6371 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WOODARD & CURRAN

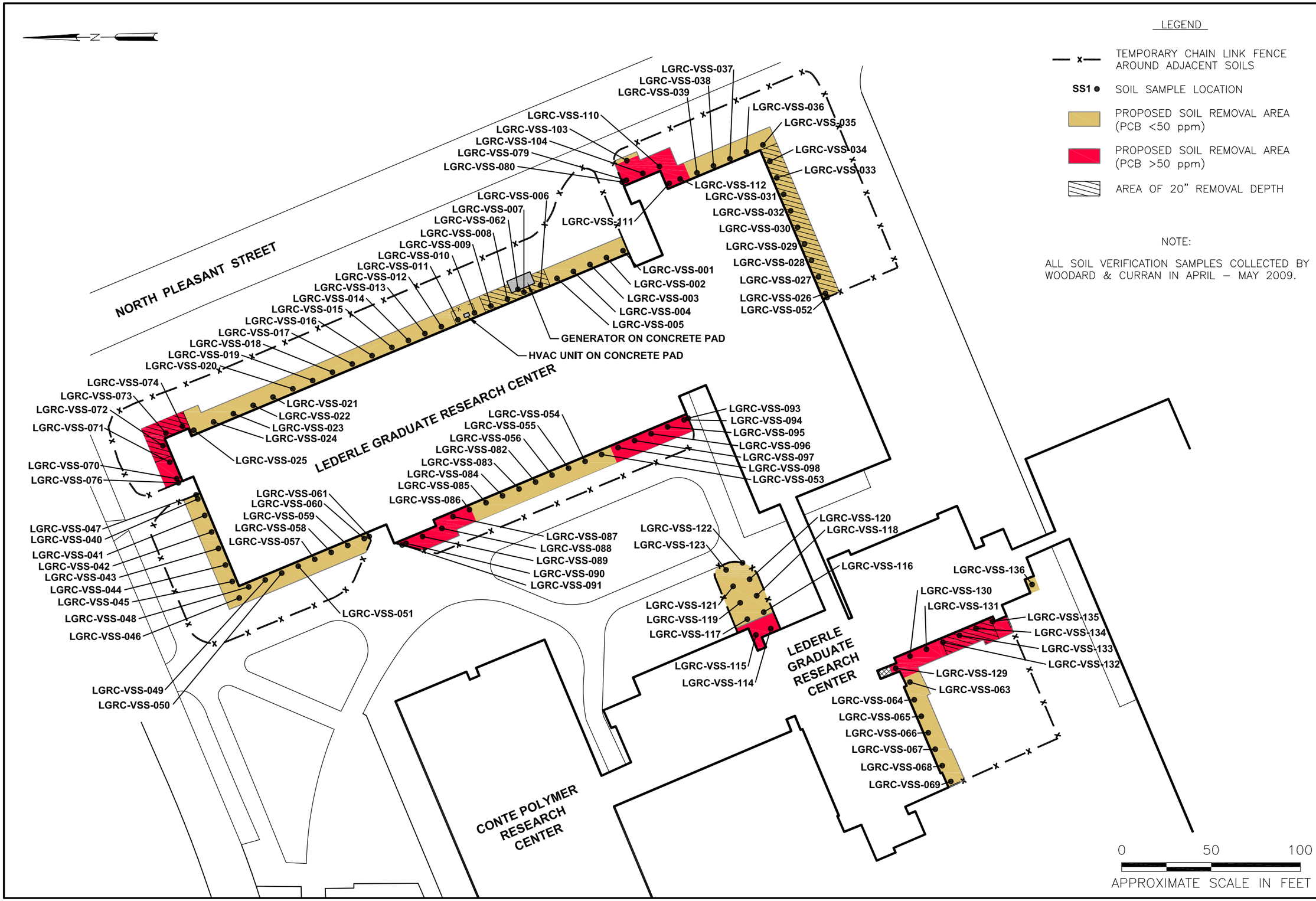
PROPOSED SOIL REMOVAL AREAS

DESIGNED BY: EVR
DRAWN BY: EVR
CHECKED BY: JAH
Figure 2–2.dwg

UMASS AMHERST
LEDERLE GRADUATE RESEARCH CENTER

JOB NO: 210918
DATE: JUNE 2009
SCALE: AS NOTED

FIGURE 2-2



35 NEW ENGLAND BUSINES CENTER
ANDOVER, MASSACHUSETTS 01810
866.702.6371 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WOODARD & CURRAN

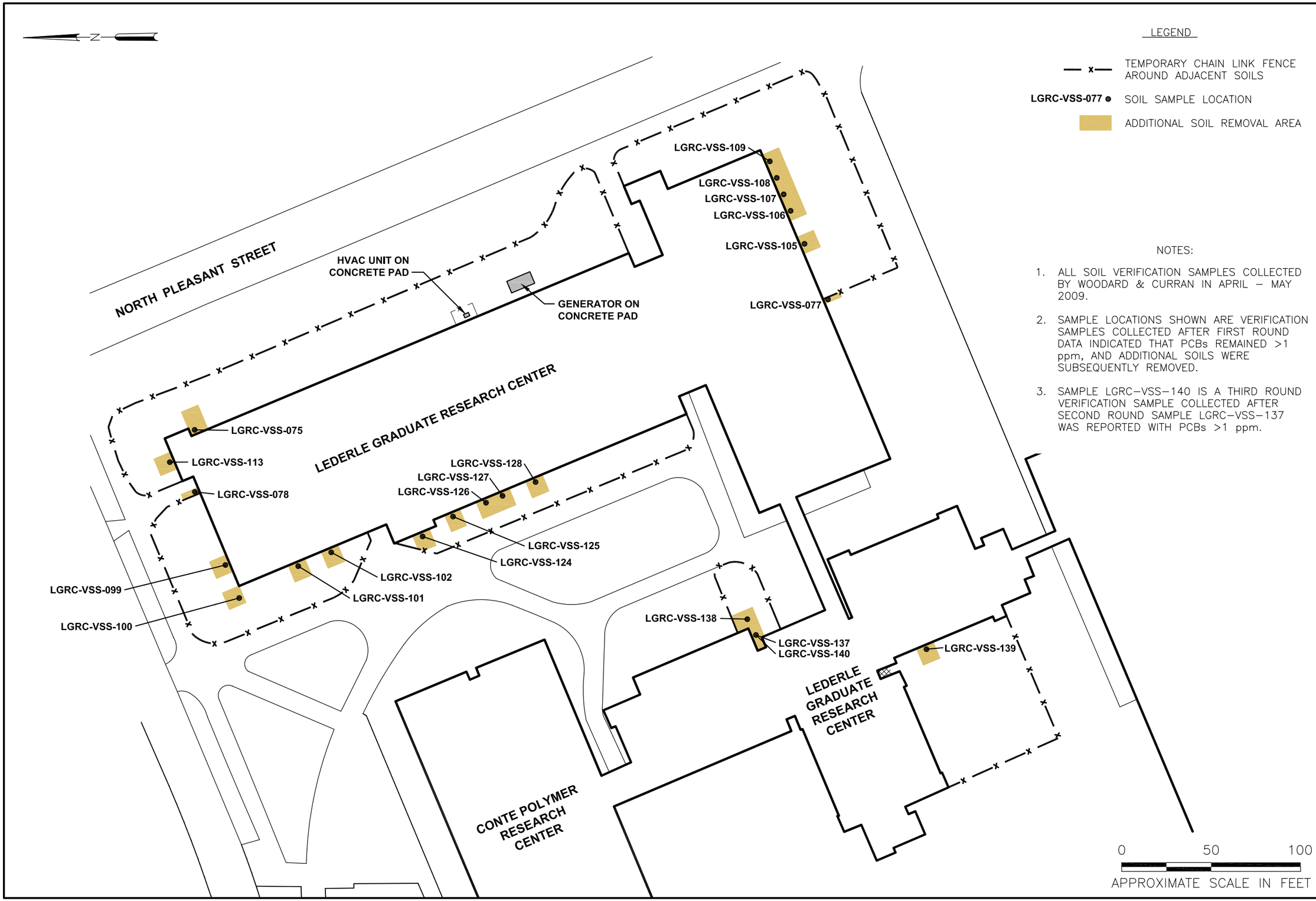
FIRST ROUND SOIL REMOVAL AND VERIFICATION SAMPLE LOCATIONS

DESIGNED BY: EVR
DRAWN BY:
CHECKED BY: JAH
Figure 2–3.dwg

UMASS AMHERST
LEDERLE GRADUATE RESEARCH CENTER

JOB NO: 210918
DATE: JUNE 2009
SCALE: AS NOTED

FIGURE 2-3



LEGEND

TEMPORARY CHAIN LINK FENCE AROUND ADJACENT SOILS

LGRC-VSS-077 ● SOIL SAMPLE LOCATION

ADDITIONAL SOIL REMOVAL AREA

NOTES:

1. ALL SOIL VERIFICATION SAMPLES COLLECTED BY WOODARD & CURRAN IN APRIL – MAY 2009.
2. SAMPLE LOCATIONS SHOWN ARE VERIFICATION SAMPLES COLLECTED AFTER FIRST ROUND DATA INDICATED THAT PCBs REMAINED >1 ppm, AND ADDITIONAL SOILS WERE SUBSEQUENTLY REMOVED.
3. SAMPLE LGRC–VSS–140 IS A THIRD ROUND VERIFICATION SAMPLE COLLECTED AFTER SECOND ROUND SAMPLE LGRC–VSS–137 WAS REPORTED WITH PCBs >1 ppm.

35 NEW ENGLAND BUSINES CENTER
ANDOVER, MASSACHUSETTS 01810
866.702.6371 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WOODARD & CURRAN

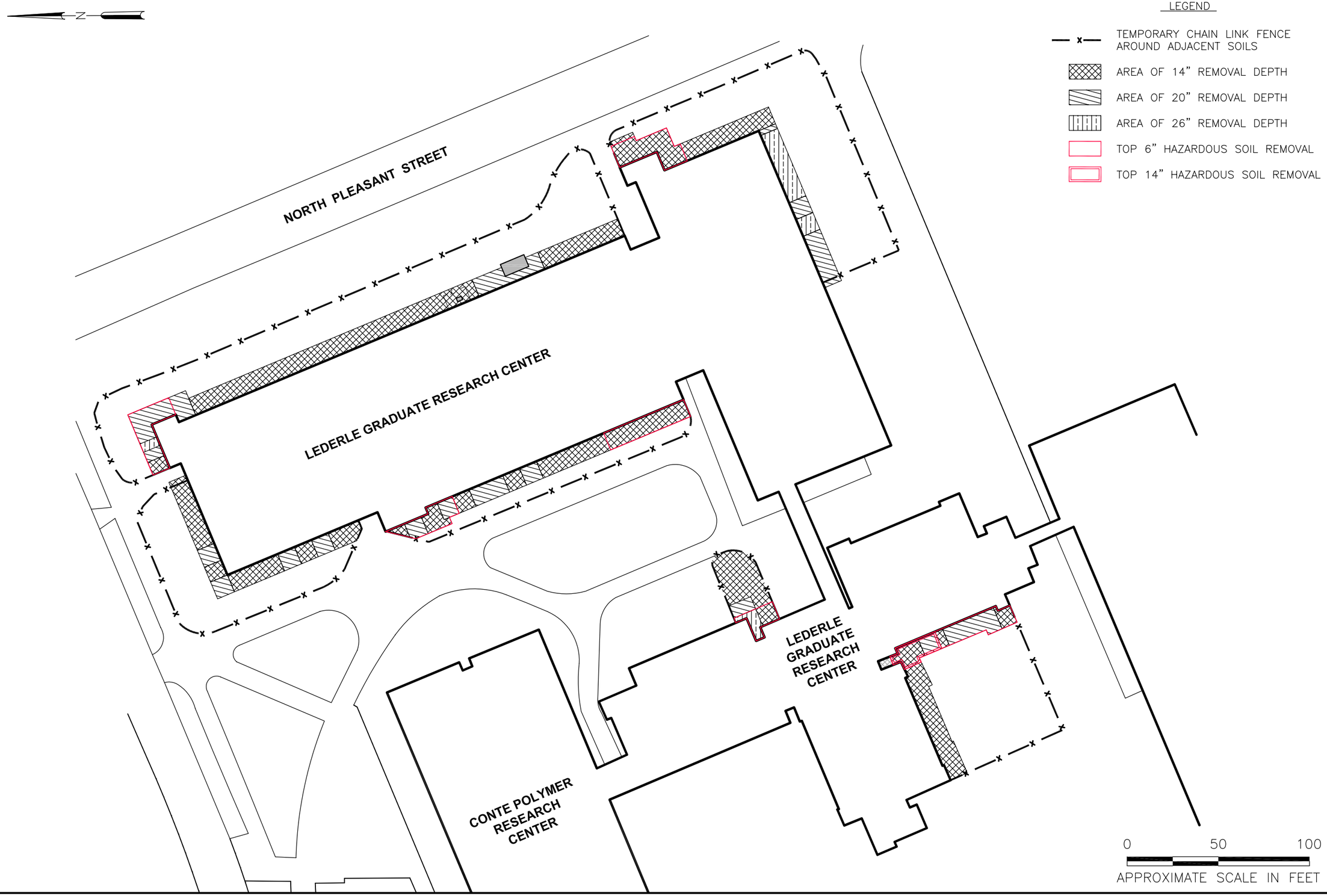
SECOND ROUND SOIL REMOVAL AND VERIFICATION SAMPLE LOCATIONS

DESIGNED BY: EVR
DRAWN BY:
CHECKED BY: JAH
Figure 2–4.dwg

UMASS AMHERST
LEDERLE GRADUATE RESEARCH CENTER

JOB NO: 210918
DATE: JUNE 2009
SCALE: AS NOTED

FIGURE 2-4



35 NEW ENGLAND BUSINES CENTER
ANDOVER, MASSACHUSETTS 01810
866.702.6371 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WOODARD & CURRAN

FINAL EXCAVATION AREAS

DESIGNED BY: ALW
DRAWN BY: EVR
CHECKED BY: JAH
Figure 2-5.dwg

UMASS AMHERST
LEDERLE GRADUATE RESEARCH CENTER

JOB NO: 210918
DATE: JUNE 2009
SCALE: AS NOTED

FIGURE 2-5

APPENDIX A: EPA APPROVAL, NOTICES, & CERTIFICATIONS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

MAR 25 2009

Donald A. Robinson, Ph.D.
Director of Environmental Health & Safety
Draper Hall Room 117
University of Massachusetts
40 Campus Center Way
Amherst, Massachusetts 01003-9244

Re: PCB Cleanup and Disposal Approval under 40 CFR §§ 761.61(a) and (c)
RTN: 1-16269

Dear Mr. Robinson:

This is in response to the Notification[1] by the University of Massachusetts (UMass) for a proposed PCB cleanup at the Lederle Graduate Research Center (LGRC) located at 710-740 Pleasant Street on the UMass campus, Amherst, Massachusetts (the Site). Specifically, PCB-contaminated soils that exceed the allowable PCB levels for unrestricted use under the federal PCB regulations at 40 CFR § 761.61(a) have been identified at the Site. The PCB contamination is associated with PCB caulk, which was abated under the *June 22, 2007 Alternative Decontamination Approval under 40 CFR §§ 761.61(a), 761.62, and 761.79(h)*.

In the Notification, UMass has submitted a proposed PCB cleanup plan under the self-implementing cleanup and disposal option (SIP) at 40 CFR § 761.61(a). Under the proposed plan, PCB-contaminated soil at greater than (>) 1 part per million will be excavated and disposed of off-site.

With the exception of the characterization and verification sampling requirements, UMass's proposal meets the SIP procedural and cleanup requirements at § 761.61(a). Given the Site history and source of PCB contamination, the characterization sampling procedures and results, and the proposed excavation procedures and verification sampling, EPA has determined the following:

1. The PCB-contaminated areas with > 1 ppm have been delineated for cleanup;

2. The PCB-contaminated soils with greater than or equal to (≥) 50 ppm PCBs have been adequately delineated from the less than (<) 50 ppm PCBs for off-site disposal; and,

[1] Information was submitted by Woodard & Curran on your behalf, and was provided to satisfy the notification requirements under 40 CFR § 761.61(a). Information was provided dated March 4, 2009; and, March 5, 2009, March 10, 2009, March 11, 2009, March 13, 2009, March 17, 2009, and March 23, 2009 (via e-mail). These submittals shall be referred to as the "Notification."

3. The proposed post-excavation sampling is sufficient to verify that the PCB cleanup standard of less than or equal to (≤) 1 ppm has been met.

EPA finds that the alternative characterization and verification sampling will result in no unreasonable risk to public health or the environment and EPA may approve the alternative sampling for *PCB remediation waste* under § 761.61(c). UMass may proceed with its self-implementing cleanup in accordance with §§ 761.61(a) and (c); its Notification; and, this Approval, subject to the conditions of Attachment 1.

This Approval does not release UMass from any applicable requirements of federal, state or local law, including the requirements by the Massachusetts Department of Environmental Protection under the Massachusetts Contingency Plan.

Correspondence or questions regarding this Approval should be directed to the following:

Kimberly N. Tisa, PCB Coordinator
United States Environmental Protection Agency
1 Congress Street, Suite 1100 - CPT
Boston, Massachusetts 02114-2023
Telephone: (617) 918-1527
Facsimile: (617) 918-0527

EPA shall not consider the activities authorized under this Approval to be complete until it has received all submittals required under this Approval.

Sincerely,

for James T. Owens, III, Director
Office of Site Remediation & Restoration

Attachment 1

cc: J. Hamel, Woodard & Curran
Mass DEP RTN: 1-16269
Amherst Health Department
File

ATTACHMENT 1: PCB APPROVAL CONDITIONS
TOWER A AND THE LOW-RISE BUILDING SOILS ("the Site")
LEDERLE GRADUATE RESEARCH CENTER (LGRC)
UNIVERSITY OF MASSACHUSETTS, AMHERST, MA

GENERAL CONDITIONS

1. This Approval is granted under the authority of Section 6(e) of the Toxic Substances Control Act (TSCA), 15 U.S.C. §2605(e), and the PCB regulations at 40 CFR Part 761, and applies solely to the *PCB remediation waste* identified in the Notification, specifically the exterior soils around Tower A and the Low Rise Building.

2. UMass shall conduct on-site activities in accordance with the conditions of this Approval and with the Notification.

3. This Approval may be revoked if the EPA does not receive written notification from UMass of its acceptance of the conditions of this Approval within 10 business days of receipt.

4. In the event that the cleanup plan described in the Notification differs from the conditions specified in this Approval, the conditions of this Approval shall govern.

5. The terms and abbreviations used herein shall have the meanings as defined in 40 CFR § 761.3 unless otherwise defined within this Approval.

6. UMass must comply with all applicable federal, state and local regulations in the storage, handling, and disposal of all PCB wastes, including PCBs, PCB Items and decontamination wastes generated under this Approval. In the event of a new spill during response actions, UMass shall contact EPA within 24 hours for direction on PCB cleanup and sampling requirements.

7. UMass is responsible for the actions of all officers, employees, agents, contractors, subcontractors, and others who are involved in activities conducted under this Approval. If at any time UMass has or receives information indicating that UMass or any other person has failed, or may have failed, to comply with any provision of this Approval, it must report the information to EPA in writing within 24 hours of having or receiving the information.

8. This Approval does not constitute a determination by EPA that the transporters or disposal facilities selected by UMass are authorized to conduct the activities set forth in the Notification. UMass is responsible for ensuring that its selected transporters and disposal facilities are authorized to conduct these activities in accordance with all applicable federal, state and local statutes and regulations.

9. UMass shall notify EPA in writing of the scheduled date of commencement of on-site activities at least 5 business days prior to conducting any work under this Approval.

10. This Approval does not: 1) waive or compromise EPA's enforcement and regulatory authority; 2) release UMass from compliance with any applicable requirements of federal, state or local law; or 3) release UMass from liability for, or otherwise resolve any violations of federal, state or local law.

CLEANUP and DISPOSAL CONDITIONS

11. Prior to initiating onsite work under this Approval, UMass shall submit the following information to EPA:

    a. A certification signed by its selected contractor, stating that the contractor(s) has read and understands the Notification, and agrees to abide by the conditions specified in this Approval; and,

    b. A certification signed by the selected analytical laboratory, stating that the laboratory has read and understands the extraction and analytical method requirements and the quality assurance requirements specified in the Notification and in this Approval.

12. The cleanup level for bulk *PCB remediation waste* (i.e. soil) at the Site shall be less than or equal to (≤) 1 part per million (ppm).

    a. *Bulk PCB remediation waste* samples shall be collected on a bulk basis (i.e. mg/Kg) and reported on a dry-weight basis. Verification sampling shall comply with the procedural requirements of Subpart O with a maximum 10-foot grid spacing interval as detailed by the March 23, 2009 submittal; samples shall be collected from both excavation bottoms and sidewalls, as applicable.

        (1) If bulk *PCB remediation* composite samples are collected, the following shall apply:

            (a) The composite shall be prepared using equal volumes of each grab sample in accordance with § 761.289(a); and,

            (b) The composite sample analytical results shall be adjusted by multiplying the composite analytical results by the number of grab samples comprising the composite. This adjusted result shall be used to determine the cleanup requirements for the bulk *PCB remediation waste.*

b. Chemical extraction for PCBs shall be conducted using Methods 3500B/3540C of SW-846 for solid matrices and Method 3500B/3510C of SW-846 for aqueous matrices; and, chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another method(s) is validated according to Subpart Q.

13. All PCB waste (regardless of concentration) generated as a result of the activities described in the Notification, excluding any decontaminated materials, shall be marked in accordance with § 761.40; stored in a manner prescribed in § 761.65; and, disposed of in accordance with 40 CFR § 761.61(a)(5), unless otherwise specified below:

    a. Non-liquid cleaning materials, such as PPE and similar materials resulting from decontamination, shall be disposed of in accordance with 40 CFR § 761.79(g)(6).

    b. Moveable equipment, tools, and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).

    c. PCB-contaminated water generated during decontamination or dewatering shall be decontaminated in accordance with 40 CFR § 761.79(b)(1) or disposed of under § 761.70.

INSPECTION, MODIFICATION AND REVOCATION CONDITIONS

14. UMass shall allow any authorized representative of the Administrator of the EPA to inspect the Site and to inspect records and take samples as may be necessary to determine compliance with the PCB regulations and this Approval. Any refusal by UMass to allow such an inspection (as authorized by Section 11 of TSCA) shall be grounds for revocation of this Approval.

15. Any proposed modification(s) in the plan, specifications, schedule, or information in the Notification must be submitted to EPA no less than 14 calendar days prior to the proposed implementation of the change. Such proposed modifications will be subject to the procedures of 40 CFR § 761.61(a)(3)(ii).

16. Any departure from the conditions of this Approval without prior, written authorization from the EPA may result in the revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.

17. Any misrepresentation or omission of any material fact in the Notification or in any records or reports may result in the EPA's revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.

RECORDKEEPING AND REPORTING CONDITIONS

18. UMass shall prepare and maintain all records and documents required by 40 CFR Part 761, including but not limited to the records required under Subparts J and K. A written record of the cleanup and the analytical sampling shall be established and maintained by UMass in one centralized location, until such time as EPA approves in writing a request for an alternative disposition of such records. All records shall be made available for inspection by authorized representatives of EPA.

19. UMass shall submit a final report to EPA within 60 days of completion of the PCB cleanup and disposal activities authorized under this Approval. At a minimum, this final report shall include: a short narrative of the activities; characterization and confirmation (verification) sampling analytical results (if applicable); copies of the accompanying analytical chains of custody; field and laboratory quality control/quality assurance checks; an estimate of the quantity of PCB waste disposed of and the size of the remediated area(s); copies of manifests and/or bills of lading; and, copies of certificates of disposal or similar certifications issued by the disposer.

20. Required submittals shall be mailed to:

    Kimberly N. Tisa, PCB Coordinator
    United States Environmental Protection Agency
    1 Congress Street, Suite 1100 - CPT
    Boston, Massachusetts 02114-2023
    Telephone: (617) 918-1527
    Facsimile: (617) 918-0527

21. No record, report or communication required under this Approval shall qualify as a self-audit or voluntary disclosure under EPA audit, self disclosure or penalty policies.

****

END OF ATTACHMENT 1

COMMITMENT & INTEGRITY
DRIVE RESULTS

35 New England Business Center
Suite 180
Andover, Massachusetts 01810
www.woodardcurran.com

T 866.702.6371
T 978.557.8150
F 978.557.7948

WOODARD
&CURRAN

April 7, 2009

Ms. Kimberly Tisa
PCB Coordinator
U.S. Environmental Protection Agency Region 1
1 Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

Re: Notification and Certifications
PCB Cleanup and Disposal Approval
under 40 CFR 761.61(a) and (c)
UMass LGRC Complex, Amherst, MA

Dear Ms. Tisa:

On behalf of the University of Massachusetts (UMass) and based on the U.S. Environmental Protection Agency's (EPA's) March 25, 2009 PCB Cleanup and Disposal Approval under 40 CFR 761.61 (a) and (c) ("the Approval") for the soil remediation to be conducted at the above-mentioned site, this letter provides a notification required in the Conditions to the above-mentioned Approval.

Pursuant to General Condition 3, UMass acknowledges receipt of the Approval and accepts the conditions of the Approval.

Pursuant to General Condition 9, on-site activities relating to the work described in the Application are tentatively scheduled to commence on or about the week of April 13, 2009.

Pursuant to Remedial and Disposal Condition 11a and 11b, the following are attached to this letter:

a. The signed certification by the selected contractors; and

b. The signed certification by the analytical laboratory.

Additional notifications, certifications, and submittals required by the Approval will be submitted upon completion and/or as required by the Approval Condition.

If you have any comments, questions, or require further information, please do not hesitate to e-mail or call me at the number listed above.

Sincerely,

WOODARD & CURRAN INC.

Jeffrey Hamel, LSP, LEP
Senior Vice President

Cc: Theresa Bechta (UMass)

Certification

Pursuant to EPA's March 25, 2009 PCB Cleanup and Disposal Approval under 40 CFR 761.61 (a) and (c) Remedial and Disposal Condition 11a, the required written certification, signed by the selected contractors performing the work is set forth below.

We have read and understand the Notification, as defined in EPA's March 25, 2009 Approval, and agree to abide by the conditions specified in EPA's March 25, 2009 PCB Cleanup and Disposal Approval under 40 CFR 761.61 (a) and (c).

Bruce A. Sullivan

Authorized Signature

4-7-09

Date

BRUCE A. SULLIVAN

Name of Authorized representative (print)

FIELD SERVICE MANAGER

Title

TRIUMVIRATE ENVIRONMENTAL INC.

Company

Jeffrey Hamel

Authorized Signature

4-7-09

Date

JEFFREY HAMEL

Name of Authorized representative (print)

Senior Vice President

Title

WOODARD & CURRAN, INC.

Company

Certification

Pursuant to EPA's March 25, 2009 PCB Cleanup and Disposal Approval under 40 CFR 761.61 (a) and (c) Remedial and Disposal Condition 11b, the required written certification, signed by the selected analytical laboratory performing the work is set forth below.

We have read and understand the extraction and analytical method requirements and the quality assurance requirements in the Notification, as defined in EPA's March 25, 2009 Approval, and agree to abide by the conditions specified in EPA's March 25, 2009 PCB Cleanup and Disposal Approval under 40 CFR 761.61 (a) and (c).

Authorized Signature

4/6/2009

Date

Stephen L. Knollmeyer

Name of Authorized representative (print)

Manager

Title

Analytics Env. Lab., LLC

Company

APPENDIX B: LABORATORY DATA

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

April 24, 2009

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

RE: Analytical Results Case Narrative
Analytics # 63629
UMASS LGRC Proj# 210918

Dear Mr. Franklin;

Enclosed please find the analytical results for samples submitted for the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed Polychlorinated Biphenyls (PCBs) by EPA Method 8082.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II data package has been assembled in the following order:

Case Narrative/Non-Conformance Summary
Sample Log Sheet - Cover Page
PCB Form 1 Data Sheet for Samples and Blanks
Chromatograms
PCB Form 10 Confirmation Results
PCB Form 3 MS/MSD (LCS) Recoveries
Chain of Custody (COC) Forms

QC NON CONFORMANCE SUMMARY

Sample Receipt:
No exceptions.

PCBs by EPA Method 8082:
Samples 63629-2 and 63629-21 had percent difference between the two columns >40%. Sample 63629-21 had the lower value reported due to interferences on column #1. Both samples were reported with a "P" flag and a comment to this affect.

Sample 63629-19 had high Decachlorobiphenyl (DCB) surrogate recovery on column #1. Column #2 was in control for all surrogates. Results were reported without qualification.

The MS/MSD analyzed on sample 63629-1(LGRC-SS81-119) did not meet acceptance criteria for PCB 1260 and PCB 1016 on column #2 due to concentrations of PCB 1254 in the parent sample. The laboratory control samples (L04169PSOX/LD04169PSOX) were in control for all analytes. Results were reported without qualification.

Sincerely,
ANALYTICS Environmental Laboratory, LLC

Stephen Knollmeyer
Laboratory Director

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63629

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 16 April 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63629-1	04/13/09	LGRC-SS81-119	EPA 8082 (PCBs only)	
63629-2	04/13/09	LGRC-SS82-120	EPA 8082 (PCBs only)	
63629-3	04/15/09	LGRC-VSS-001	EPA 8082 (PCBs only)	
63629-4	04/15/09	LGRC-VSS-002	EPA 8082 (PCBs only)	
63629-5	04/15/09	LGRC-VSS-003	EPA 8082 (PCBs only)	
63629-6	04/15/09	LGRC-VSS-004	EPA 8082 (PCBs only)	
63629-7	04/15/09	LGRC-VSS-005	EPA 8082 (PCBs only)	
63629-8	04/15/09	LGRC-VSS-008	EPA 8082 (PCBs only)	
63629-9	04/15/09	LGRC-VSS-009	EPA 8082 (PCBs only)	
63629-10	04/15/09	LGRC-VSS-010	EPA 8082 (PCBs only)	
63629-11	04/15/09	LGRC-VSS-011	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 4/22/2009

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63629

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 16 April 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63629-12	04/15/09	LGRC-VSS-012	EPA 8082 (PCBs only)	
63629-13	04/15/09	LGRC-VSS-013	EPA 8082 (PCBs only)	
63629-14	04/15/09	LGRC-VSS-014	EPA 8082 (PCBs only)	
63629-15	04/15/09	LGRC-VSS-015	EPA 8082 (PCBs only)	
63629-16	04/16/09	LGRC-VSS-901	EPA 8082 (PCBs only)	
63629-17	04/16/09	LGRC-VSS-016	EPA 8082 (PCBs only)	
63629-18	04/16/09	LGRC-VSS-501	EPA 8082 (PCBs only)	
63629-19	04/16/09	LGRC-VSS-017	EPA 8082 (PCBs only)	
63629-20	04/16/09	LGRC-VSS-018	EPA 8082 (PCBs only)	
63629-21	04/16/09	LGRC-VSS-019	EPA 8082 (PCBs only)	
63629-22	04/16/09	LGRC-VSS-020	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 4/22/2009

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-130	70-130	EPA 8260B
Toluene-d8	70-130	70-130	
Bromofluorobenzene	70-130	70-130	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	EPA 624/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA0	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH

Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-130	70-130	EPA 8260B
Toluene-d8	70-130	70-130	
Bromofluorobenzene	70-130	70-130	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	EPA 624/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA0	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH

PCB
DATA SUMMARIES

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 22, 2009

SAMPLE DATA

Lab Sample ID: B04169PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/16/09
Analysis Date: 04/20/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	62	%
Decachlorobiphenyl	125	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

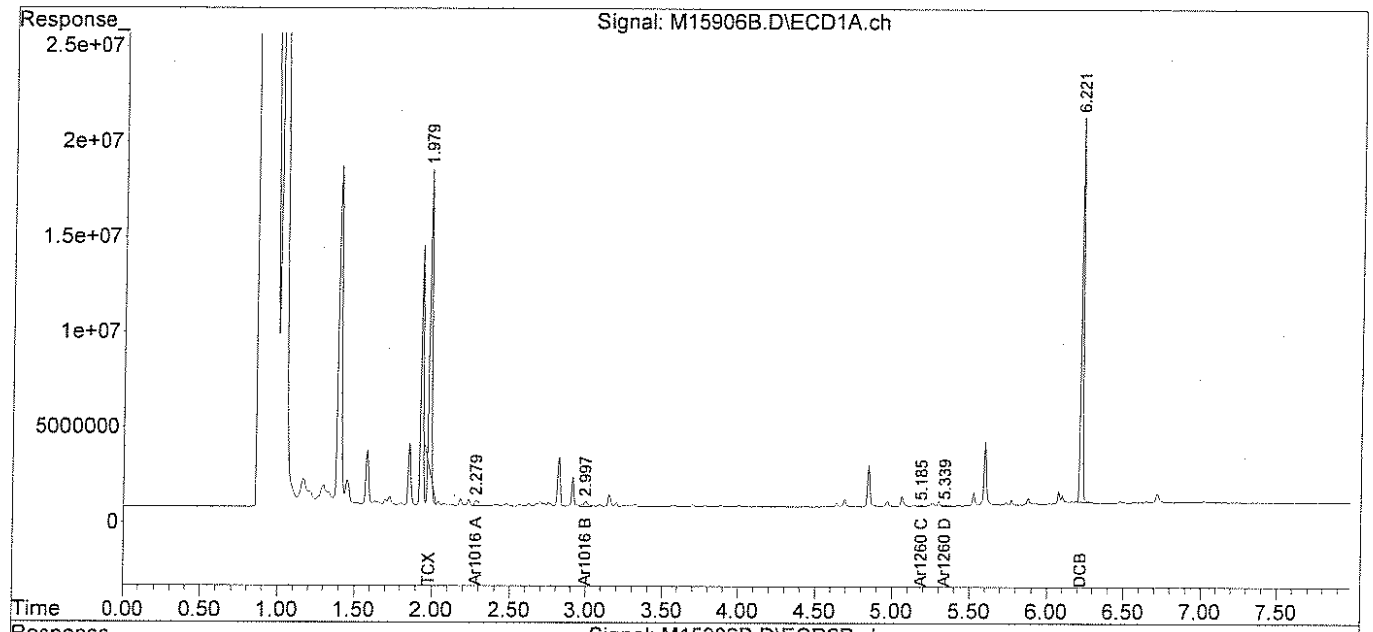
Authorized signature

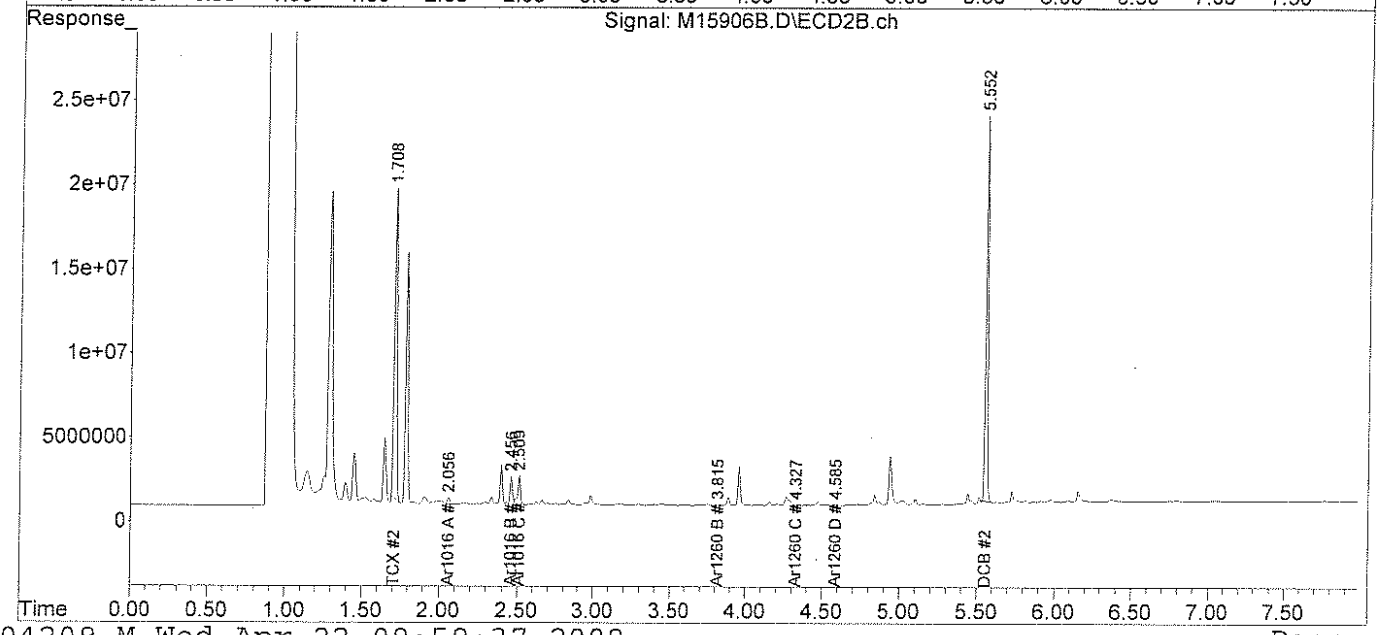
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15906B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 3:48 pm
Operator :
Sample : B04169PSOX,,A/C
Misc : SOIL
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 22 09:59:37 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:38 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 23, 2009

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: UMASS-LGRC

Project Number: 210918

Field Sample ID: Lab QC

Lab Sample ID: B04179PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/17/09
Analysis Date: 04/22/09

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	96	%
Decachlorobiphenyl	104	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

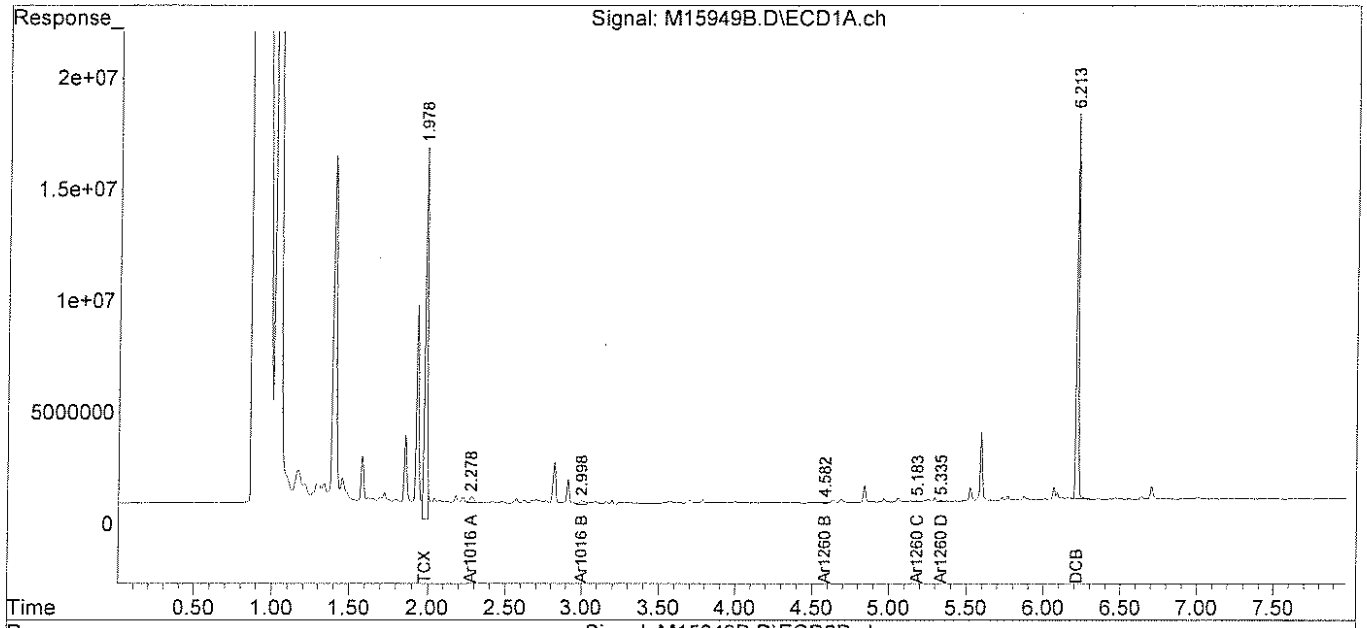
Authorized signature

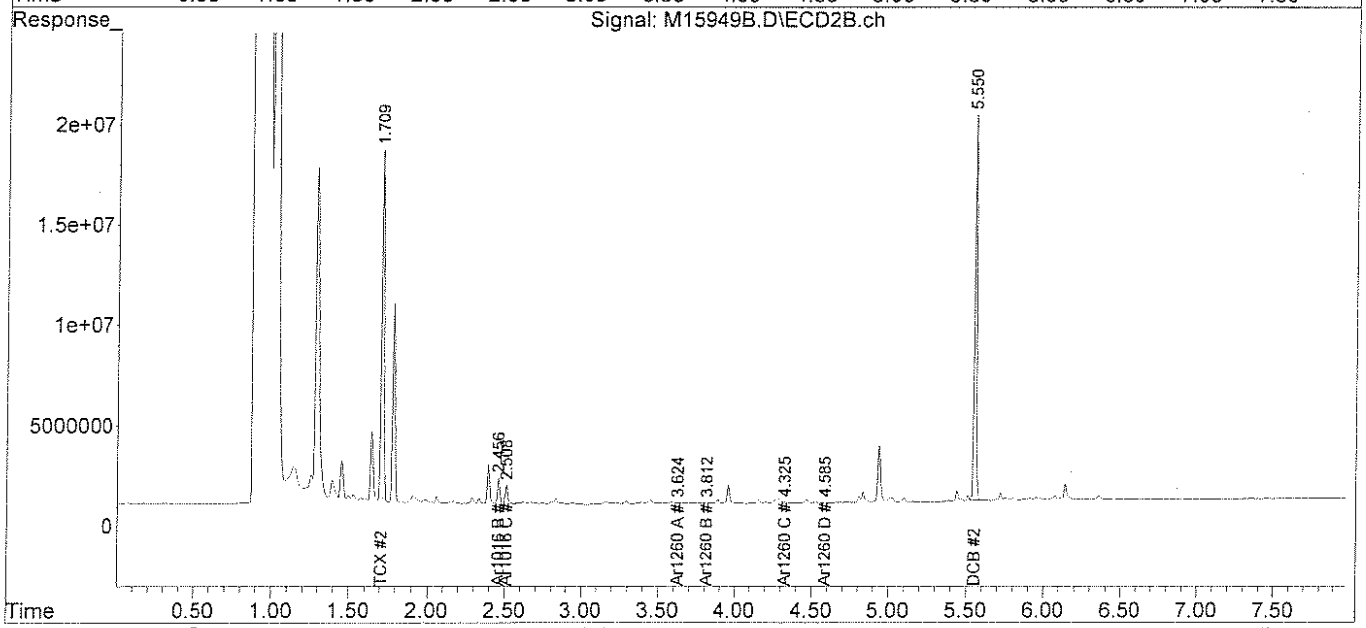
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M15949B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Apr 2009 10:26 am
Operator :
Sample : B04179PSOX,,A/C
Misc : SOIL
ALS Vial : 48 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 22 14:19:13 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:38 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID: B04219PW
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/21/09
Analysis Date: 04/23/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/L	Results µg/L
PCB-1016	0.2	U
PCB-1221	0.2	U
PCB-1232	0.2	U
PCB-1242	0.2	U
PCB-1248	0.2	U
PCB-1254	0.2	U
PCB-1260	0.2	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	75	%
Decachlorobiphenyl	73	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS:

PCB Report

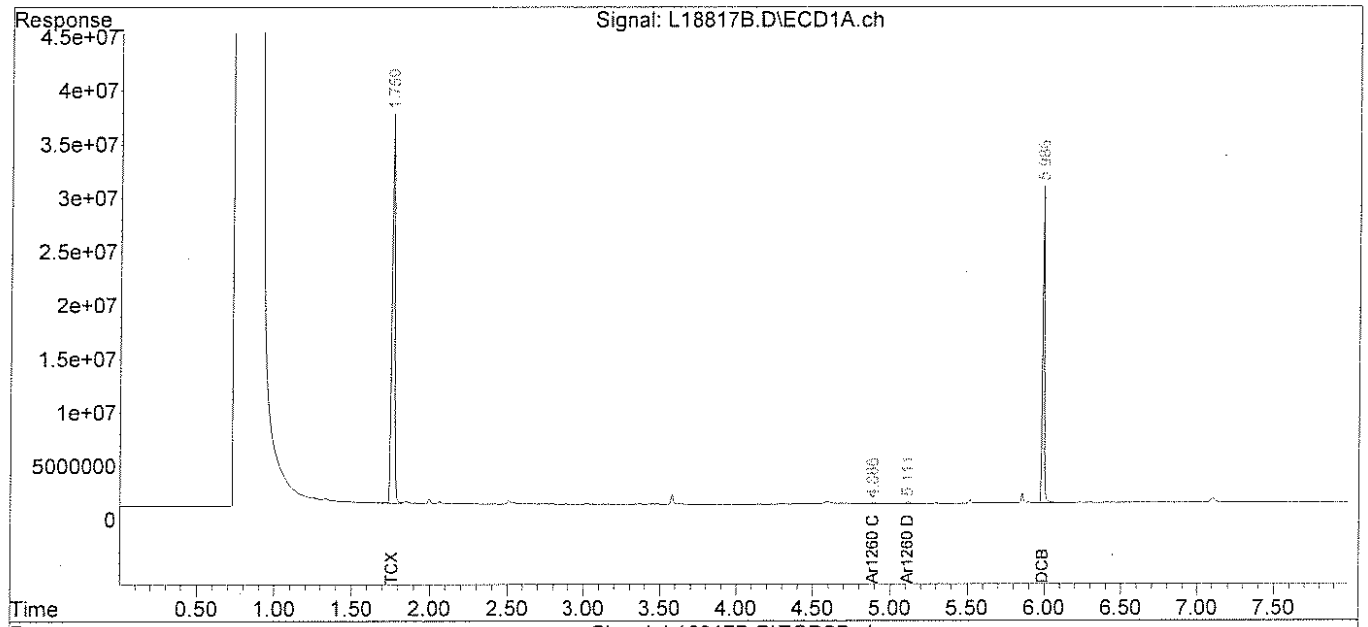
Authorized signature

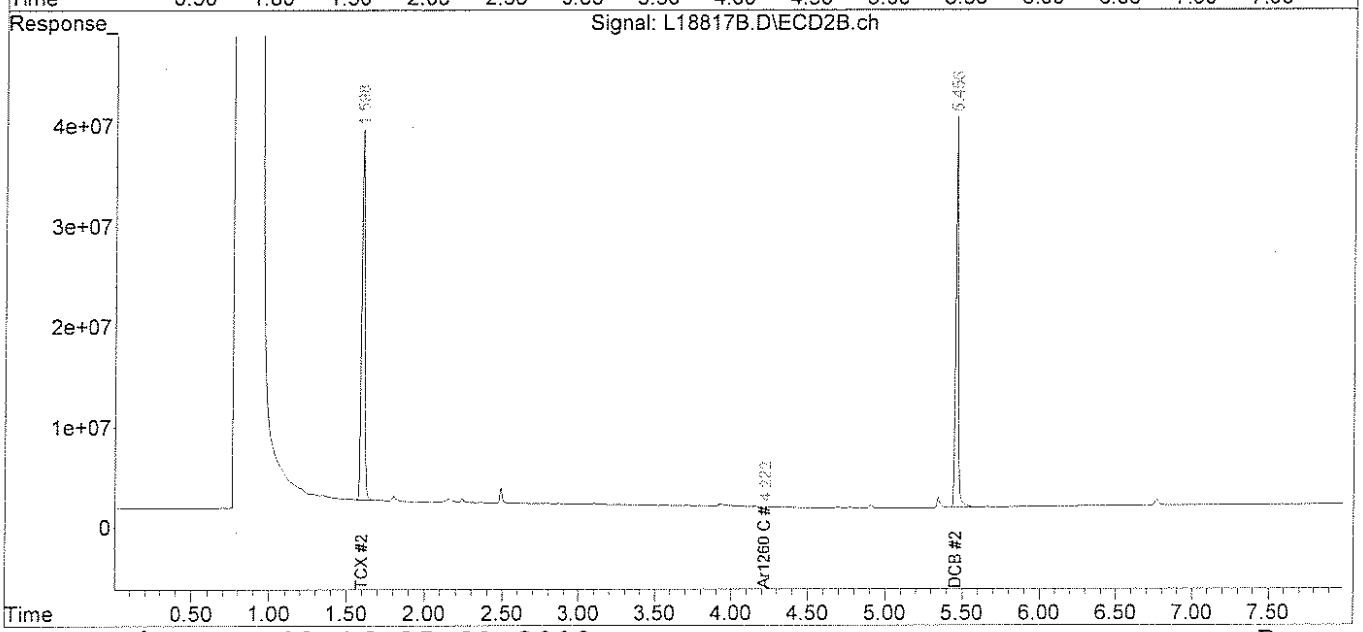
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042209-L\
Data File : L18817B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 23 Apr 09 12:11 am
Operator :
Sample : B04219PW
Misc :
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: PCBINT.E
Integration File signal 2: PCBINT2.E
Quant Time: Apr 23 16:25:01 2009
Quant Method : C:\msdchem\1\METHODS\PB04229.M
Quant Title : Aroclor 1016/1260
QLast Update : Thu Apr 23 16:07:53 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 3 ul
Signal #1 Phase : DB-1701 Widebore Signal #2 Phase: DB-5 Widebore
Signal #1 Info : 0.53 mm , 1.0um f Signal #2 Info : 0.53 mm, 1.5um film





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 22, 2009

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: UMASS-LGRC

Project Number: 210918

Field Sample ID: LGRC-SS81-119

Lab Sample ID: 63629-1
Matrix: Solid
Percent Solid: 80
Dilution Factor: 1.2
Collection Date: 04/13/09
Lab Receipt Date: 04/16/09
Extraction Date: 04/16/09
Analysis Date: 04/20/09

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	40	U
PCB-1221	40	U
PCB-1232	40	U
PCB-1242	40	U
PCB-1248	40	U
PCB-1254	40	**1150**
PCB-1260	40	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	96	%
Decachlorobiphenyl	116	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Sample: 63629-1,,A/C

Data File: M15909.D

Dilution Factor: 1.2

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	1137	1154	1.4	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

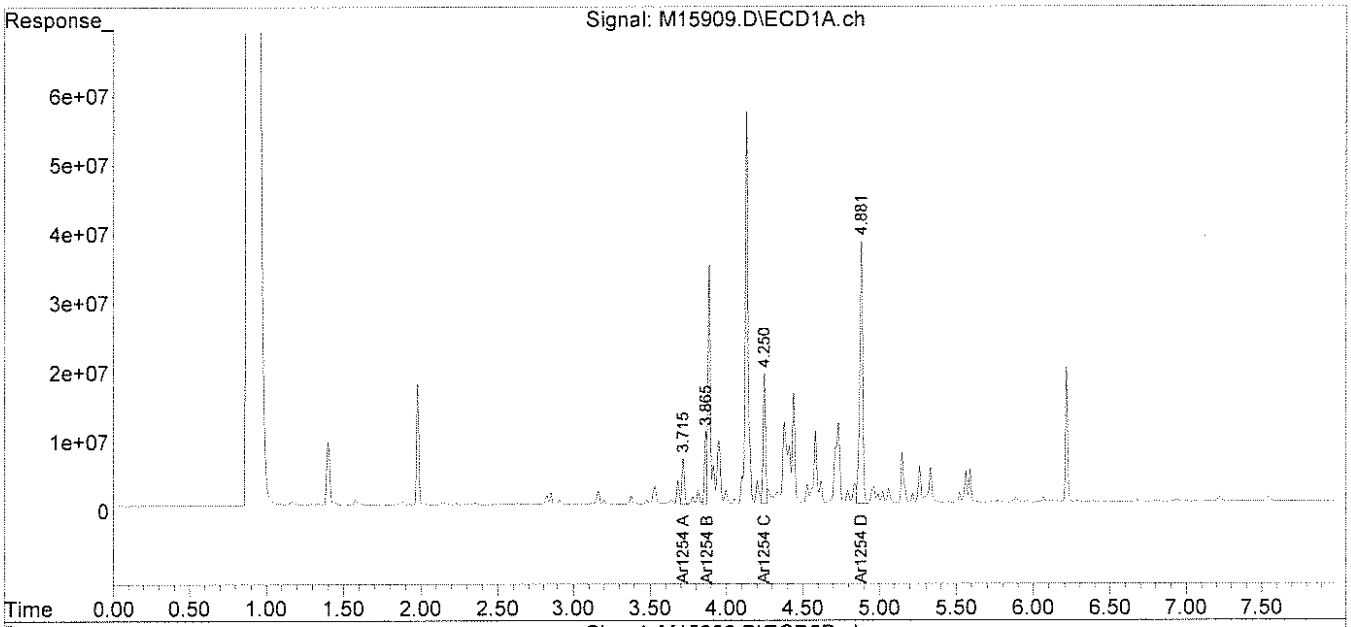
PCB FORM 10

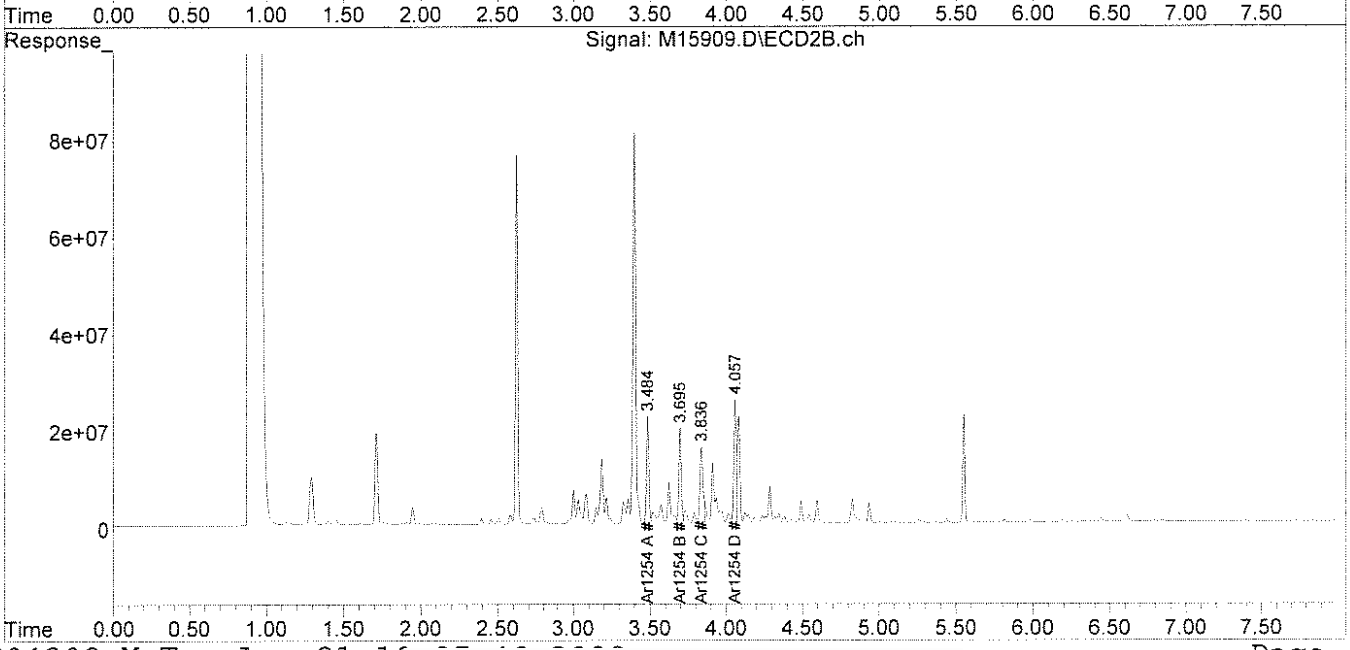
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15909.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 4:18 pm
Operator :
Sample : 63629-1,,A/C
Misc : SOIL
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 21 10:27:35 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 22, 2009

SAMPLE DATA

Lab Sample ID:	63629-2
Matrix:	Solid
Percent Solid:	69
Dilution Factor:	1.4
Collection Date:	04/13/09
Lab Receipt Date:	04/16/09
Extraction Date:	04/16/09
Analysis Date:	04/20/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-SS82-120

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	46	U
PCB-1221	46	U
PCB-1232	46	U
PCB-1242	46	U
PCB-1248	46	U
PCB-1254	46	**131 P**
PCB-1260	46	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	90	%
Decachlorobiphenyl	106	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis. P=Sample did not meet confirmation acceptance criteria for percent difference.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Sample: 63629-2,,A/C

Data File: M15912.D

Dilution Factor: 1.4

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	77	131	51.6	*

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

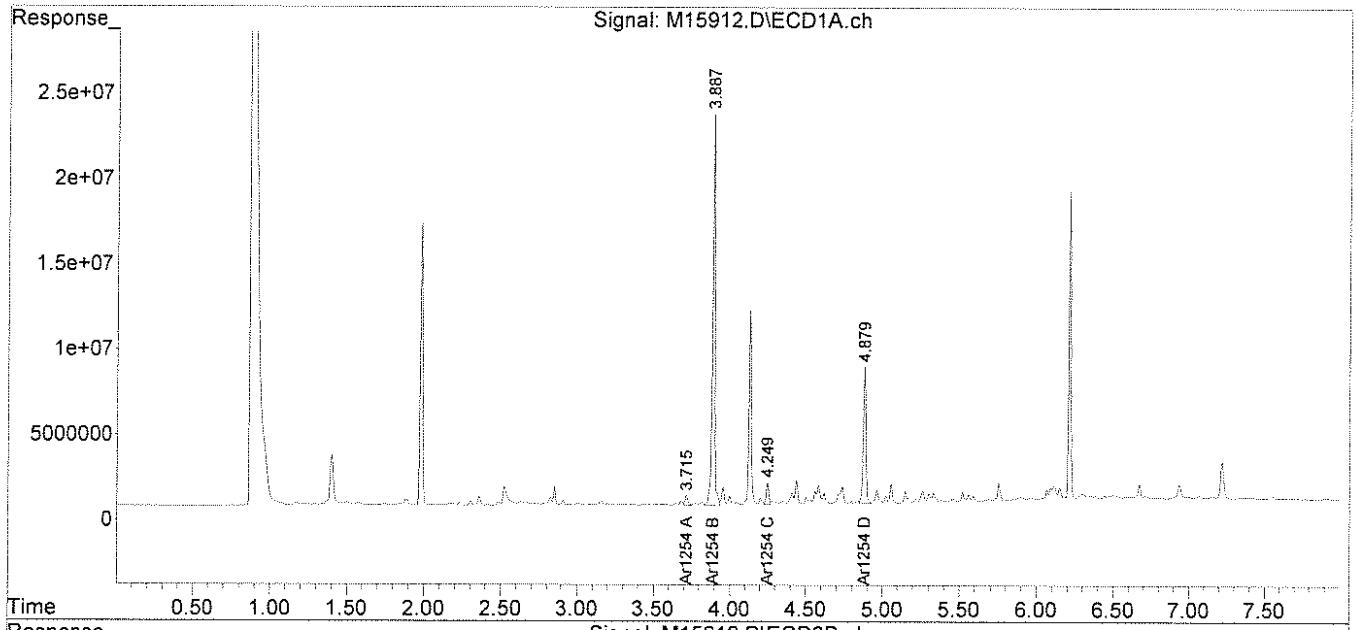
PCB FORM 10

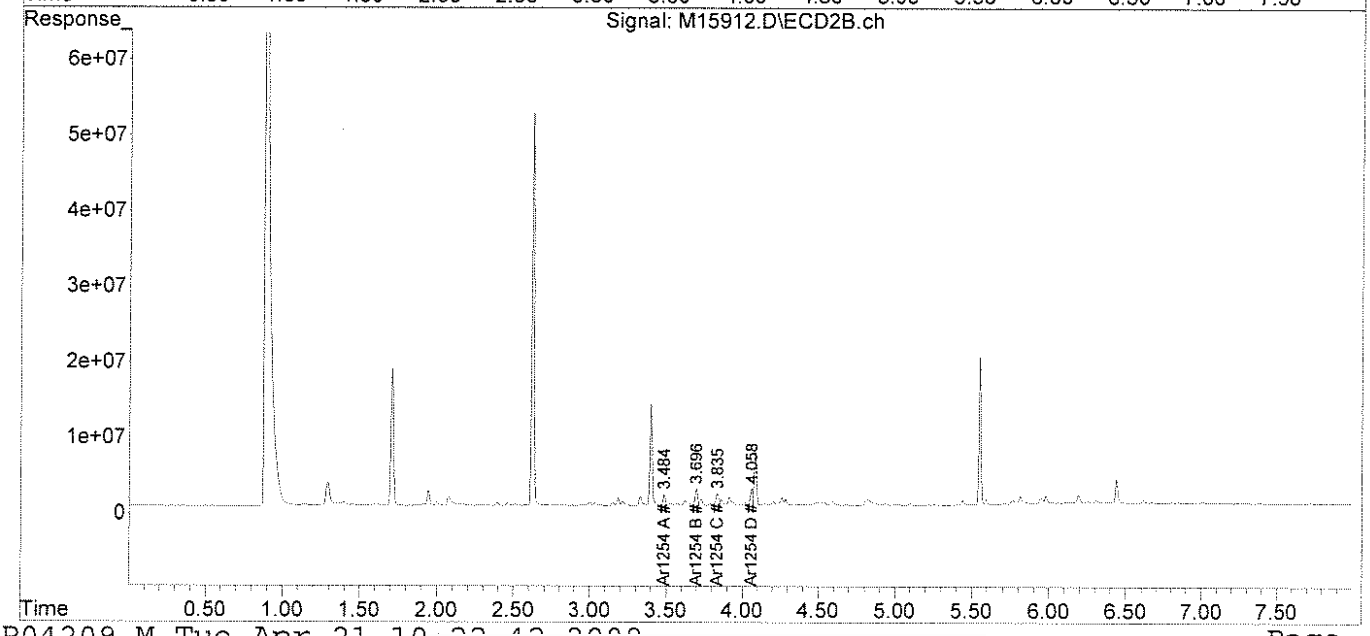
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15912.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 4:48 pm
Operator :
Sample : 63629-2,,A/C
Misc : SOIL
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 21 10:22:42 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 22, 2009

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: UMASS-LGRC

Project Number: 210918

Field Sample ID: LGRC-VSS-001

Lab Sample ID: 63629-3
Matrix: Solid
Percent Solid: 96
Dilution Factor: 1.0
Collection Date: 04/15/09
Lab Receipt Date: 04/16/09
Extraction Date: 04/16/09
Analysis Date: 04/20/09

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**107**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	87	%
Decachlorobiphenyl	105	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Sample: 63629-3,,A/C

Data File: M15913.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	96	107	10.7	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

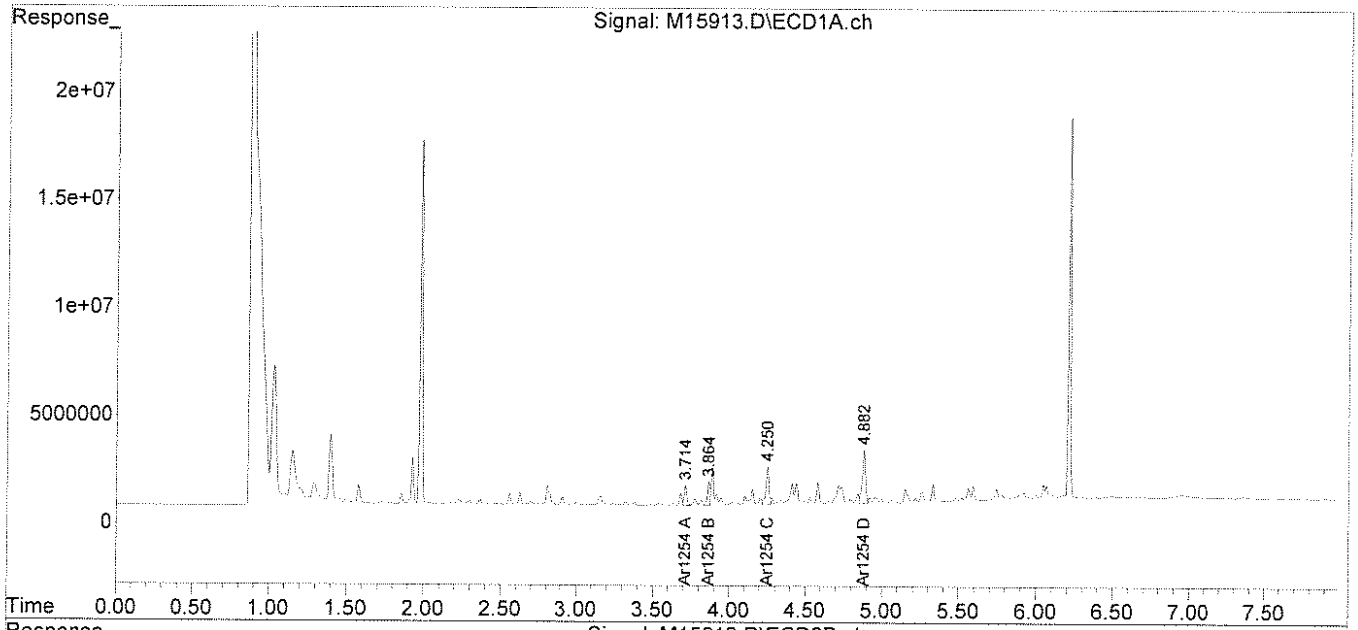
PCB FORM 10

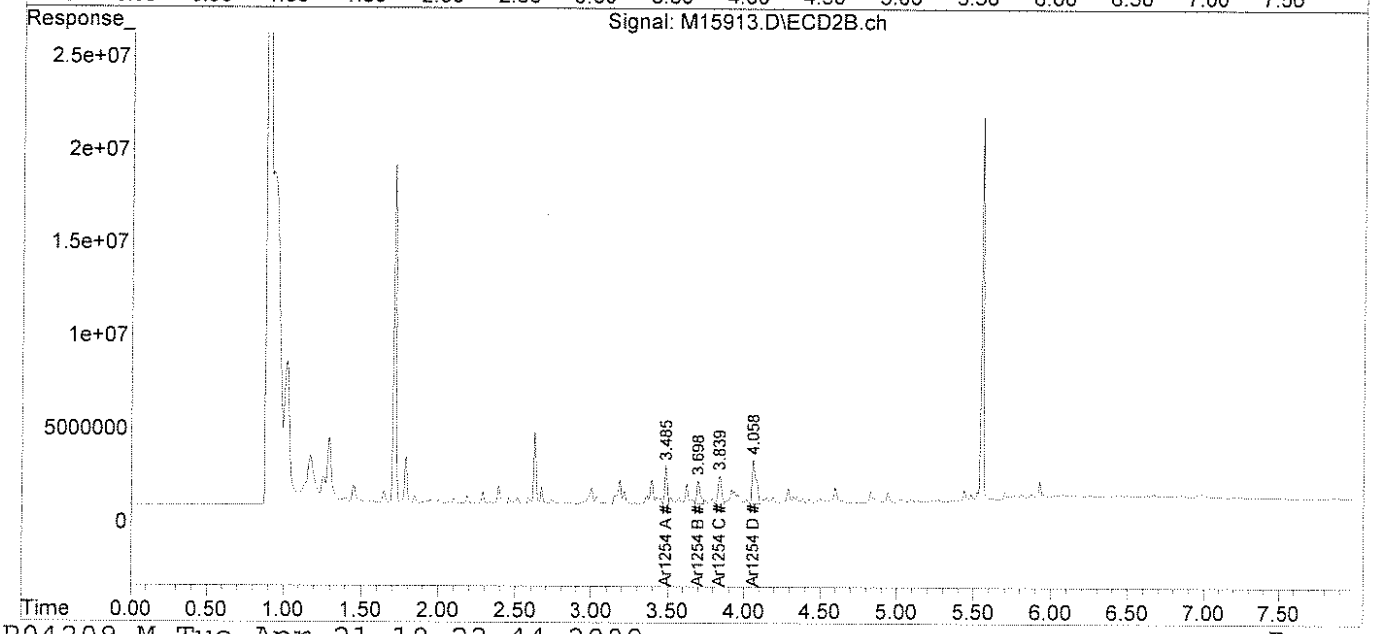
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15913.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 4:58 pm
Operator :
Sample : 63629-3,,A/C
Misc : SOIL
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 21 10:22:44 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 22, 2009

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: UMASS-LGRC

Project Number: 210918

Field Sample ID: LGRC-VSS-002

Lab Sample ID: 63629-4
Matrix: Solid
Percent Solid: 95
Dilution Factor: 1.0
Collection Date: 04/15/09
Lab Receipt Date: 04/16/09
Extraction Date: 04/16/09
Analysis Date: 04/20/09

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**257**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	95	%
Decachlorobiphenyl	111	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Sample: 63629-4,,A/C

Data File: M15914.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	257	246	4.2	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

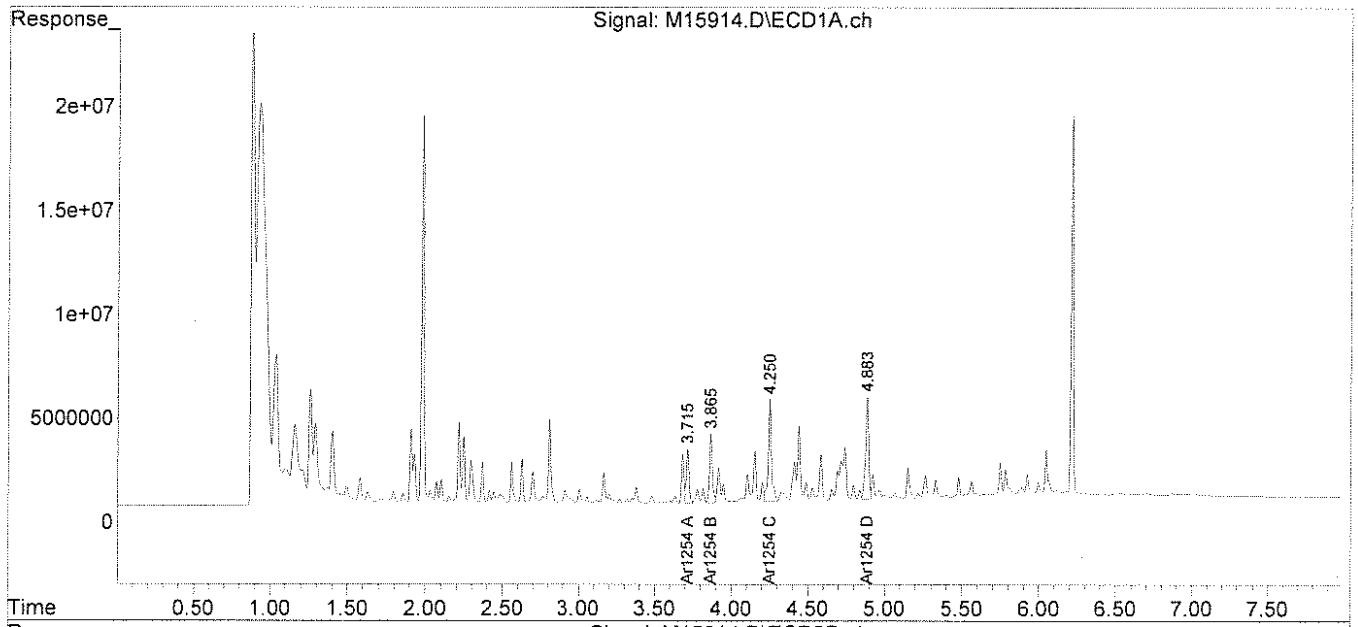
PCB FORM 10

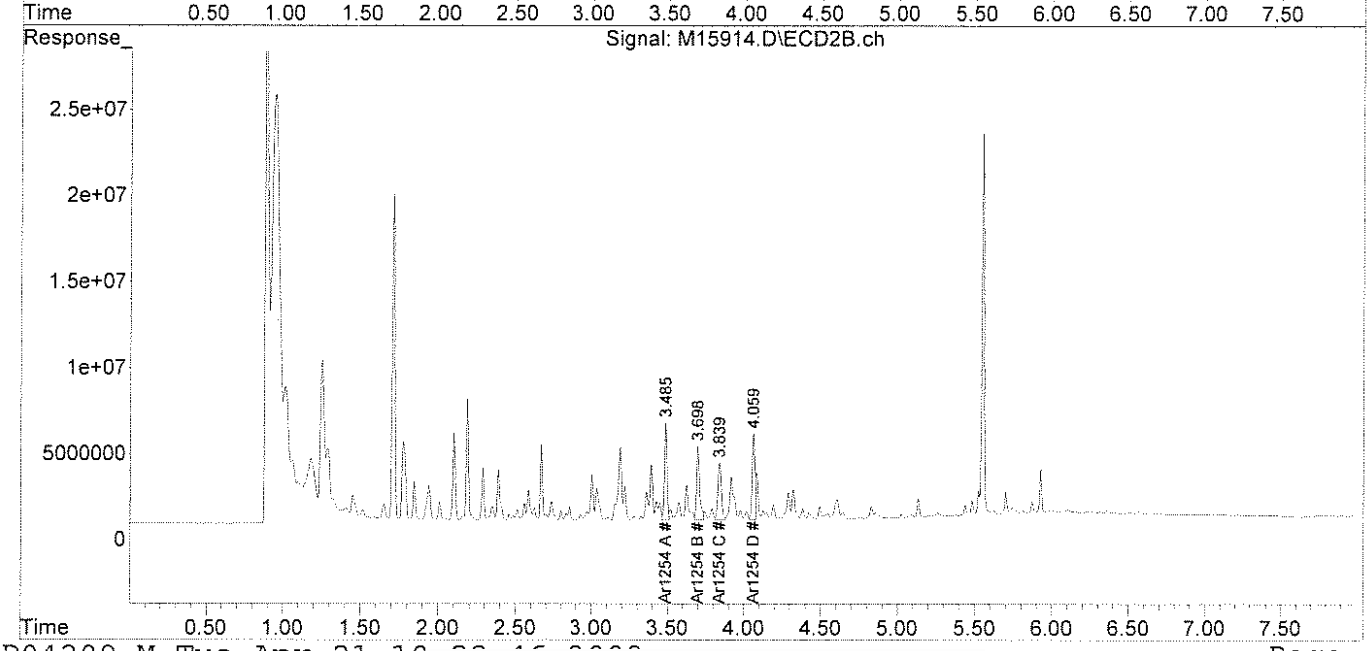
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15914.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 5:08 pm
Operator :
Sample : 63629-4,,A/C
Misc : SOIL
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 21 10:22:46 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 22, 2009

SAMPLE DATA

Lab Sample ID:	63629-5
Matrix:	Solid
Percent Solid:	96
Dilution Factor:	1.0
Collection Date:	04/15/09
Lab Receipt Date:	04/16/09
Extraction Date:	04/16/09
Analysis Date:	04/20/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-003

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**54**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	88	%
Decachlorobiphenyl	111	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Sample: 63629-5,,A/C

Data File: M15915.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	54	42	24.2	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

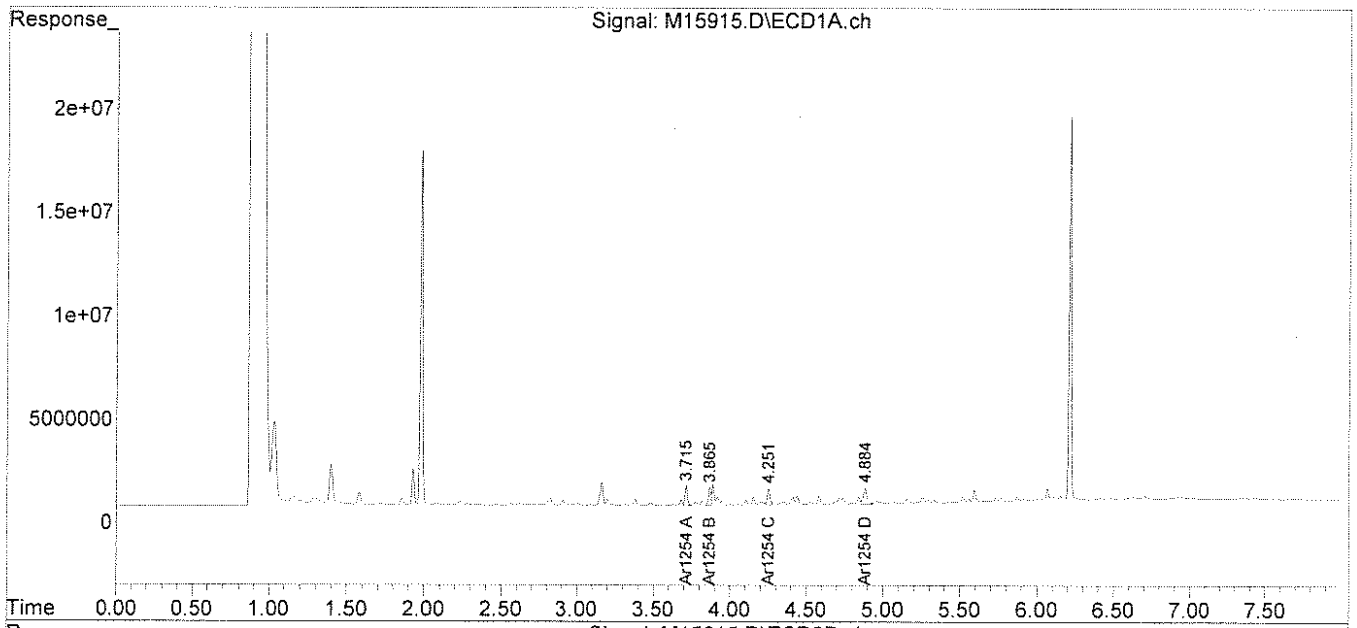
Comments: _____

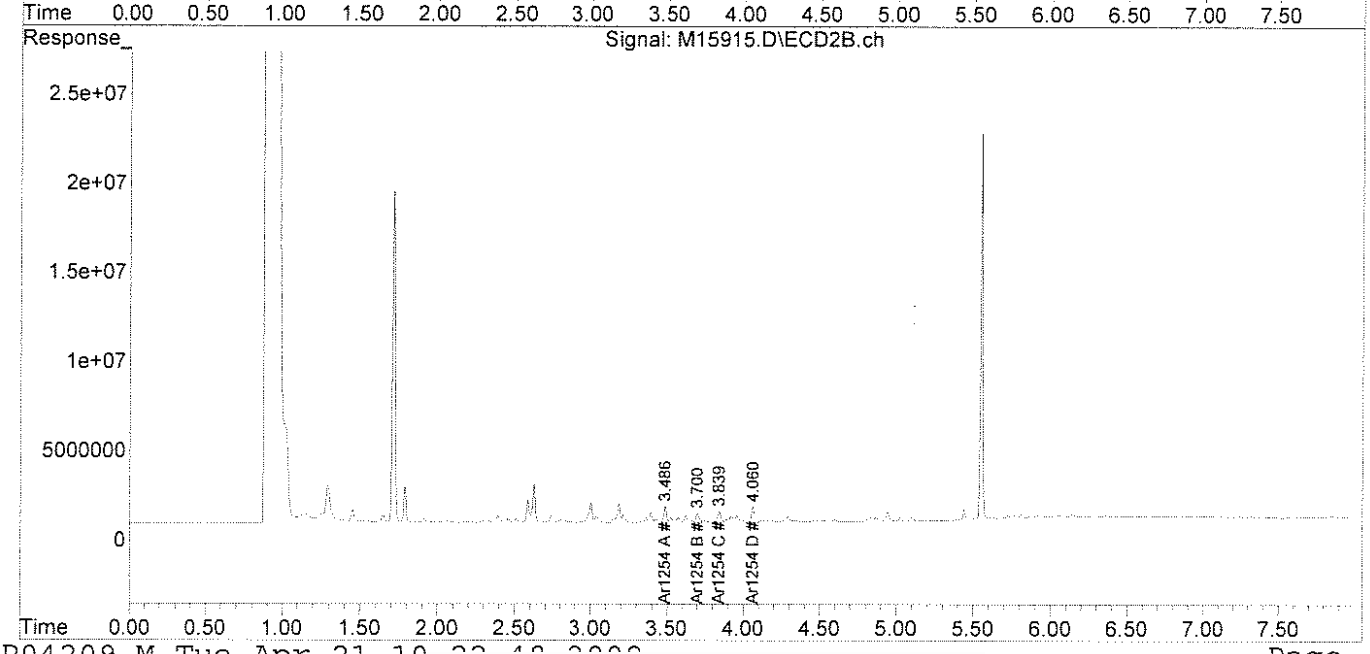
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15915.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 5:19 pm
Operator :
Sample : 63629-5,,A/C
Misc : SOIL
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 21 10:22:48 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 22, 2009

SAMPLE DATA

Lab Sample ID:	63629-6
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	1.0
Collection Date:	04/15/09
Lab Receipt Date:	04/16/09
Extraction Date:	04/16/09
Analysis Date:	04/20/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-004

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	88	%
Decachlorobiphenyl	111	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

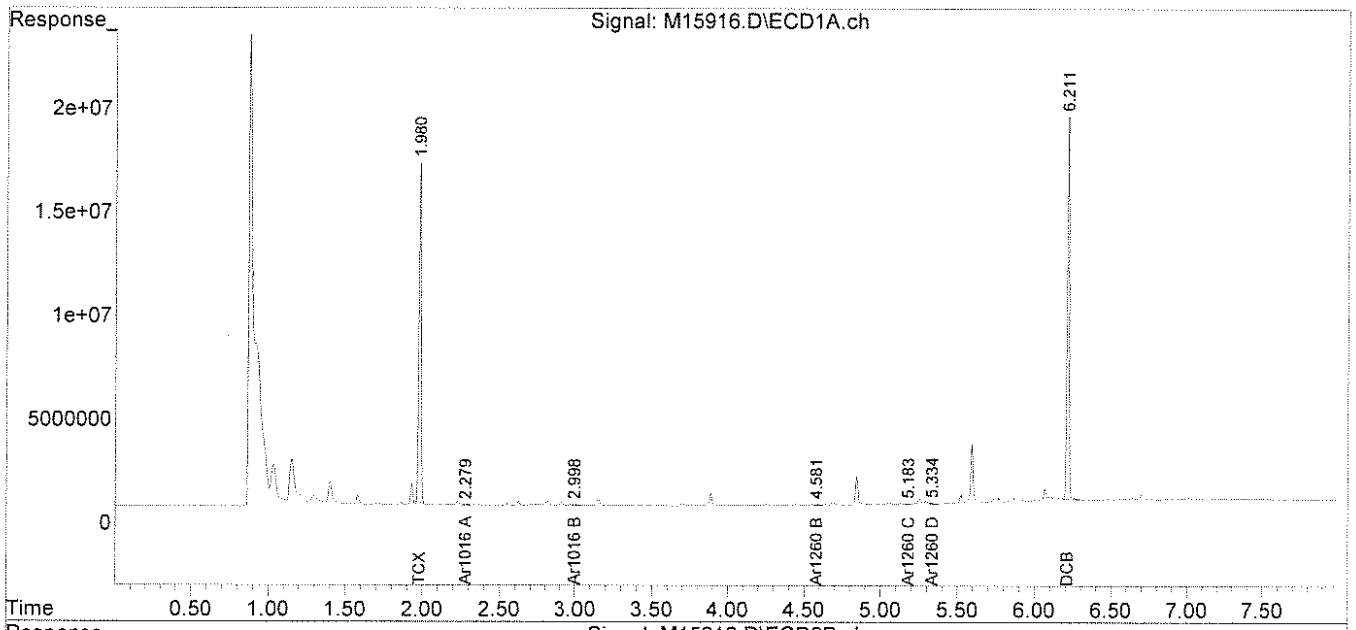
Authorized signature

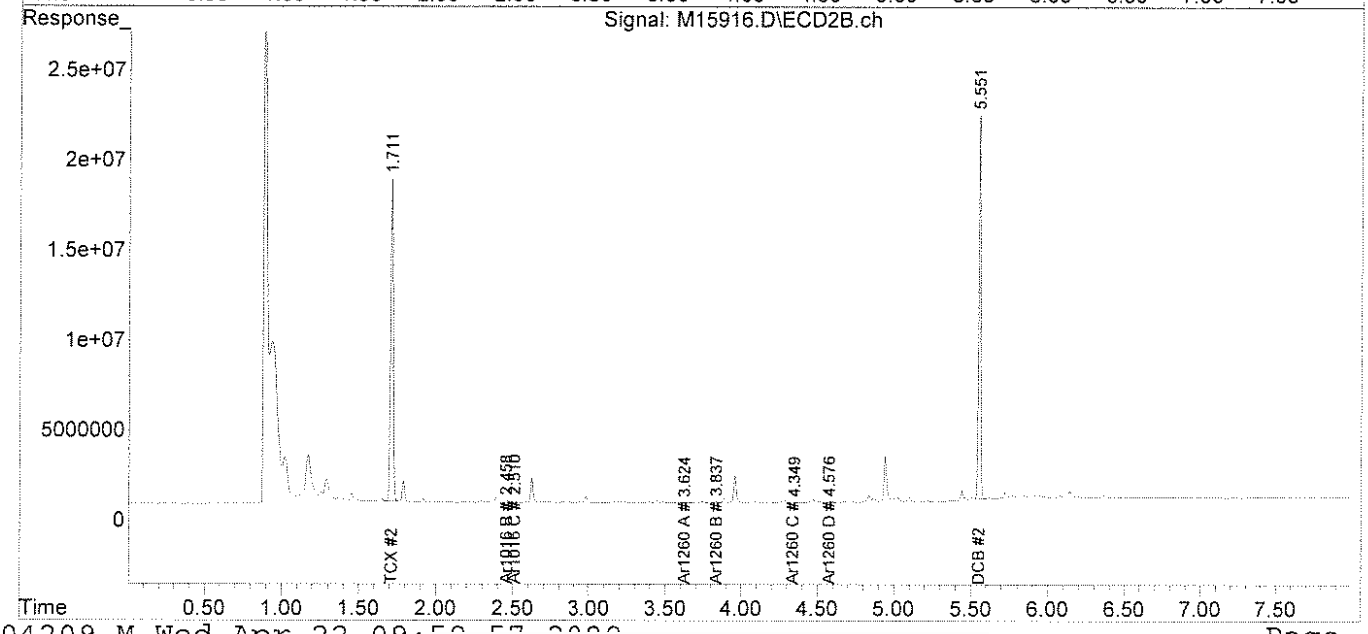
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15916.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 5:29 pm
Operator :
Sample : 63629-6,,A/C
Misc : SOIL
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 22 09:59:57 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:38 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 22, 2009

SAMPLE DATA

Lab Sample ID:	63629-7
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	1.0
Collection Date:	04/15/09
Lab Receipt Date:	04/16/09
Extraction Date:	04/16/09
Analysis Date:	04/20/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-005

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	85	%
Decachlorobiphenyl	112	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

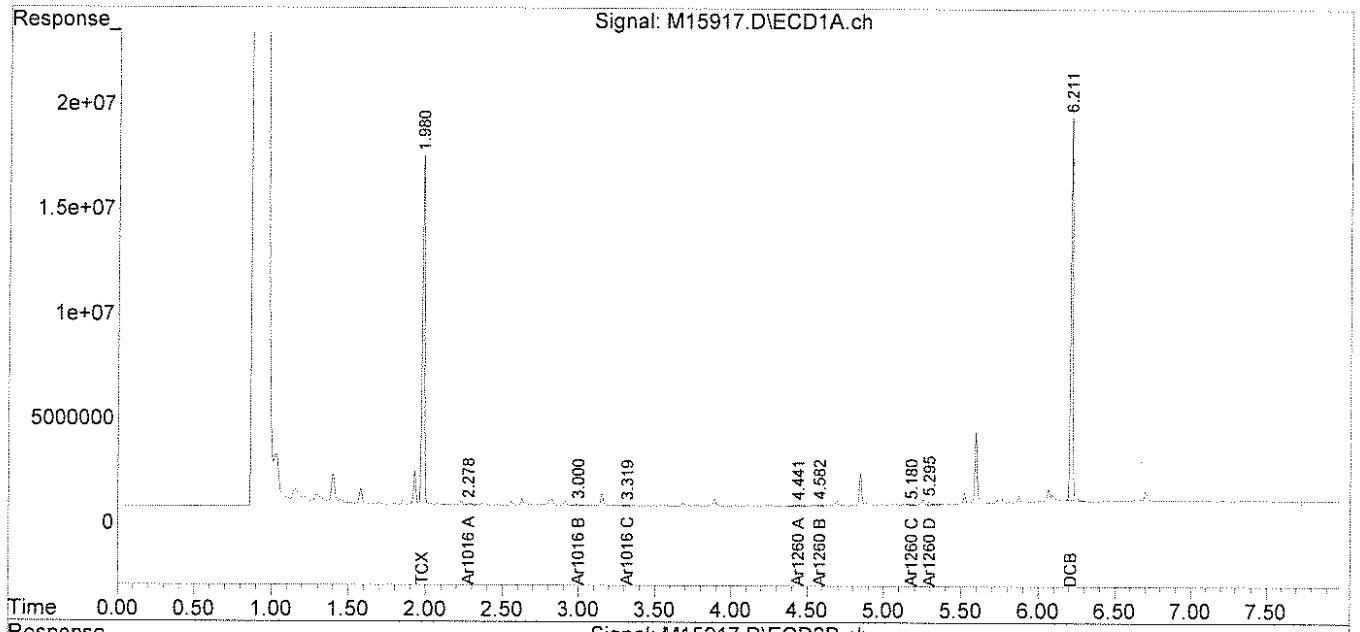
Authorized signature

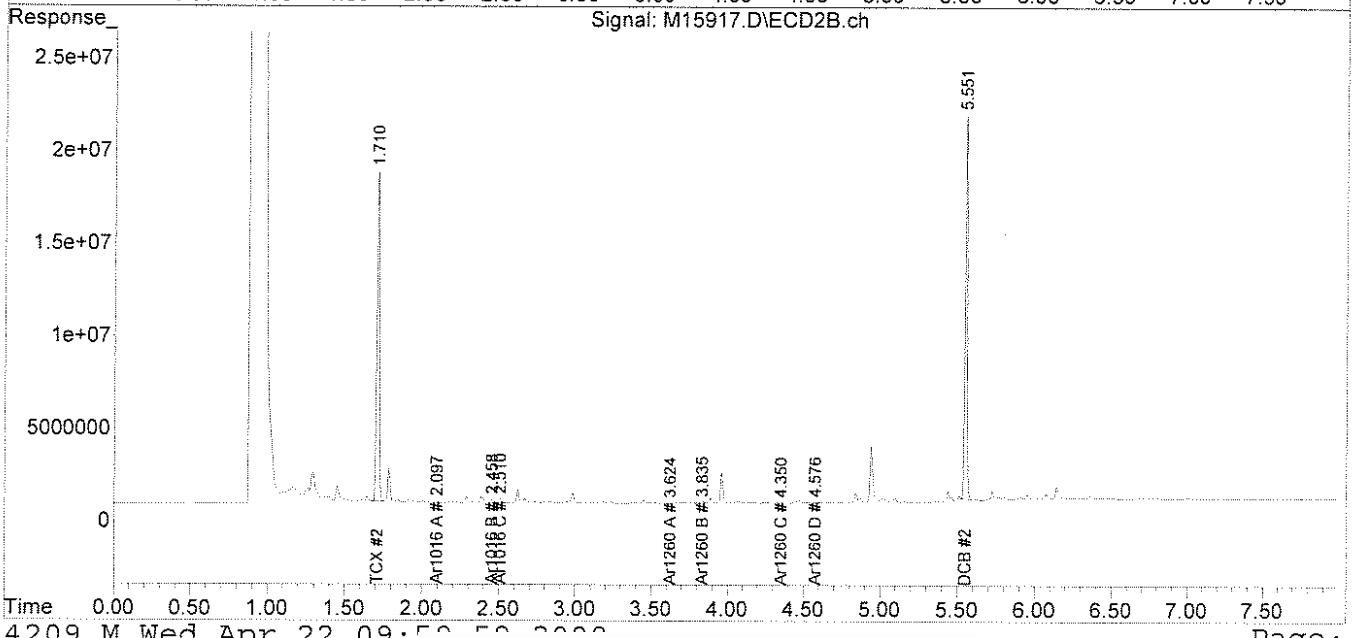
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15917.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 5:39 pm
Operator :
Sample : 63629-7,,A/C
Misc : SOIL
ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 22 09:59:59 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:38 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 22, 2009

SAMPLE DATA

Lab Sample ID:	63629-8
Matrix:	Solid
Percent Solid:	97
Dilution Factor:	1.0
Collection Date:	04/15/09
Lab Receipt Date:	04/16/09
Extraction Date:	04/16/09
Analysis Date:	04/20/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-008

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**100**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	93	%
Decachlorobiphenyl	114	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Sample: 63629-8,,A/C

Data File: M15918.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	100	92	8.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

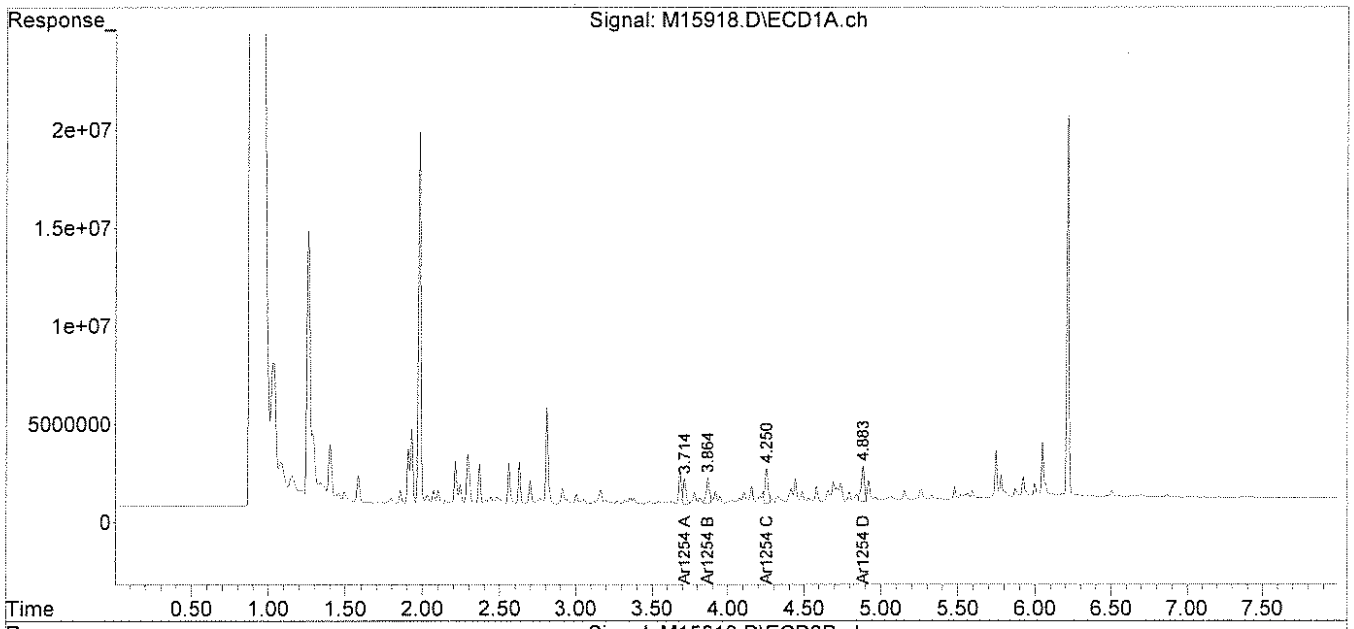
PCB FORM 10

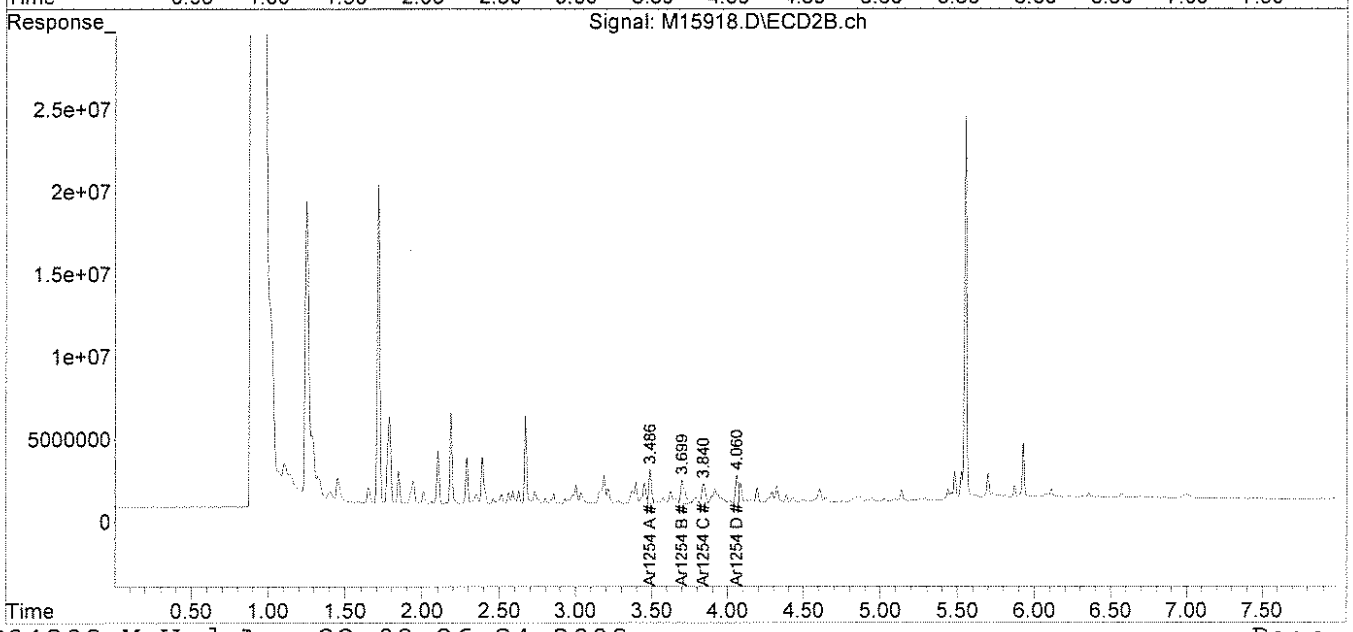
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15918.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 5:49 pm
Operator :
Sample : 63629-8,,A/C
Misc : SOIL
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 22 09:26:17 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 22, 2009

SAMPLE DATA

Lab Sample ID:	63629-9
Matrix:	Solid
Percent Solid:	94
Dilution Factor:	1.0
Collection Date:	04/15/09
Lab Receipt Date:	04/16/09
Extraction Date:	04/16/09
Analysis Date:	04/20/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-009

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**103**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	90	%
Decachlorobiphenyl	110	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Sample: 63629-9,,A/C

Data File: M15919.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	103	99	3.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

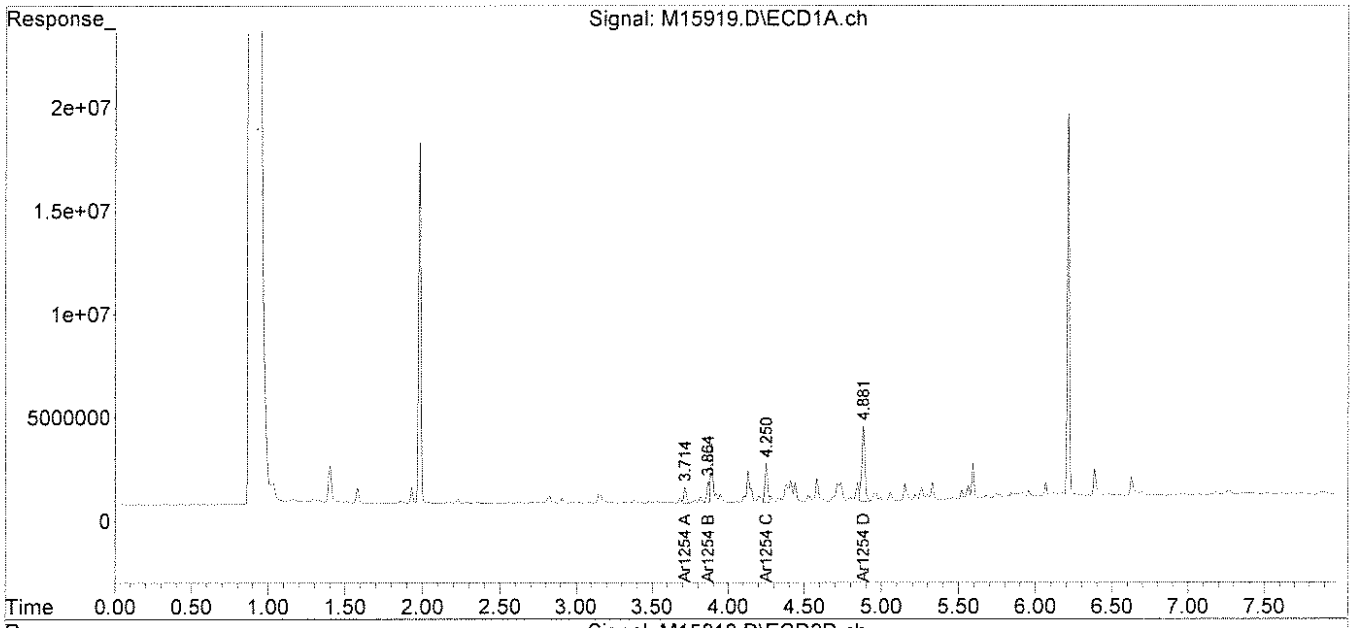
PCB FORM 10

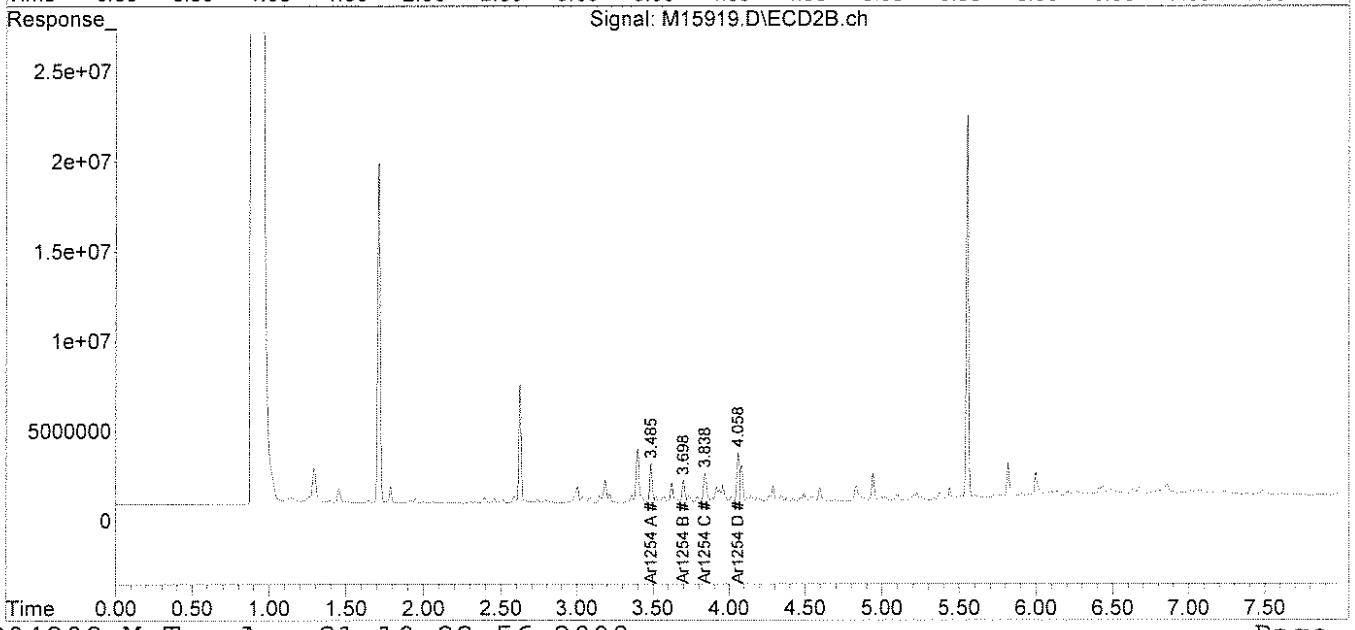
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15919.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 5:59 pm
Operator :
Sample : 63629-9,,A/C
Misc : SOIL
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 21 10:22:56 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 22, 2009

SAMPLE DATA

Lab Sample ID:	63629-10
Matrix:	Solid
Percent Solid:	96
Dilution Factor:	1.0
Collection Date:	04/15/09
Lab Receipt Date:	04/16/09
Extraction Date:	04/16/09
Analysis Date:	04/20/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-010

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**527**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	91	%
Decachlorobiphenyl	109	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Sample: 63629-10,,A/C

Data File: M15920.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	527	422	22.2	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

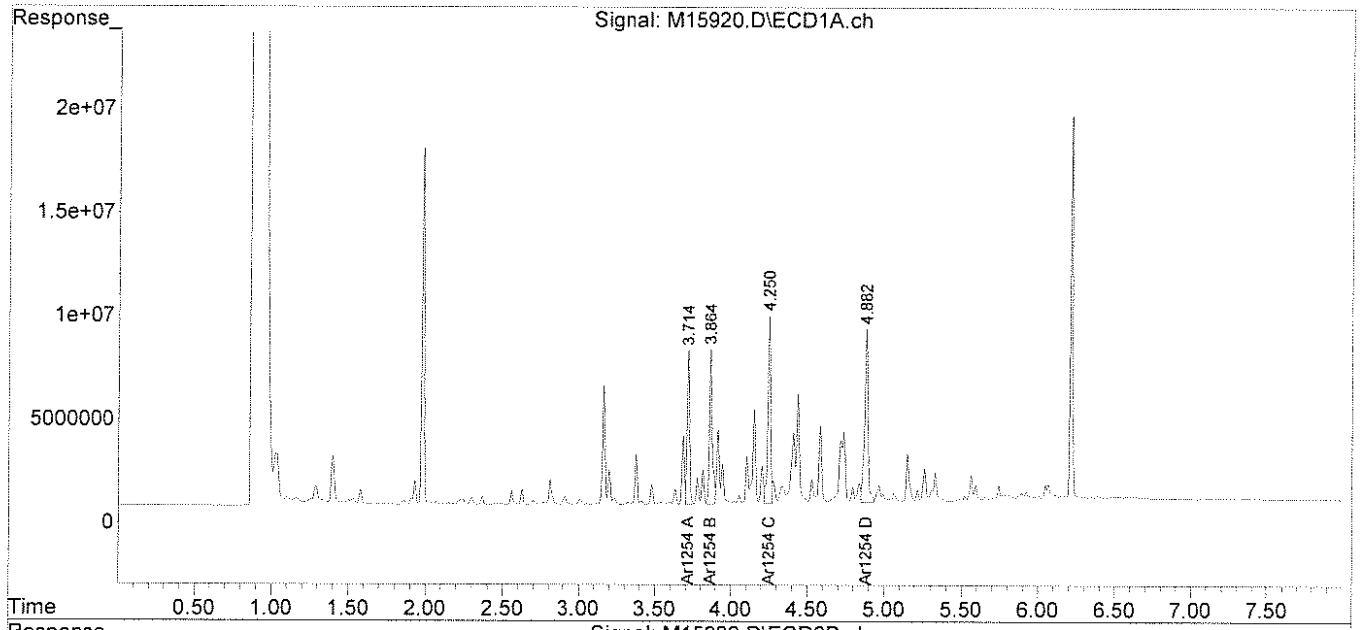
PCB FORM 10

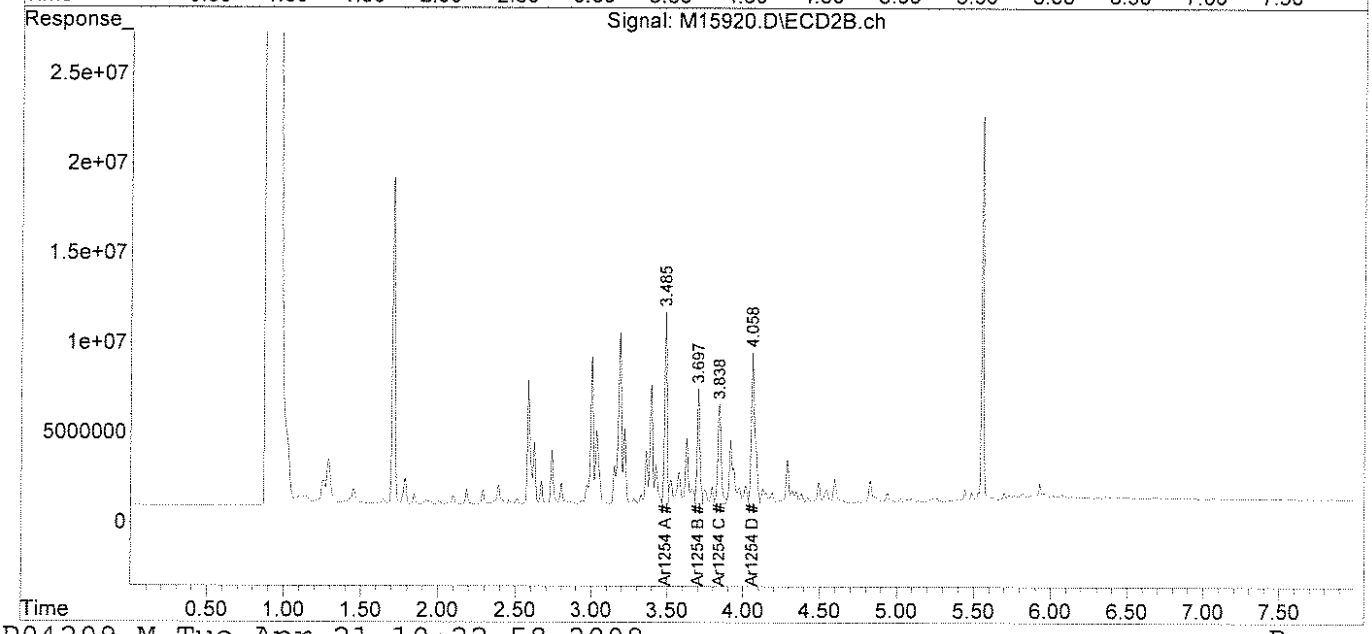
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15920.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 6:09 pm
Operator :
Sample : 63629-10,,A/C
Misc : SOIL
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 21 10:22:58 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 22, 2009

SAMPLE DATA

Lab Sample ID:	63629-11
Matrix:	Solid
Percent Solid:	96
Dilution Factor:	1.0
Collection Date:	04/15/09
Lab Receipt Date:	04/16/09
Extraction Date:	04/16/09
Analysis Date:	04/20/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-011

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	82	%
Decachlorobiphenyl	115	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

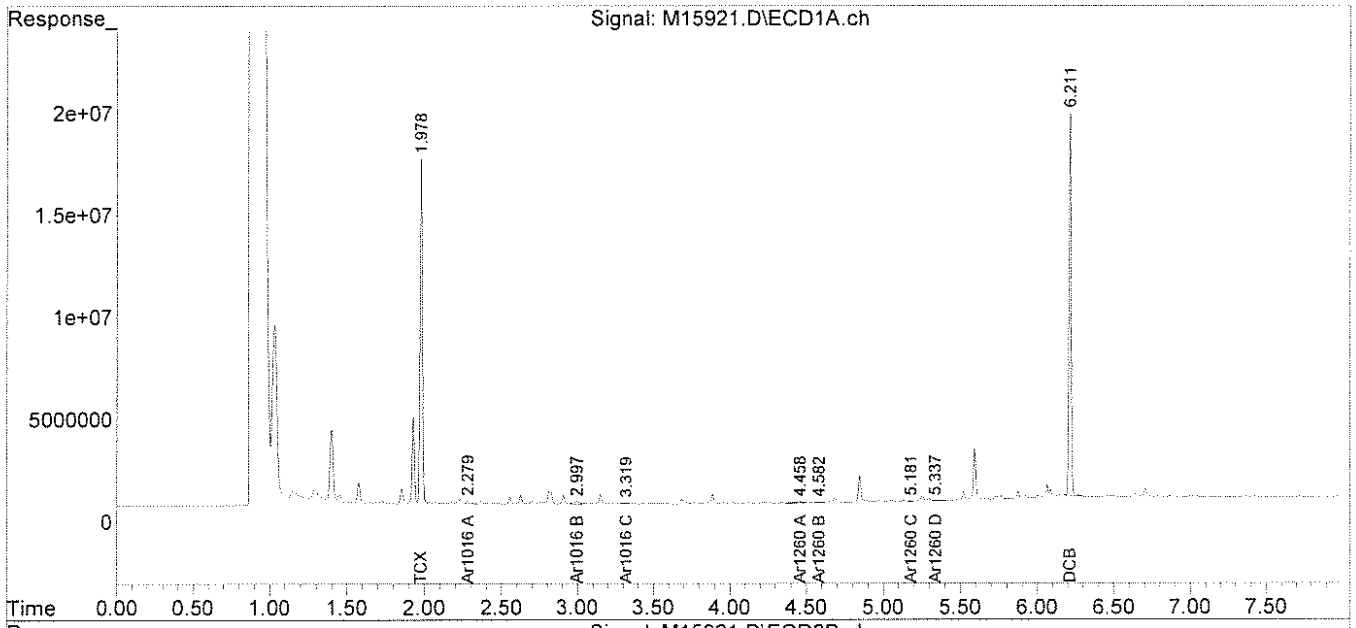
Authorized signature

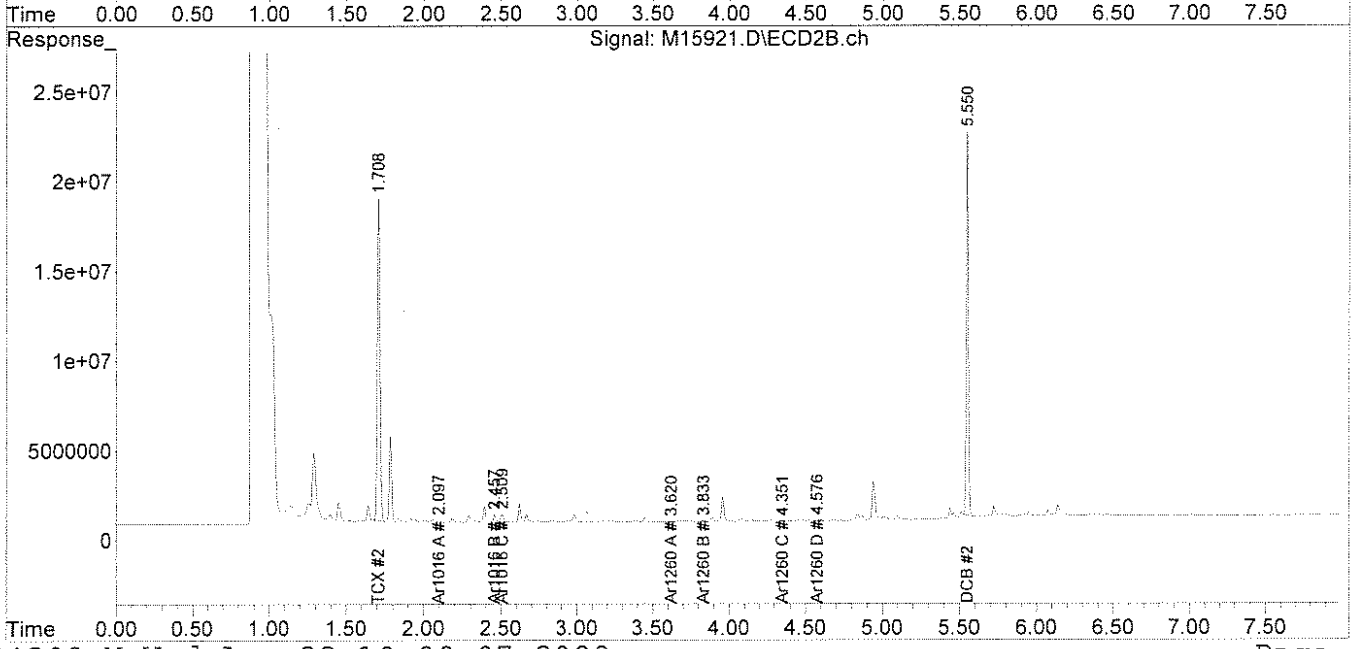
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15921.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 6:19 pm
Operator :
Sample : 63629-11,,A/C
Misc : SOIL
ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 22 10:00:07 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:38 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 22, 2009

SAMPLE DATA

Lab Sample ID:	63629-12
Matrix:	Solid
Percent Solid:	92
Dilution Factor:	1.1
Collection Date:	04/15/09
Lab Receipt Date:	04/16/09
Extraction Date:	04/16/09
Analysis Date:	04/20/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-012

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**237**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	98	%
Decachlorobiphenyl	118	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Sample: 63629-12,,A/C

Data File: M15925.D

Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	171	237	32.6	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

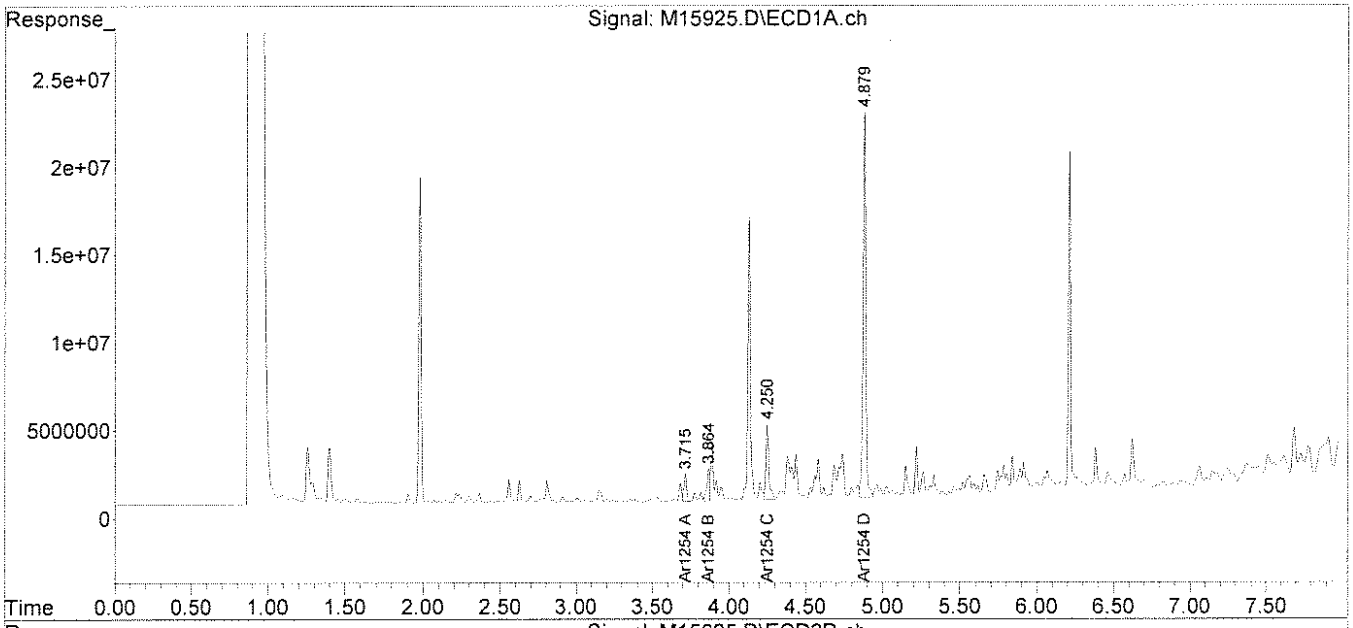
PCB FORM 10

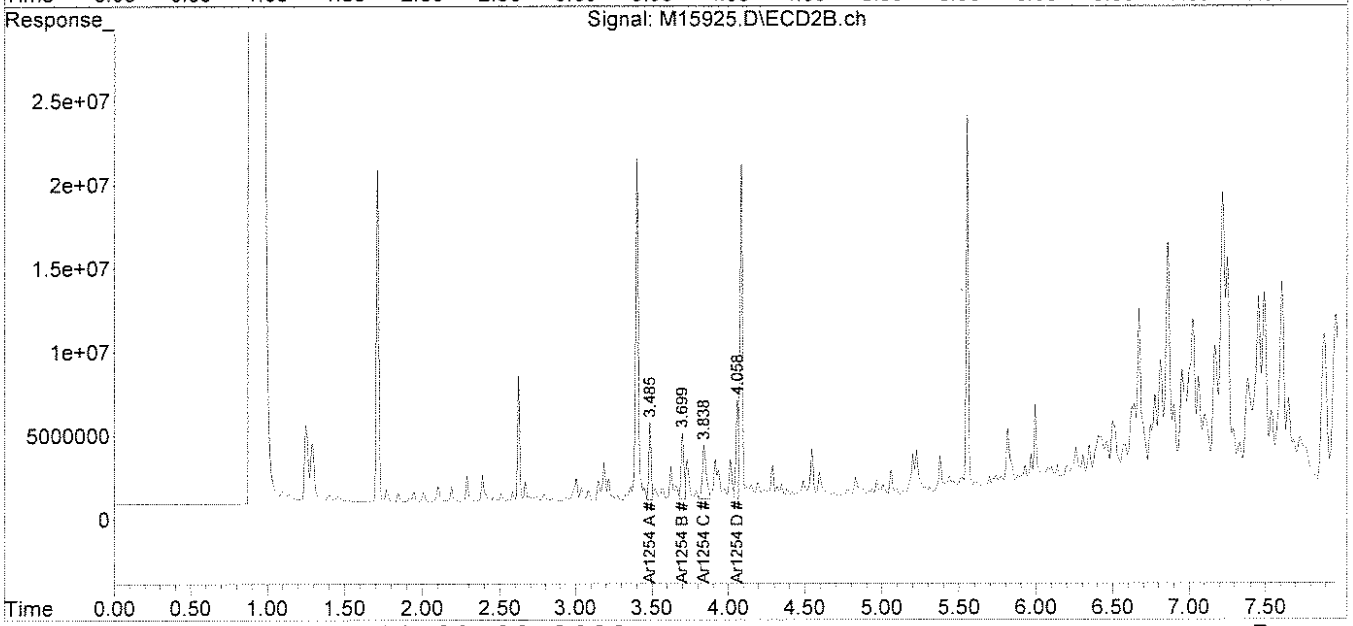
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15925.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 6:59 pm
Operator :
Sample : 63629-12,,A/C
Misc : SOIL
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 21 10:23:08 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 22, 2009

SAMPLE DATA

Lab Sample ID:	63629-13
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	1.0
Collection Date:	04/15/09
Lab Receipt Date:	04/16/09
Extraction Date:	04/16/09
Analysis Date:	04/20/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-013

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**120**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	88	%
Decachlorobiphenyl	108	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature:

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Sample: 63629-13,,A/C

Data File: M15922.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	120	101	17.0	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

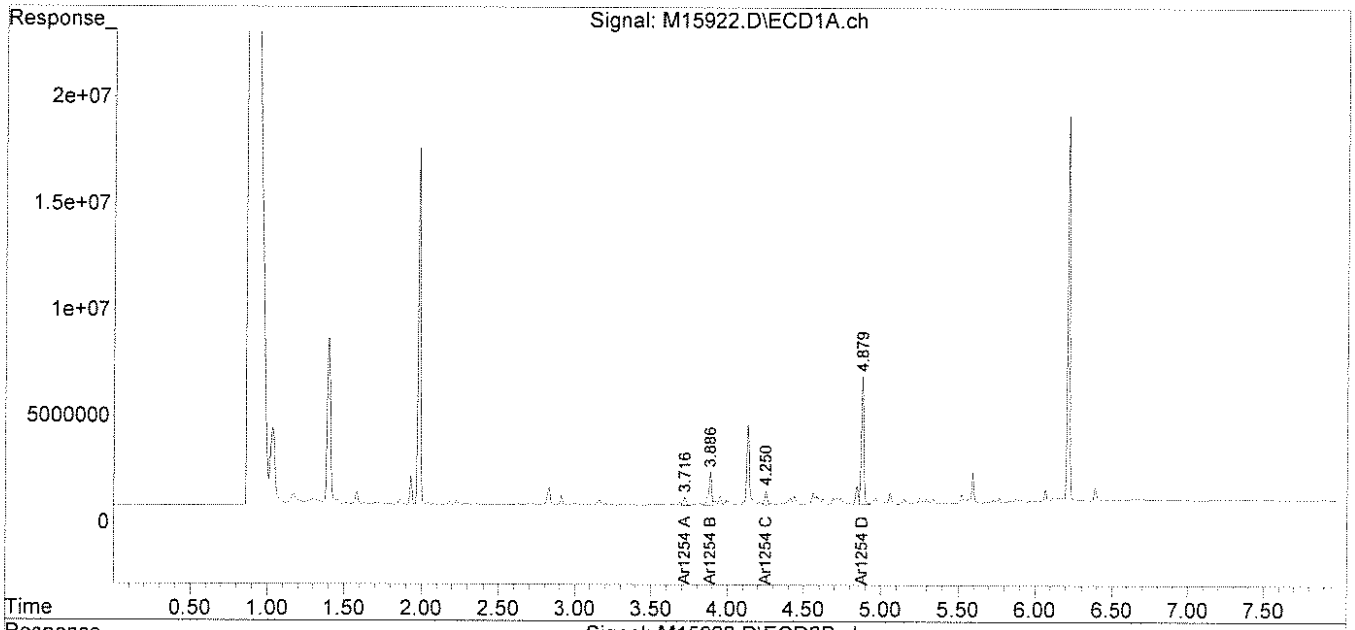
Comments: _____

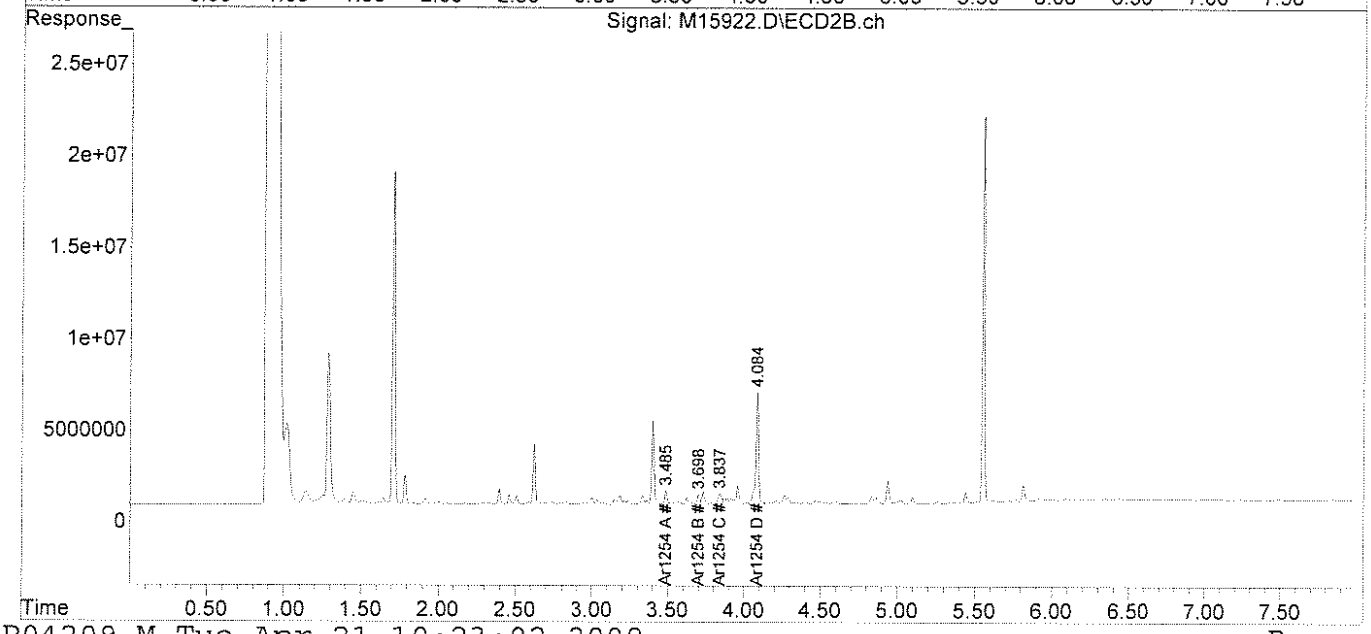
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15922.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 6:29 pm
Operator :
Sample : 63629-13,,A/C
Misc : SOIL
ALS Vial : 34 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 21 10:23:02 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 22, 2009

SAMPLE DATA

Lab Sample ID:	63629-14
Matrix:	Solid
Percent Solid:	93
Dilution Factor:	1.0
Collection Date:	04/15/09
Lab Receipt Date:	04/16/09
Extraction Date:	04/16/09
Analysis Date:	04/20/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-014

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**903**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	90	%
Decachlorobiphenyl	109	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Sample: 63629-14,,A/C

Data File: M15923.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	903	652	32.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

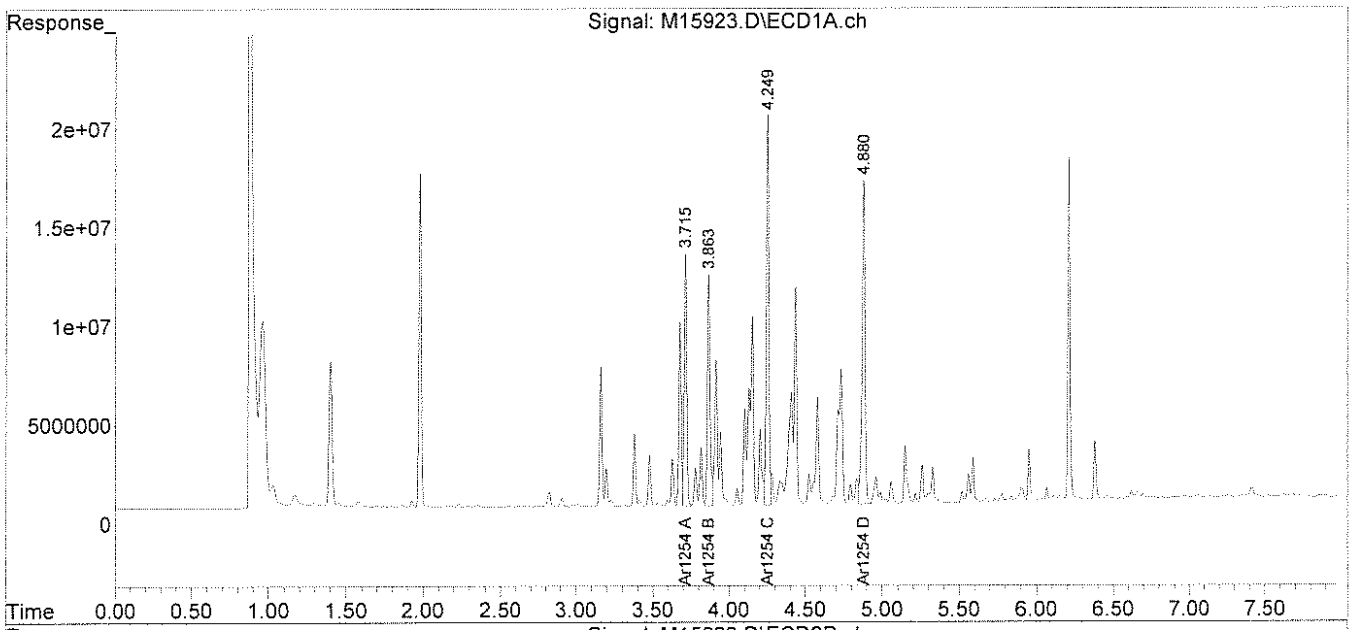
PCB FORM 10

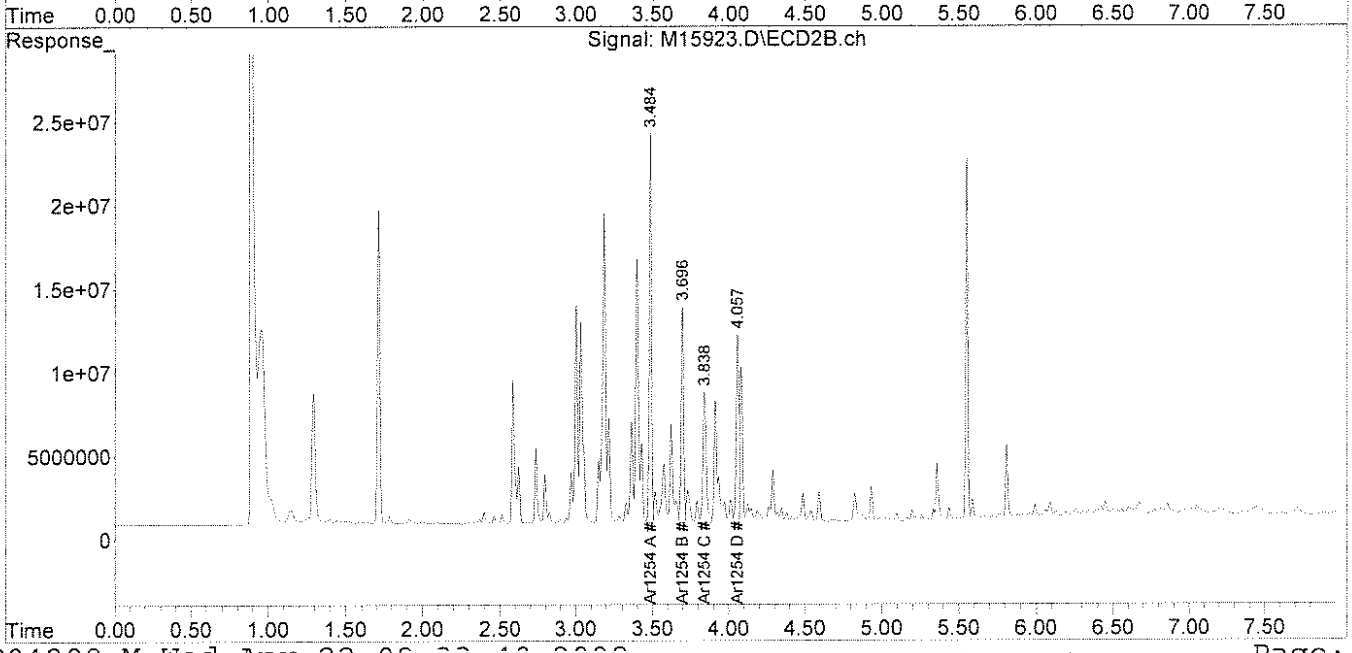
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15923.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 6:39 pm
Operator :
Sample : 63629-14,,A/C
Misc : SOIL
ALS Vial : 35 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 21 10:23:04 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 22, 2009

SAMPLE DATA

Lab Sample ID:	63629-15
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	1.0
Collection Date:	04/15/09
Lab Receipt Date:	04/16/09
Extraction Date:	04/16/09
Analysis Date:	04/20/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-015

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**261**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	85	%
Decachlorobiphenyl	130	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Sample: 63629-15,,A/C

Data File: M15930.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	252	261	3.2	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

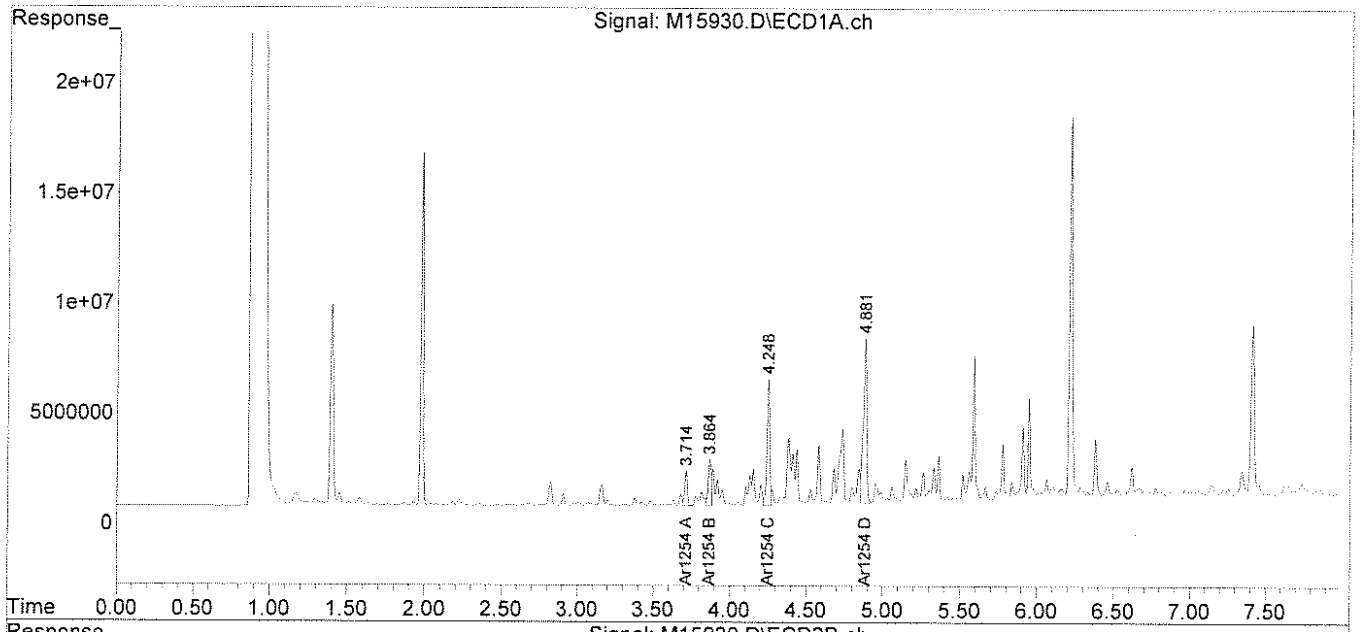
PCB FORM 10

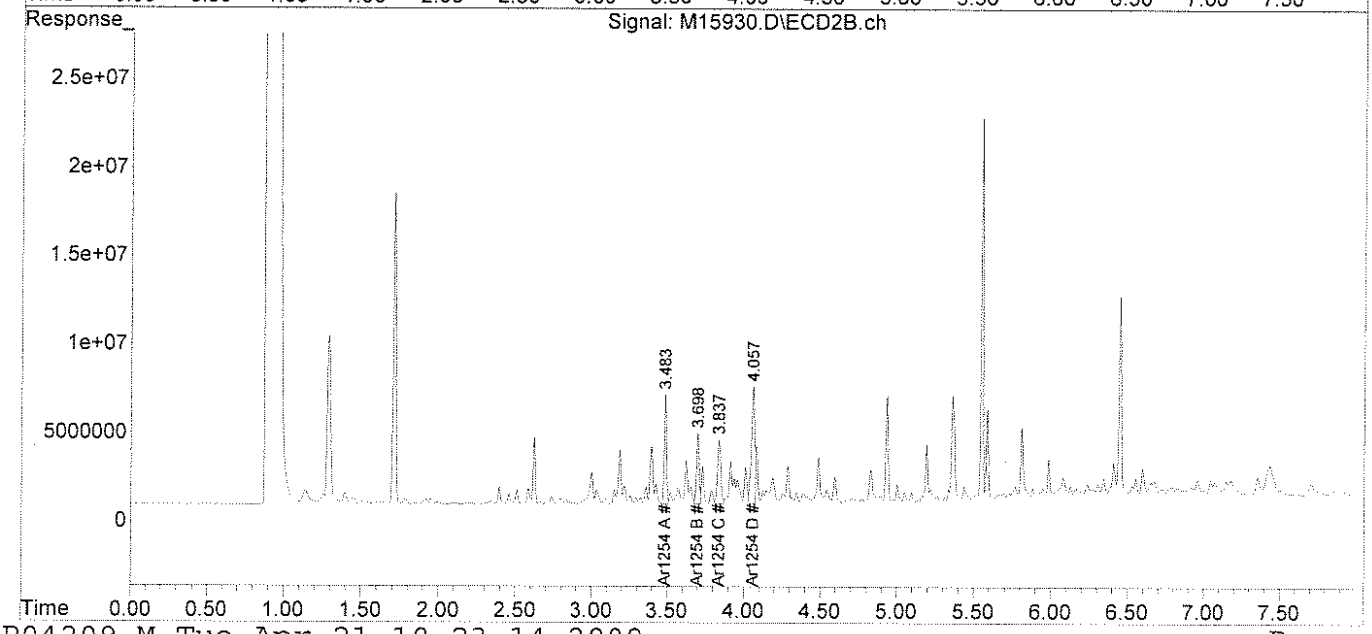
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15930.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 7:49 pm
Operator :
Sample : 63629-15,,A/C
Misc : SOIL
ALS Vial : 40 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 21 10:23:14 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID: 63629-16
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date: 04/16/09
Lab Receipt Date: 04/16/09
Extraction Date: 04/21/09
Analysis Date: 04/23/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: LGRC-VSS-901

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/L	Results µg/L
PCB-1016	0.2	U
PCB-1221	0.2	U
PCB-1232	0.2	U
PCB-1242	0.2	U
PCB-1248	0.2	U
PCB-1254	0.2	U
PCB-1260	0.2	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	73	%
Decachlorobiphenyl	53	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS:

PCB Report

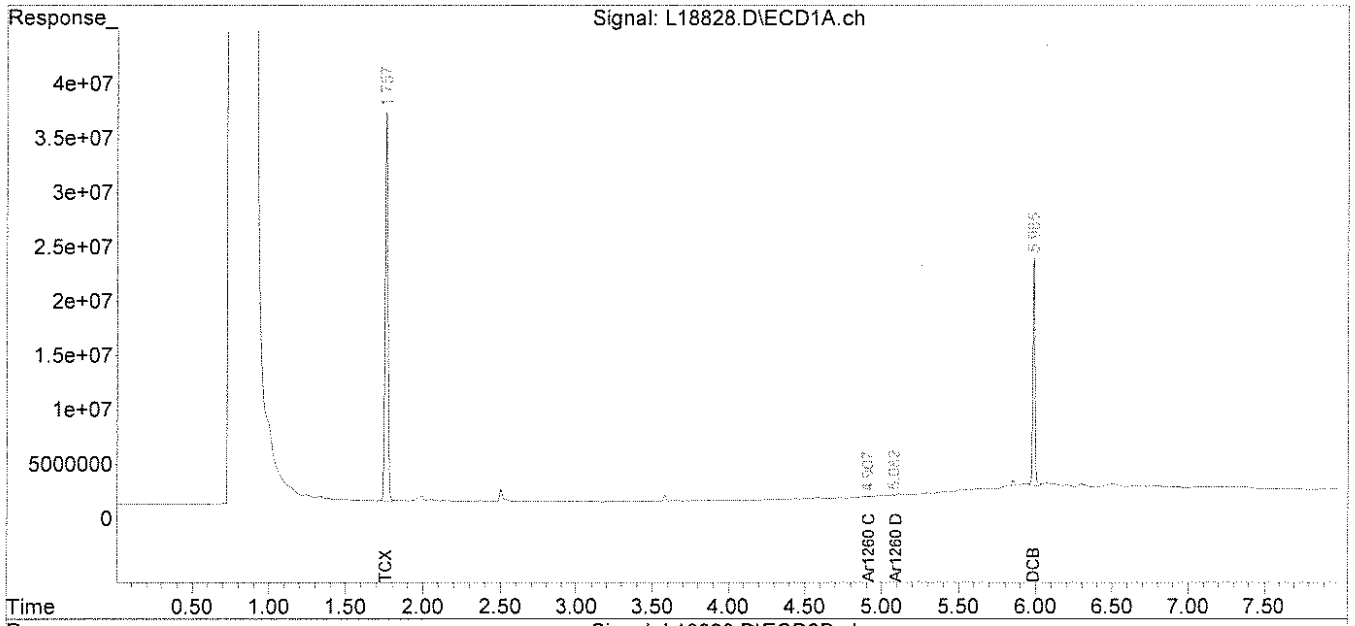
Authorized signature

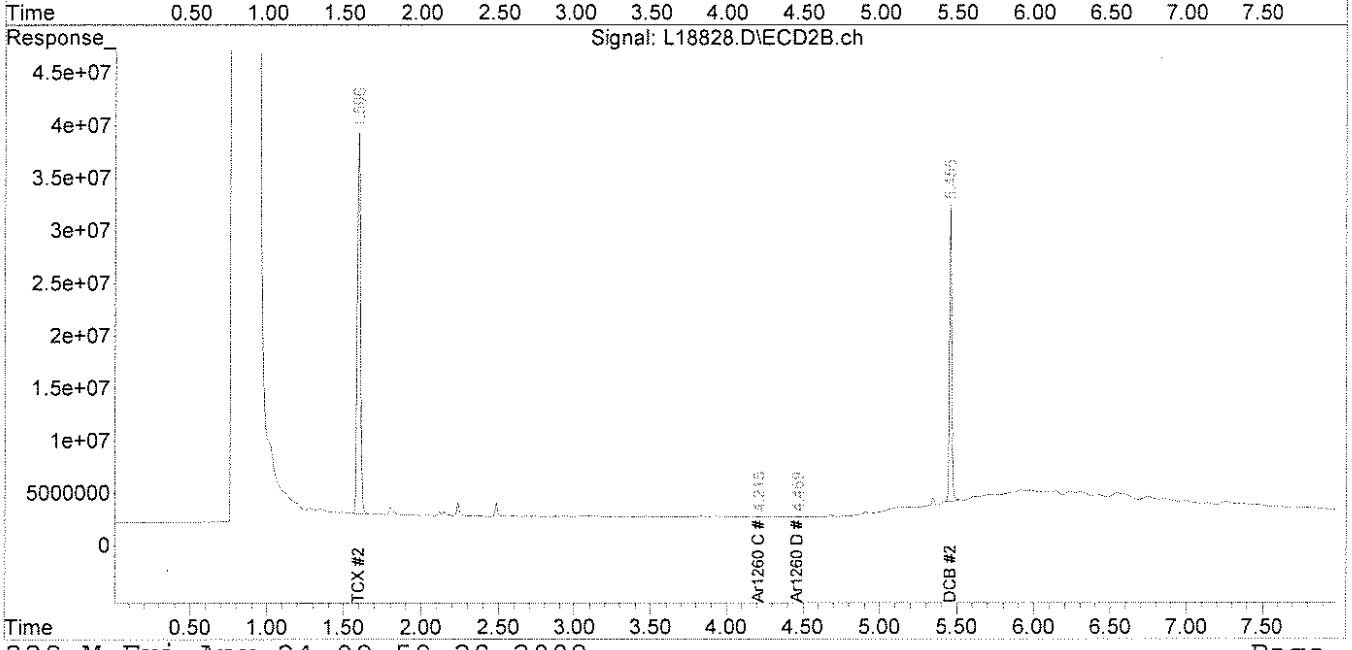
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042209-L\
Data File : L18828.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 23 Apr 09 2:04 am
Operator :
Sample : 63629-16 (Sig #1); ~~63626-16 (Sig #2)~~ BM4124109
Misc :
ALS Vial : 42 Sample Multiplier: 1

Integration File signal 1: PCBINT.E
Integration File signal 2: PCBINT2.E
Quant Time: Apr 24 09:59:27 2009
Quant Method : C:\msdchem\1\METHODS\PB04229.M
Quant Title : Aroclor 1016/1260
QLast Update : Thu Apr 23 16:07:53 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 3 ul
Signal #1 Phase : DB-1701 Widebore Signal #2 Phase: DB-5 Widebore
Signal #1 Info : 0.53 mm , 1.0um f Signal #2 Info : 0.53 mm, 1.5um film





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 22, 2009

SAMPLE DATA

Lab Sample ID:	63629-17
Matrix:	Solid
Percent Solid:	96
Dilution Factor:	1.0
Collection Date:	04/16/09
Lab Receipt Date:	04/16/09
Extraction Date:	04/16/09
Analysis Date:	04/20/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-016

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**173**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	92	%
Decachlorobiphenyl	105	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Sample: 63629-17,,A/C

Data File: M15931.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	172	173	0.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

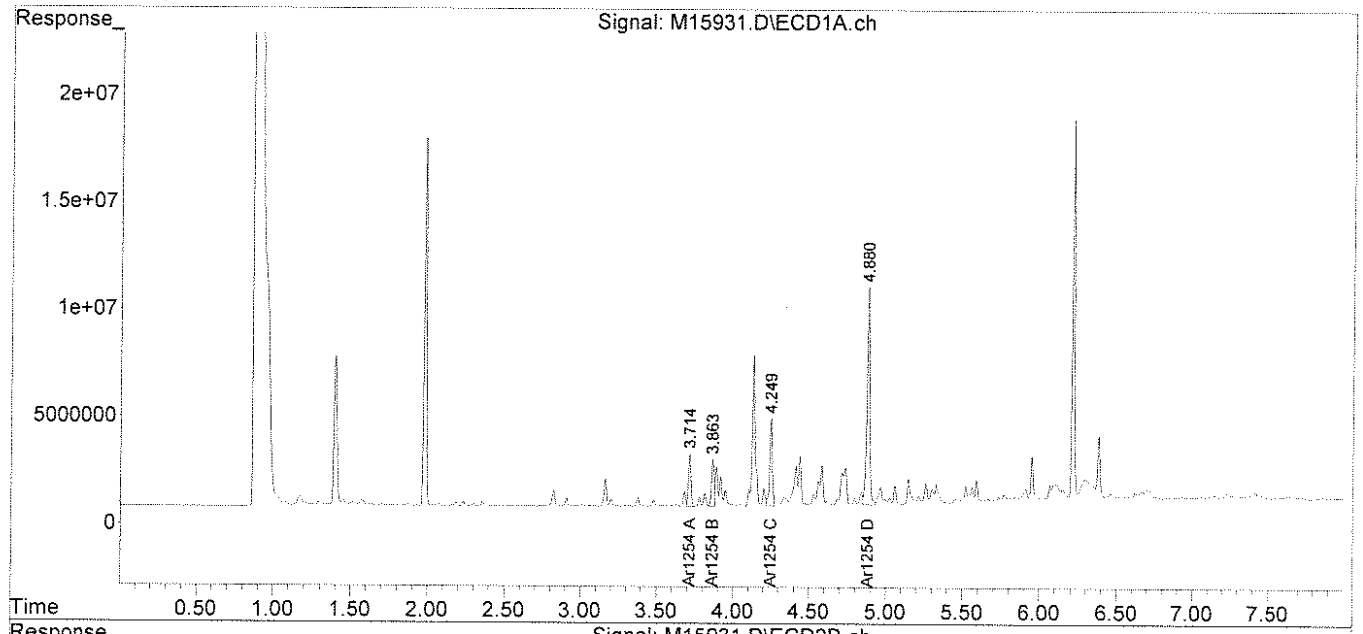
PCB FORM 10

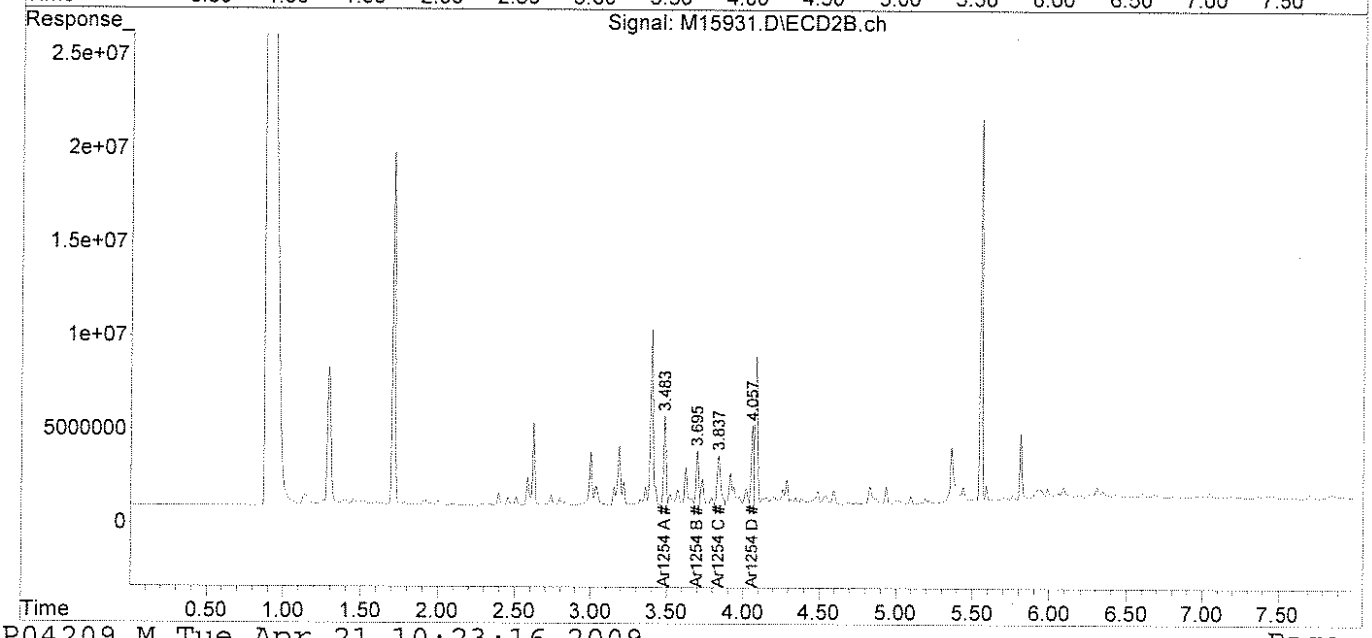
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15931.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 7:59 pm
Operator :
Sample : 63629-17,,A/C
Misc : SOIL
ALS Vial : 41 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 21 10:23:16 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 22, 2009

SAMPLE DATA

Lab Sample ID:	63629-18
Matrix:	Solid
Percent Solid:	96
Dilution Factor:	1.0
Collection Date:	04/16/09
Lab Receipt Date:	04/16/09
Extraction Date:	04/16/09
Analysis Date:	04/20/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-501

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**187**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	89	%
Decachlorobiphenyl	111	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature M Lockwell

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Sample: 63629-18,,A/C

Data File: M15924.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	187	142	27.7	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

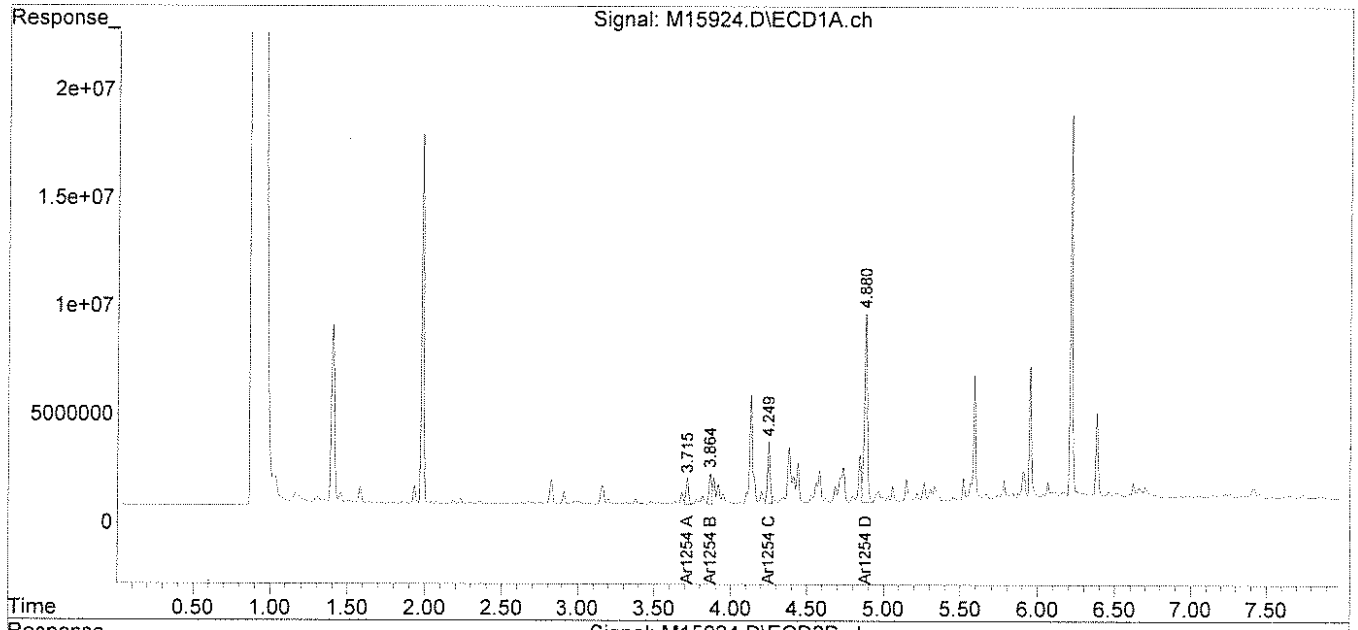
PCB FORM 10

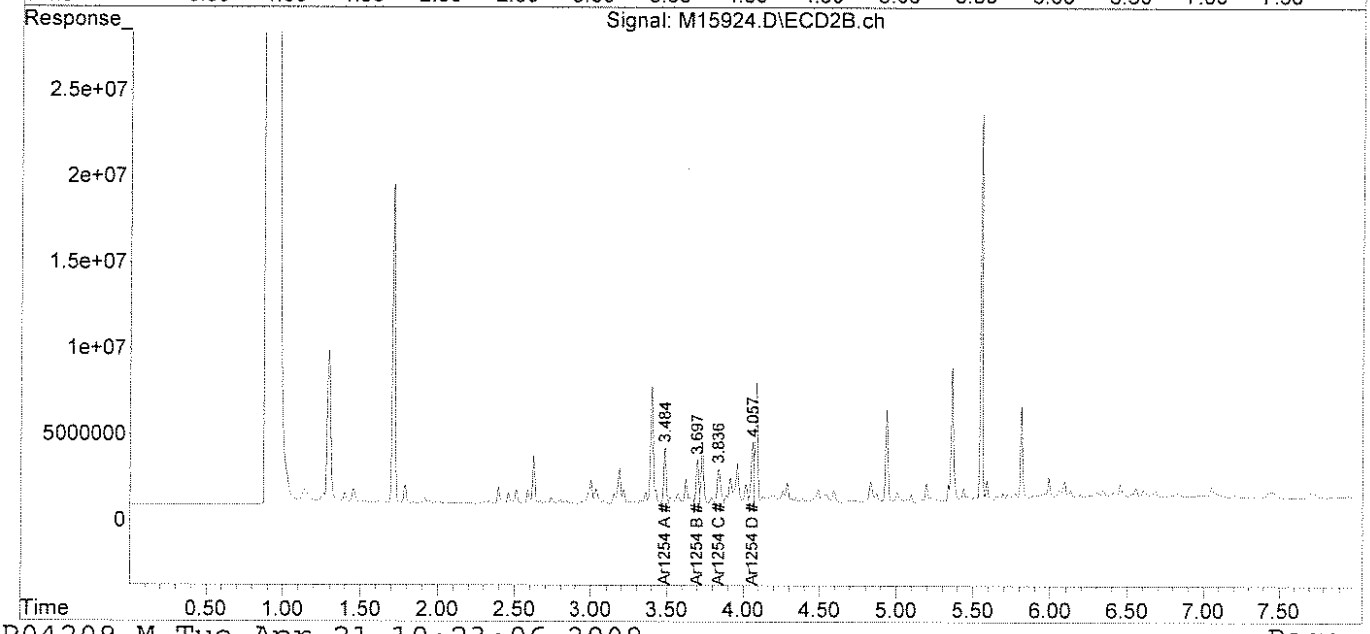
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15924.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 6:49 pm
Operator :
Sample : 63629-18,,A/C
Misc : SOIL
ALS Vial : 36 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 21 10:23:06 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID:	63629-19
Matrix:	Solid
Percent Solid:	96
Dilution Factor:	1.0
Collection Date:	04/16/09
Lab Receipt Date:	04/16/09
Extraction Date:	04/16/09
Analysis Date:	04/20/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-017

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**401**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	93	%
Decachlorobiphenyl	114	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Sample: 63629-19,,A/C

Data File: M15926.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	401	378	6.0	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

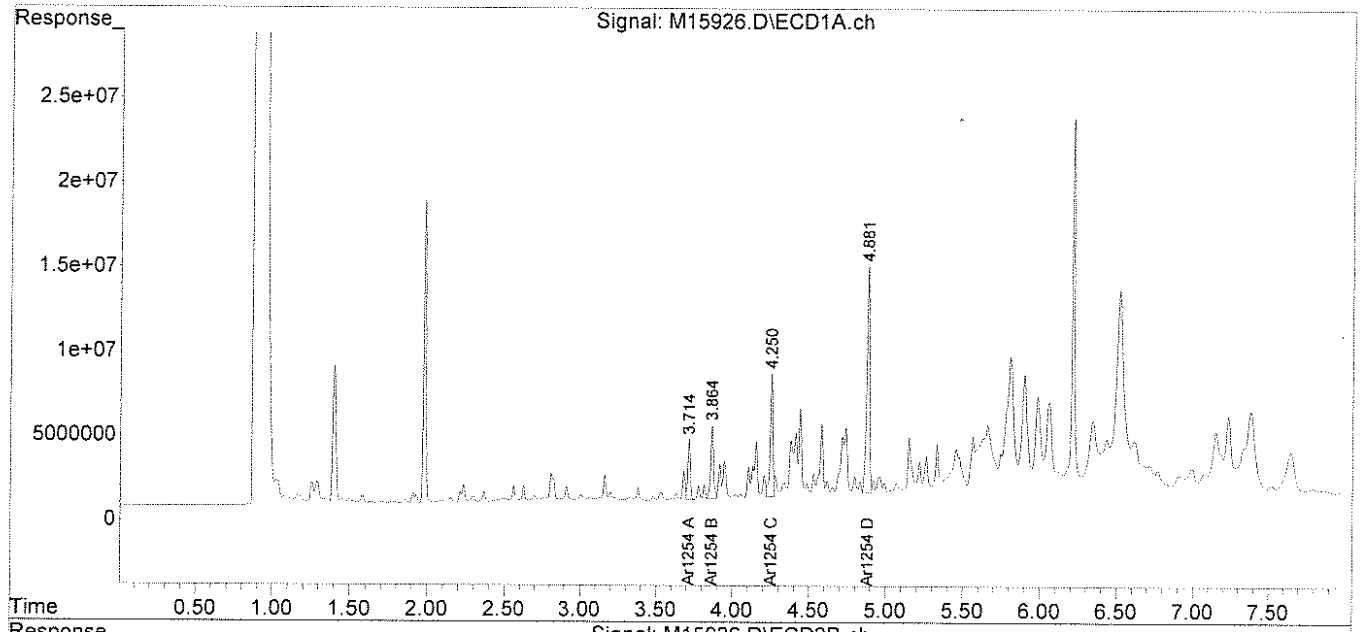
Comments: _____

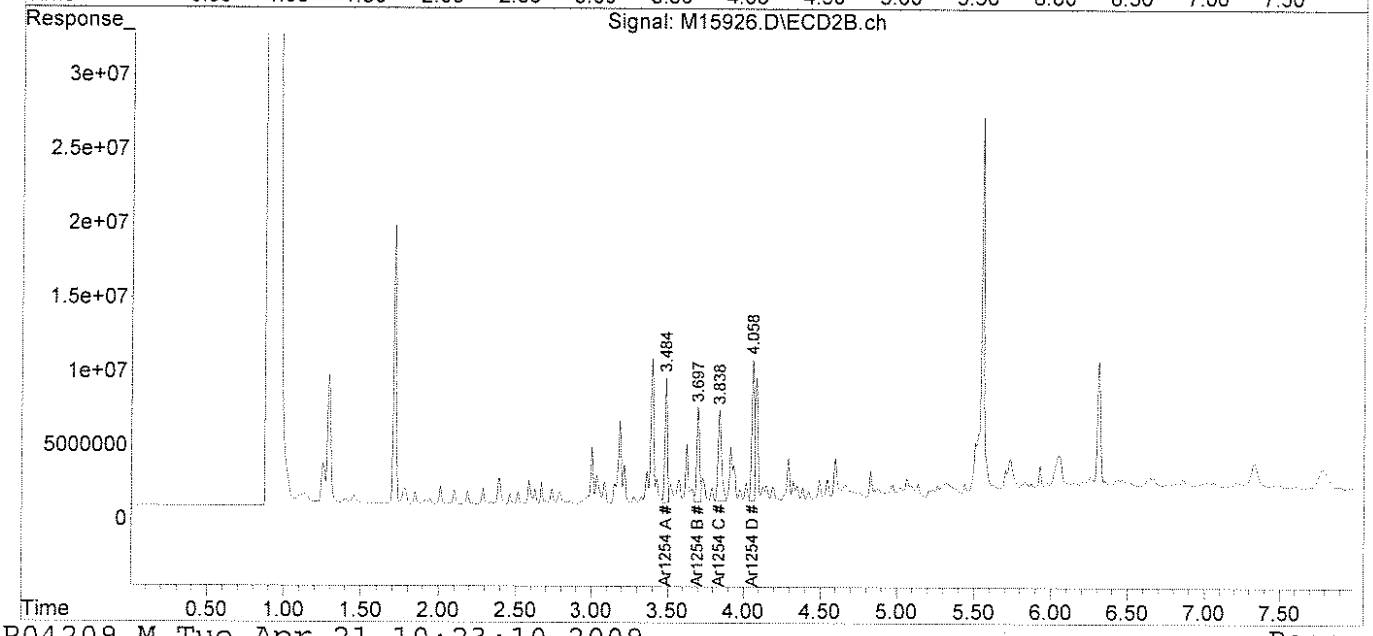
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15926.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 7:09 pm
Operator :
Sample : 63629-19,,A/C
Misc : SOIL
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 21 10:23:10 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 22, 2009

SAMPLE DATA

Lab Sample ID:	63629-20
Matrix:	Solid
Percent Solid:	84
Dilution Factor:	1.1
Collection Date:	04/16/09
Lab Receipt Date:	04/16/09
Extraction Date:	04/16/09
Analysis Date:	04/20/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-018

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**457**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	92	%
Decachlorobiphenyl	110	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Sample: 63629-20,,A/C

Data File: M15927.D

Dilution Factor: 1.7

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	457	412	10.4	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

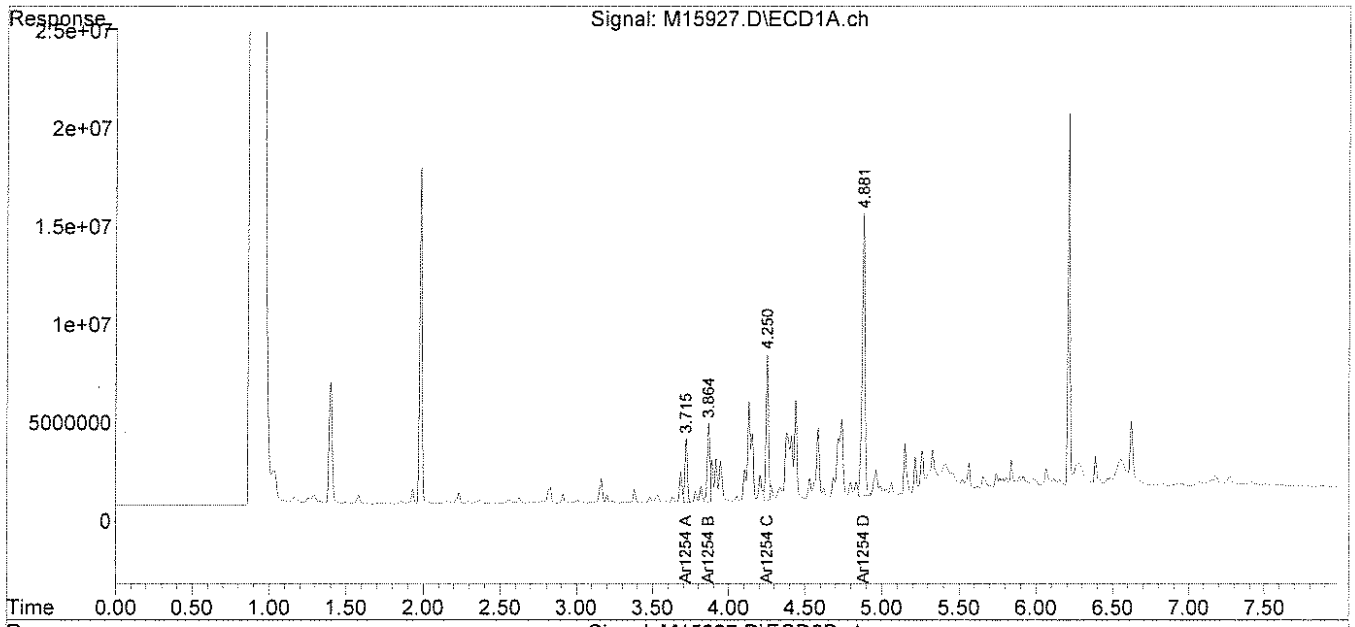
Comments: _____

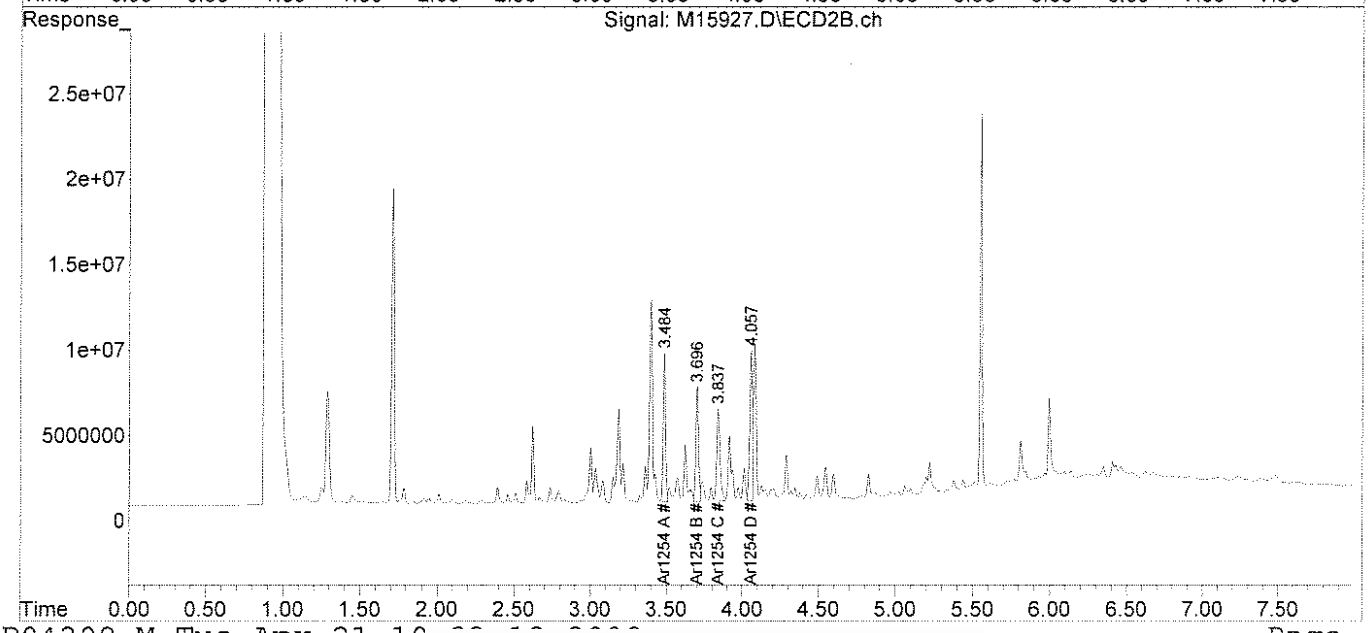
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042009-M\
Data File : M15927.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Apr 2009 7:19 pm
Operator :
Sample : 63629-20,,A/C
Misc : SOIL
ALS Vial : 39 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 21 10:23:12 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 23, 2009

SAMPLE DATA

Lab Sample ID:	63629-21
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	1.0
Collection Date:	04/16/09
Lab Receipt Date:	04/16/09
Extraction Date:	04/17/09
Analysis Date:	04/22/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-019

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**65 P**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	89	%
Decachlorobiphenyl	89	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis. P=Sample did not meet confirmation acceptance criteria for percent difference.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Sample: 63629-21,,A/C

Data File: M15960.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	106	65	48.0	*

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

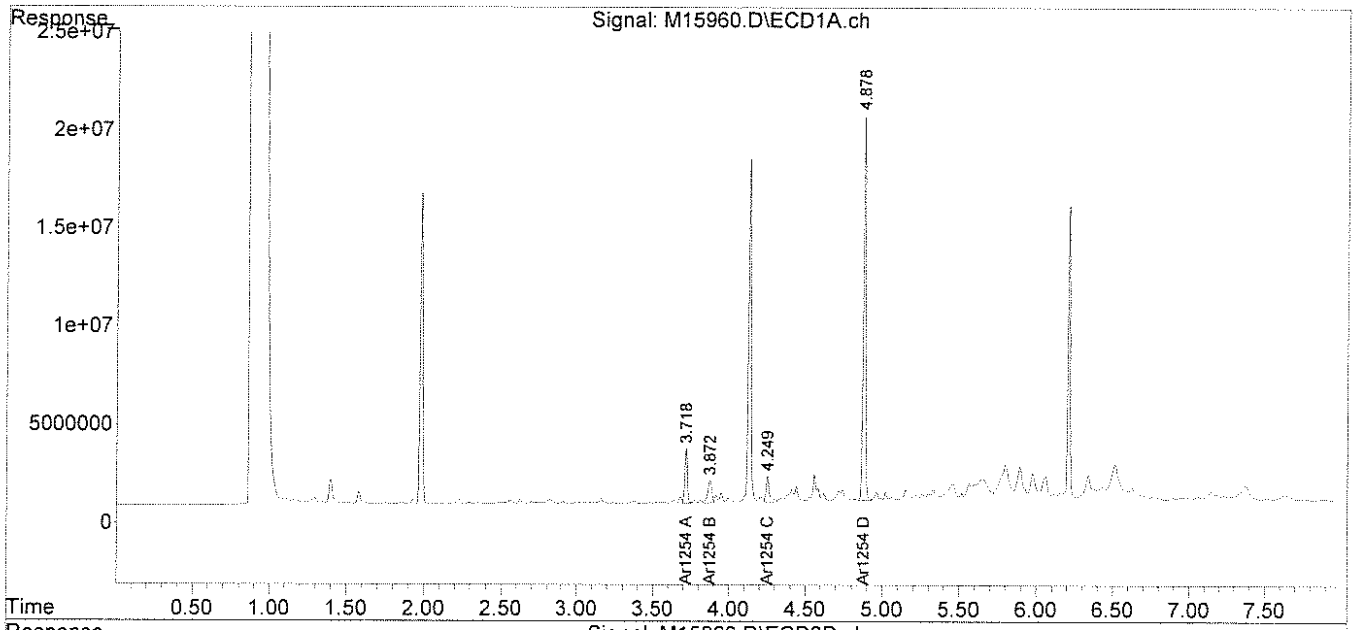
Comments: _____

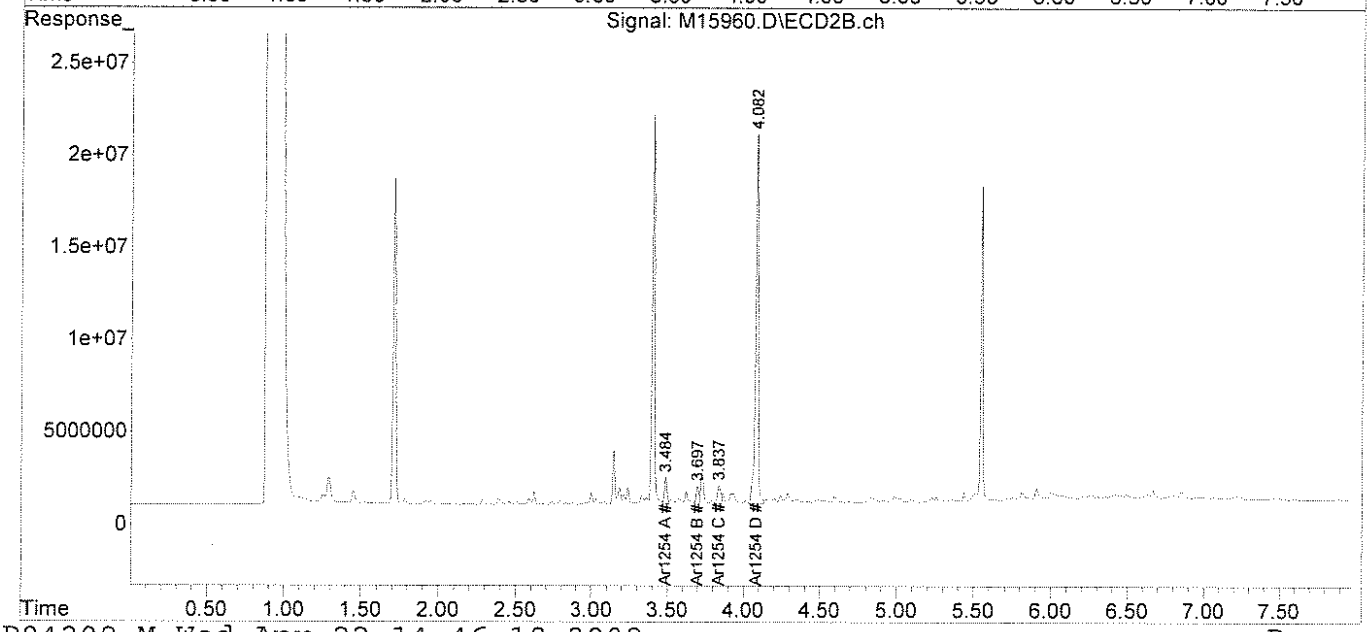
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M15960.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Apr 2009 11:56 am
Operator :
Sample : 63629-21,,A/C
Misc : SOIL
ALS Vial : 57 Sample Multiplier: 1

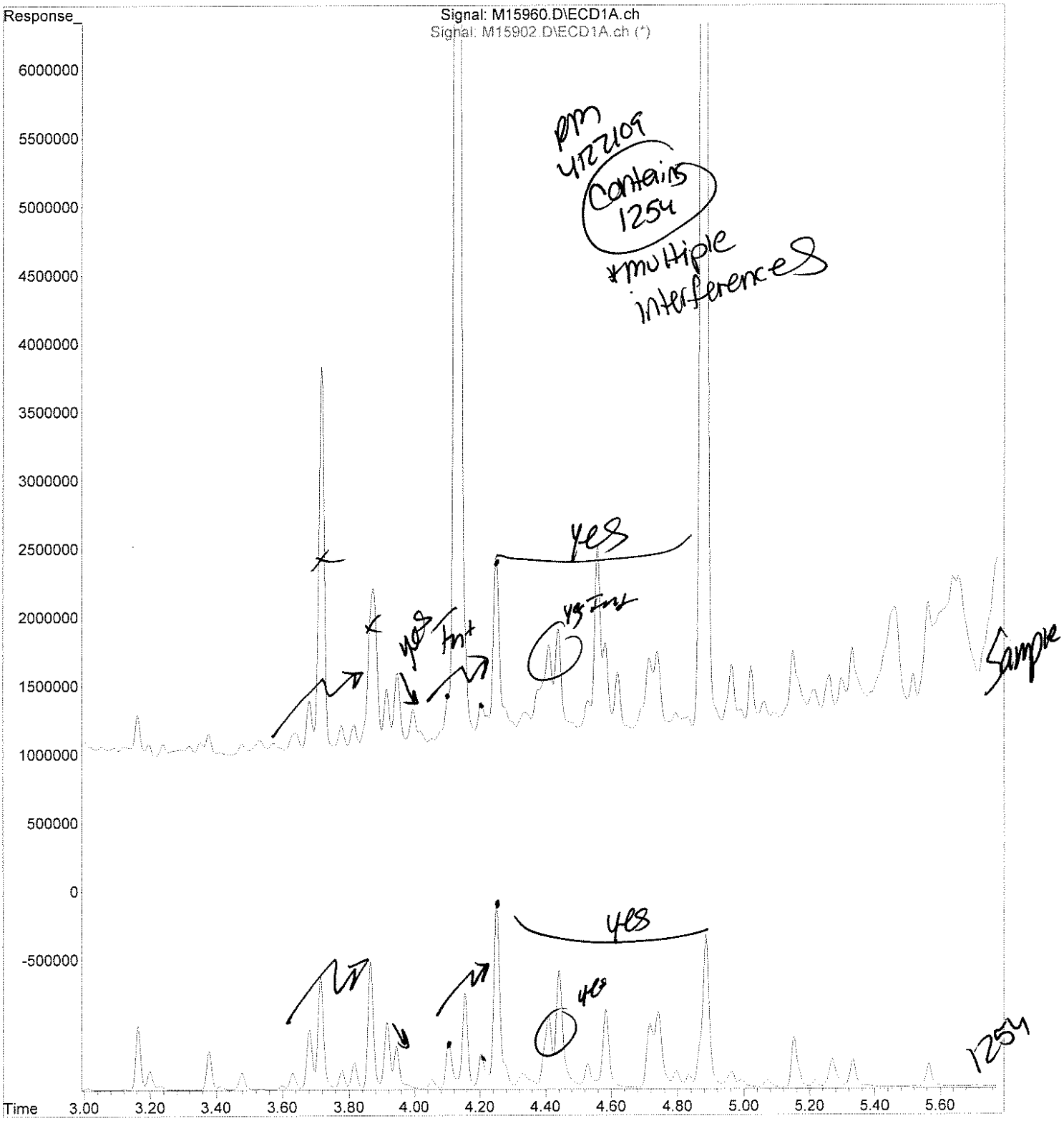
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 22 14:46:02 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\042209-M\M15960.D
Operator :
Acquired : 22 Apr 2009 11:56 am using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63629-21,,A/C
Misc Info : SOIL
Vial Number: 57



analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 23, 2009

SAMPLE DATA

Lab Sample ID:	63629-22
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	1.0
Collection Date:	04/16/09
Lab Receipt Date:	04/16/09
Extraction Date:	04/17/09
Analysis Date:	04/22/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-020

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**199**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	75	%
Decachlorobiphenyl	68	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63629
Sample: 63629-22,,A/C
Data File: M15961.D
Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	141	199	34.2	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

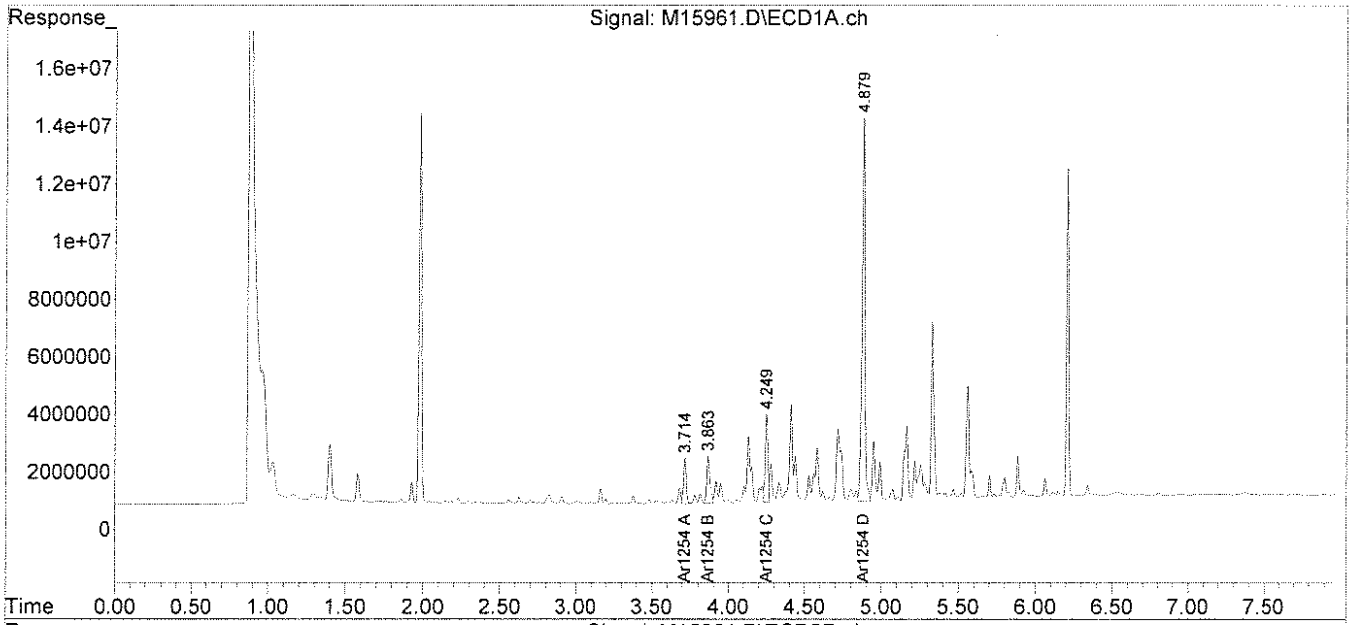
Comments: _____

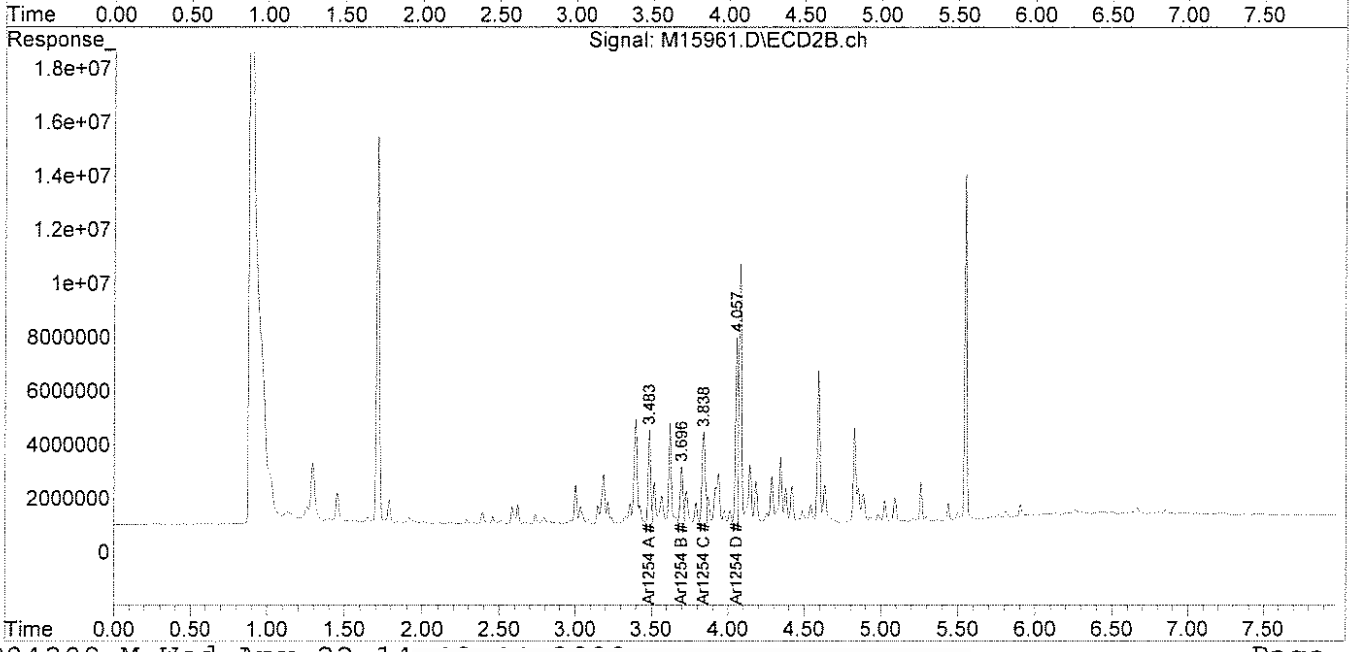
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M15961.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Apr 2009 12:07 pm
Operator :
Sample : 63629-22,,A/C
Misc : SOIL
ALS Vial : 58 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 22 14:49:34 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





PCB
QC FORMS

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:PCBQC.doc

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63629

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04169PSOX,,A/C	62		125		93		117	
L04169PSOX,,A/C	99		112		86		109	
LD04169PSOX,,A/C	95		112		82		110	
63629-1,,A/C	96		116		96		112	
63629-1,MS,,A/C	86		114		87		103	
63629-1,MSD,,A/C	93		111		93		108	
63629-2,,A/C	90		106		88		98	
63629-3,,A/C	87		105		87		102	
63629-4,,A/C	95		111		88		108	
63629-5,,A/C	88		111		92		108	
63629-6,,A/C	88		111		88		106	
63629-7,,A/C	85		112		88		105	
63629-8,,A/C	93		114		90		112	
63629-9,,A/C	90		110		91		109	
63629-10,,A/C	91		109		89		106	
63629-11,,A/C	82		115		89		109	
63629-13,,A/C	88		108		88		106	
63629-14,,A/C	90		109		91		107	
63629-18,,A/C	89		111		91		108	
63629-12,,A/C	98		118		95		109	
63629-19,,A/C	97		142	*	93		114	
63629-20,,A/C	92		110		92		107	
63629-15,,A/C	85		130		84		104	
63629-17,,A/C	92		105		92		102	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

\# Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63629

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04179PSOX,,A/C	96		104		86		98	
L04179PSOX,,A/C	93		102		84		100	
LD04179PSOX,,A/C	96		109		86		103	
63629-21,,A/C	89		89		91		85	
63629-22,,A/C	75		68		76		64	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB AQUEOUS
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: L
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63629

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04219PW	75		73		76		76	
L04219PWB	75		80		75		82	
LD04219PWB	79		74		79		76	
63629-16	73		53		73		51	

		Lower Limit	Upper Limit
SMC #1 =	TCX	46	122
SMC #2 =	DCB	40	135

\# Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Non-spiked sample: B04169PSOX,,A/C

Spike: L04169PSOX,,A/C

Spike duplicate: LD04169PSOX,,A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	200	200	65	140	30	0	207	103		196	98		5.5	
PCB 1260	200	200	60	130	30	0	184	92		186	93		1.2	
PCB 1016 #2	200	200	65	140	30	0	274	137		257	128		6.5	
PCB 1260 #2	200	200	60	130	30	0	188	94		191	96		1.8	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

PCB SOIL
MATRIX SPIKE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Non-spiked sample: 63629-1,,A/C

Spike: 63629-1,MS,,A/C

Spike duplicate: 63629-1,MSD,,A/C

COMPOUND	MS SPIKE ADDED (ug/kg)	MSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	240	243	65	140	30	0	283	118		293	121		3.8	
PCB 1260	240	243	60	130	30	0	1110	463	*	786	324	*	34.1	*
PCB 1016 #2	240	243	65	140	30	0	316	132		344	141	*	8.3	
PCB 1260 #2	240	243	60	130	30	0	605	253	*	674	277	*	10.8	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

MS/MSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Non-spiked sample: B04179PSOX,,A/C

Spike: L04179PSOX,,A/C

Spike duplicate: LD04179PSOX,,A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	200	200	65	140	30	0	204	102		213	107		4.4	
PCB 1260	200	200	60	130	30	0	177	88		190	95		7.4	
PCB 1016 #2	200	200	65	140	30	0	261	130		273	137		4.6	
PCB 1260 #2	200	200	60	130	30	0	182	91		190	95		4.4	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

PCB FORM 3

PCB AQUEOUS
LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE
PERCENT RECOVERY

Instrument ID: L

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63629

Non-spiked sample: B04219PW

Spike: L04219PWB

Spike duplicate: LD04219PWB

COMPOUND	LCS SPIKE ADDED (ug/L)	LCSD SPIKE ADDED (ug/L)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
PCB 1016	2.0	2.0	79	113	25	0.00	1.64	82		1.67	84		2.1	
PCB 1260	2.0	2.0	58	115	25	0.00	1.64	82		1.59	79		3.0	
PCB 1016 #2	2.0	2.0	81	112	25	0.00	1.62	81		1.65	82		1.5	
PCB 1260 #2	2.0	2.0	54	123	25	0.00	1.60	80		1.54	77		4.0	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been volume adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

CHAIN OF CUSTODIES

Chain Of Custody Form

analytics environmental laboratory LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 2.3
3) Received in good condition Y or N
4) pH checked by: N/A
5) Labels checked by: NF 4/16/09

Project#: 210918 Proj. Name: UMASS - LGRC
Company: Woodard & Curran
Contact: GEORGE FRANKLIN/AMY WALLACE
Address: 35 New England Business Ctr.
Andover, MA 01810
Phone: (866)702-6371 PO# Quote # WCI 8091001
Sampler (Signature): amy wa[illegible] [illegible]

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

Station Identification	Sample Date	Sample Time	Analysis	Preservation: Unpres	4°C	HNO_3	H_2SO_4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
LGRC-SS81-119	4/13/09	1740	PCB		X						S	1	G		63629-1
LGRC-SS82-120	4/13/09	1750	PCB		X						S	1	G		-2
LGRC-VSS-001	4/15/09	840	PCB		X						S	1	G		-3
LGRC-VSS-002	4/15/09	845	PCB		X						S	1	G		-4
LGRC-VSS-003	4/15/09	850	PCB		X						S	1	G		-5
LGRC-VSS-004	4/15/09	855	PCB		X						S	1	G		-6
LGRC-VSS-005	4/15/09	900	PCB		X						S	1	G		-7
LGRC-VSS-008	4/15/09	1245	PCB		X						S	1	G		-8
LGRC-VSS-009	4/15/09	1250	PCB		X						S	1	G		-9
LGRC-VSS-010	4/15/09	1255	PCB		X						S	1	G		-10
LGRC-VSS-011	4/15/09	1300	PCB		X						S	1	G		-11

Received By: [illegible] Time: 1215 Date: 4/16/09
Received By: Time: Date:
Received By: Time: Date:

Email Results to:
George Franklin
Jeff Hamel
Amy Wallace

Turnaround Time (TAT)
☐ 24hr* ☐ 48hr*
☐ 72hr* ☒ 5 Days*
☐ 10 Days
*Fee may apply; lab approval required

Comments / Instructions:
PCBs by 8082
SOXHLET EXTRACTION

Project Requirements:
*Fee may apply

Report Type:
☐ MCP* ☑ Level II*
☐ CTRCP* ☐ Level III*
☐ DOD* ☐ Level IV*
☐ Standard

State:
☐ NH
☒ MA
☐ ME
☐ CT
☐ RI
Other: TSCA

State Standard: _____ (eg. S-1 or GW-1)

EDD Required: Y* N
Type: _____

Relinquished By: Sampler: [illegible]
Relinquished By:
Relinquished By:

Analytics Report 63629 page 0086 of 88

Chain Of Custody Form

analytics environmental laboratory LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 2.3
3) Received in good condition Y or N
4) pH checked by: JF 4/16/09
5) Labels checked by: MF 4/16/09

Project#: 210918 Proj. Name: UMASS - LGRC
Company: Woodard & Curran
Contact: GEORGE FRANKLIN/AMY WALLACE
Address: 35 New England Business Ctr.
Andover, MA 01810
Phone: (866)702-6371 PO# Quote # WCI 8091001
Sampler (Signature): Amy Wallace [signature]

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

Location Identification	Sample Date	Sample Time	Analysis	Preservation: Unpres	4°C	HNO3	H2SO4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
LGRC-VSS-012	4/15/09	13:05	PCB		X						S	1	G		63629-12
LGRC-VSS-013	4/15/09	14:25	PCB		X						S	1	G		-13
LGRC-VSS-014	4/15/09	14:27	PCB		X						S	1	G		-14
LGRC-VSS-015	4/15/09	14:30	PCB		X						S	1	G		-15
LGRC-VSS-901	4/16/09	1055	PCB		X						W	1	G	5.5	-16
LGRC-VSS-016	4/16/09	1040	PCB		X						S	1	G		-17
LGRC-VSS-501	4/16/09	1040	PCB		X						S	1	G		-18
LGRC-VSS-017	4/16/09	1045	PCB		X						S	1	G		-19
LGRC-VSS-018	4/16/09	1138	PCB		X						S	1	G		-20
LGRC-VSS-~~020~~ 019	4/16/09	1143	PCB		X						S	1	G		-21
LGRC-VSS-020	4/16/09	1149	PCB		X						S	1	G		-22

Email Results to:
George Franklin
Jeff Hamel
Amy Wallace

Turnaround Time (TAT)
- [ ] 24hr*
- [ ] 48hr*
- [ ] 72hr*
- [x] 5 Days*
- [ ] 10 Days

*Fee may apply; lab approval required

Comments / Instructions:
PCBs by 8082
SOXHLET EXTRACTION
Amber liter tested neg for residual chlorine. JF 4/16/09

Project Requirements:
*Fee may apply

Report Type:
- [ ] MCP*
- [x] Level II*
- [ ] CTRCP*
- [ ] Level III*
- [ ] DOD*
- [ ] Level IV*
- [ ] Standard

State:
- [ ] NH
- [x] MA
- [ ] ME
- [ ] CT
- [ ] RI

Other: TSCA

State Standard: _____ (eg. S-1 or GW-1)

EDD Required: Y* N

Type: _____

Received By: [signature] Time: 1219 Date: 4/16/09 Relinquished By Sampler: [signature]

Received By: Time: Date: Relinquished By:

Received By: Time: Date: Relinquished By:

Analytics\AEL Documents\AEL COC

Page 2 of 2

Analytics Report 63629 page 0087 of 88

analytics environmental laboratory LLC

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 63629

CLIENT: Woodard & Curran

PROJECT: Umass-LGRC

COOLER NUMBER: _____

NUMBER OF COOLERS: 1

DATE RECEIVED: 4/16/09

A: PRELIMINARY EXAMINATION:

DATE COOLER OPENED: 4/16/09

1. Cooler received by(initials) JF

Date Received: 4/16/09

2. Circle one: Hand delivered (If so, skip 3) Shipped

3. Did cooler come with a shipping slip? Y N

3a. Enter carrier name and airbill number here: _____

4. Were custody seals on the outside of cooler? Y N
How many & where: _____ Seal Date: _____ Seal Name: _____

5. Did the custody seals arrive unbroken and intact upon arrival? Y N

6. COC#: _____

7. Were Custody papers filled out properly (ink,signed, etc)? Y N

8. Were custody papers sealed in a plastic bag? Y N

9. Did you sign the COC in the appropriate place? Y N

10. Was the project identifiable from the COC papers? Y N

11. Was enough ice used to chill the cooler? Y N Temp. of cooler: 2.3°C

B. Log-In: Date samples were logged in: _____ By: _____

12. Type of packing in cooler(bubble wrap, popcorn) Y N

13. Were all bottles sealed in separate plastic bags? Y N

14. Did all bottles arrive unbroken and were labels in good condition? Y N

15. Were all bottle labels complete(ID,Date,time,etc.) Y N

16. Did all bottle labels agree with custody papers? Y N

17. Were the correct containers used for the tests indicated: Y N

18. Were samples received at the correct pH? Y N

19. Was sufficient amount of sample sent for the tests indicated? Y N

20. Were bubbles absent in VOA samples? Y N/A

If NO, List sample #'s: _____

21. Laboratory labeling verified by (initials): Date: NF 4/16/09

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

April 24, 2009

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

RE: Analytical Results Case Narrative
Analytics # 63651
UMASS LGRC Proj# 210918

Dear Mr. Franklin;

Enclosed please find the analytical results for samples submitted for the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed Polychlorinated Biphenyls (PCBs) by EPA Method 8082.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II data package has been assembled in the following order:

Case Narrative/Non-Conformance Summary
Sample Log Sheet - Cover Page
PCB Form 1 Data Sheet for Samples and Blanks
Chromatograms
PCB Form 10 Confirmation Results
PCB Form 3 MS/MSD (LCS) Recoveries
Chain of Custody (COC) Forms

QC NON CONFORMANCE SUMMARY

Sample Receipt:
No exceptions.

PCBs by EPA Method 8082:
Samples 63651-2 and 63651-3 were analyzed at dilutions due to high concentrations of PCB 1254 detected in the samples.

Sample 63651-1 had high Decachlorobiphenyl (DCB) surrogate recovery on column #1. Column #2 was in control for all surrogates. Results were reported without qualification.

Sincerely,
ANALYTICS Environmental Laboratory, LLC

Stephen Knollmeyer
Laboratory Director

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63651

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 17 April 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63651-1	04/17/09	LGRC-SS83-121	EPA 8082 (PCBs only)	
63651-2	04/17/09	LGRC-SS9-122	EPA 8082 (PCBs only)	
63651-3	04/17/09	LGRC-SS10-123	EPA 8082 (PCBs only)	
63651-4	04/17/09	LGRC-SS84-124	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 4/24/2009

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-130	70-130	EPA 8260B
Toluene-d8	70-130	70-130	
Bromofluorobenzene	70-130	70-130	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	EPA 624/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA0	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH

PCB
DATA SUMMARIES

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID: B04179PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/17/09
Analysis Date: 04/22/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	96	%
Decachlorobiphenyl	104	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

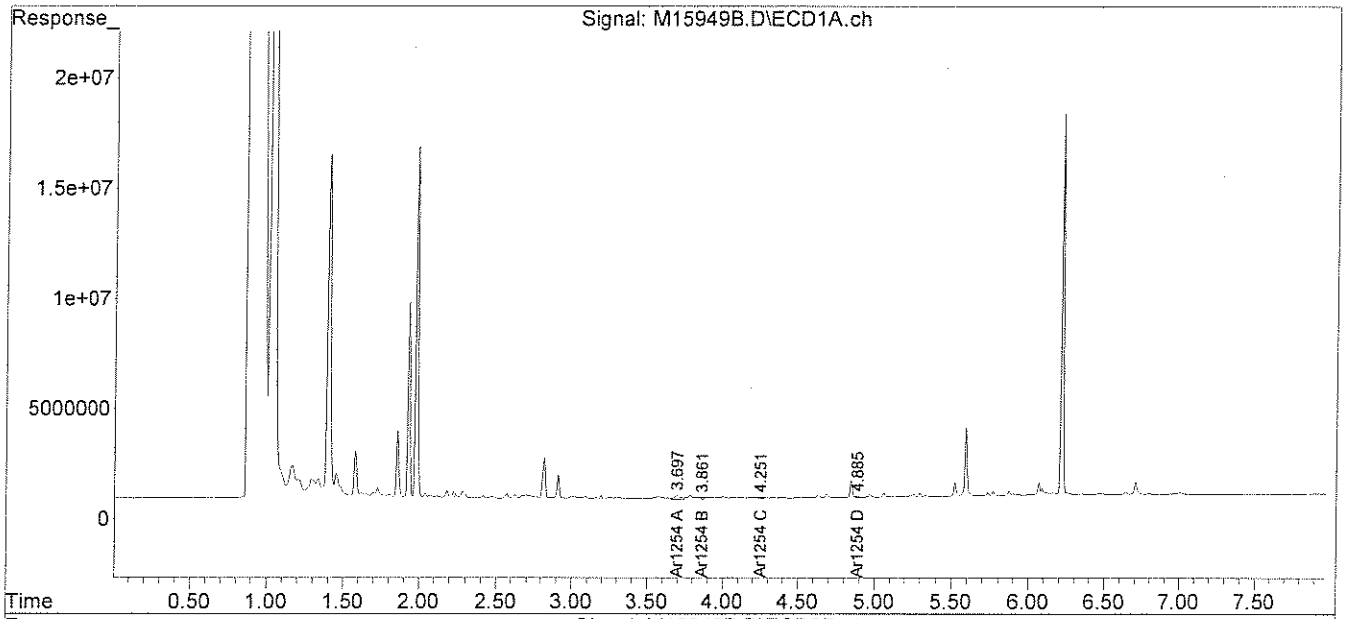
Authorized signature

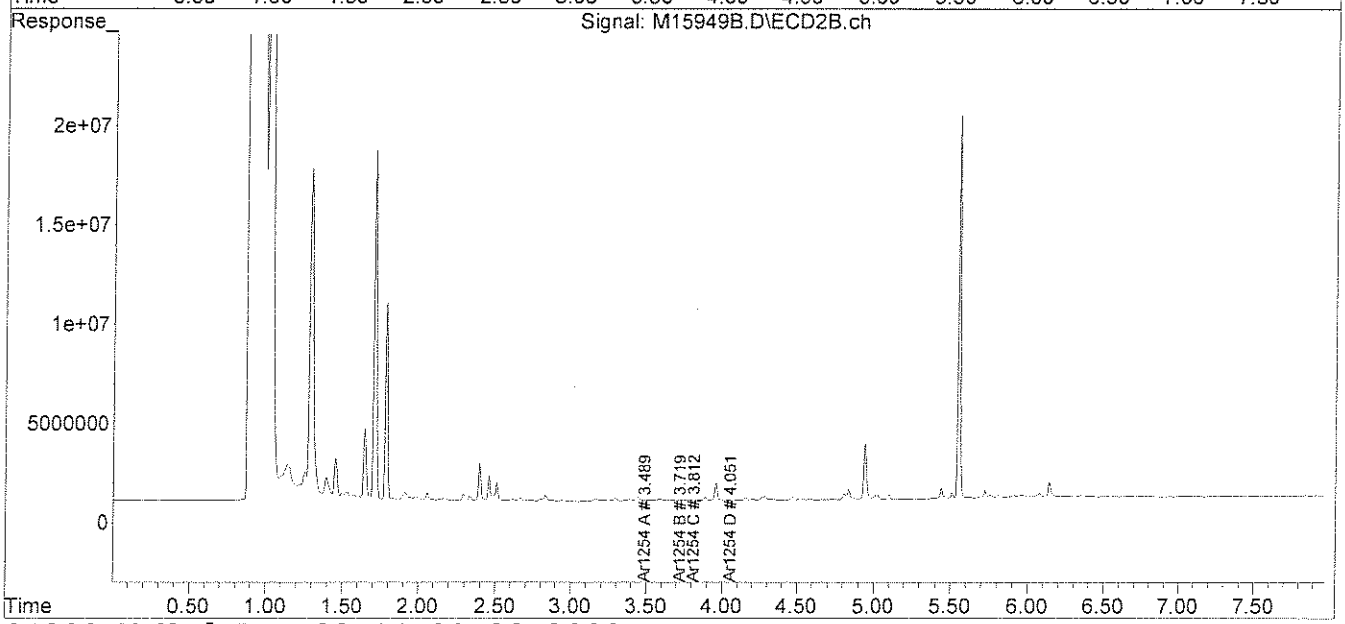
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M15949B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Apr 2009 10:26 am
Operator :
Sample : B04179PSOX,,A/C
Misc : SOIL
ALS Vial : 48 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 22 14:21:32 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID: B04219PSOX RR
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/21/09
Analysis Date: 04/23/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	104	%
Decachlorobiphenyl	104	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

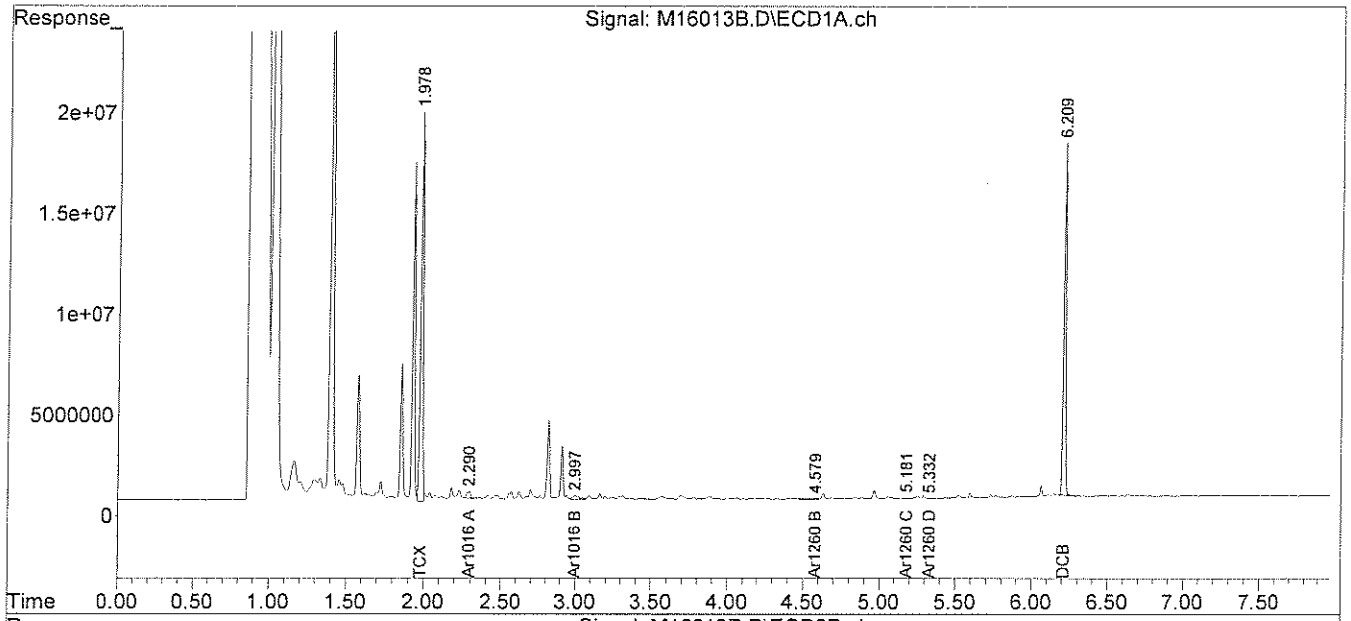
Authorized signature

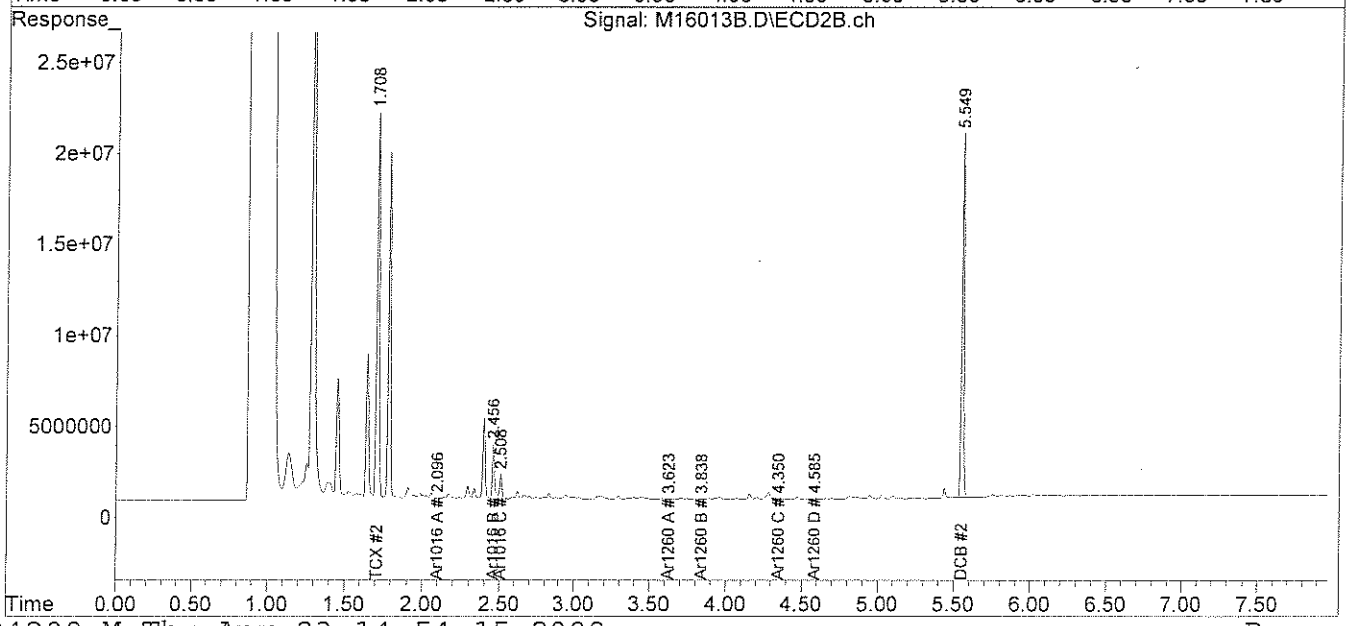
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M16013B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 23 Apr 2009 2:38 pm
Operator :
Sample : B04219PSOX,RR,,A/C
Misc : SOIL
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 23 14:54:09 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:46 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID:	63651-1
Matrix:	Solid
Percent Solid:	97
Dilution Factor:	1.0
Collection Date:	04/17/09
Lab Receipt Date:	04/17/09
Extraction Date:	04/17/09
Analysis Date:	04/22/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-SS83-121

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	78	%
Decachlorobiphenyl	106	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

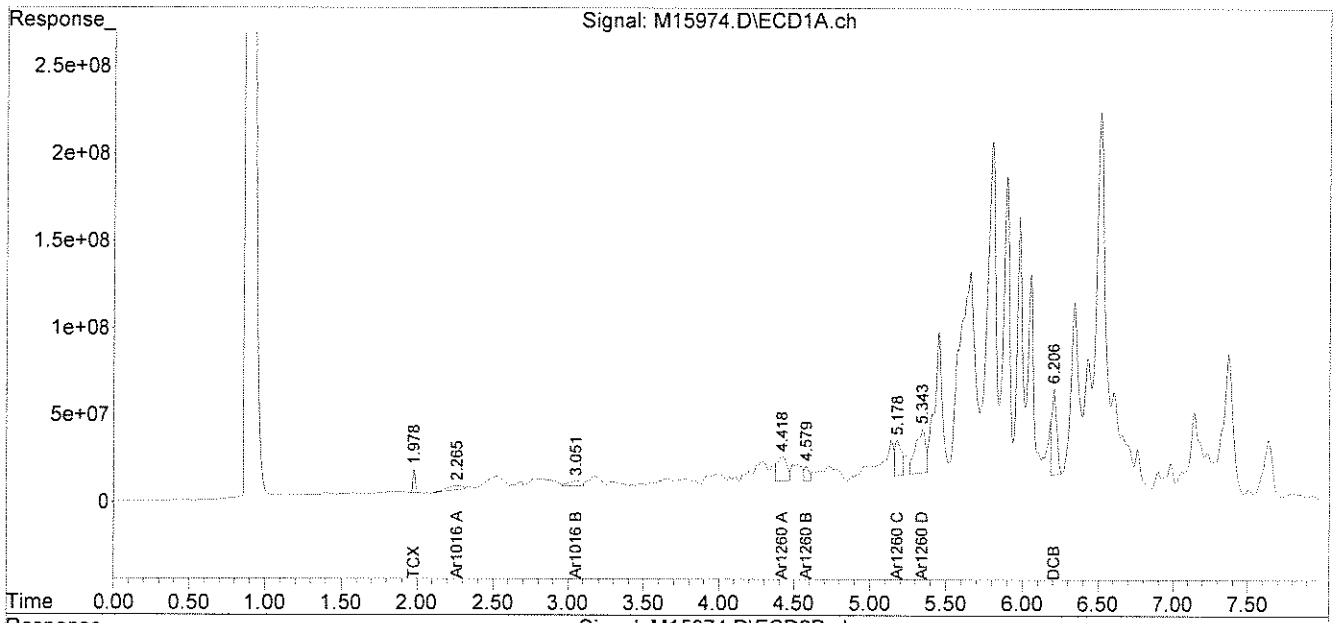
Authorized signature

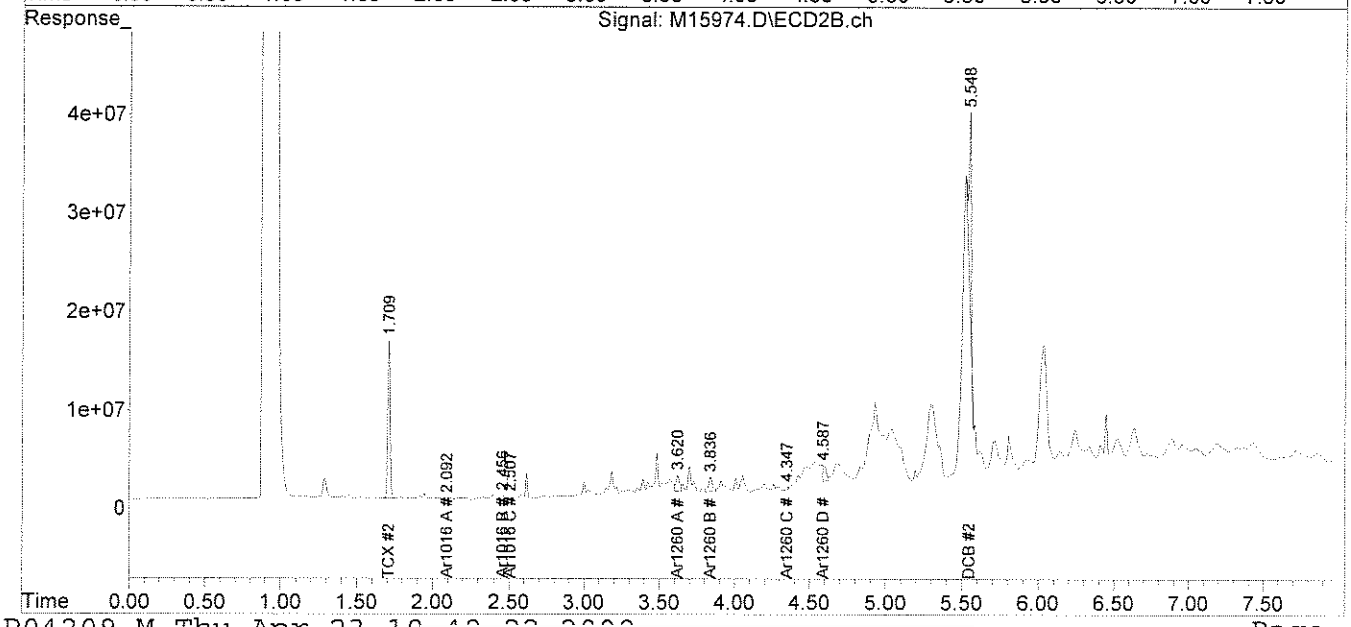
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M15974.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Apr 2009 5:36 pm
Operator :
Sample : 63651-1,,A/C
Misc : SOIL
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 23 10:49:13 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:38 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID:	63651-2
Matrix:	Solid
Percent Solid:	84
Dilution Factor:	23
Collection Date:	04/17/09
Lab Receipt Date:	04/17/09
Extraction Date:	04/17/09
Analysis Date:	04/24/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-SS9-122

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	760	U
PCB-1221	760	U
PCB-1232	760	U
PCB-1242	760	U
PCB-1248	760	U
PCB-1254	760	**14200**
PCB-1260	760	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	*	%
Decachlorobiphenyl	*	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.
* The surrogates were diluted out.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63651
Sample: 63651-2,1:20,,A/C
Data File: M16033.D
Dilution Factor: 22.6

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	10320	14241	31.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

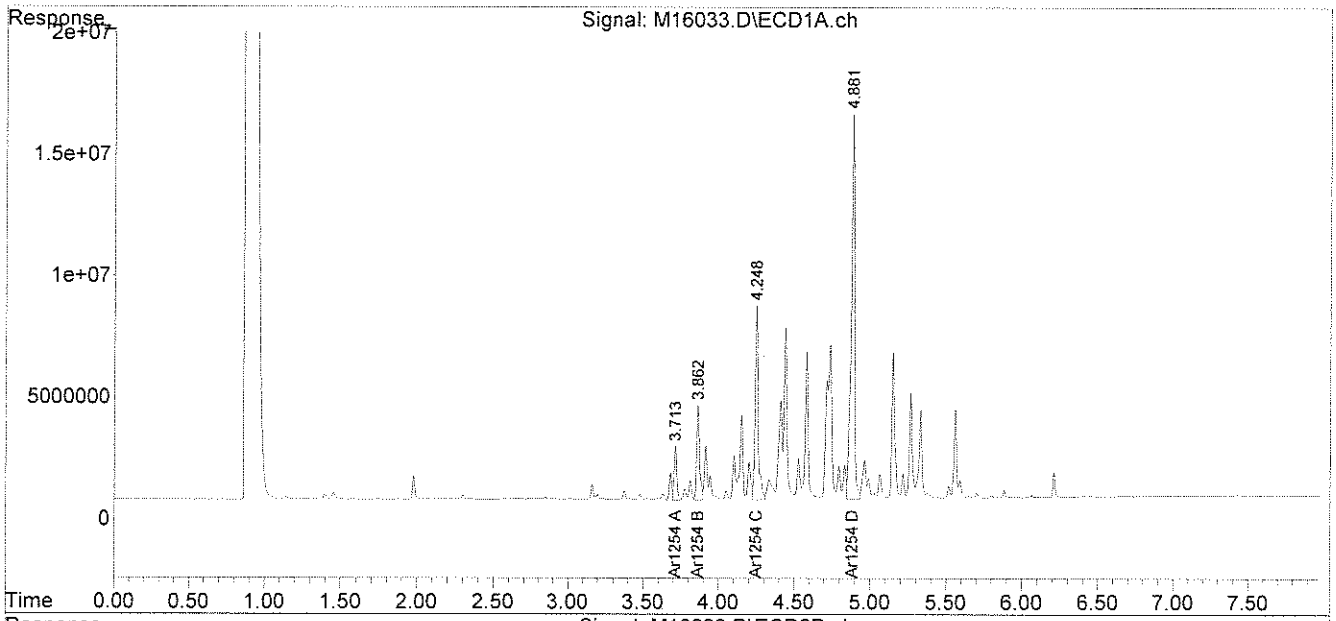
PCB FORM 10

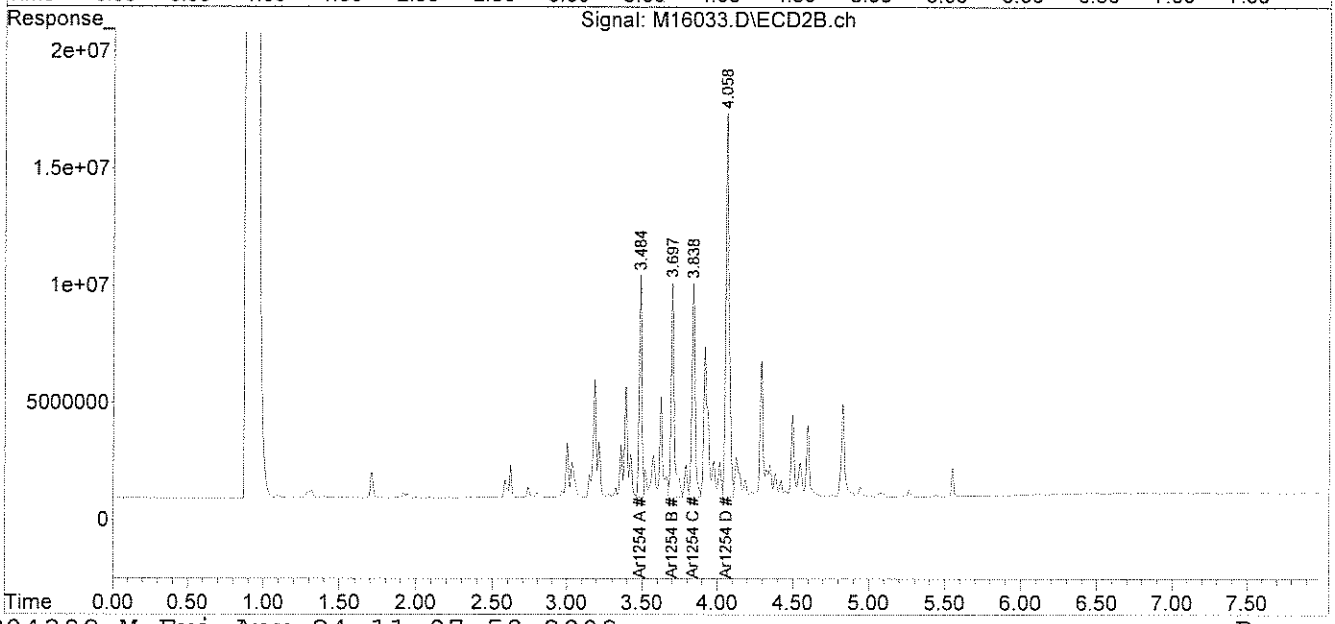
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M16033.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 24 Apr 2009 10:41 am
Operator :
Sample : 63651-2,1:20,,A/C
Misc : SOIL
ALS Vial : 60 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 24 11:07:58 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID:	63651-3
Matrix:	Solid
Percent Solid:	87
Dilution Factor:	11
Collection Date:	04/17/09
Lab Receipt Date:	04/17/09
Extraction Date:	04/17/09
Analysis Date:	04/23/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-SS10-123

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	360	U
PCB-1221	360	U
PCB-1232	360	U
PCB-1242	360	U
PCB-1248	360	U
PCB-1254	360	**4420**
PCB-1260	360	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	119	%
Decachlorobiphenyl	115	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63651

Sample: 63651-3,1:10,,A/C

Data File: M16021.D

Dilution Factor: 11.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	3752	4425	16.5	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

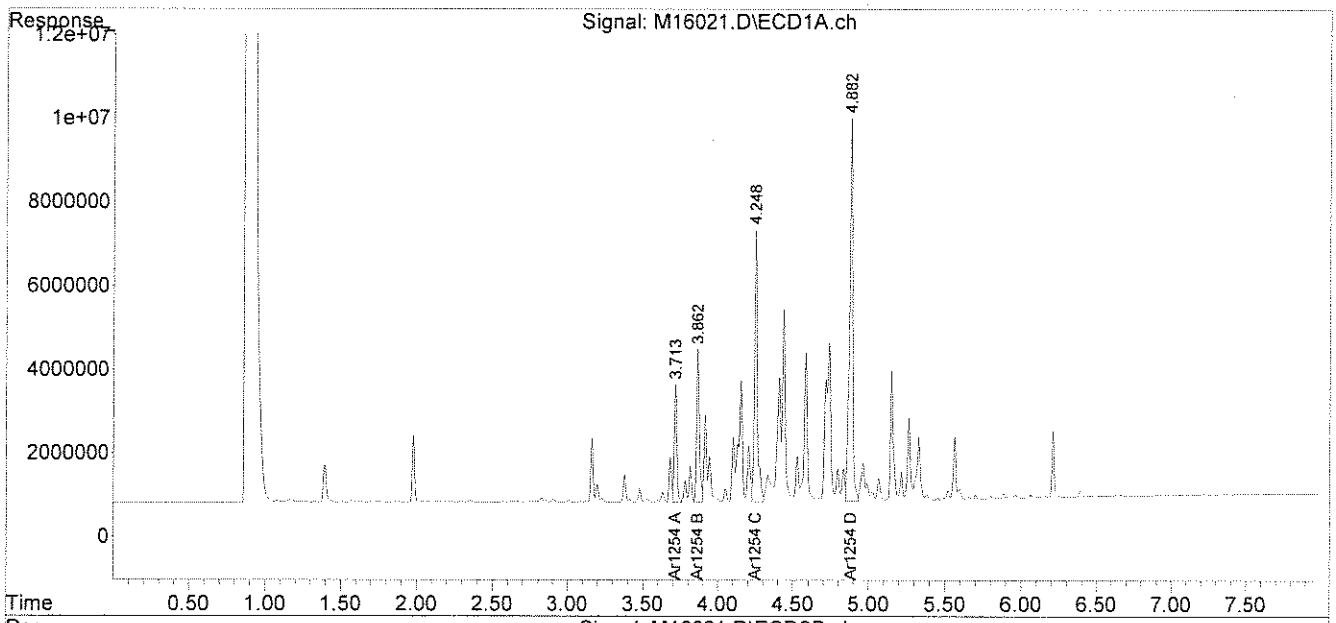
PCB FORM 10

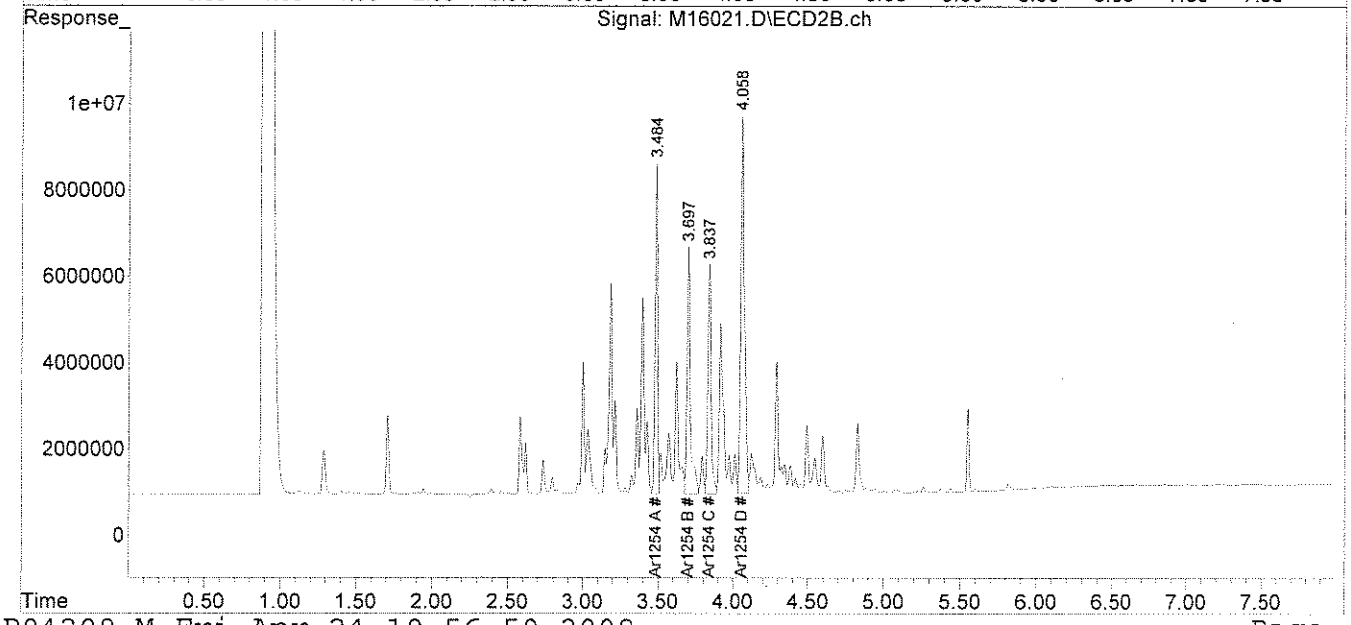
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M16021.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 23 Apr 2009 4:13 pm
Operator :
Sample : 63651-3,1:10,,A/C
Misc : SOIL
ALS Vial : 51 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 24 10:56:50 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID:	63651-4
Matrix:	Solid
Percent Solid:	97
Dilution Factor:	1.0
Collection Date:	04/17/09
Lab Receipt Date:	04/17/09
Extraction Date:	04/17/09
Analysis Date:	04/22/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-SS84-124

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**353**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	104	%
Decachlorobiphenyl	107	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63651

Sample: 63651-4,,A/C

Data File: M15967.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	282	353	22.5	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

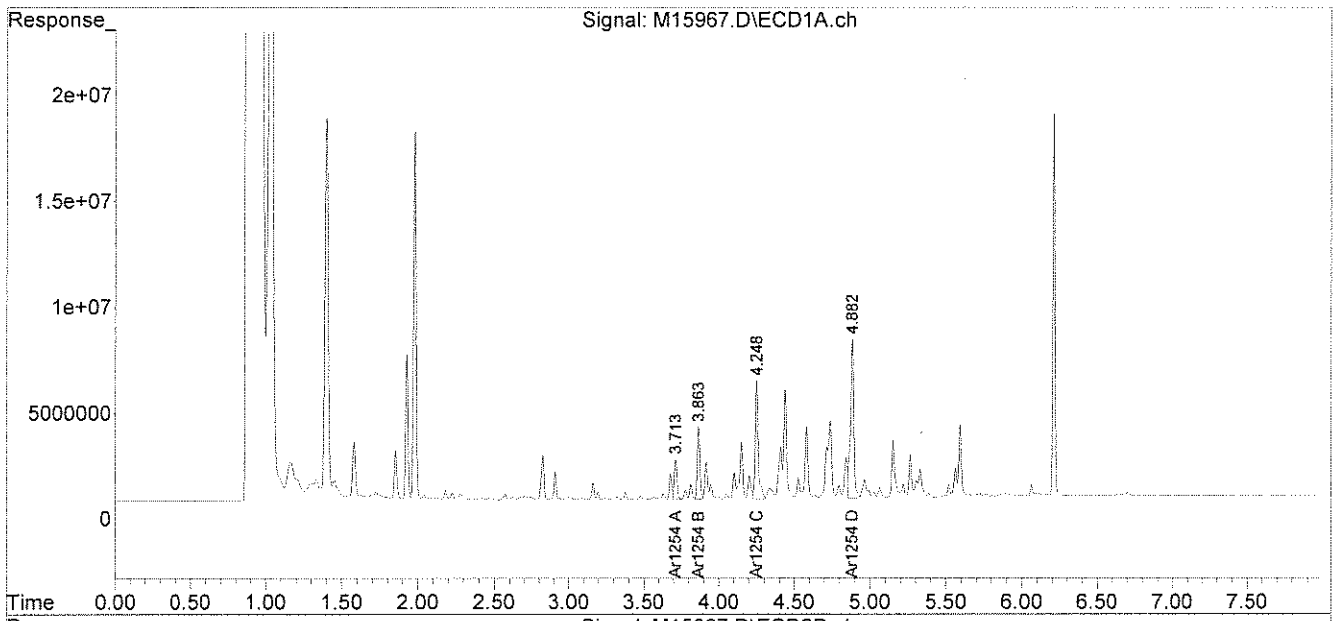
PCB FORM 10

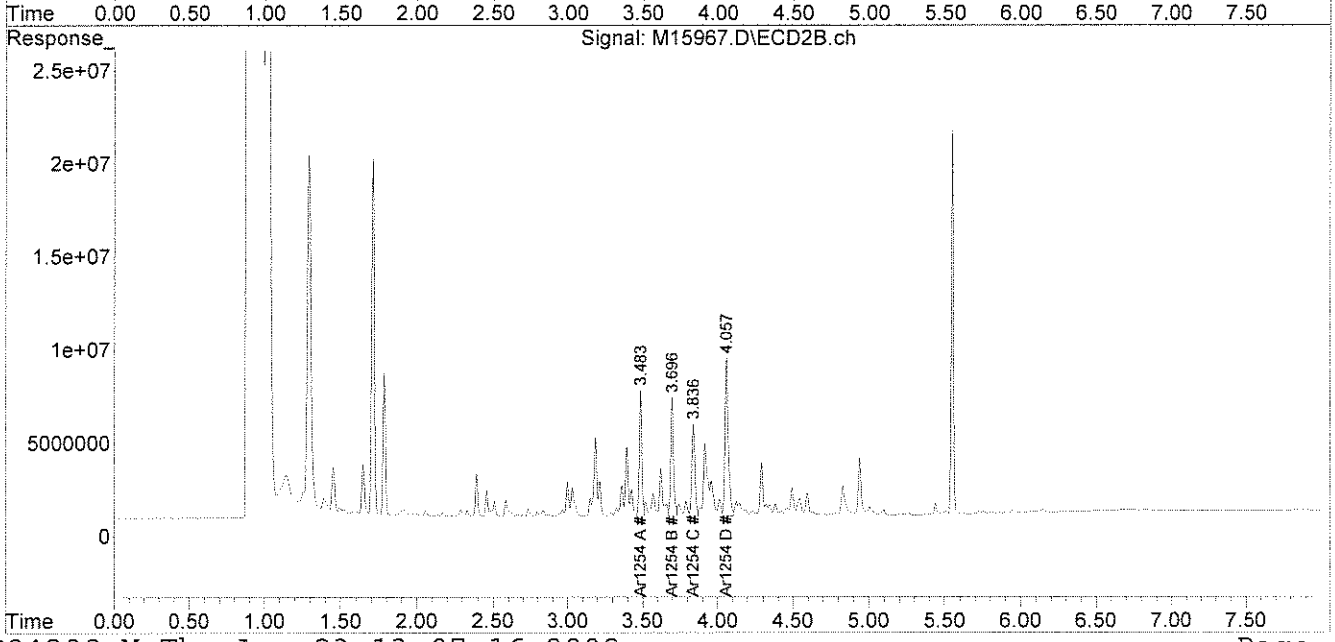
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M15967.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Apr 2009 4:25 pm
Operator :
Sample : 63651-4,,A/C
Misc : SOIL
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 23 13:07:16 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





PCB
QC FORMS

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:PCBQC.doc

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63651

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04179PSOX,,A/C	96		104		86		98	
L04179PSOX,,A/C	93		102		84		100	
LD04179PSOX,,A/C	96		109		86		103	
63651-4,,A/C	104		107		96		106	
63651-1,,A/C	74		706	*	78		106	
63651-1,MS,,A/C	75		121		75		90	
63651-1,MSD,,A/C	86		94		90		99	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63651

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04219PSOX,RR,,A/C	104		104		96		102	
63651-3,1:10,,A/C	119		115		113		107	
63651-2,1:20,,A/C	D		D		D		D	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63651

Non-spiked sample: B04179PSOX,,A/C

Spike: L04179PSOX,,A/C

Spike duplicate: LD04179PSOX,,A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	200	200	65	140	30	0	204	102		213	107		4.4	
PCB 1260	200	200	60	130	30	0	177	88		190	95		7.4	
PCB 1016 #2	200	200	65	140	30	0	261	130		273	137		4.6	
PCB 1260 #2	200	200	60	130	30	0	182	91		190	95		4.4	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

PCB SOIL
MATRIX SPIKE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63651

Non-spiked sample: 63651-1,,A/C

Spike: 63651-1,MS,,A/C

Spike duplicate: 63651-1,MSD,,A/C

COMPOUND	MS SPIKE ADDED (ug/kg)	MSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	199	203	65	140	30	0	190	95		201	99		5.8	
PCB 1260	199	203	60	130	30	0	218	110		238	117		8.5	
PCB 1016 #2	199	203	65	140	30	0	230	116		244	120		5.8	
PCB 1260 #2	199	203	60	130	30	0	198	99		215	106		8.2	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

MS/MSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

CHAIN OF CUSTODIES

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:COC.doc

Chain Of Custody Form

analytics environmental laboratory LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 2
3) Received in good condition Y or N
4) pH checked by: N/A
5) Labels checked by: 4.17.09

Project#: 210918 Proj. Name: UMASS - LGRC
Company: Woodard & Curran
Contact: GEORGE FRANKLIN / AMY WALLACE
Address: 35 New England Business Ctr.
Andover, MA 01810
Phone: (866)702-6371 PO# Quote # WCI 8091001
Sampler (Signature):

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

Station Identification	Sample Date	Sample Time	Analysis	Unpres	4°C	HNO_3	H_2SO_4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
RC-SS83-121	4/17/09	1311	PCBs		✓						SOL	1	G		63651-1
RC-SS9-122	4/17/09	1316	PCBs		✓						S	1	G		-2
RC-SS10-123	4/17/09	1323	PCBs		✓						S	1	G		-3
RC-SS84-124	4/17/09	1455	PCBs		✓						S	1	G		-4

Received By: Time: 1746 Date: 4/17/09
Received By: Time: Date:
Received By: Time: Date:

Email Results to:
George Franklin
Jeff Hamel
Amy Wallace

Turnaround Time (TAT)
☐ 24hr* ☐ 48hr*
☐ 72hr* ☑ 5 Days*
☐ 10 Days
*Fee may apply; lab approval required

Comments / Instructions:
PCBs by 8082
SOXHLET EXTRACTION
PRIORITY OVER OTHERS COLLECTED ON 4/17/09 - GF

Project Requirements:
*Fee may apply

Report Type:
☐ MCP* ☑ Level II*
☐ CTRCP* ☐ Level III*
☐ DOD* ☐ Level IV*
☐ Standard

State:
☐ NH
☐ MA
☐ ME
☐ CT
☐ RI
Other: TSCA

State Standard: _____
(eg. S-1 or GW-1)
EDD Required: Y* N
Type: _____

Relinquished By Sampler:
Relinquished By:
Relinquished By:

Analytics Report 63651 page 0027 of 28

Analytics\AEL Documents\AEL COC

analytics environmental laboratory LLC

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 63651

CLIENT: W + C Andover

PROJECT: UMASS - LGRC

COOLER NUMBER: _____

NUMBER OF COOLERS: 1

DATE RECEIVED: 4/17/09

A: PRELIMINARY EXAMINATION:

DATE COOLER OPENED: 4/17/09

1. Cooler received by(initials) — Date Received: NF 4/17/09

2. Circle one: Hand delivered (If so, skip 3) — Shipped

3. Did cooler come with a shipping slip? — Y — N

3a. Enter carrier name and airbill number here: _____

4. Were custody seals on the outside of cooler? — Y — N/A
How many & where: _____ Seal Date: _____ Seal Name: _____

5. Did the custody seals arrive unbroken and intact upon arrival? — Y — N/A

6. COC#: _____

7. Were Custody papers filled out properly (ink,signed, etc)? — Y — N

8. Were custody papers sealed in a plastic bag? — Y — N

9. Did you sign the COC in the appropriate place? — Y — N

10. Was the project identifiable from the COC papers? — Y — N

11. Was enough ice used to chill the cooler? — Y — N — Temp. of cooler: 2°C

B. Log-In: Date samples were logged in: 4/17/09 By: NF

12. Type of packing in cooler(bubble wrap, popcorn) — Y — N

13. Were all bottles sealed in separate plastic bags? — Y — N

14. Did all bottles arrive unbroken and were labels in good condition? — Y — N

15. Were all bottle labels complete(ID,Date,time,etc.) — Y — N

16. Did all bottle labels agree with custody papers? — Y — N

17. Were the correct containers used for the tests indicated: — Y — N

18. Were samples received at the correct pH? — Y — N/A

19. Was sufficient amount of sample sent for the tests indicated? — Y — N

20. Were bubbles absent in VOA samples? — Y — N/A

If NO, List sample #'s: _____

21. Laboratory labeling verified by (initials): SL — Date: 4/17/09

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

April 24, 2009

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

RE: Analytical Results Case Narrative
Analytics # 63652
UMASS LGRC Proj# 210918

Dear Mr. Franklin;

Enclosed please find the analytical results for samples submitted for the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed Polychlorinated Biphenyls (PCBs) by EPA Method 8082.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II data package has been assembled in the following order:

Case Narrative/Non-Conformance Summary
Sample Log Sheet - Cover Page
PCB Form 1 Data Sheet for Samples and Blanks
Chromatograms
PCB Form 10 Confirmation Results
PCB Form 3 MS/MSD (LCS) Recoveries
Chain of Custody (COC) Forms

QC NON CONFORMANCE SUMMARY

Sample Receipt:
No exceptions.

PCBs by EPA Method 8082:
Sample 63652-5 required dilution due to high concentrations of PCB 1254 detected in the sample.

Sincerely,
ANALYTICS Environmental Laboratory, LLC

Stephen Knollmeyer
Laboratory Director

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63652

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 20 April 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63652-1	04/17/09	LGRC-VSS-021	EPA 8082 (PCBs only)	
63652-2	04/17/09	LGRC-VSS-022	EPA 8082 (PCBs only)	
63652-3	04/17/09	LGRC-VSS-023	EPA 8082 (PCBs only)	
63652-4	04/17/09	LGRC-VSS-024	EPA 8082 (PCBs only)	
63652-5	04/17/09	LGRC-VSS-025	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 4/24/2009

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-130	70-130	EPA 8260B
Toluene-d8	70-130	70-130	
Bromofluorobenzene	70-130	70-130	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	EPA 624/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA0	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH

PCB
DATA SUMMARIES

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID: B04179PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/17/09
Analysis Date: 04/22/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	96	%
Decachlorobiphenyl	104	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

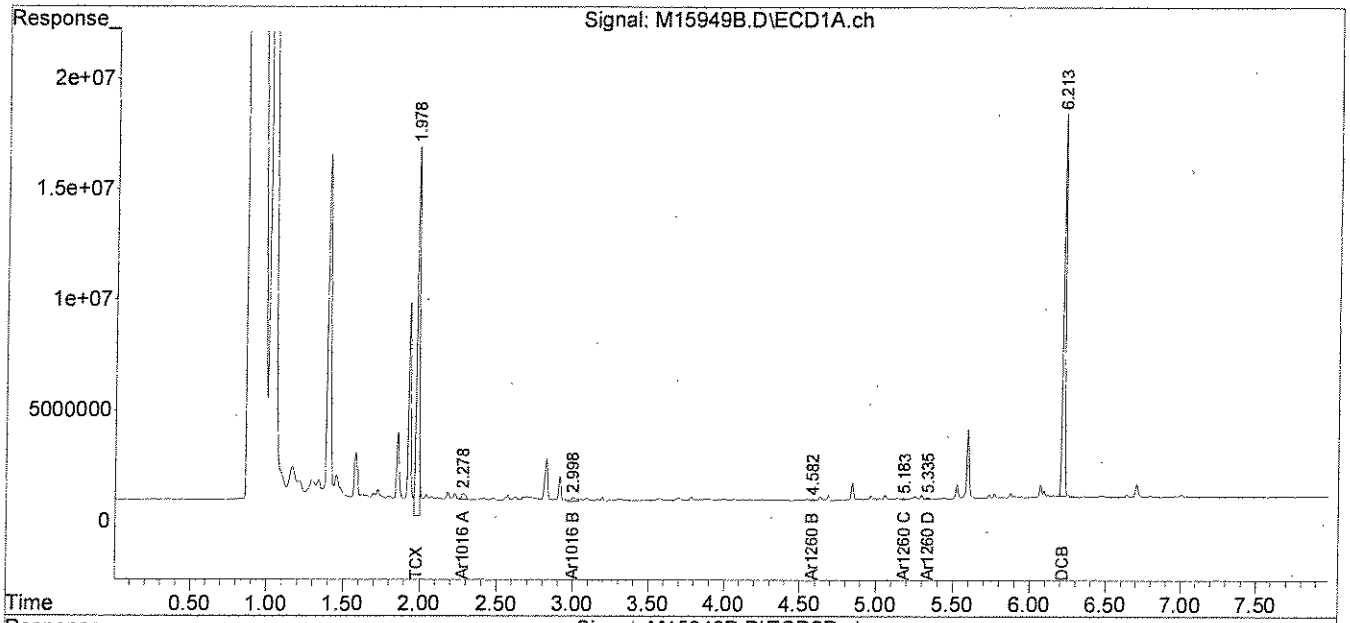
PCB Report

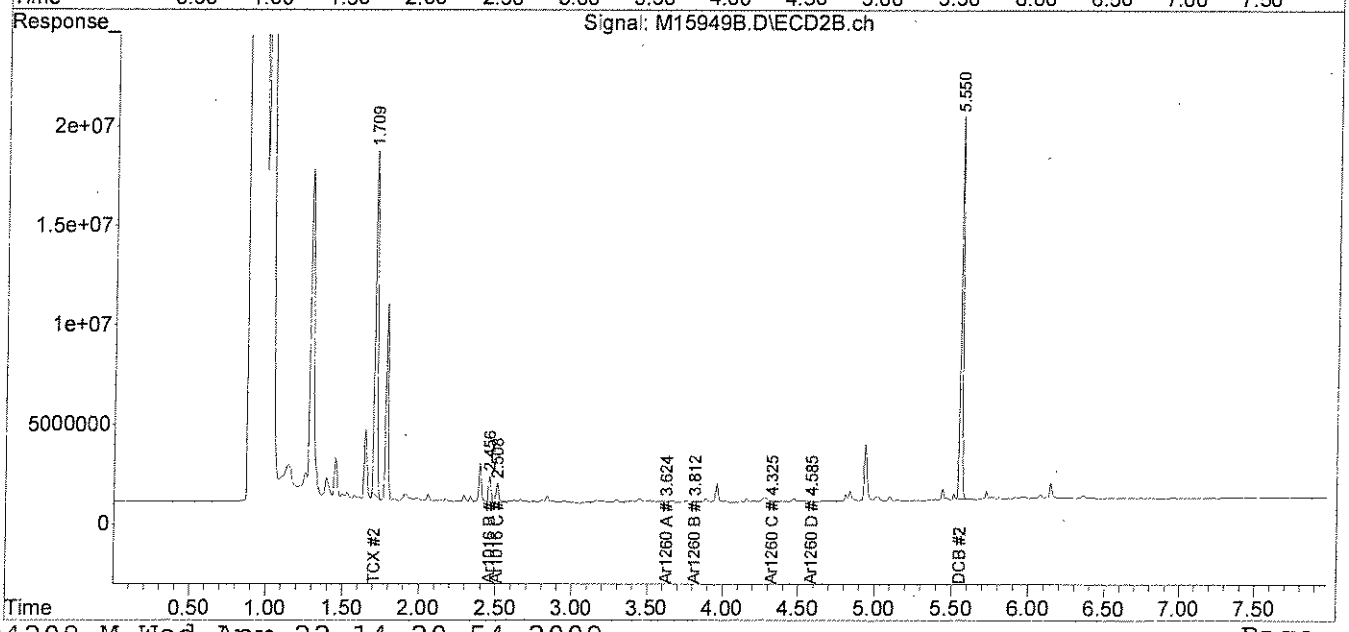
Authorized signature

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M15949B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Apr 2009 10:26 am
Operator :
Sample : B04179PSOX,,A/C
Misc : SOIL
ALS Vial : 48 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 22 14:19:13 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:38 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID: B04219PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/21/09
Analysis Date: 04/23/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	124	%
Decachlorobiphenyl	111	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

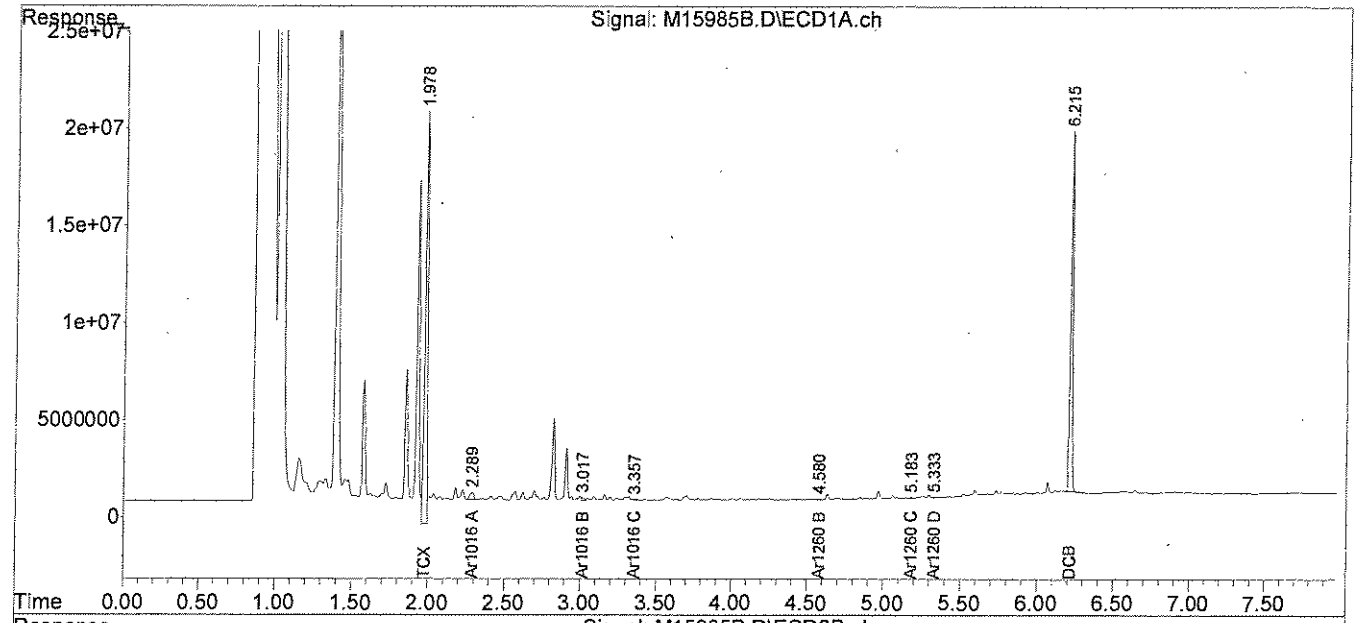
PCB Report

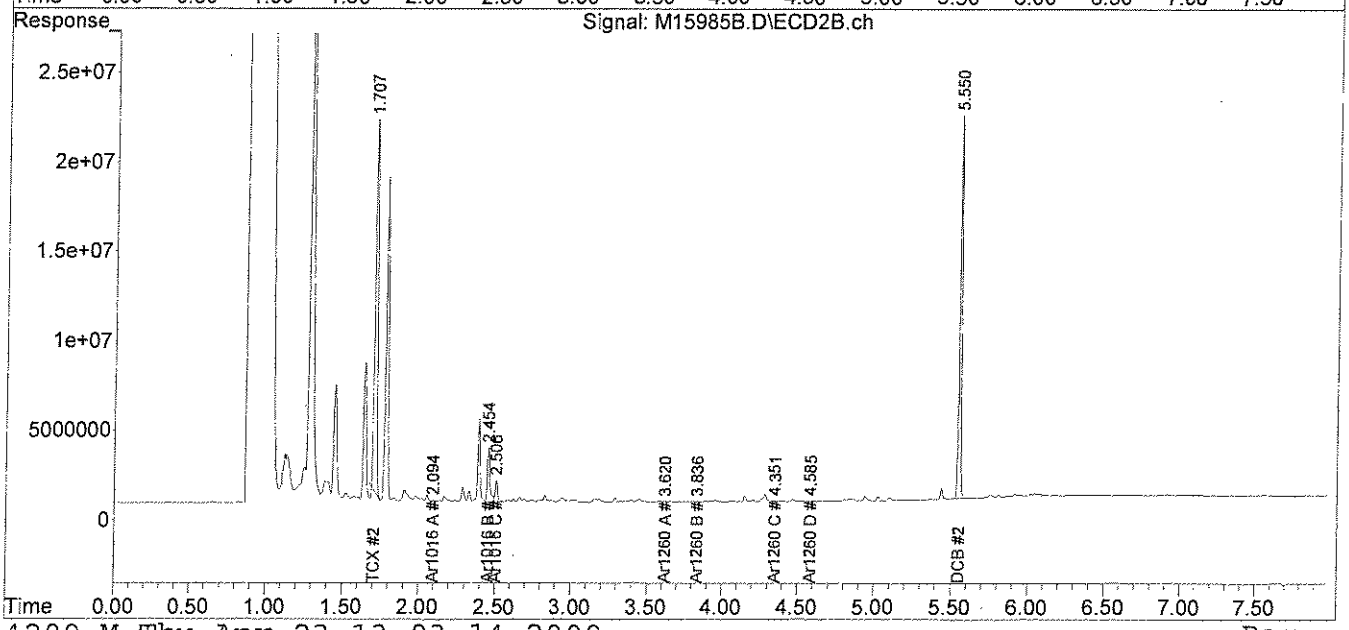
Authorized signature

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M15985B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 23 Apr 2009 8:20 am
Operator :
Sample : B04219PSOX,,A/C
Misc : SOIL
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 23 13:03:07 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:38 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID:	63652-1
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	1.0
Collection Date:	04/17/09
Lab Receipt Date:	04/20/09
Extraction Date:	04/17/09
Analysis Date:	04/22/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-021

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**171**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	90	%
Decachlorobiphenyl	104	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63652

Sample: 63652-1,,A/C

Data File: M15968.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	171	159	7.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

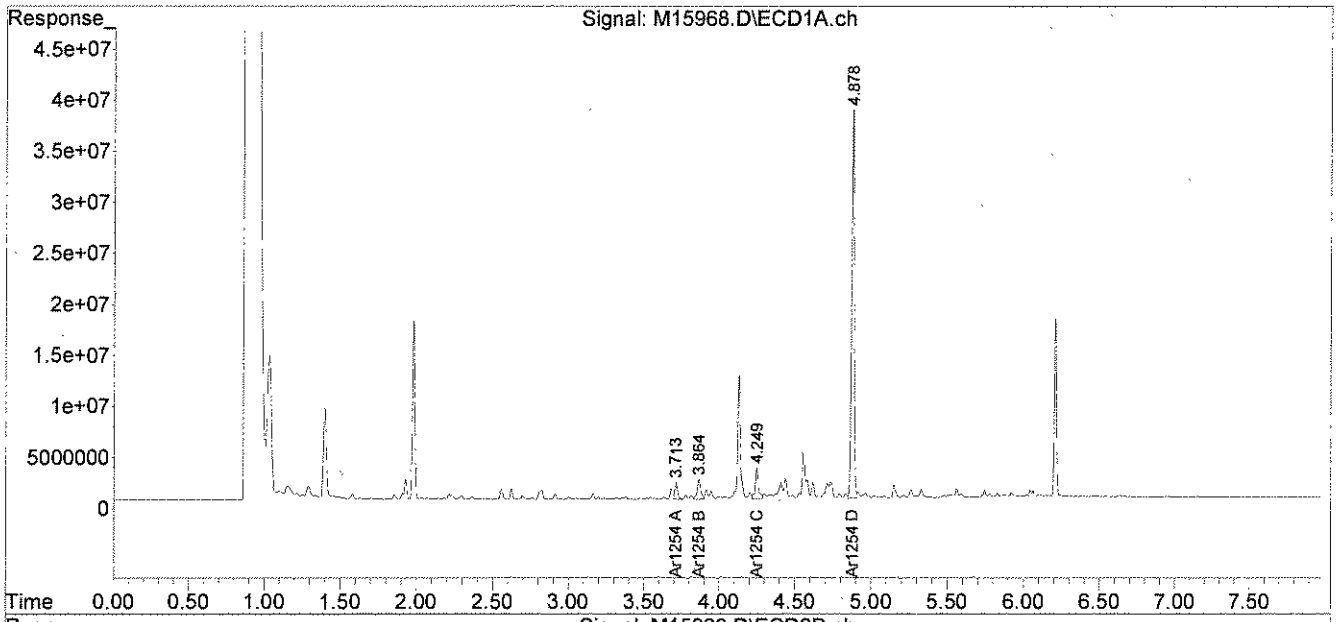
PCB FORM 10

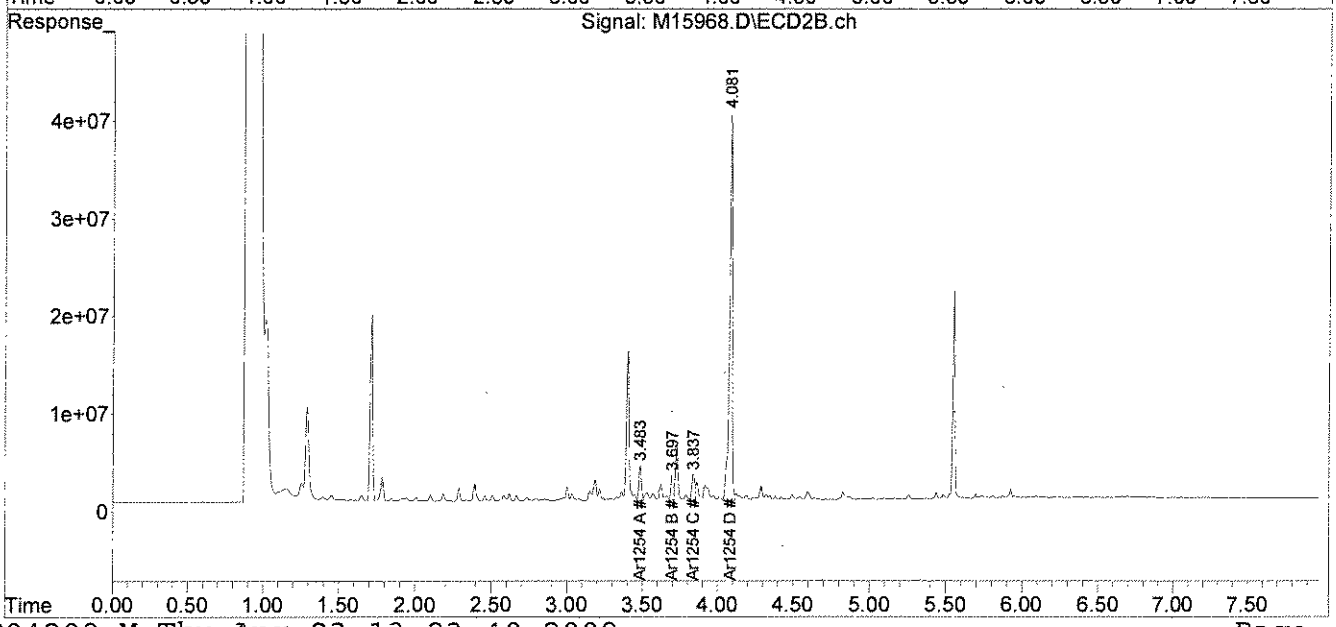
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M15968.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Apr 2009 4:35 pm
Operator :
Sample : 63652-1,,A/C
Misc : SOIL
ALS Vial : 10 Sample Multiplier: 1

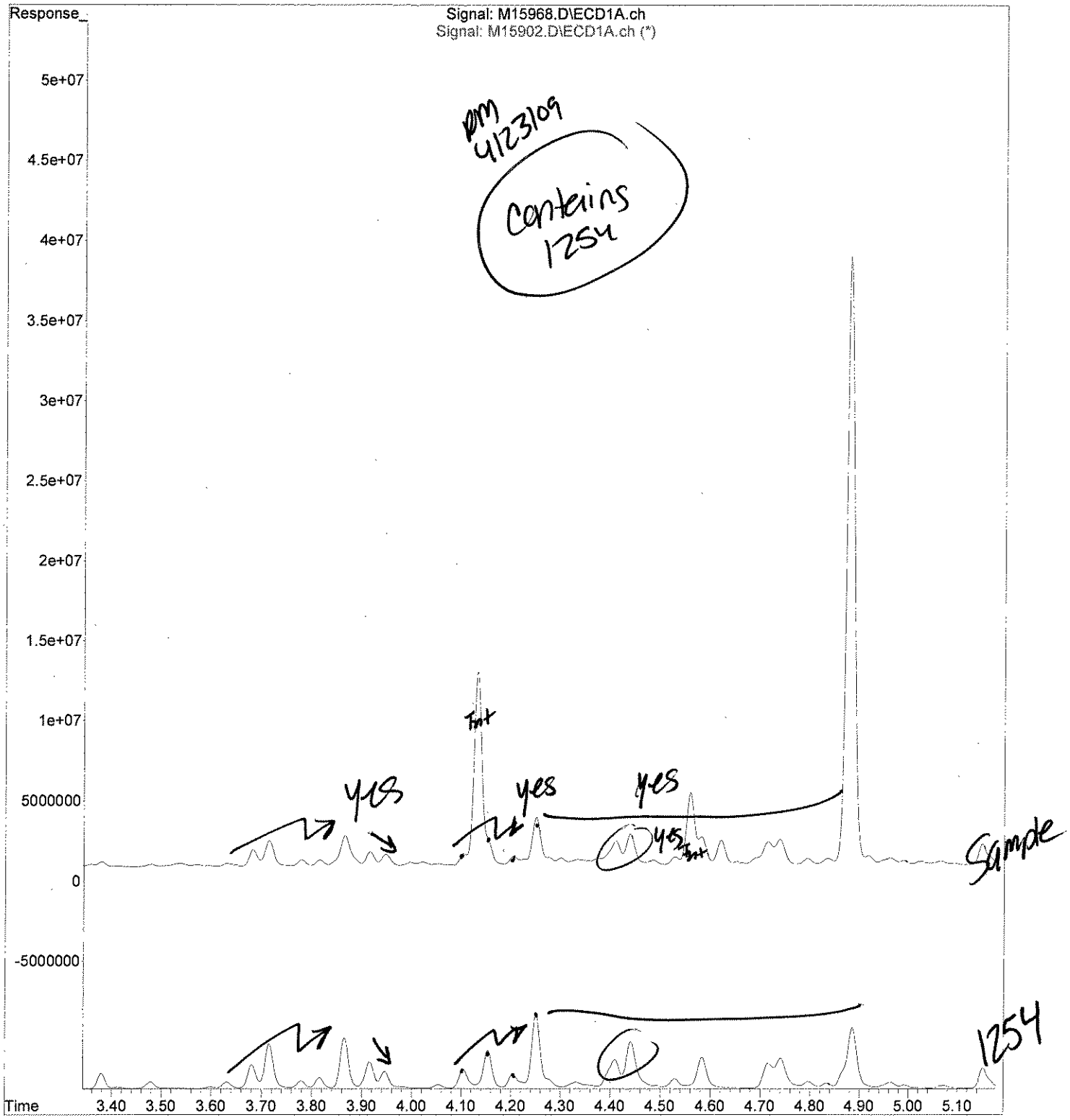
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 23 13:23:39 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\042209-M\M15968.D
Operator :
Acquired : 22 Apr 2009 4:35 pm using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63652-1,,A/C
Misc Info : SOIL
Vial Number: 10



analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID:	63652-2
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	1.0
Collection Date:	04/17/09
Lab Receipt Date:	04/20/09
Extraction Date:	04/17/09
Analysis Date:	04/22/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-022

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**573**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	83	%
Decachlorobiphenyl	125	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63652

Sample: 63652-2,,A/C

Data File: M15981.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	573	453	23.4	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

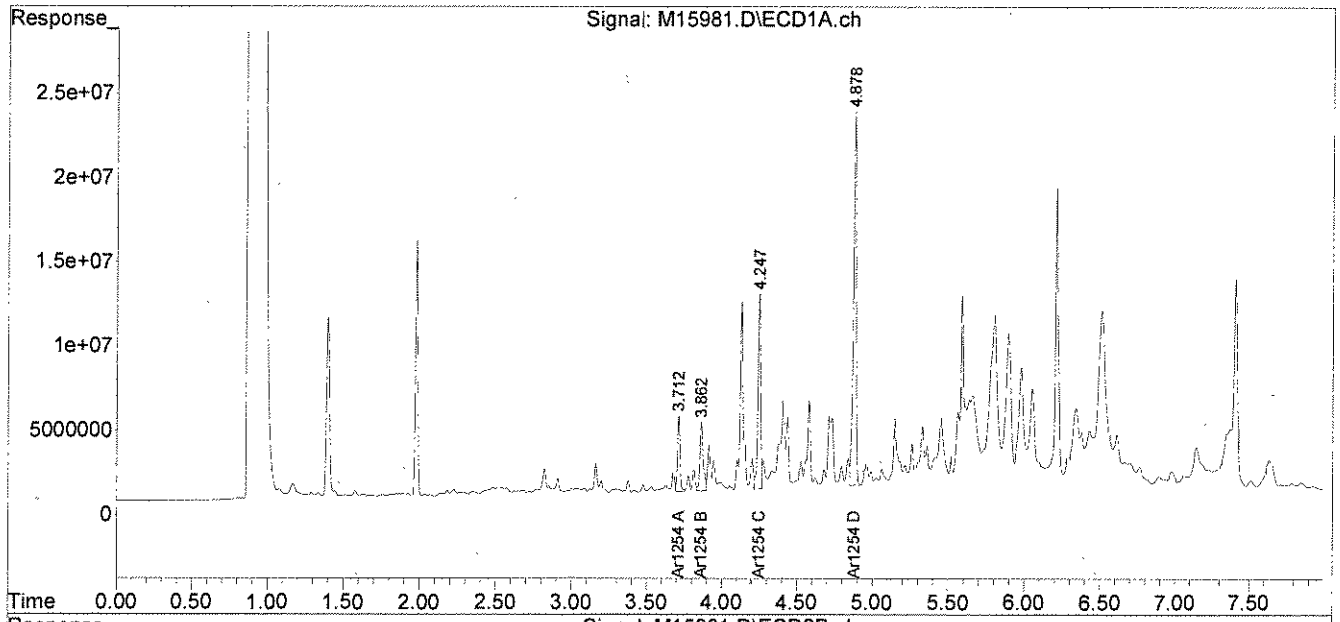
PCB FORM 10

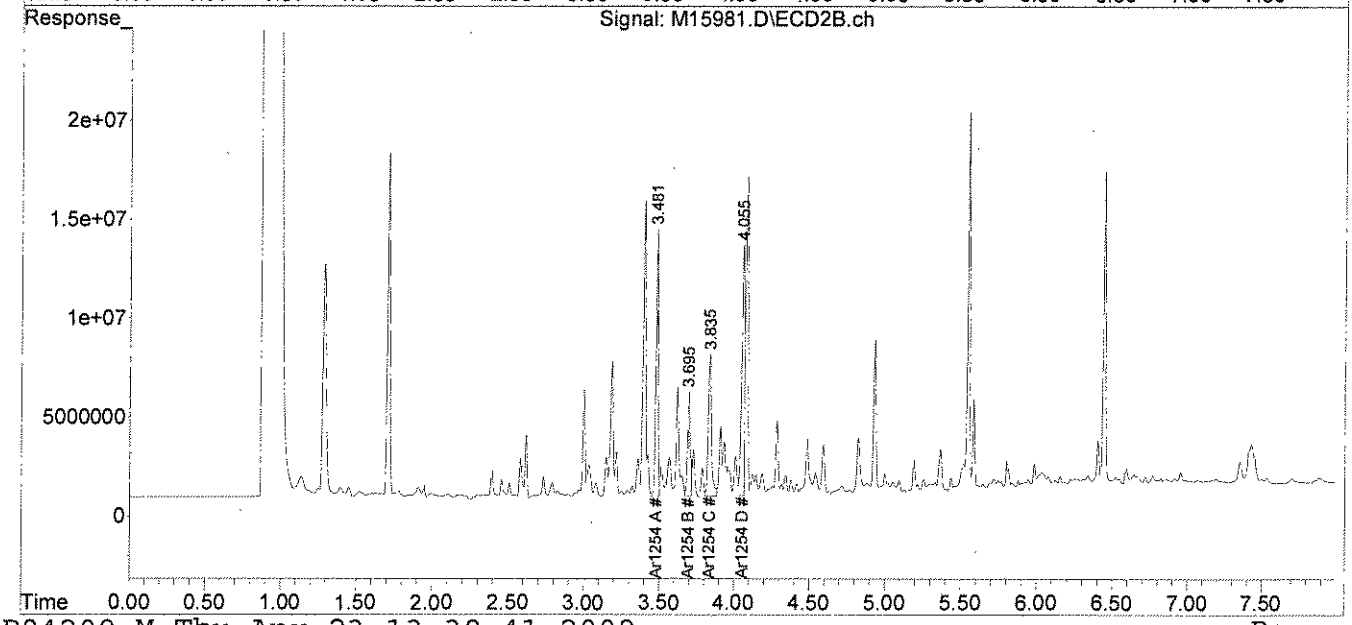
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M15981.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Apr 2009 6:46 pm
Operator :
Sample : 63652-2,,A/C
Misc : SOIL
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 23 13:38:29 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID:	63652-3
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	1.0
Collection Date:	04/17/09
Lab Receipt Date:	04/20/09
Extraction Date:	04/17/09
Analysis Date:	04/22/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-023

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**64**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	96	%
Decachlorobiphenyl	110	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63652
Sample: 63652-3,,A/C
Data File: M15969.D
Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	58	64	9.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

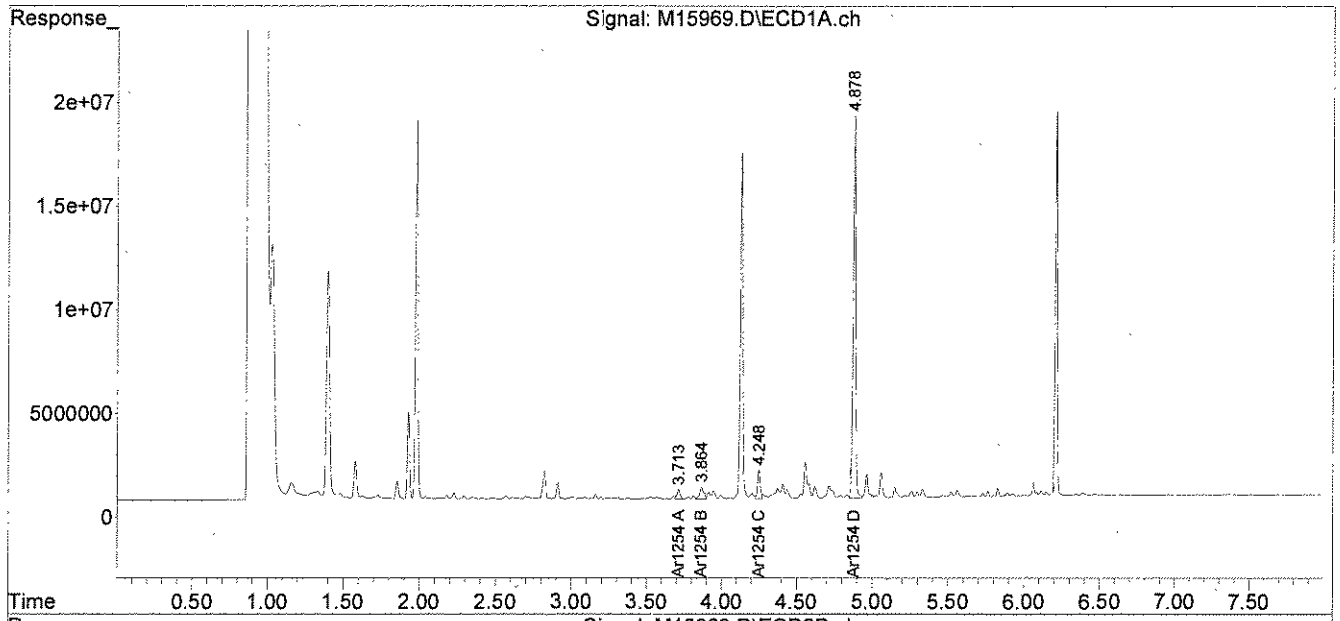
PCB FORM 10

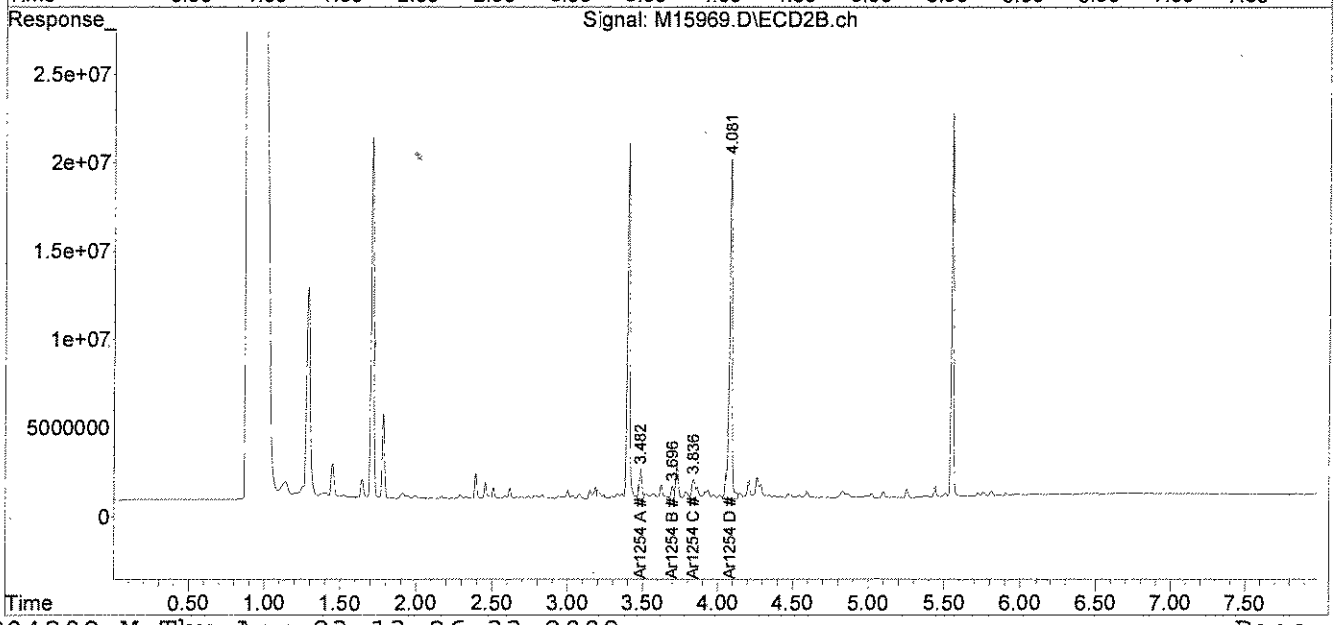
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M15969.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Apr 2009 4:45 pm
Operator :
Sample : 63652-3,,A/C
Misc : SOIL
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 23 13:26:33 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID:	63652-4
Matrix:	Solid
Percent Solid:	97
Dilution Factor:	1.0
Collection Date:	04/17/09
Lab Receipt Date:	04/20/09
Extraction Date:	04/17/09
Analysis Date:	04/22/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-024

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**158**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	99	%
Decachlorobiphenyl	111	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63652

Sample: 63652-4,,A/C

Data File: M15970.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	158	125	22.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

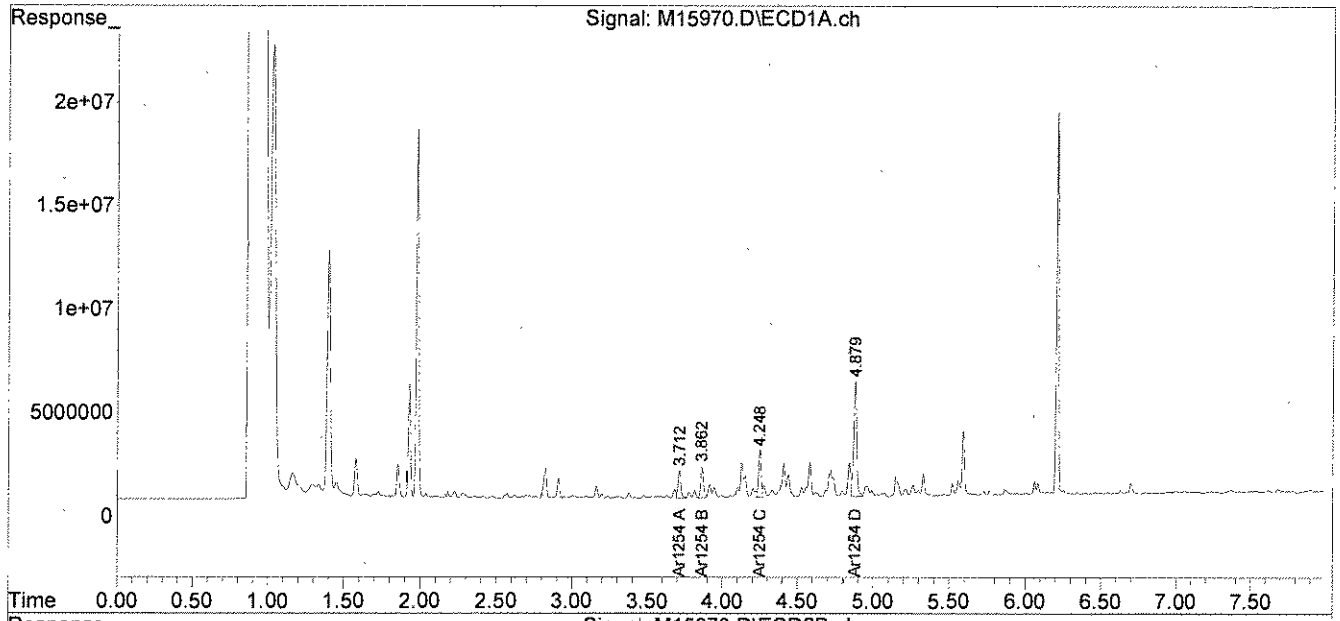
PCB FORM 10

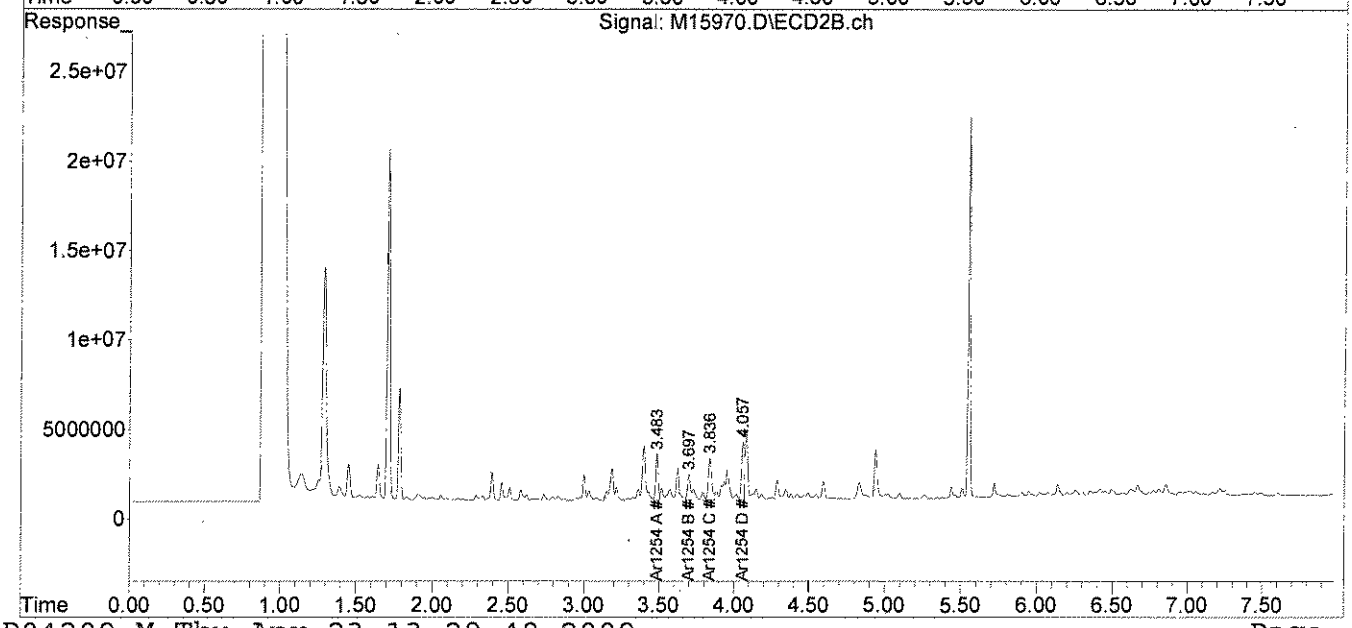
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M15970.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Apr 2009 4:55 pm
Operator :
Sample : 63652-4,,A/C
Misc : SOIL
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 23 13:29:48 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID:	63652-5
Matrix:	Solid
Percent Solid:	89
Dilution Factor:	5
Collection Date:	04/17/09
Lab Receipt Date:	04/20/09
Extraction Date:	04/17/09
Analysis Date:	04/23/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-025

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	170	U
PCB-1221	170	U
PCB-1232	170	U
PCB-1242	170	U
PCB-1248	170	U
PCB-1254	170	**1790**
PCB-1260	170	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	96	%
Decachlorobiphenyl	111	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63652

Sample: 63652-5,1:5,,A/C

Data File: M16009.D

Dilution Factor: 5.4

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	1597	1793	11.5	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

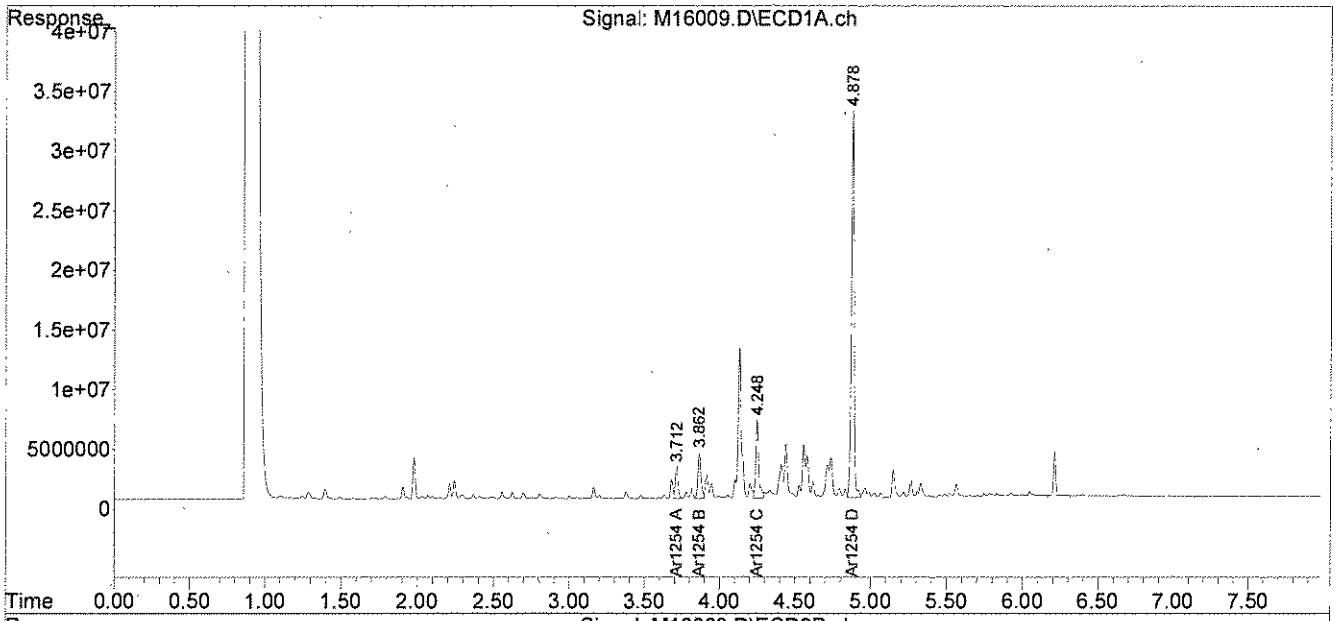
PCB FORM 10

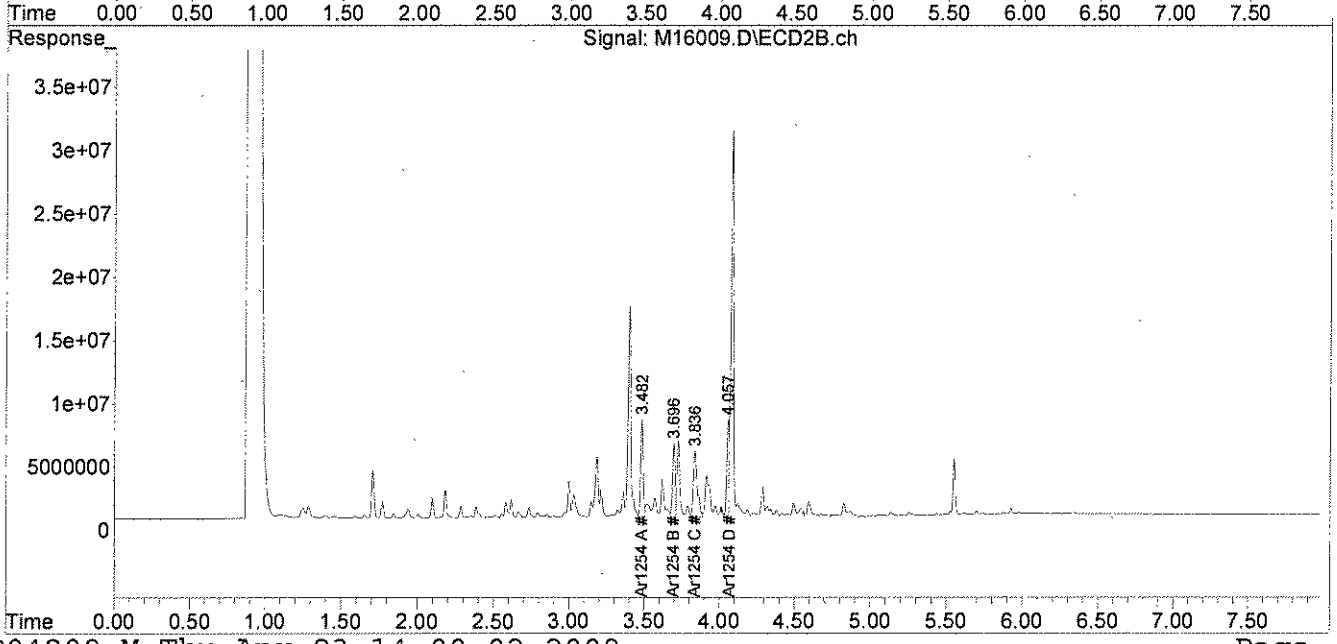
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M16009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 23 Apr 2009 1:51 pm
Operator :
Sample : 63652-5,1:5,,A/C
Misc : SOIL
ALS Vial : 44 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 23 14:00:02 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





PCB
QC FORMS

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:PCBQC.doc

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63652

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04179PSOX,,A/C	96		104		86		98	
L04179PSOX,,A/C	93		102		84		100	
LD04179PSOX,,A/C	96		109		86		103	
63652-1,,A/C	90		104		91		102	
63652-3,,A/C	96		110		100		109	
63652-4,,A/C	99		111		96		106	
63652-2,,A/C	83		125		84		89	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB FORM 2

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63652

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04219PSOX,,A/C	124		111		100		110	
63652-5,1:5,,A/C	105		115		96		111	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB FORM 2

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63652

Non-spiked sample: B04179PSOX,,A/C

Spike: L04179PSOX,,A/C

Spike duplicate: LD04179PSOX,,A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	200	200	65	140	30	0	204	102		213	107		4.4	
PCB 1260	200	200	60	130	30	0	177	88		190	95		7.4	
PCB 1016 #2	200	200	65	140	30	0	261	130		273	137		4.6	
PCB 1260 #2	200	200	60	130	30	0	182	91		190	95		4.4	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

PCB FORM 3

CHAIN OF CUSTODIES

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:COC.doc

Chain Of Custody Form

analytics environmental laboratory LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 2
3) Received in good condition Y or N
4) pH checked by: N/A
5) Labels checked by: SR 4.17.09

Project#: 210918 Proj. Name: UMASS - LGRC
Company: Woodard & Curran
Contact: GEORGE FRANKLIN/AMY WALLACE
Address: 35 New England Business Ctr.
Andover, MA 01810
Phone: (866)702-6371 PO# Quote # WCI 8091001
Sampler (Signature):

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

Station Identification	Sample Date	Sample Time	Analysis	Unpres	4°C	HNO3	H2SO4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
RC-VSS-021	4/17/09	1055	PCBs		✓						SO	1	G		63652 -1
RC-VSS-022	4/17/09	1100	PCBs		✓						SO	1	G		-2
RC-VSS-023	4/17/09	1105	PCBs		✓						SO	1	G		-3
RC-VSS-024	4/17/09	1109	PCBs		✓						SO	1	G		-4
RC-VSS-025	4/17/09	1113	PCBs		✓						SO	1	G		-5

Received By: Time: 1746 Date: 4/17/09
Received By: Time: Date:
Received By: Time: Date:

Email Results to:
George Franklin
Jeff Hamel
Amy Wallace

Comments / Instructions:
PCBs by 8082
SOXHLET EXTRACTION

Turnaround Time (TAT)
- [ ] 24hr*
- [ ] 48hr*
- [ ] 72hr*
- [✓] 5 Days*
- [ ] 10 Days

*Fee may apply; lab approval required

Project Requirements:
*Fee may apply

Report Type:
- [ ] MCP*
- [✓] Level II*
- [ ] CTRCP*
- [ ] Level III*
- [ ] DOD*
- [ ] Level IV*
- [ ] Standard

State:
- [ ] NH
- [ ] MA
- [ ] ME
- [ ] CT
- [ ] RI

Other: TSCA

State Standard: _____ (eg. S-1 or GW-1)

EDD Required: Y* N

Type: _____

Relinquished By Sampler:
Relinquished By:
Relinquished By:

analytics environmental laboratory LLC

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 63652

CLIENT: W+C Andover

PROJECT: UMASS-LGRC

COOLER NUMBER: _____

NUMBER OF COOLERS: 1

DATE RECEIVED: 4/17/09

A: PRELIMINARY EXAMINATION:

DATE COOLER OPENED: 4/17/09

1. Cooler received by(initials) — Date Received: NF 4/17/09

2. Circle one: Hand delivered (If so, skip 3) — Shipped

3. Did cooler come with a shipping slip? Y N

3a. Enter carrier name and airbill number here: _____

4. Were custody seals on the outside of cooler? Y N/A
How many & where: _____ Seal Date: _____ Seal Name: _____

5. Did the custody seals arrive unbroken and intact upon arrival? Y N/A

6. COC#: _____

7. Were Custody papers filled out properly (ink,signed, etc)? Y N

8. Were custody papers sealed in a plastic bag? Y N

9. Did you sign the COC in the appropriate place? Y N

10. Was the project identifiable from the COC papers? Y N

11. Was enough ice used to chill the cooler? Y N — Temp. of cooler: 2°C

B. Log-In: Date samples were logged in: 4/17/09 By: NF

12. Type of packing in cooler(bubble wrap, popcorn) Y N

13. Were all bottles sealed in separate plastic bags? Y N

14. Did all bottles arrive unbroken and were labels in good condition? Y N

15. Were all bottle labels complete(ID,Date,time,etc.) Y N

16. Did all bottle labels agree with custody papers? Y N

17. Were the correct containers used for the tests indicated: Y N

18. Were samples received at the correct pH? Y N/A

19. Was sufficient amount of sample sent for the tests indicated? Y N

20. Were bubbles absent in VOA samples? Y N/A

If NO, List sample #'s: _____

21. Laboratory labeling verified by (initials): SL — Date: 4/17/09

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

April 24, 2009

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

RE: Analytical Results Case Narrative
Analytics # 63659
UMASS LGRC Proj# 210918

Dear Mr. Franklin;

Enclosed please find the analytical results for samples submitted for the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed Polychlorinated Biphenyls (PCBs) by EPA Method 8082.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II data package has been assembled in the following order:

Case Narrative/Non-Conformance Summary
Sample Log Sheet - Cover Page
PCB Form 1 Data Sheet for Samples and Blanks
Chromatograms
PCB Form 10 Confirmation Results
PCB Form 3 MS/MSD (LCS) Recoveries
Chain of Custody (COC) Forms

QC NON CONFORMANCE SUMMARY

Sample Receipt:
No exceptions.

PCBs by EPA Method 8082:
Sample 63659-6 required dilution due to high concentrations of PCB 1254 detected in the sample.

Sincerely,
ANALYTICS Environmental Laboratory, LLC

Stephen Knollmeyer
Laboratory Director

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63659

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 21 April 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63659-1	04/20/09	LGRC-VSS-026	EPA 8082 (PCBs only)	
63659-6	04/20/09	LGRC-VSS-031	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 4/24/2009

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-130	70-130	EPA 8260B
Toluene-d8	70-130	70-130	
Bromofluorobenzene	70-130	70-130	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	EPA 624/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA0	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH

PCB
DATA SUMMARIES

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:PCB.doc

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID: B04219PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/21/09
Analysis Date: 04/23/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	124	%
Decachlorobiphenyl	111	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

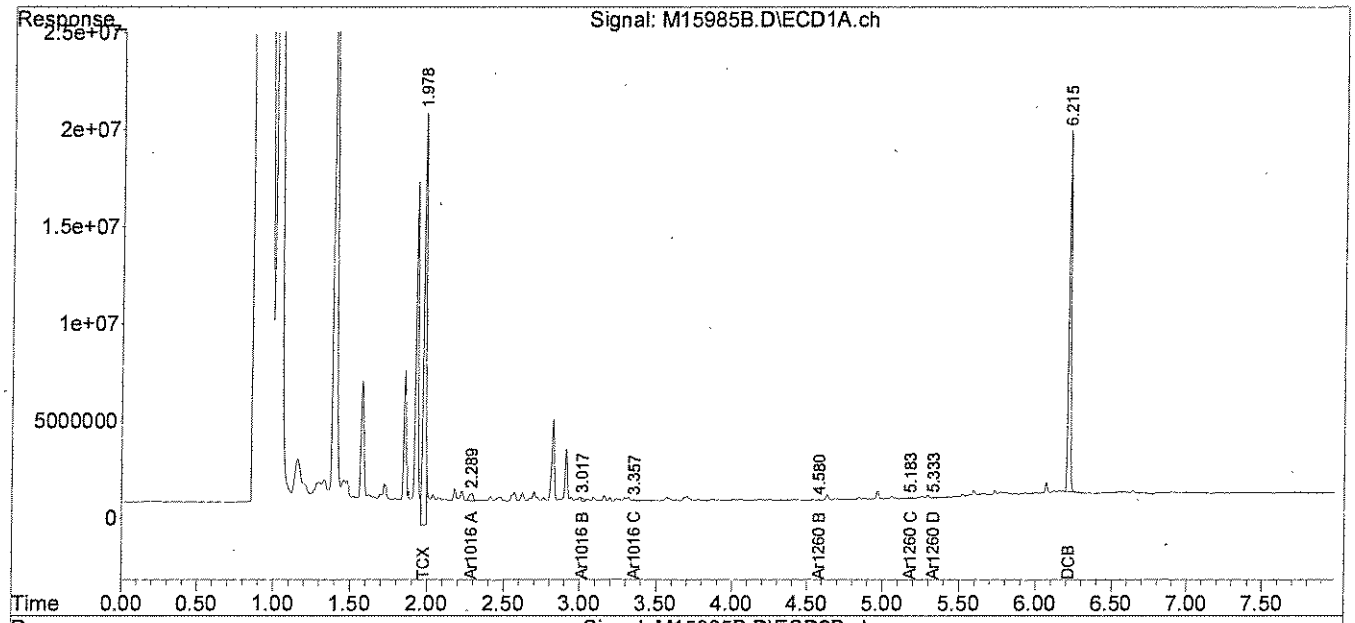
PCB Report

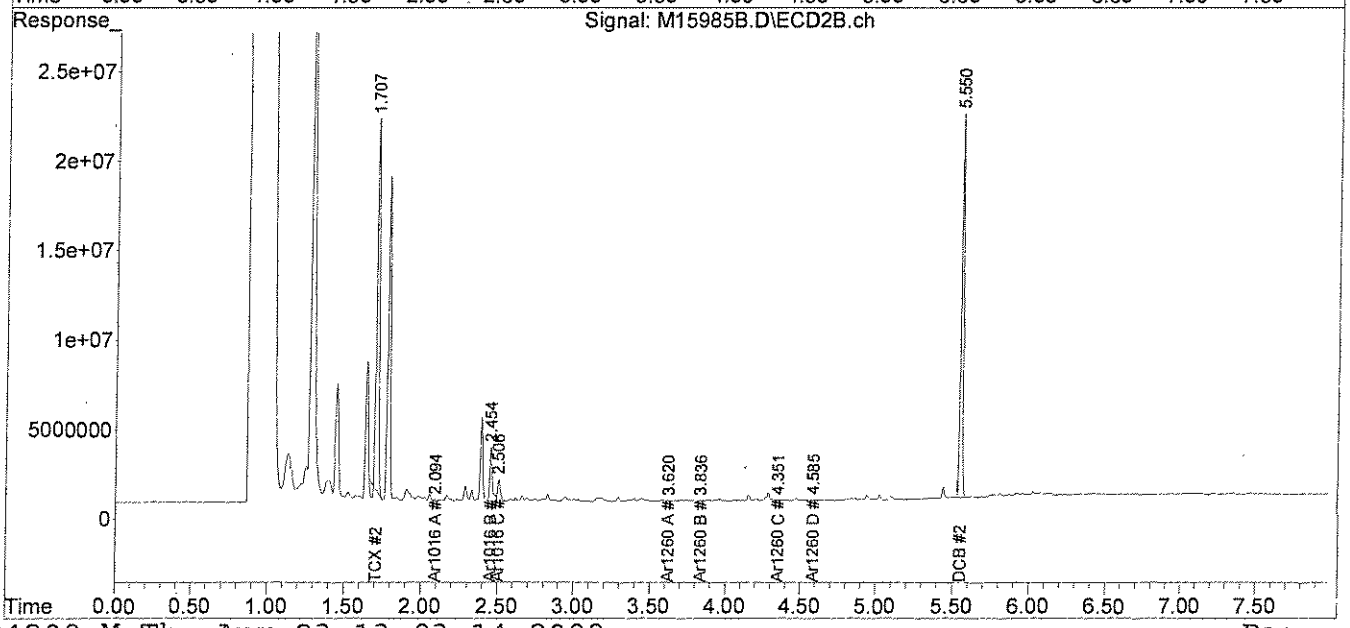
Authorized signature Melissa Hull

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M15985B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 23 Apr 2009 8:20 am
Operator :
Sample : B04219PSOX,,A/C
Misc : SOIL
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 23 13:03:07 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:38 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID: B04219PSOX RR
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/21/09
Analysis Date: 04/23/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	104	%
Decachlorobiphenyl	104	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

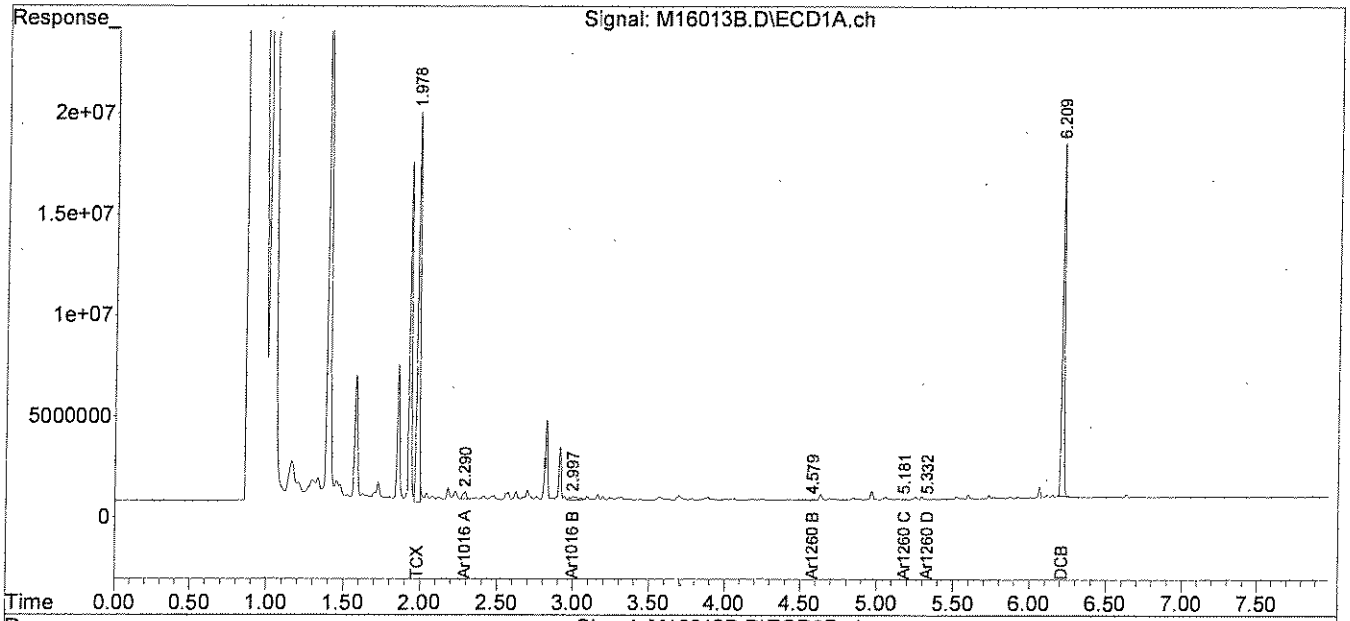
PCB Report

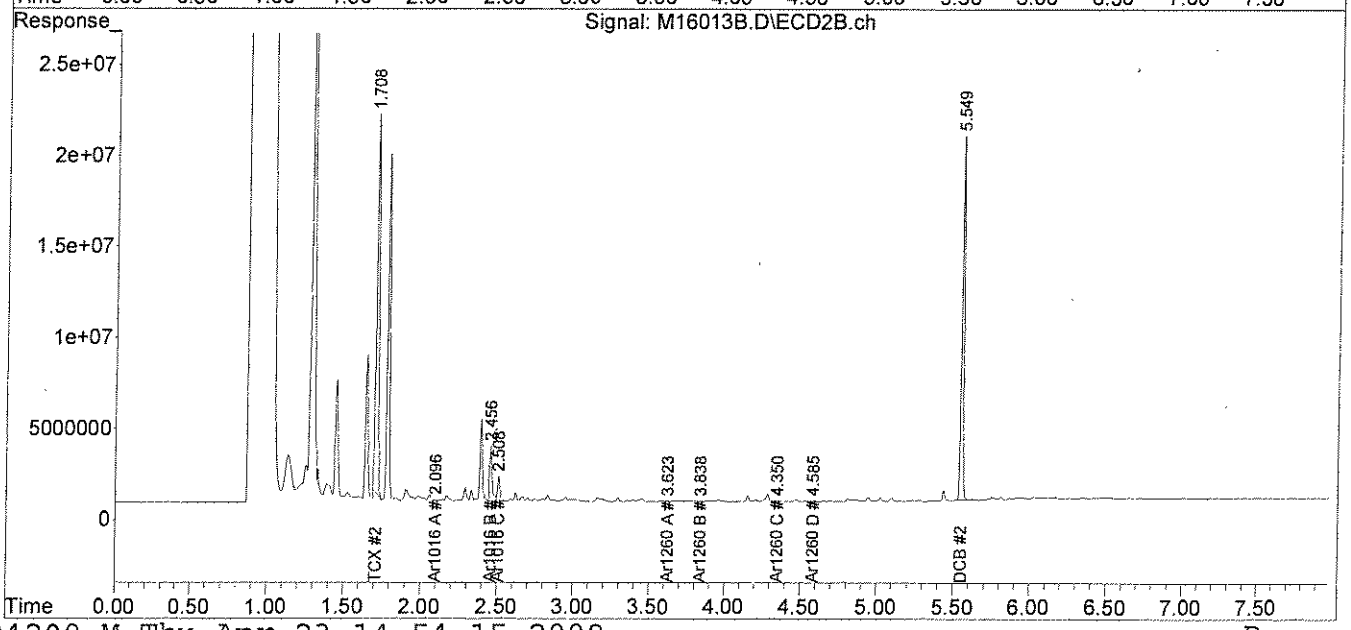
Authorized signature

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M16013B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 23 Apr 2009 2:38 pm
Operator :
Sample : B04219PSOX,RR,,A/C
Misc : SOIL
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 23 14:54:09 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:46 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID:	63659-1
Matrix:	Solid
Percent Solid:	84
Dilution Factor:	1.2
Collection Date:	04/20/09
Lab Receipt Date:	04/21/09
Extraction Date:	04/21/09
Analysis Date:	04/24/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-026

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	40	U
PCB-1221	40	U
PCB-1232	40	U
PCB-1242	40	U
PCB-1248	40	U
PCB-1254	40	**971**
PCB-1260	40	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	112	%
Decachlorobiphenyl	118	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63659

Sample: 63659-1,,A/C

Data File: M16028.D

Dilution Factor: 1.2

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	971	765	23.7	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

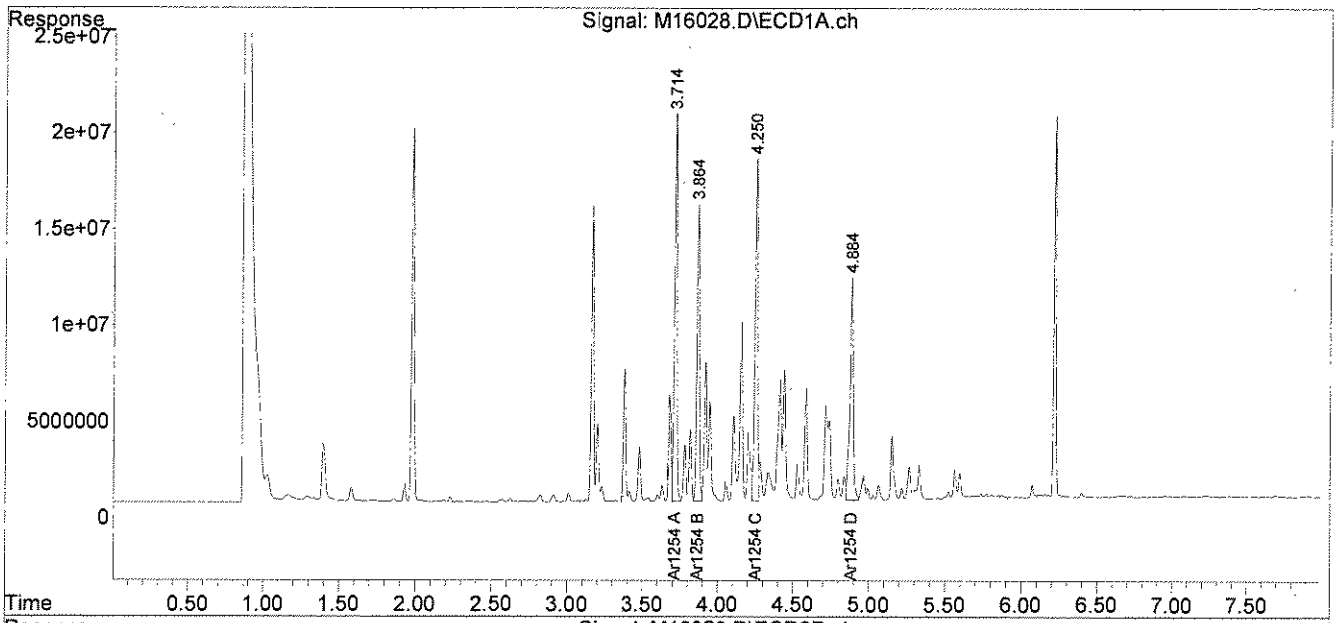
PCB FORM 10

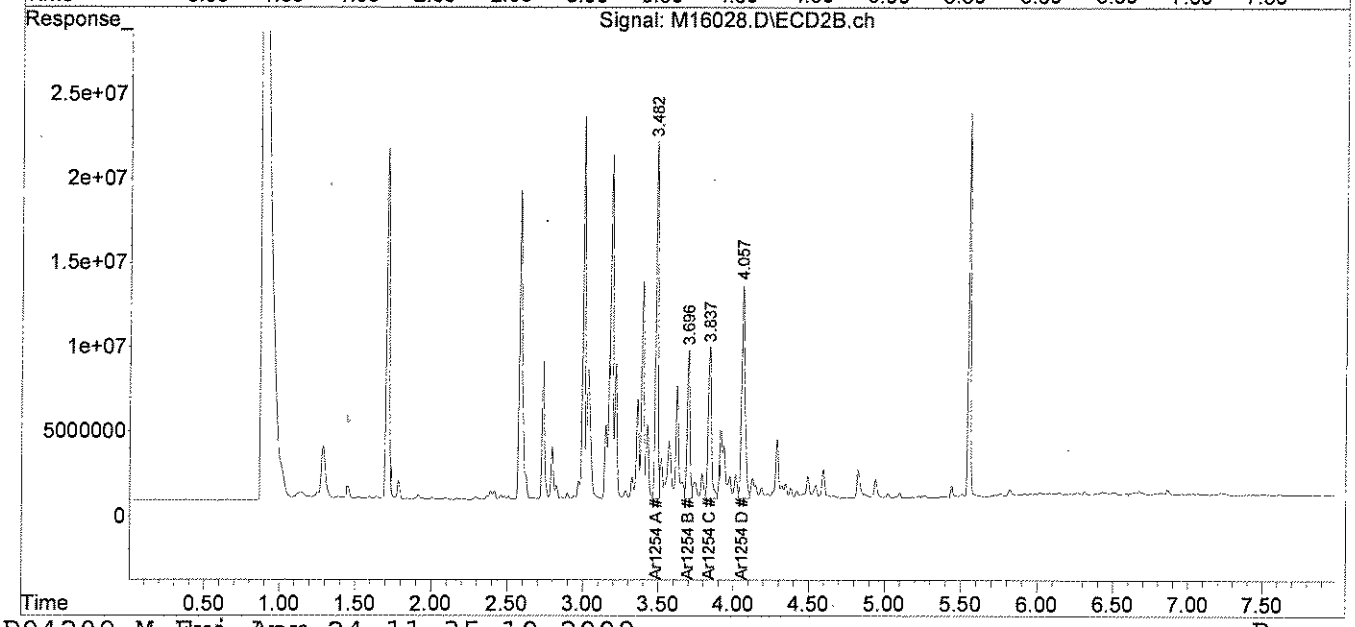
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M16028.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 24 Apr 2009 7:52 am
Operator :
Sample : 63659-1,,A/C
Misc : SOIL
ALS Vial : 55 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 24 11:35:10 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 24, 2009

SAMPLE DATA

Lab Sample ID:	63659-6
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	5
Collection Date:	04/20/09
Lab Receipt Date:	04/21/09
Extraction Date:	04/21/09
Analysis Date:	04/24/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-031

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	170	U
PCB-1221	170	U
PCB-1232	170	U
PCB-1242	170	U
PCB-1248	170	U
PCB-1254	170	**1780**
PCB-1260	170	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	99	%
Decachlorobiphenyl	124	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63659

Sample: 63659-6,1:5,,A/C

Data File: M16037.D

Dilution Factor: 5.2

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	1732	1783	2.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

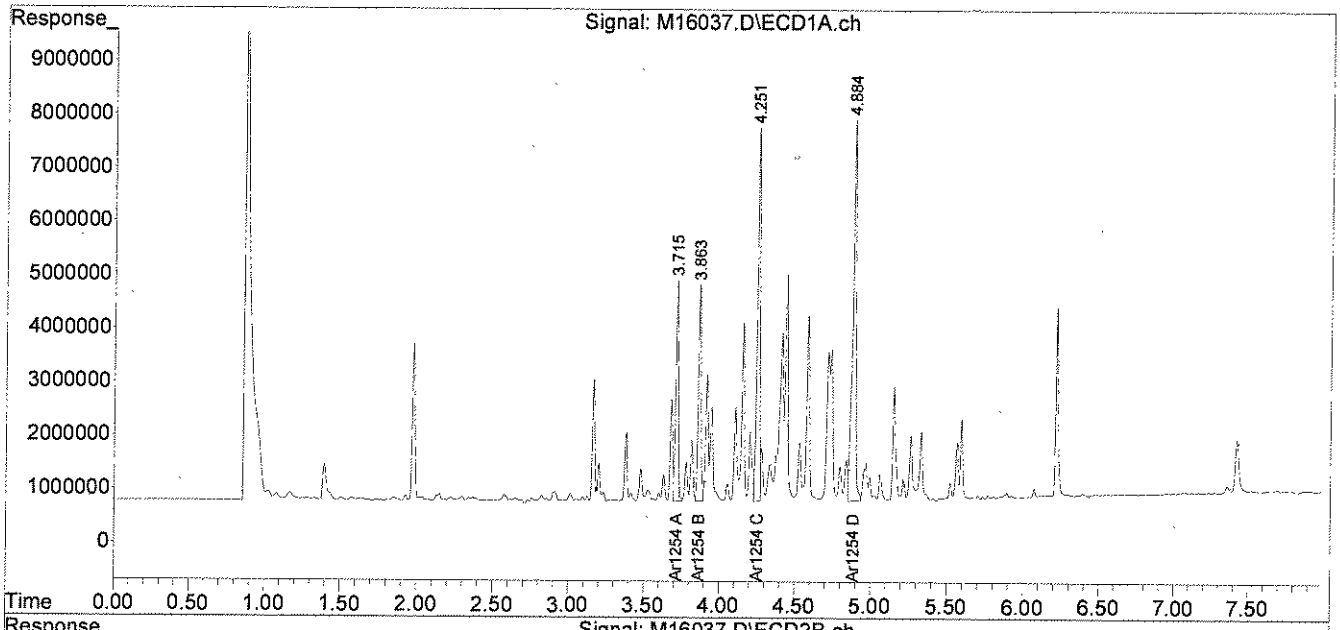
PCB FORM 10

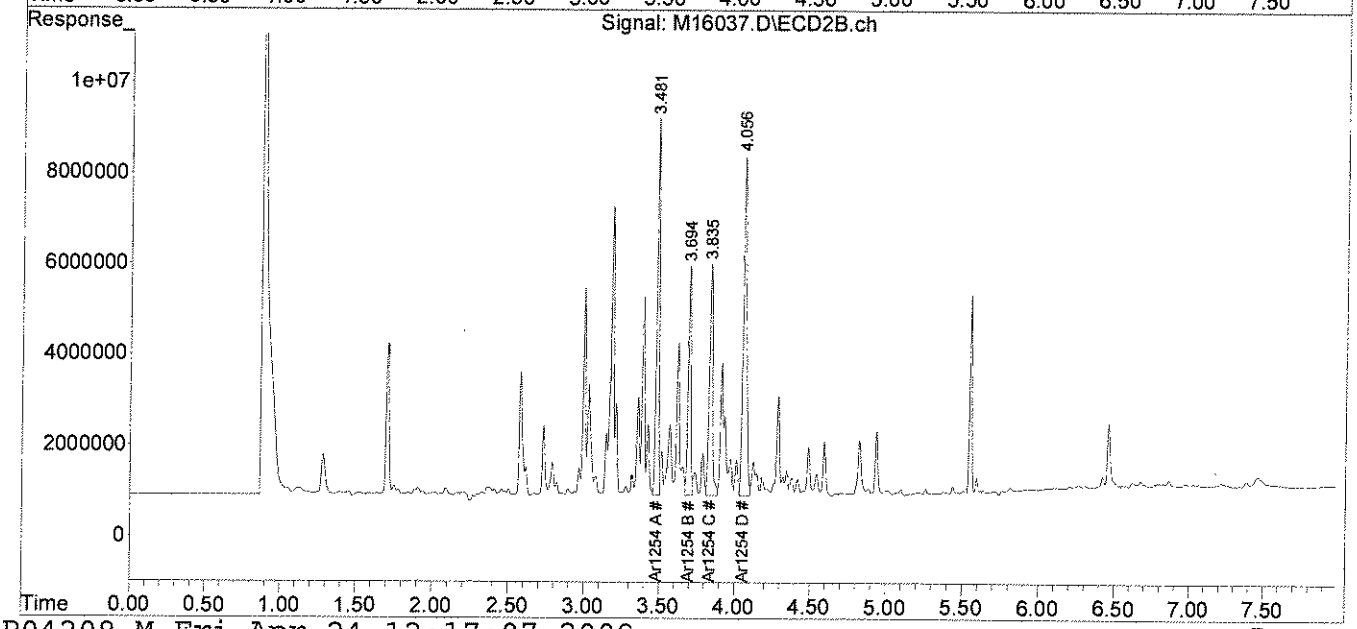
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042209-M\
Data File : M16037.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 24 Apr 2009 11:48 am
Operator : 63659
Sample : ~~63459~~-6,1:5,,A/C
Misc : SOIL RM 4124109
ALS Vial : 93 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 24 12:17:07 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





PCB
QC FORMS

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:PCBQC.doc

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides 1
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63659

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04219PSOX,,A/C	124		111		100		110	
L04219PSOX,,A/C	98		118		107		119	
LD04219PSOX,,A/C	89		108		97		108	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

\# Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB FORM 2

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63659

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04219PSOX,RR,,A/C	104		104		96		102	
63659-1,,A/C	112		118		113		117	
63659-6,1:5,,A/C	99		124		100		115	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides 1

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63659

Non-spiked sample: B04219PSOX,,A/C

Spike: L04219PSOX,,A/C

Spike duplicate: LD04219PSOX,,A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	200	200	65	140	30	0	263	132		243	121		8.1	
PCB 1260	200	200	60	130	30	0	230	115		206	103		11.0	
PCB 1016 #2	200	200	65	140	30	0	276	138		259	129		6.5	
PCB 1260 #2	200	200	60	130	30	0	236	118		212	106		10.4	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

PCB FORM 3

CHAIN OF CUSTODIES

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:COC.doc

Chain Of Custody Form

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 3.5
3) Received in good condition Y or N
4) pH checked by: N/A
5) Labels checked by: EM 4/21/09

Amber Wter 63659-10 tested negative for residual chlorine w/ KI paper. NF 4/21/09

Project#: 210918 Proj. Name: UMASS - LGRC
Company: Woodard & Curran
Contact: GEORGE FRANKLIN / AMY WALLACE
Address: 35 New England Business Ctr.
Andover, MA 01810
Phone: (866)702-6371 PO# Quote # WCI 8091001
Sampler (Signature): [signature]

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key: P=plastic G=glass

Preservation

Station Identification	Sample Date	Sample Time	Analysis	Unpres	4°C	HNO_3	H_2SO_4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
LGRC-VSS-026	4/20/09	1513	PCBs		✓						So	1	G		63659-1
~~LGRC-VSS-027~~	~~4/20/09~~	~~1510~~	~~PCBs~~		✓						So	1	G		~~-2~~
LGRC-VSS-028	4/20/09	1523	PCBs		✓						So	1	G		-3
LGRC-VSS-029	4/20/09	1525	PCBs		✓						So	1	G		-4
~~LGRC-VSS-030~~	~~4/20/09~~	~~1529~~	~~PCBs~~		✓						So	1	G		-5
LGRC-VSS-031	4/20/09	1533	PCBs		✓						So	1	G		-6
~~LGRC-VSS-032~~	~~4/20/09~~	~~1537~~	~~PCBs~~		✓						So	1	G		~~-7~~
LGRC-VSS-502	4/20/09	1537	PCBs		✓						So	1	G		-8
~~LGRC-VSS-033~~	~~4/20/09~~	~~1538~~	~~PCBs~~		✓						So	1	G		-9
~~LGRC-VSS-902~~ NF 4/21/09	~~4/20/09~~	~~1604~~ NF 4/21/09	~~PCBs~~		✓						~~So~~ Aq	1	G		~~-10~~

Received By: [signature] Time: 1800 Date: 4/20/09
Received By: [signature] Time: 9:00 Date: 4/21/09
Received By: Time: Date:

Email Results to:
George Franklin
Jeff Hamel
Amy Wallace

Turnaround Time (TAT)
- [ ] 24hr*
- [ ] 48hr*
- [ ] 72hr*
- [x] 5 Days*
- [ ] 10 Days

*Fee may apply; lab approval required

Comments / Instructions:
PCBs by 8082
SOXHLET EXTRACTION
63659-2 thru -5 and -7 thru -10 are cancelled, but run LGRC-VSS-026 and LGRC-VSS-031 as per George Franklin @ Woodard - CP 4/22/09
See attached email

Project Requirements:
*Fee may apply

Report Type:
- [ ] MCP*
- [x] Level II*
- [ ] CTRCP*
- [ ] Level III*
- [ ] DOD*
- [ ] Level IV*
- [ ] Standard

State:
- [ ] NH
- [ ] MA
- [ ] ME
- [ ] CT
- [ ] RI

Other: TSCA

State Standard: _____ (eg. S-1 or GW-1)

EDD Required: Y* N

Type: _____

Relinquished By/Sampler: [signature]
Relinquished By: [signature]
Relinquished By:

Analytics\AEL Documents\AEL COC

Page 1 of 1

analytics environmental laboratory LLC

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 63659

CLIENT: Woodard + Curran

PROJECT: UMASS-GRC

COOLER NUMBER: _____

NUMBER OF COOLERS: 1

DATE RECEIVED: 4/21/09

A: PRELIMINARY EXAMINATION:

DATE COOLER OPENED: 4/21/09

1. Cooler received by(initials) — Date Received: NF 4/21/09

2. Circle one: Hand delivered (If so, skip 3) — Shipped

3. Did cooler come with a shipping slip? Y N

3a. Enter carrier name and airbill number here: _____

4. Were custody seals on the outside of cooler? Y N/A
How many & where: _____ Seal Date: _____ Seal Name: _____

5. Did the custody seals arrive unbroken and intact upon arrival? Y N/A

6. COC#: _____

7. Were Custody papers filled out properly (ink,signed, etc)? Y N

8. Were custody papers sealed in a plastic bag? Y N

9. Did you sign the COC in the appropriate place? Y N

10. Was the project identifiable from the COC papers? Y N

11. Was enough ice used to chill the cooler? Y N — Temp. of cooler: 3.5°C

B. Log-In: Date samples were logged in: 4/21/09 By: NF

12. Type of packing in cooler(bubble wrap, popcorn) Y N

13. Were all bottles sealed in separate plastic bags? Y N *

14. Did all bottles arrive unbroken and were labels in good condition? Y N

15. Were all bottle labels complete(ID,Date,time,etc.) Y N

16. Did all bottle labels agree with custody papers? Y N **

17. Were the correct containers used for the tests indicated: Y N

18. Were samples received at the correct pH? Y N/A

19. Was sufficient amount of sample sent for the tests indicated? Y N

20. Were bubbles absent in VOA samples? Y N/A

If NO, List sample #'s: _____

21. Laboratory labeling verified by (initials): Date: RM 4/21/09

* 63659-1, -8 and -9 had water from cooler ice leak into sample. Amy Wallace @ WRC is aware she said to run these anyway. -NF 4/21/09.

C:\ANLYTICS LLC\AEL DOCUMENTS\FORMS\SMPL CHKLST\Edit 4908 Rev. 1, 4/9/08

** 63659-10 bottle labele GRC-VSS-901. Amy Wallace @ WRC [illegible]

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

April 29, 2009

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

RE: Analytical Results Case Narrative
Analytics # 63673
UMASS LGRC Proj# 210918

Dear Mr. Franklin;

Enclosed please find the analytical results for samples submitted for the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed Polychlorinated Biphenyls (PCBs) by EPA Method 8082.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II data package has been assembled in the following order:

Case Narrative/Non-Conformance Summary
Sample Log Sheet - Cover Page
PCB Form 1 Data Sheet for Samples and Blanks
Chromatograms
PCB Form 10 Confirmation Results
PCB Form 3 MS/MSD (LCS) Recoveries
Chain of Custody (COC) Forms

QC NON CONFORMANCE SUMMARY

Sample Receipt:
No exceptions.

PCBs by EPA Method 8082:
Samples 63673-3, 63673-5, 63673-6, 63673-7, 63673-8, 63673-14 and 63673-15 required dilution due to high concentrations of PCB 1254 detected in the sample.

Sincerely,
ANALYTICS Environmental Laboratory, LLC

Stephen Knollmeyer
Laboratory Director

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63673

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 22 April 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63673-1	04/22/09	LGRC-VSS-027	EPA 8082 (PCBs only)	
63673-2	04/22/09	LGRC-VSS-028	EPA 8082 (PCBs only)	
63673-3	04/22/09	LGRC-VSS-029	EPA 8082 (PCBs only)	
63673-4	04/22/09	LGRC-VSS-030	EPA 8082 (PCBs only)	
63673-5	04/22/09	LGRC-VSS-032	EPA 8082 (PCBs only)	
63673-6	04/22/09	LGRC-VSS-502	EPA 8082 (PCBs only)	
63673-7	04/22/09	LGRC-VSS-033	EPA 8082 (PCBs only)	
63673-8	04/22/09	LGRC-VSS-034	EPA 8082 (PCBs only)	
63673-9	04/22/09	LGRC-VSS-035	EPA 8082 (PCBs only)	
63673-10	04/22/09	LGRC-VSS-036	EPA 8082 (PCBs only)	
63673-11	04/22/09	LGRC-VSS-037	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 04/28/09

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63673

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 22 April 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63673-12	04/22/09	LGRC-VSS-038	EPA 8082 (PCBs only)	
63673-13	04/22/09	LGRC-VSS-039	EPA 8082 (PCBs only)	
63673-14	04/22/09	LGRC-SS34-126	EPA 8082 (PCBs only)	
63673-15	04/22/09	LGRC-SS33-125	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____ for
Stephen L. Knollmeyer Lab. Director

Date 04/28/09

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-130	70-130	EPA 8260B
Toluene-d8	70-130	70-130	
Bromofluorobenzene	70-130	70-130	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	EPA 624/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA0	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH

PCB
DATA SUMMARIES

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 28, 2009

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: UMASS-LGRC

Project Number: 210918

Field Sample ID: Lab QC

Lab Sample ID: B04239PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/23/09
Analysis Date: 04/27/09

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	95	%
Decachlorobiphenyl	105	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

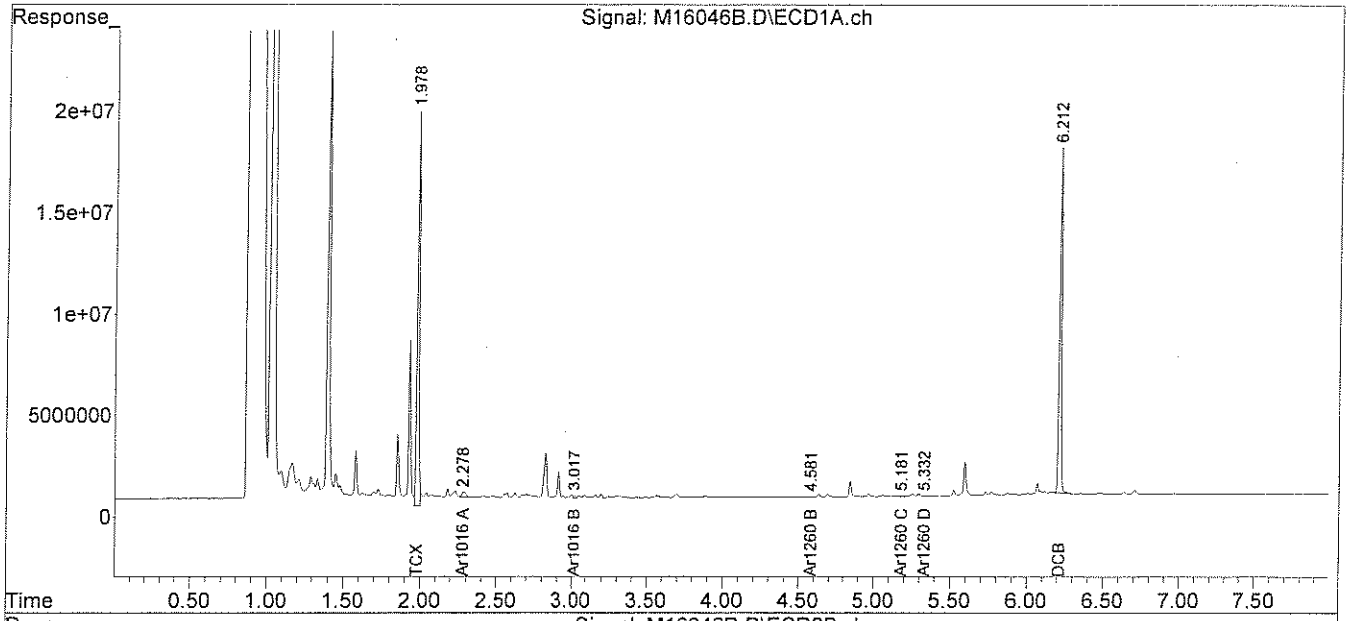
Authorized signature

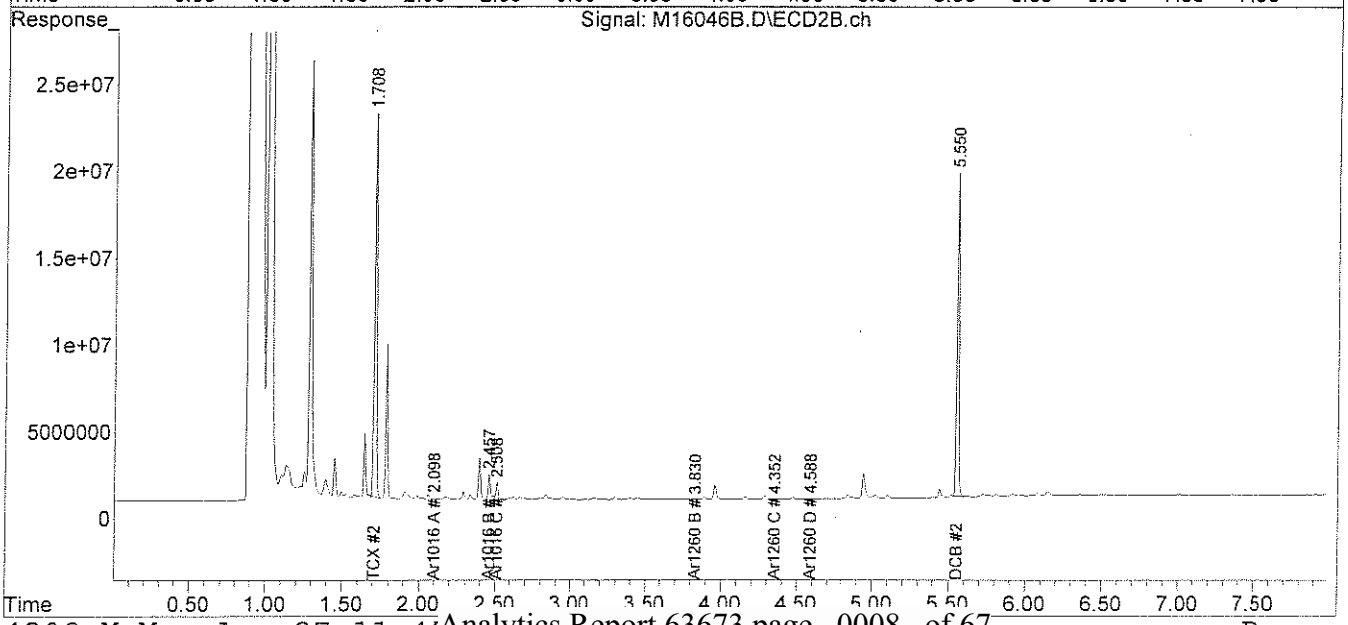
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16046B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Apr 2009 10:29 am
Operator :
Sample : B04239PSOX,,A/C
Misc : SOIL
ALS Vial : 54 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 27 11:45:42 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:38 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 28, 2009

SAMPLE DATA

Lab Sample ID: B04239SSOX RR
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/23/09
Analysis Date: 04/27/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	101	%
Decachlorobiphenyl	115	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

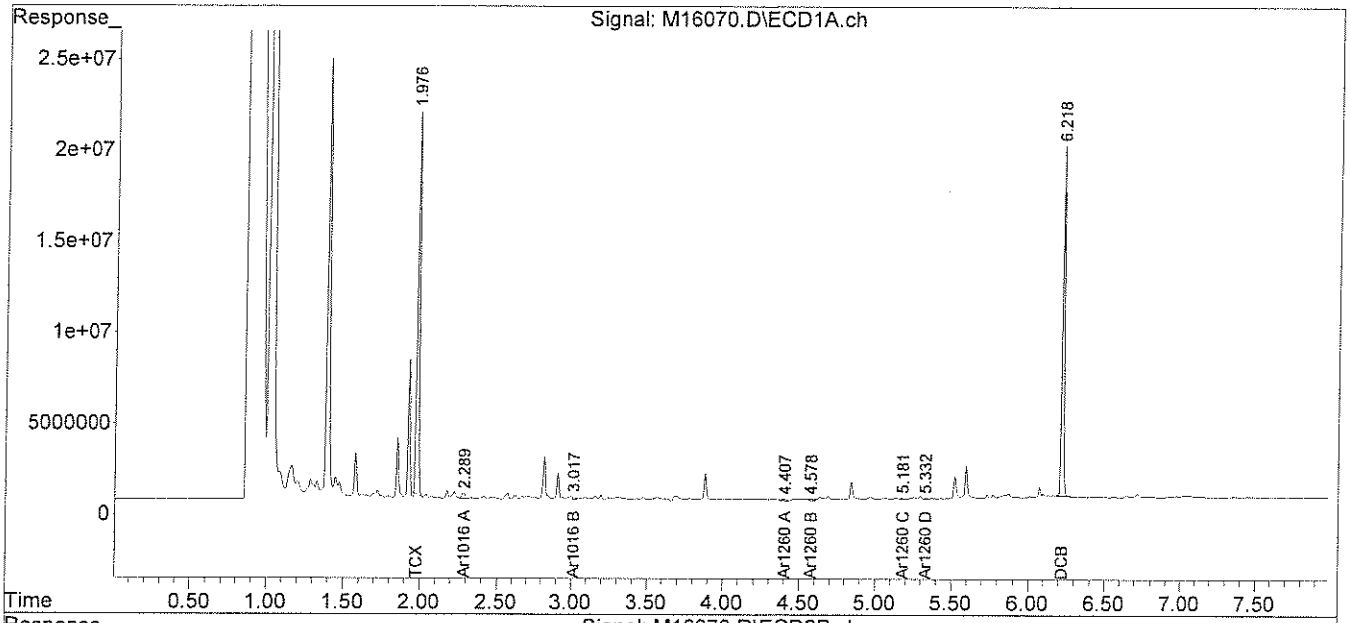
Authorized signature

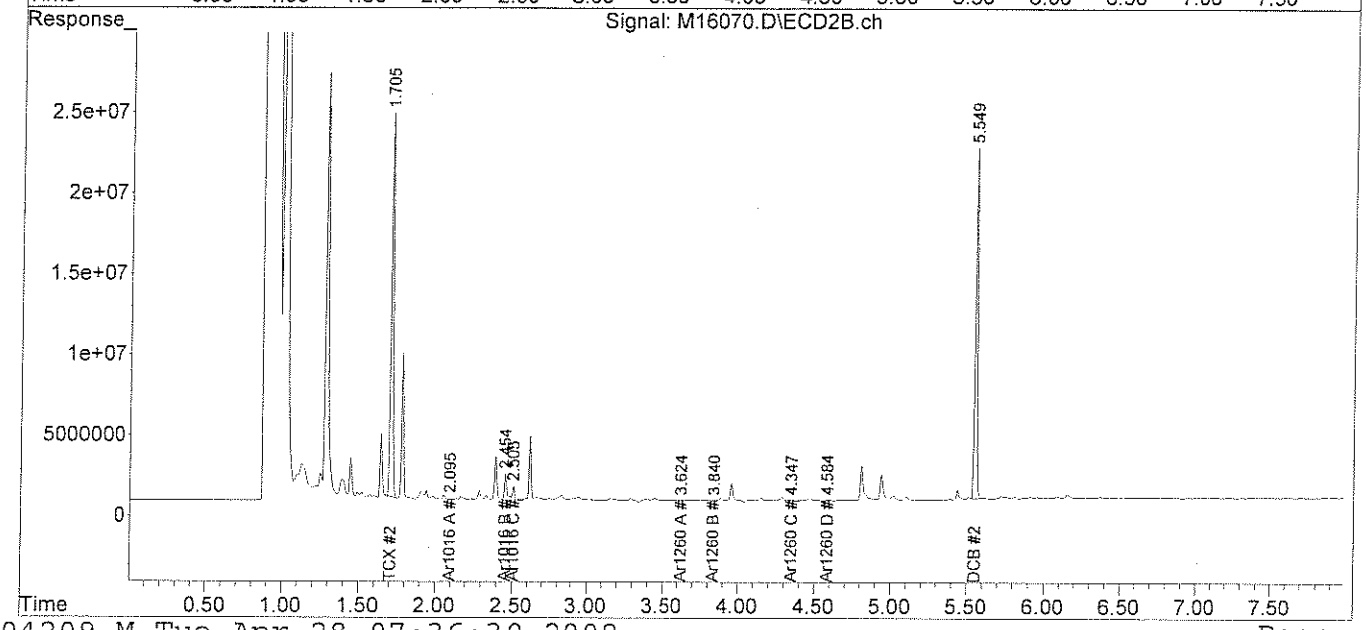
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16070.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Apr 2009 4:20 pm
Operator :
Sample : B04239SSOX,RR,,A/C
Misc : SOIL
ALS Vial : 54 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 07:36:30 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:38 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: UMASS-LGRC

Project Number: 210918

Field Sample ID: Lab QC

Lab Sample ID: B04249PSOX RR
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/24/09
Analysis Date: 04/28/09

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	94	%
Decachlorobiphenyl	117	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

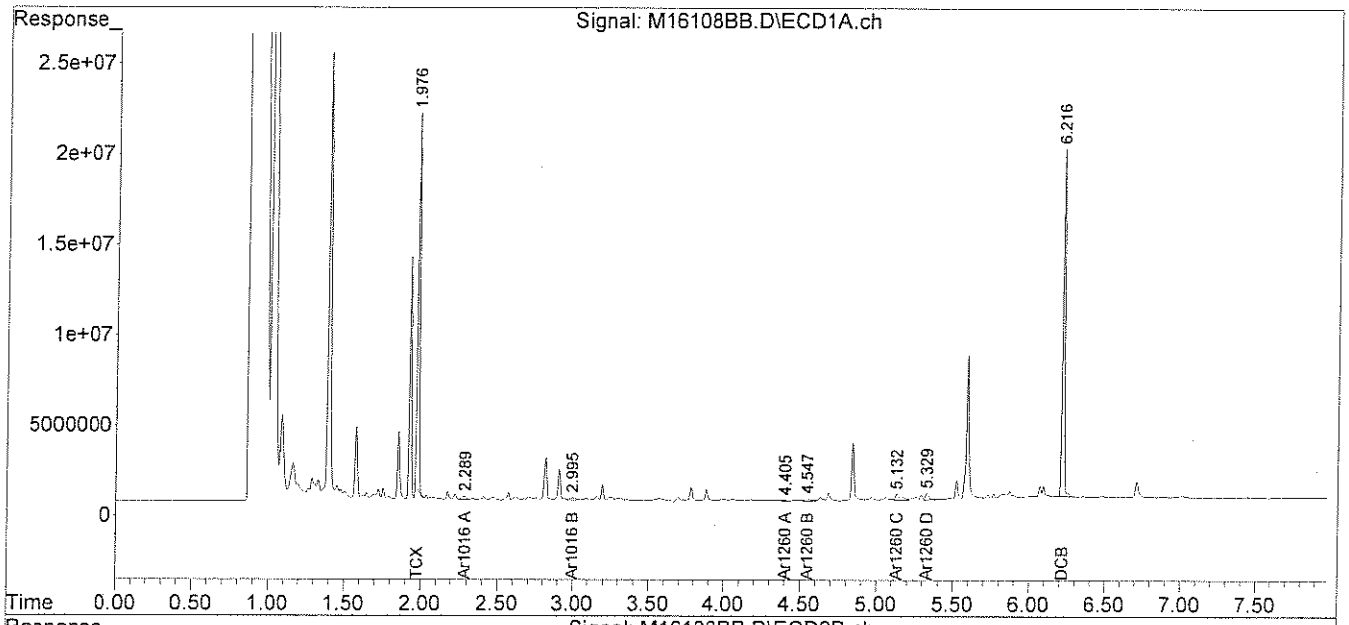
Authorized signature

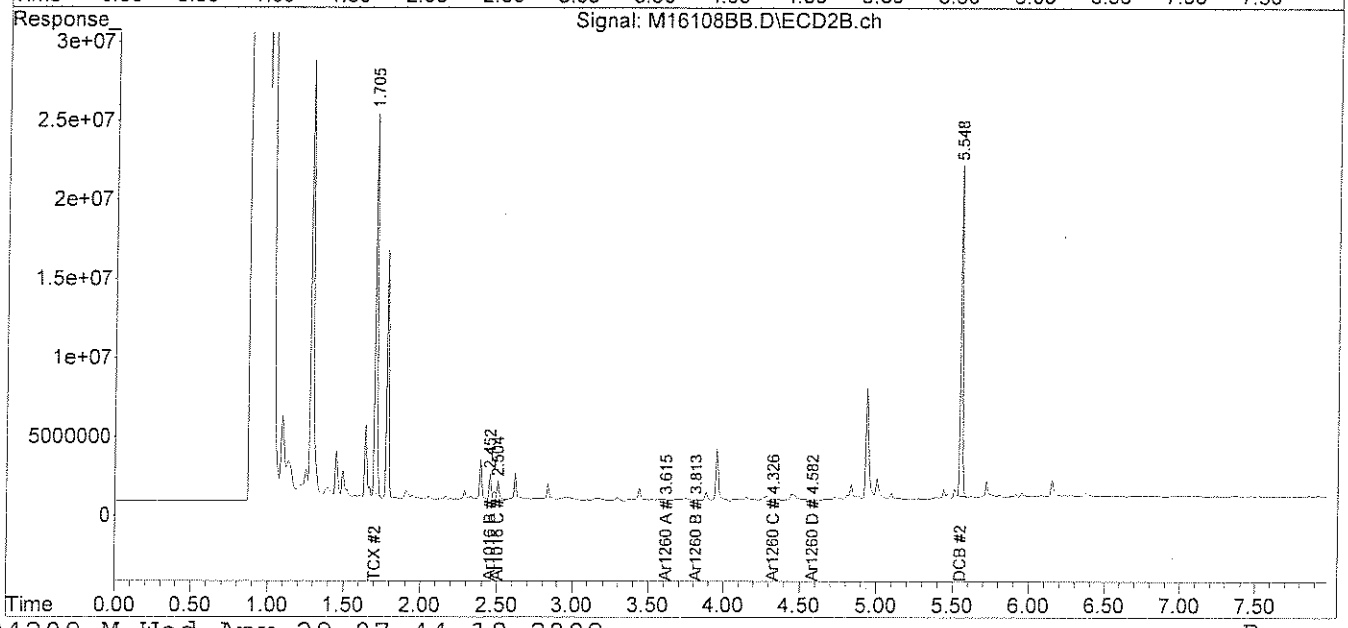
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16108BB.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 6:03 pm
Operator :
Sample : B04249PSOX,RR,,A/C (Sig #1); ~~B04249PSOX (Sig #2)~~
Misc : SOIL
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 07:44:18 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:38 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 28, 2009

SAMPLE DATA

Lab Sample ID:	63673-1
Matrix:	Solid
Percent Solid:	98
Dilution Factor:	1.0
Collection Date:	04/22/09
Lab Receipt Date:	04/22/09
Extraction Date:	04/23/09
Analysis Date:	04/27/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-027

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**137**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	81	%
Decachlorobiphenyl	103	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63673

Sample: 63673-1,,A/C

Data File: M16055.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	137	133	3.4	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

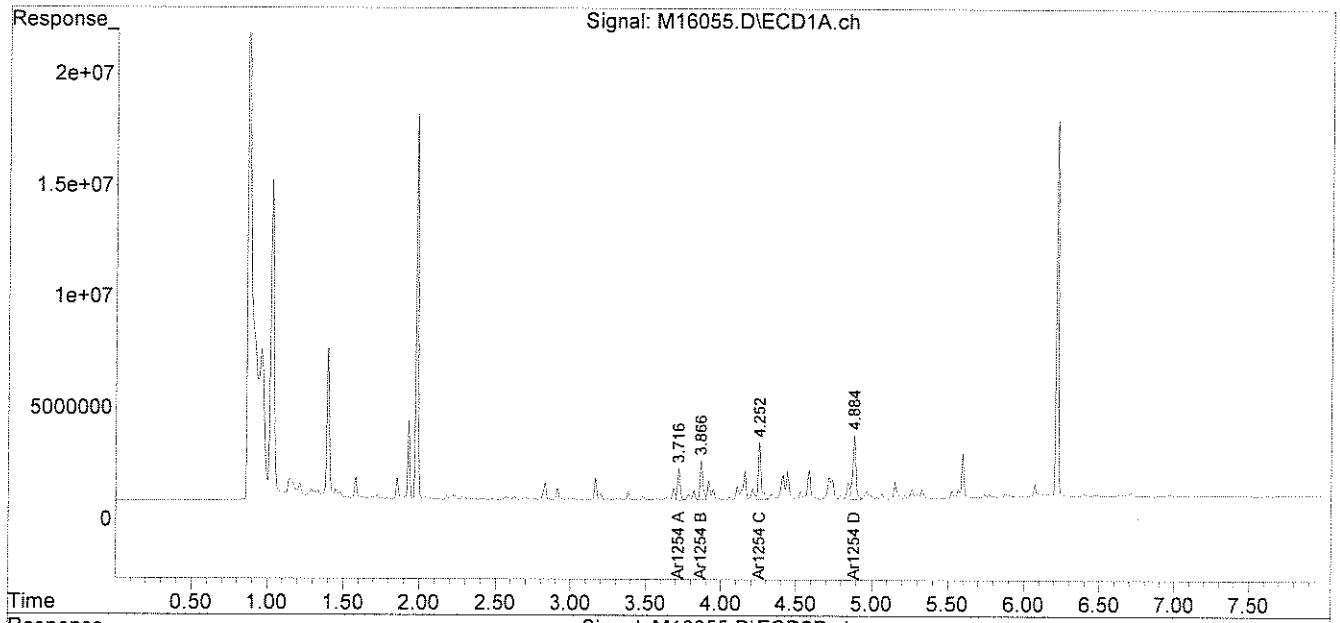
Comments: _____

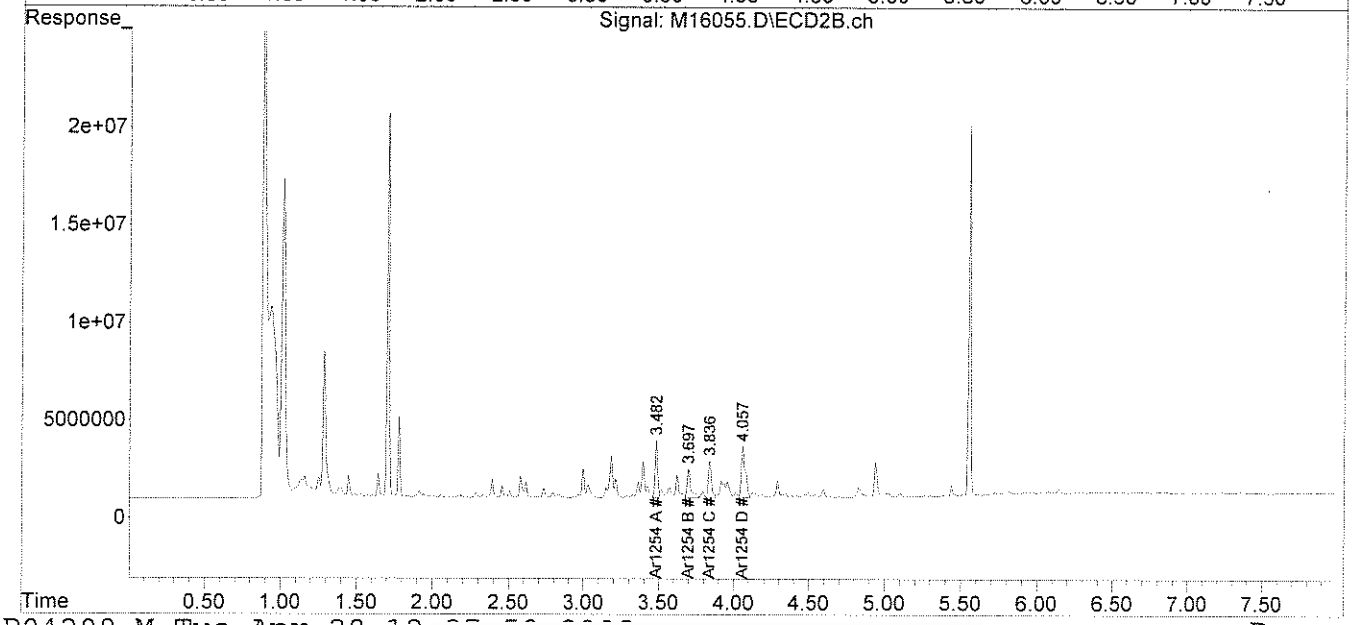
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16055.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Apr 2009 12:01 pm
Operator :
Sample : 63673-1,,A/C
Misc : SOIL
ALS Vial : 62 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 12:27:57 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 28, 2009

SAMPLE DATA

Lab Sample ID: 63673-2
Matrix: Solid
Percent Solid: 98
Dilution Factor: 1.0
Collection Date: 04/22/09
Lab Receipt Date: 04/22/09
Extraction Date: 04/23/09
Analysis Date: 04/27/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: LGRC-VSS-028

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**270**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	85	%
Decachlorobiphenyl	106	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63673
Sample: 63673-2,,A/C
Data File: M16059.D
Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	270	268	0.6	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

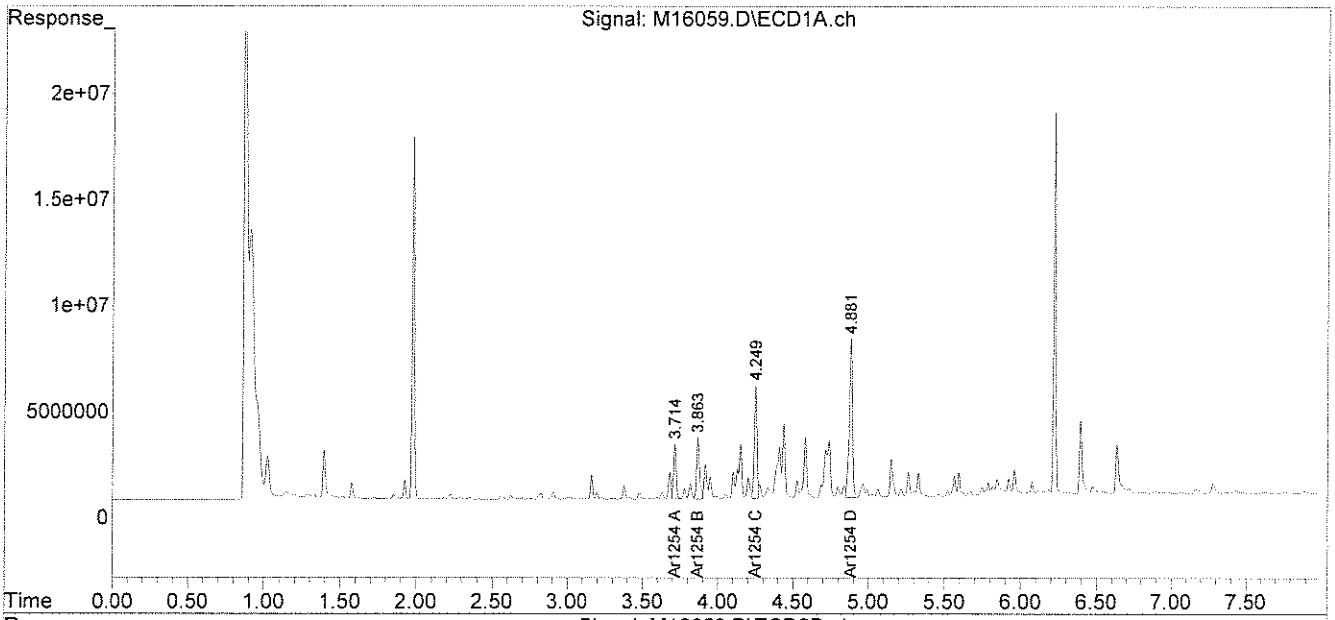
PCB FORM 10

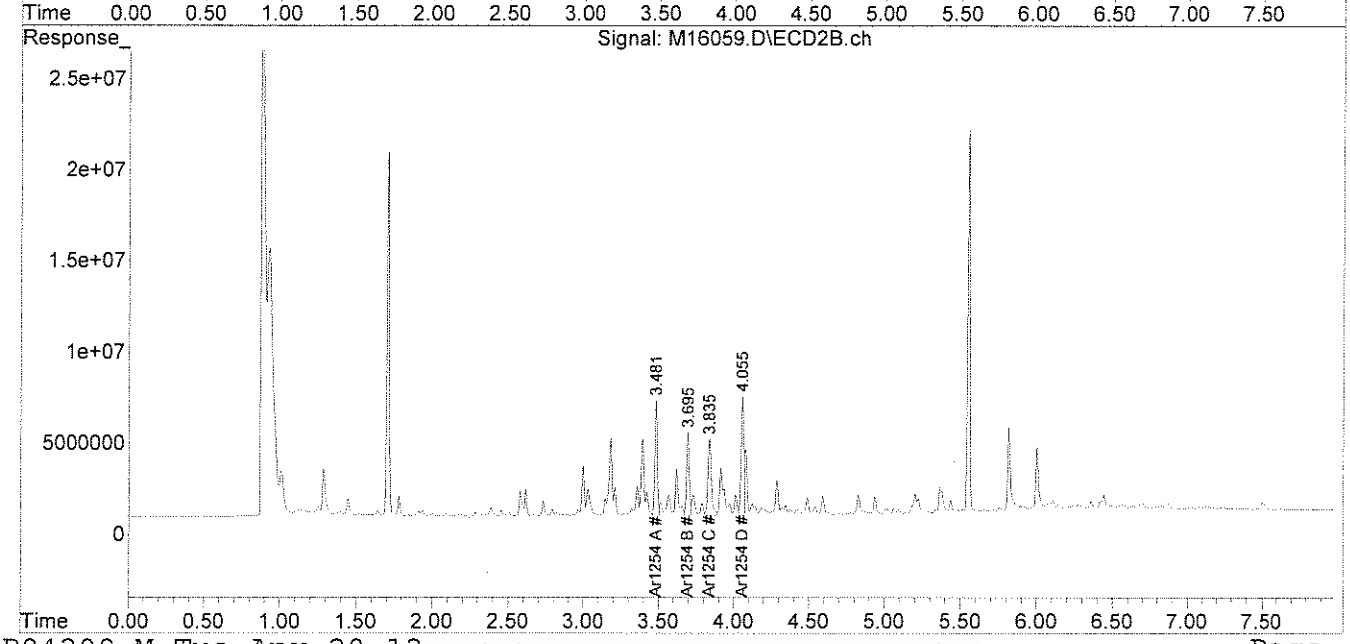
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16059.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Apr 2009 1:35 pm
Operator :
Sample : 63673-2,,A/C
Misc : SOIL
ALS Vial : 66 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 12:28:12 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63673-3
Matrix:	Solid
Percent Solid:	93
Dilution Factor:	2.1
Collection Date:	04/22/09
Lab Receipt Date:	04/22/09
Extraction Date:	04/23/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-029

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	69	U
PCB-1221	69	U
PCB-1232	69	U
PCB-1242	69	U
PCB-1248	69	U
PCB-1254	69	**1150**
PCB-1260	69	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	92	%
Decachlorobiphenyl	107	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63673

Sample: 63673-3,2X,,A/C

Data File: M16111.D

Dilution Factor: 2.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	1148	997	14.1	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

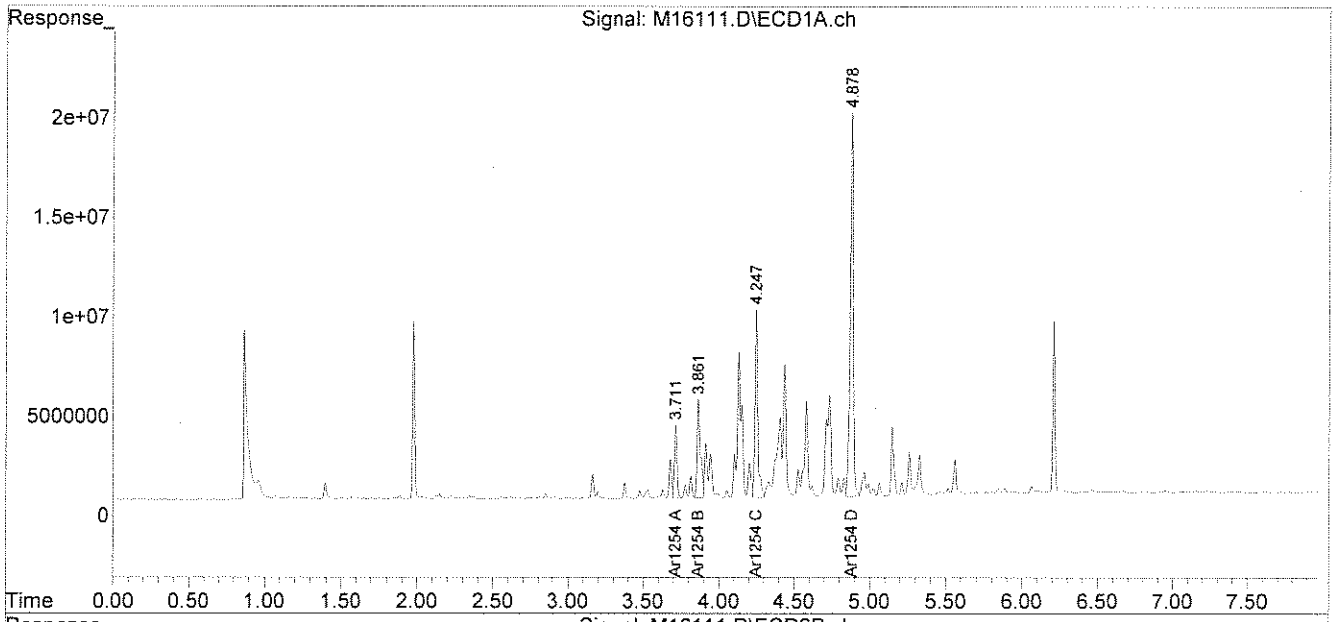
PCB FORM 10

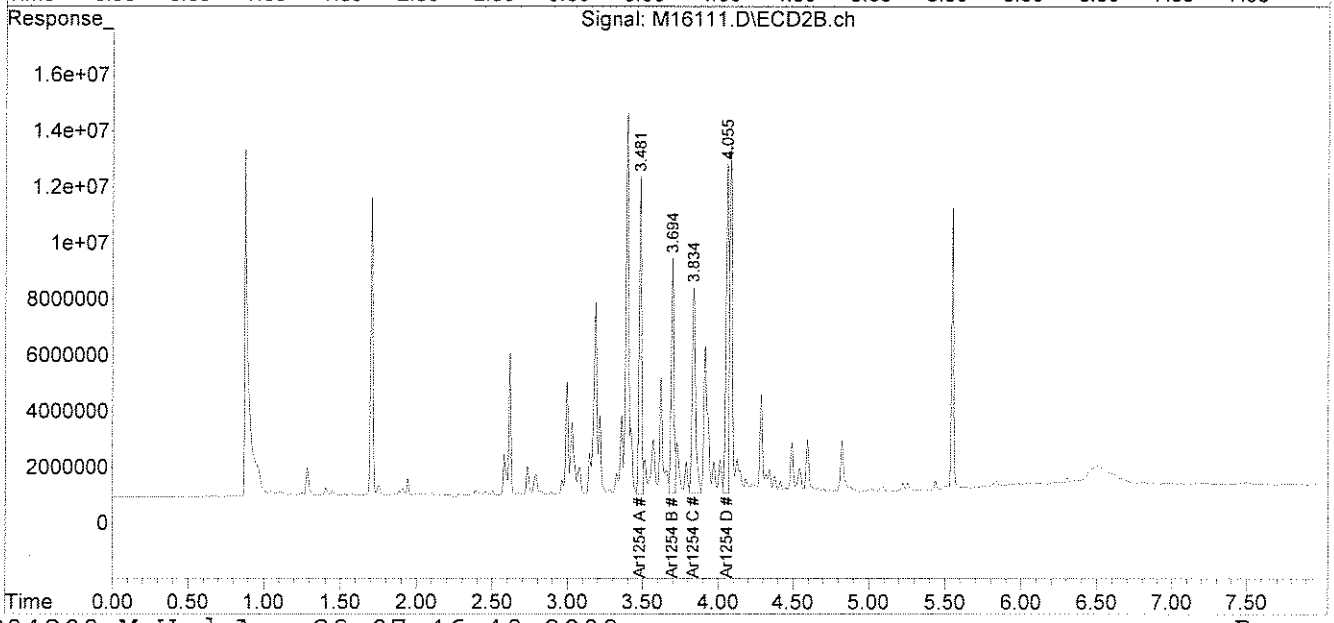
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16111.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 6:33 pm
Operator :
Sample : 63673-3,2X,,A/C (Sig #1); ~~63673-3,2X (Sig #2)~~
Misc : SOIL
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 07:46:40 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 28, 2009

SAMPLE DATA

Lab Sample ID:	63673-4
Matrix:	Solid
Percent Solid:	96
Dilution Factor:	1.0
Collection Date:	04/22/09
Lab Receipt Date:	04/22/09
Extraction Date:	04/23/09
Analysis Date:	04/27/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-030

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**907**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	85	%
Decachlorobiphenyl	107	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63673

Sample: 63673-4,,A/C

Data File: M16072.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	889	907	2.1	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

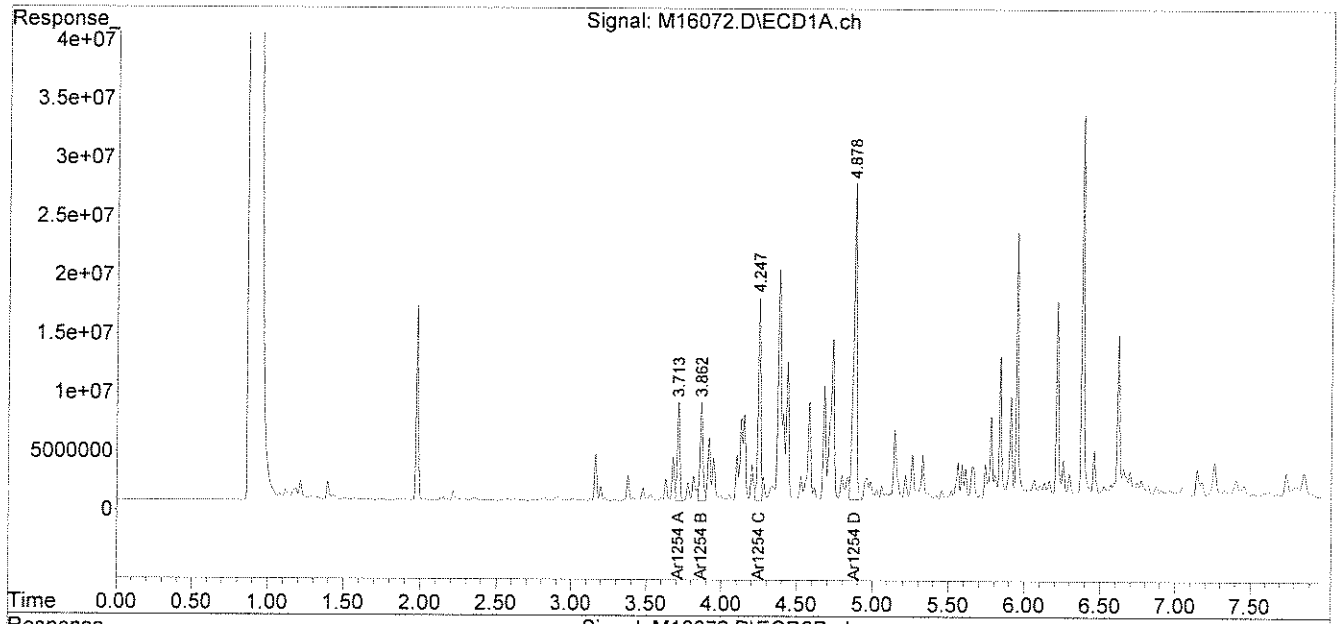
Comments: _____

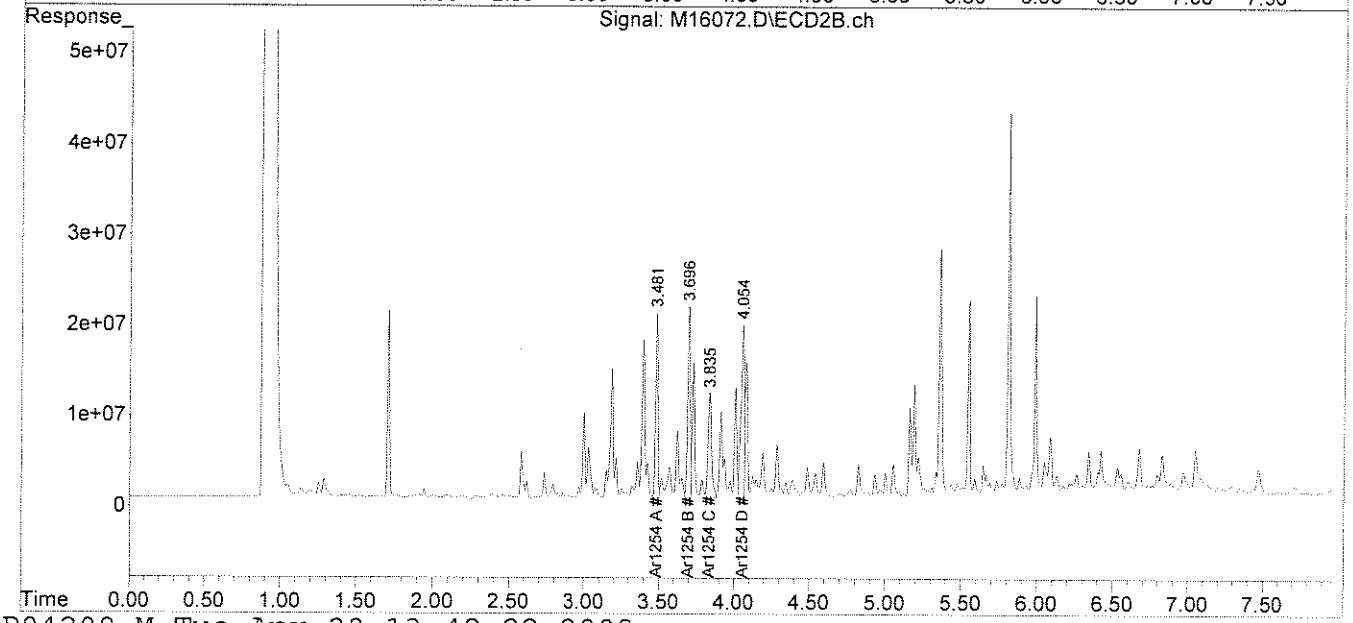
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16072.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Apr 2009 4:41 pm
Operator :
Sample : 63673-4,,A/C
Misc : SOIL
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 13:42:15 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63673-5
Matrix:	Solid
Percent Solid:	94
Dilution Factor:	21
Collection Date:	04/22/09
Lab Receipt Date:	04/22/09
Extraction Date:	04/23/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-032

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	690	U
PCB-1221	690	U
PCB-1232	690	U
PCB-1242	690	U
PCB-1248	690	U
PCB-1254	690	**11200**
PCB-1260	690	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	*	%
Decachlorobiphenyl	*	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.* The surrogates were diluted out.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63673

Sample: 63673-5,20X,,A/C

Data File: M16123.D

Dilution Factor: 21.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	9479	11212	16.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

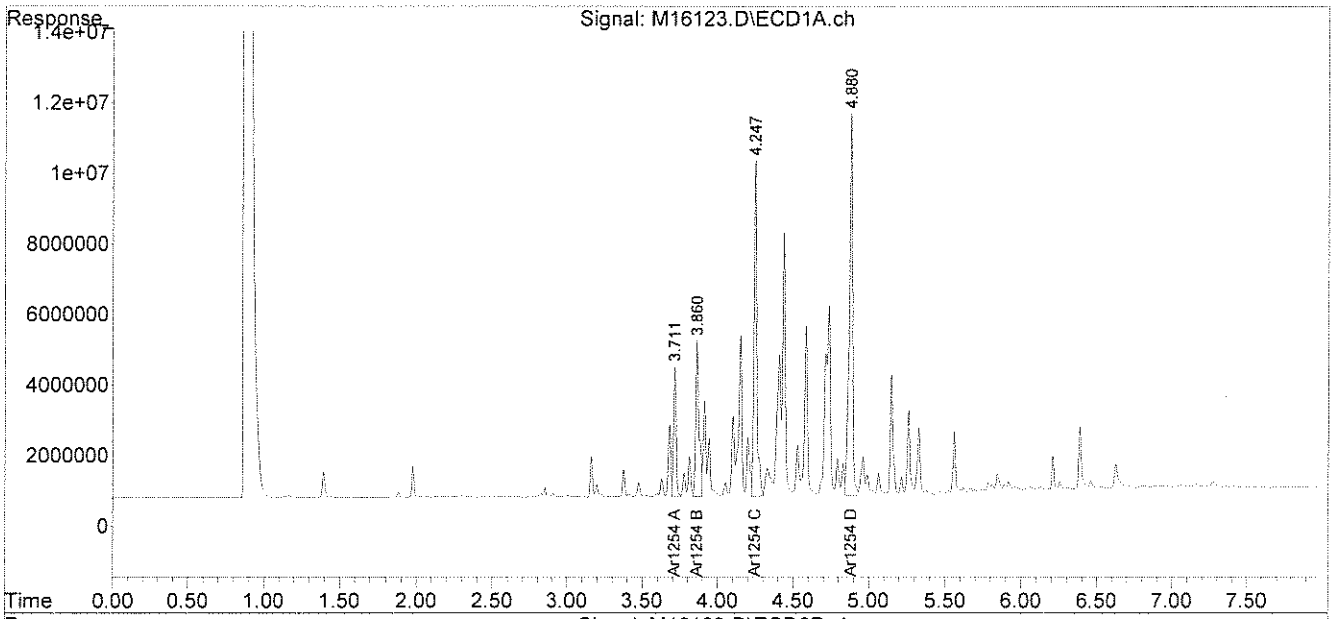
PCB FORM 10

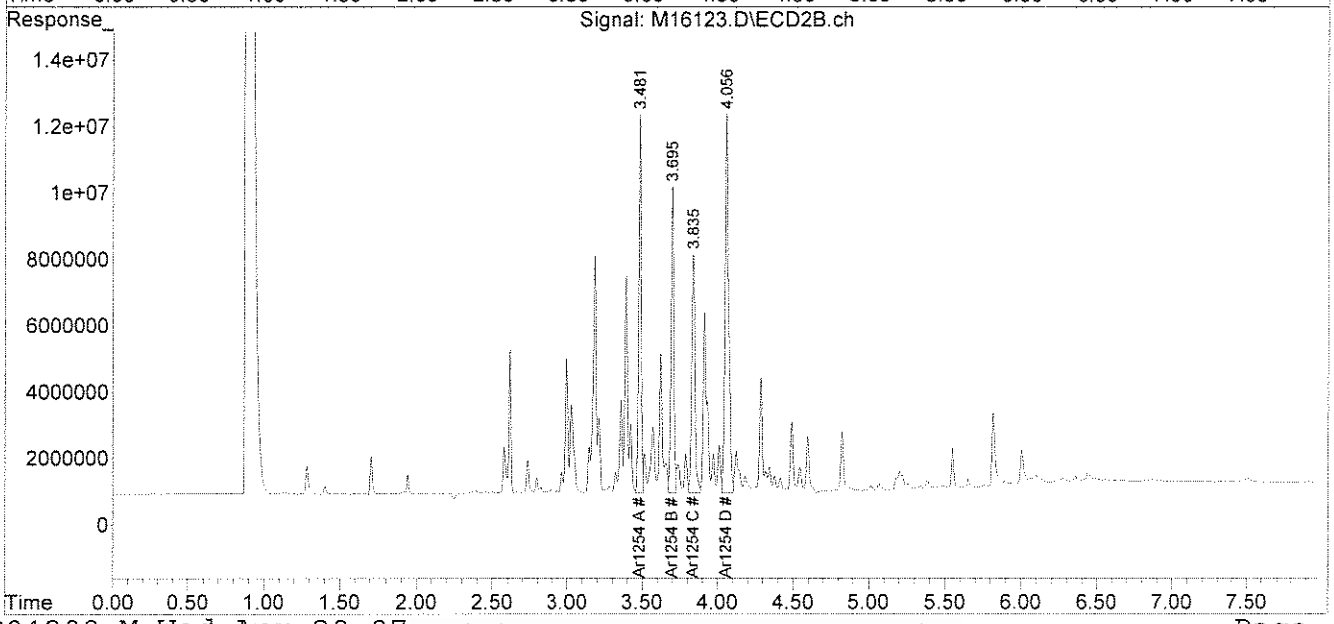
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16123.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 8:34 pm
Operator :
Sample : 63673-5,20X,,A/C (Sig #1); ~~63673-5,20X (Sig #2)~~
Misc : SOIL
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 07:47:00 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63673-6
Matrix:	Solid
Percent Solid:	94
Dilution Factor:	21
Collection Date:	04/22/09
Lab Receipt Date:	04/22/09
Extraction Date:	04/23/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-502

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	690	U
PCB-1221	690	U
PCB-1232	690	U
PCB-1242	690	U
PCB-1248	690	U
PCB-1254	690	**8950**
PCB-1260	690	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	*	%
Decachlorobiphenyl	*	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.* The surrogates were diluted out.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63673

Sample: 63673-6,20X,,A/C

Data File: M16124.D

Dilution Factor: 21.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	7679	8954	15.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

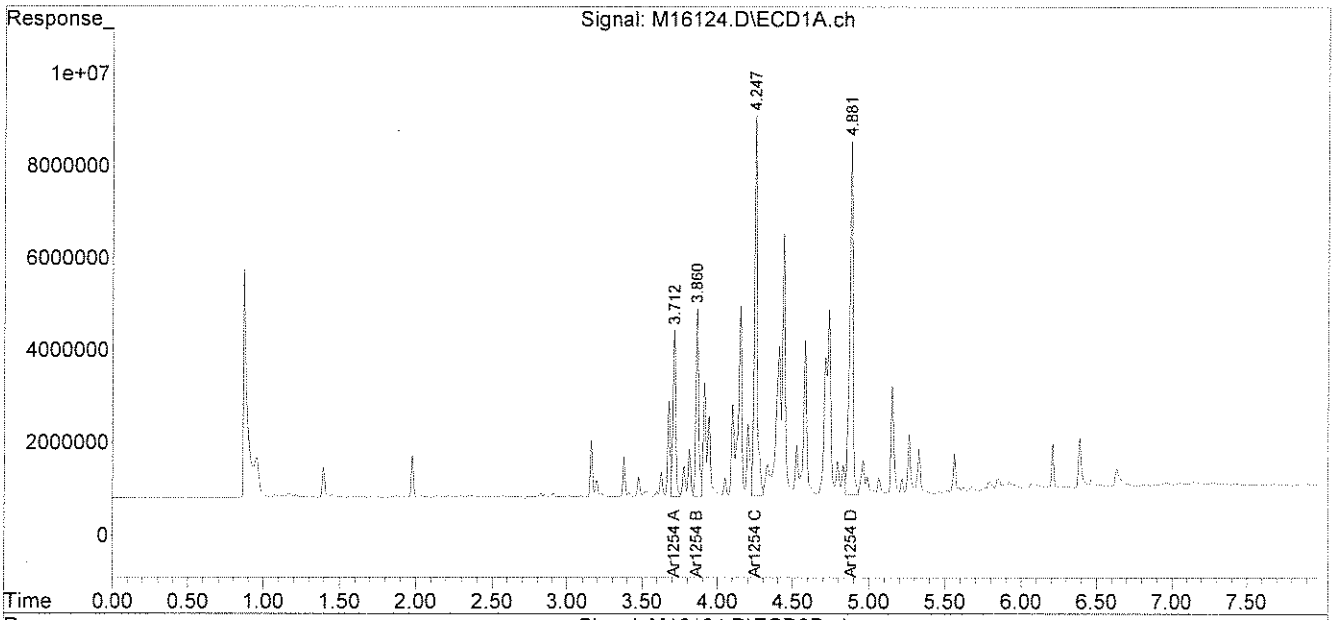
PCB FORM 10

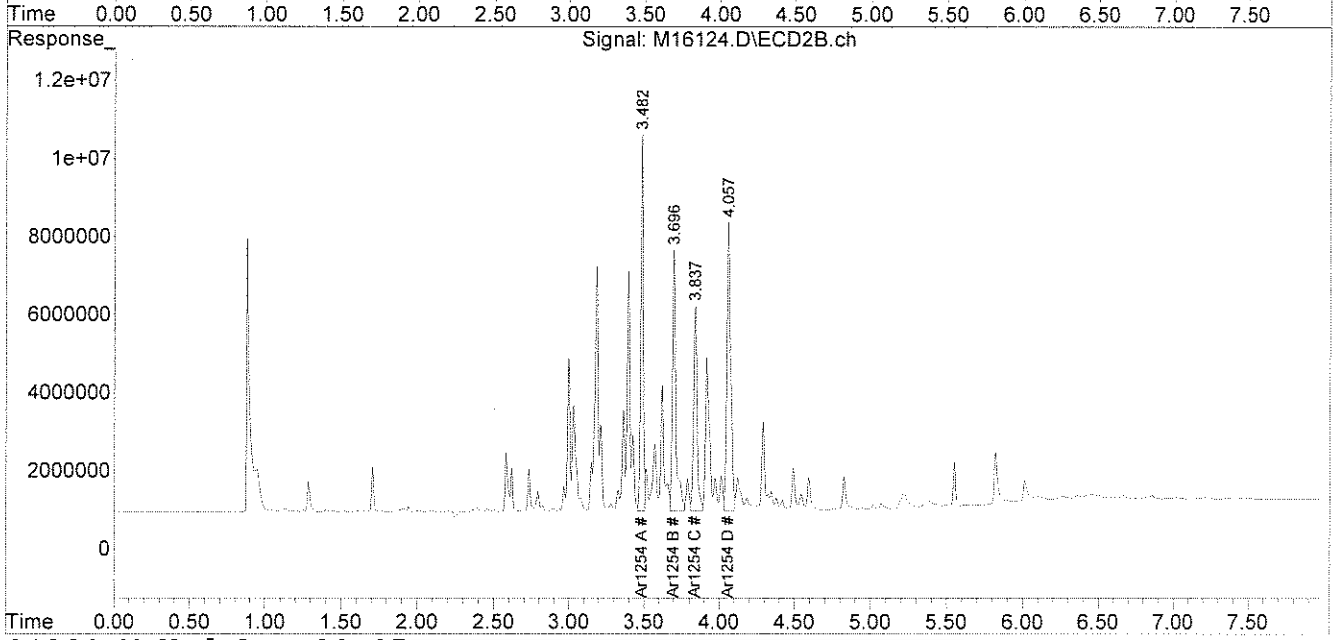
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16124.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 8:44 pm
Operator :
Sample : 63673-6,20X,,A/C (Sig #1); ~~63673-6,20X (Sig #2)~~
Misc : SOIL
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 07:47:02 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63673-7
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	5
Collection Date:	04/22/09
Lab Receipt Date:	04/22/09
Extraction Date:	04/23/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-033

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	170	U
PCB-1221	170	U
PCB-1232	170	U
PCB-1242	170	U
PCB-1248	170	U
PCB-1254	170	**2100**
PCB-1260	170	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	111	%
Decachlorobiphenyl	115	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63673

Sample: 63673-7,5X,,A/C

Data File: M16121.D

Dilution Factor: 5.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	2039	2103	3.1	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

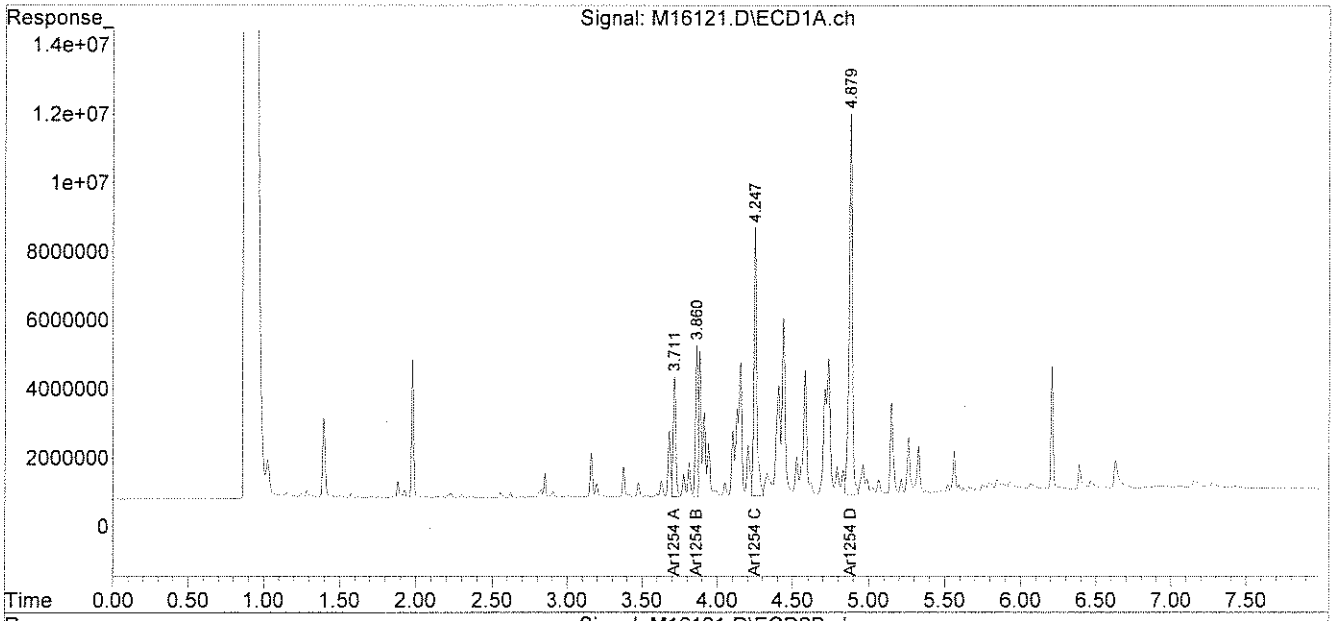
PCB FORM 10

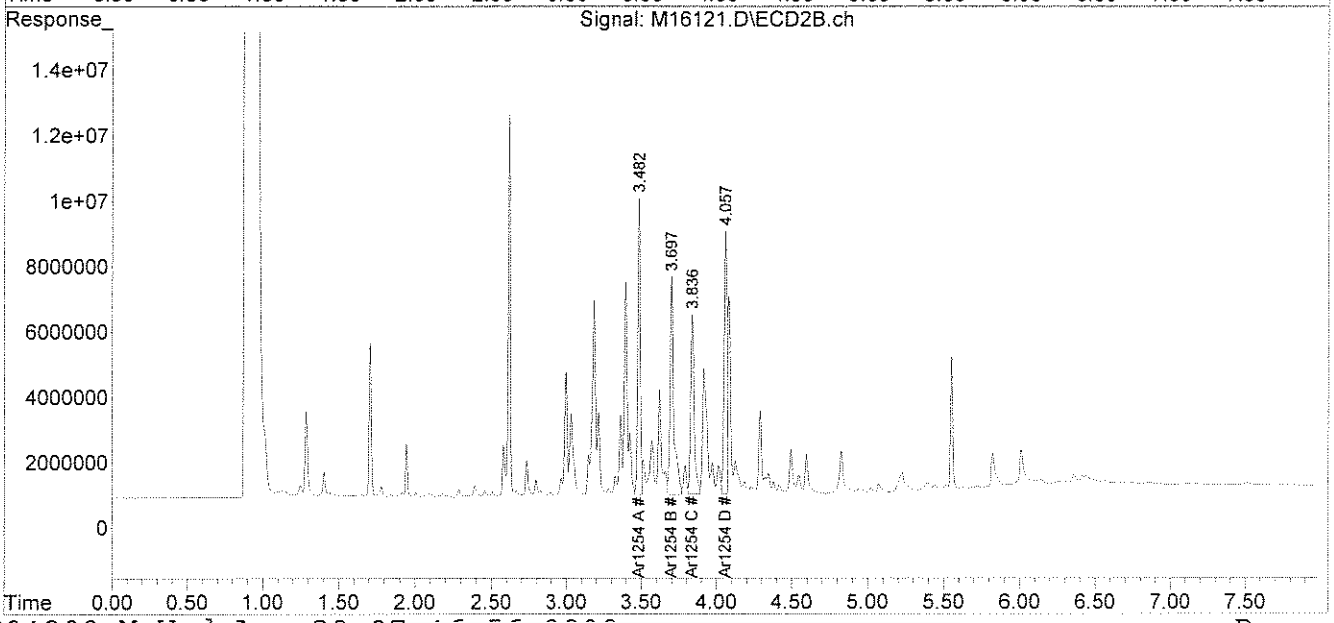
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16121.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 8:14 pm
Operator :
Sample : 63673-7,5X,,A/C (Sig #1); 63673-7,5X (Sig #2)
Misc : SOIL
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 07:46:56 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63673-8
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	5
Collection Date:	04/22/09
Lab Receipt Date:	04/22/09
Extraction Date:	04/23/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-034

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	170	U
PCB-1221	170	U
PCB-1232	170	U
PCB-1242	170	U
PCB-1248	170	U
PCB-1254	170	**1840**
PCB-1260	170	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	113	%
Decachlorobiphenyl	118	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63673

Sample: 63673-8,5X,,A/C

Data File: M16118.D

Dilution Factor: 5.2

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	1627	1841	12.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

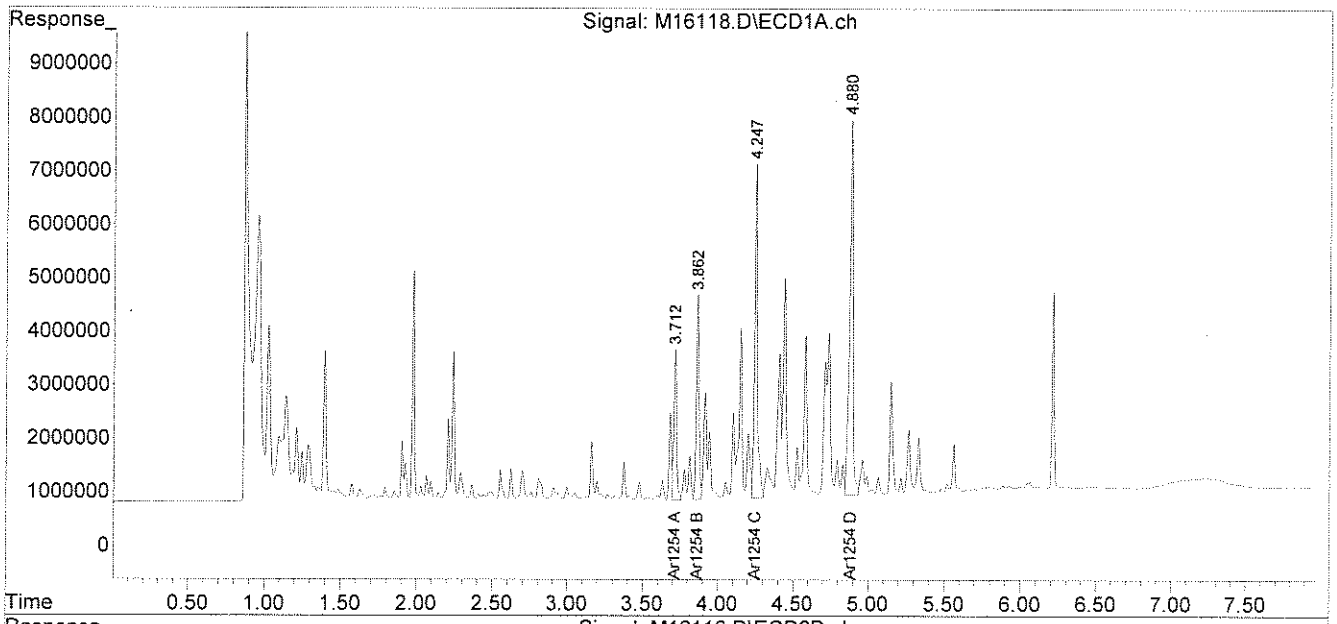
PCB FORM 10

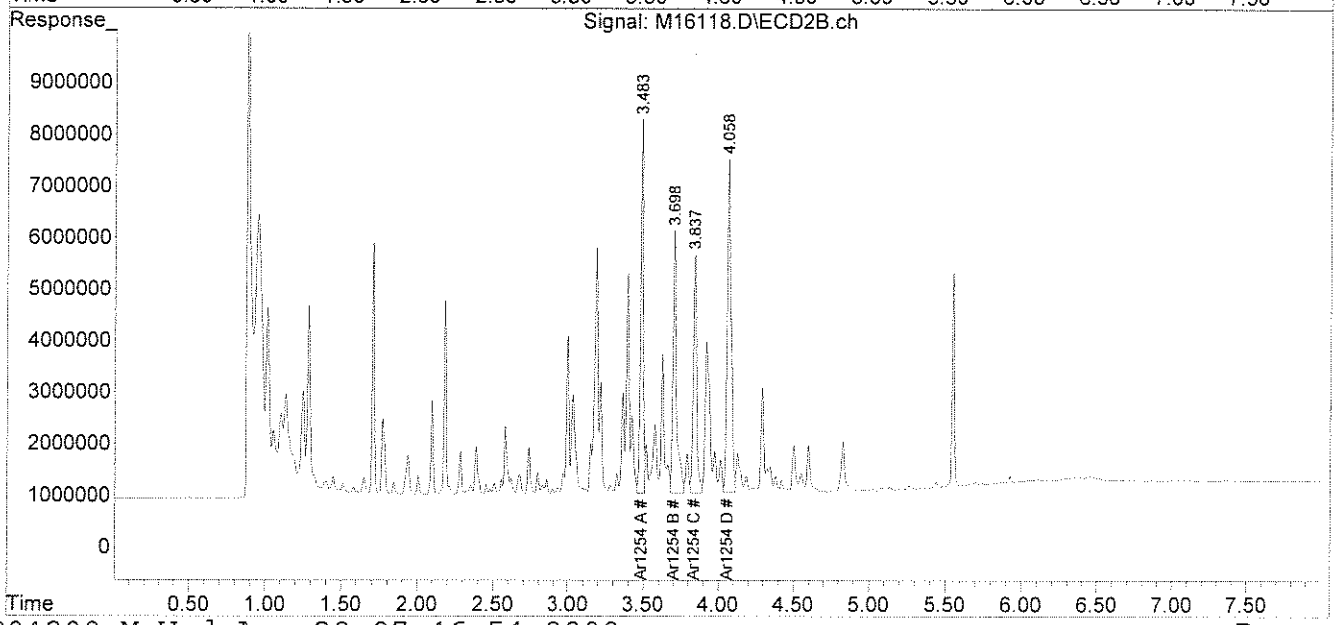
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16118.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 7:43 pm
Operator :
Sample : 63673-8,5X,,A/C (Sig #1); ~~63673-8,5X (Sig #2)~~
Misc : SOIL
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 07:46:54 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 28, 2009

SAMPLE DATA

Lab Sample ID:	63673-9
Matrix:	Solid
Percent Solid:	93
Dilution Factor:	1.1
Collection Date:	04/22/09
Lab Receipt Date:	04/22/09
Extraction Date:	04/23/09
Analysis Date:	04/27/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-035

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**363**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	107	%
Decachlorobiphenyl	110	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63673

Sample: 63673-9,,A/C

Data File: M16060.D

Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	340	363	6.4	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

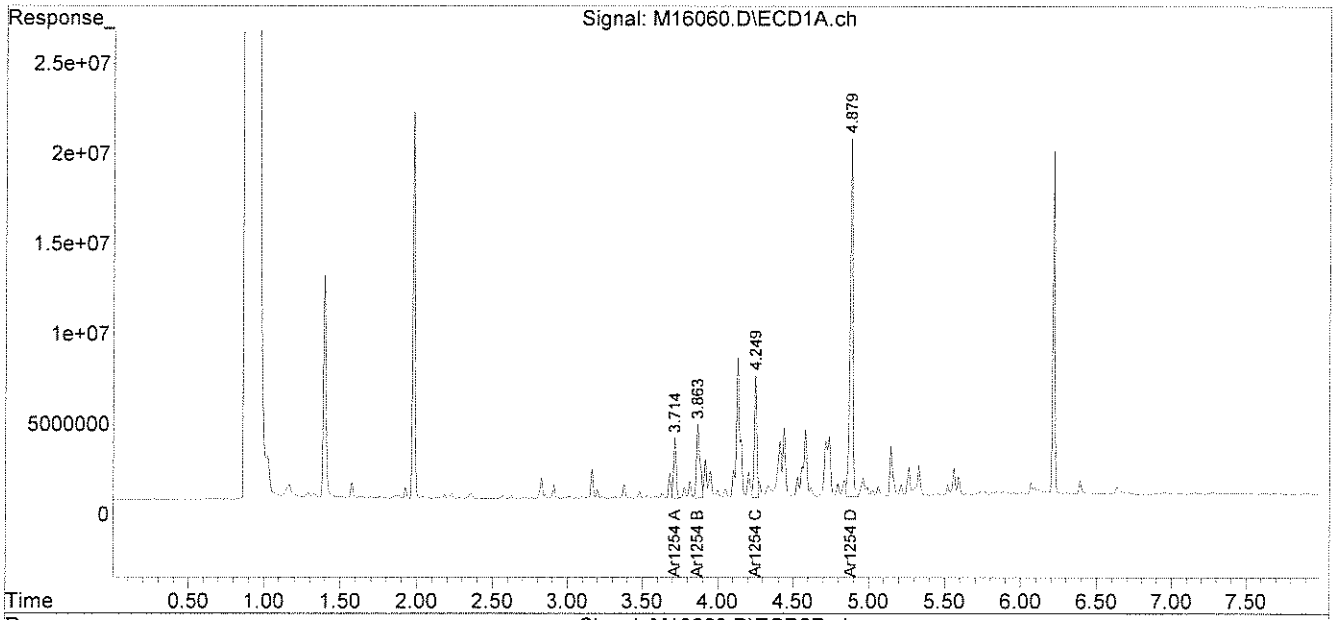
PCB FORM 10

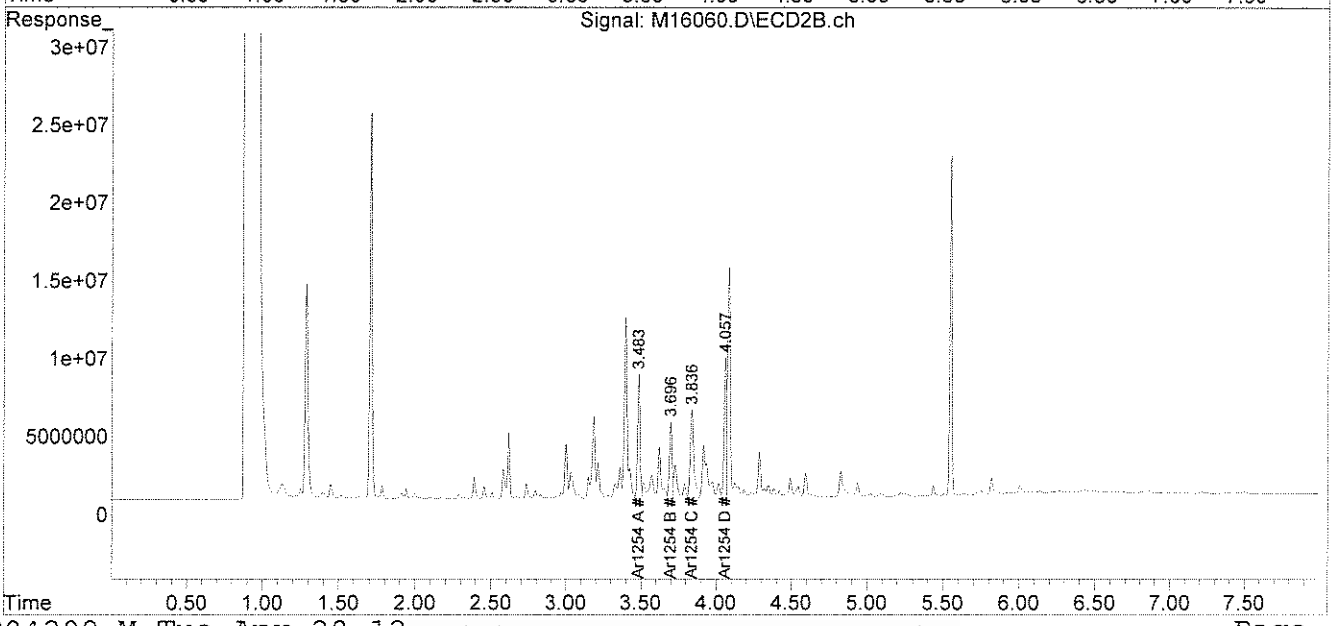
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16060.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Apr 2009 1:45 pm
Operator :
Sample : 63673-9,,A/C
Misc : SOIL
ALS Vial : 67 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 12:28:22 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 28, 2009

SAMPLE DATA

Lab Sample ID:	63673-10
Matrix:	Solid
Percent Solid:	92
Dilution Factor:	1.0
Collection Date:	04/22/09
Lab Receipt Date:	04/22/09
Extraction Date:	04/23/09
Analysis Date:	04/27/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-036

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**605**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	97	%
Decachlorobiphenyl	100	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63673

Sample: 63673-10,,A/C

Data File: M16061.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	575	605	5.0	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

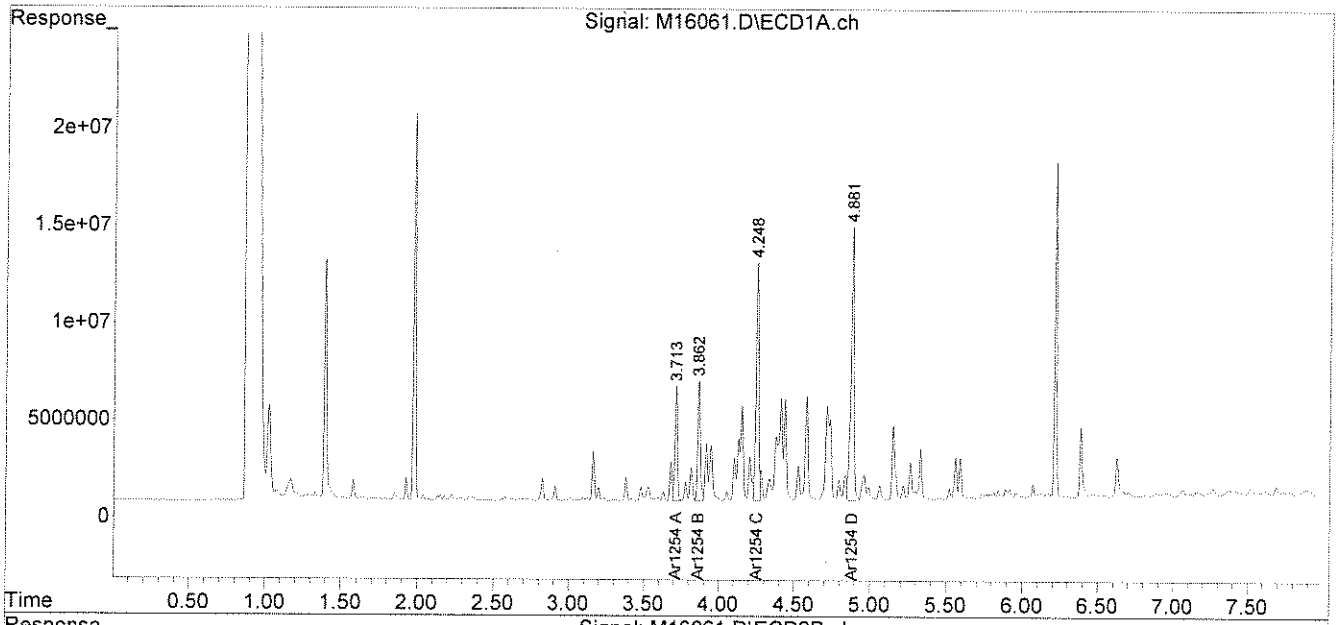
Comments: _____

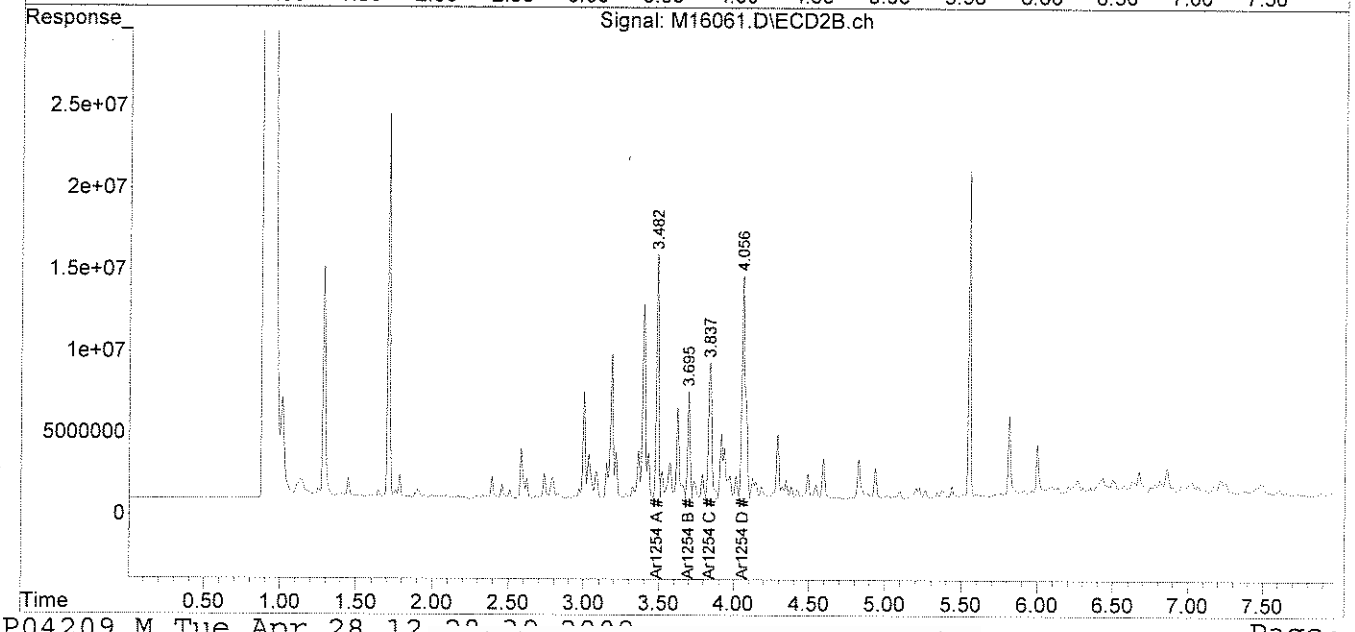
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16061.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Apr 2009 1:55 pm
Operator :
Sample : 63673-10,,A/C
Misc : SOIL
ALS Vial : 68 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 12:28:32 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 28, 2009

SAMPLE DATA

Lab Sample ID:	63673-11
Matrix:	Solid
Percent Solid:	94
Dilution Factor:	1.0
Collection Date:	04/22/09
Lab Receipt Date:	04/22/09
Extraction Date:	04/23/09
Analysis Date:	04/27/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-037

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**144**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	88	%
Decachlorobiphenyl	102	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63673

Sample: 63673-11,,A/C

Data File: M16062.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	144	132	8.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

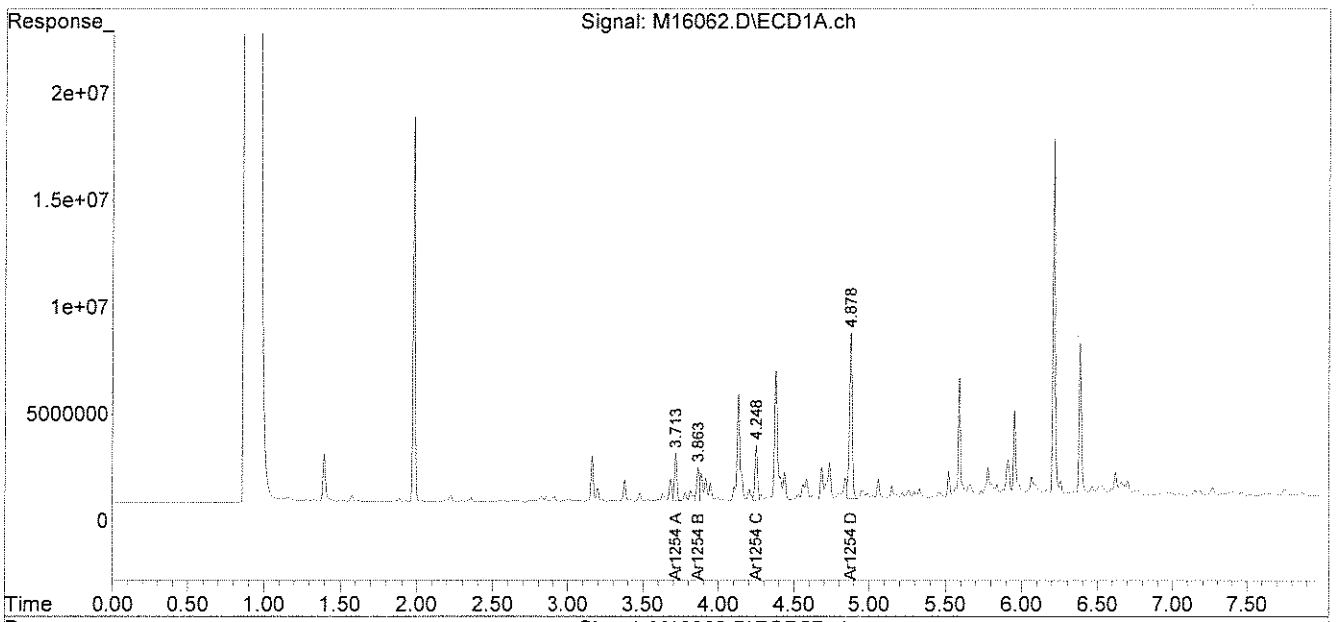
Comments: _____

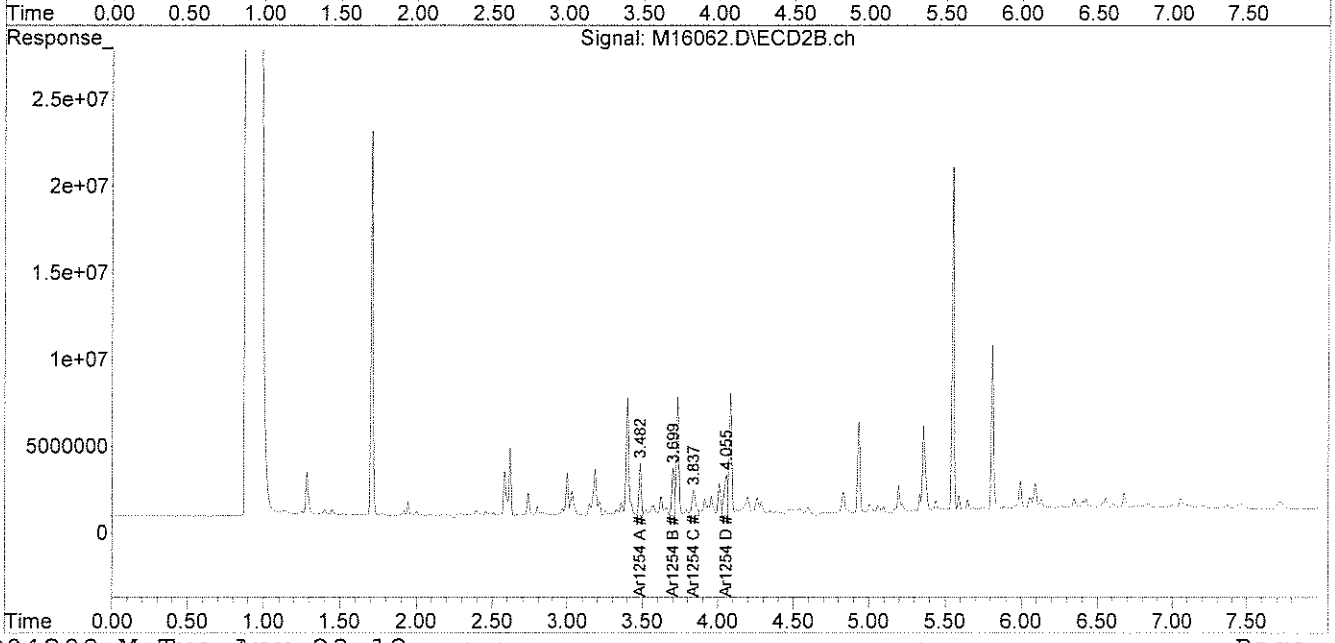
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16062.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Apr 2009 2:05 pm
Operator :
Sample : 63673-11,,A/C
Misc : SOIL
ALS Vial : 69 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 12:29:02 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 28, 2009

SAMPLE DATA

Lab Sample ID:	63673-12
Matrix:	Solid
Percent Solid:	94
Dilution Factor:	1.0
Collection Date:	04/22/09
Lab Receipt Date:	04/22/09
Extraction Date:	04/23/09
Analysis Date:	04/27/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-038

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**179**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	94	%
Decachlorobiphenyl	99	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63673

Sample: 63673-12,,A/C

Data File: M16063.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	175	179	2.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

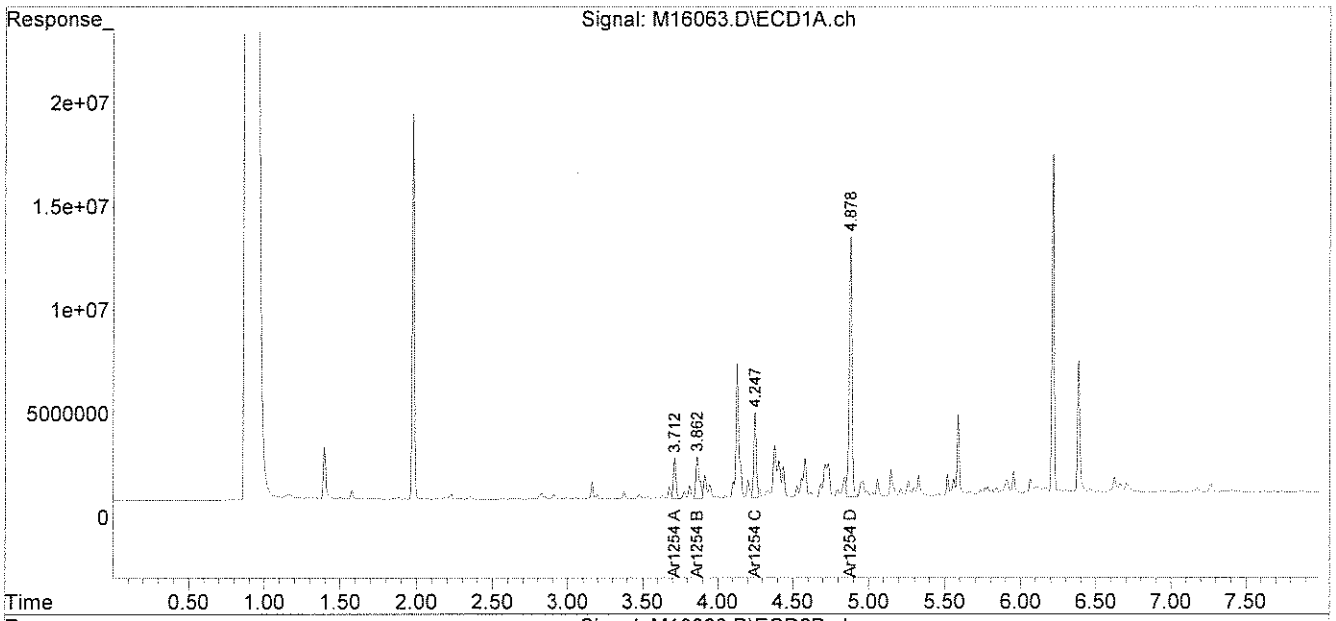
PCB FORM 10

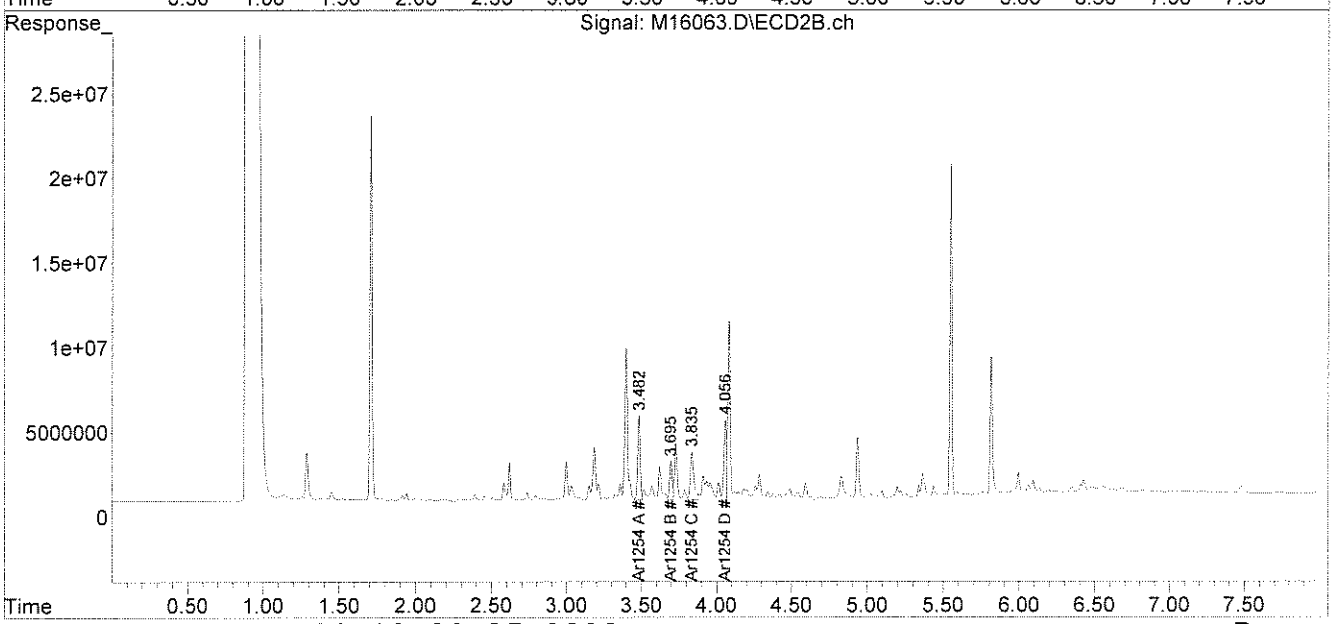
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16063.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Apr 2009 2:16 pm
Operator :
Sample : 63673-12,,A/C
Misc : SOIL
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 12:29:35 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 28, 2009

SAMPLE DATA

Lab Sample ID:	63673-13
Matrix:	Solid
Percent Solid:	82
Dilution Factor:	1.2
Collection Date:	04/22/09
Lab Receipt Date:	04/22/09
Extraction Date:	04/23/09
Analysis Date:	04/27/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-039

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	40	U
PCB-1221	40	U
PCB-1232	40	U
PCB-1242	40	U
PCB-1248	40	U
PCB-1254	40	**972**
PCB-1260	40	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	93	%
Decachlorobiphenyl	99	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63673

Sample: 63673-13,,A/C

Data File: M16064.D

Dilution Factor: 1.2

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	972	916	5.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

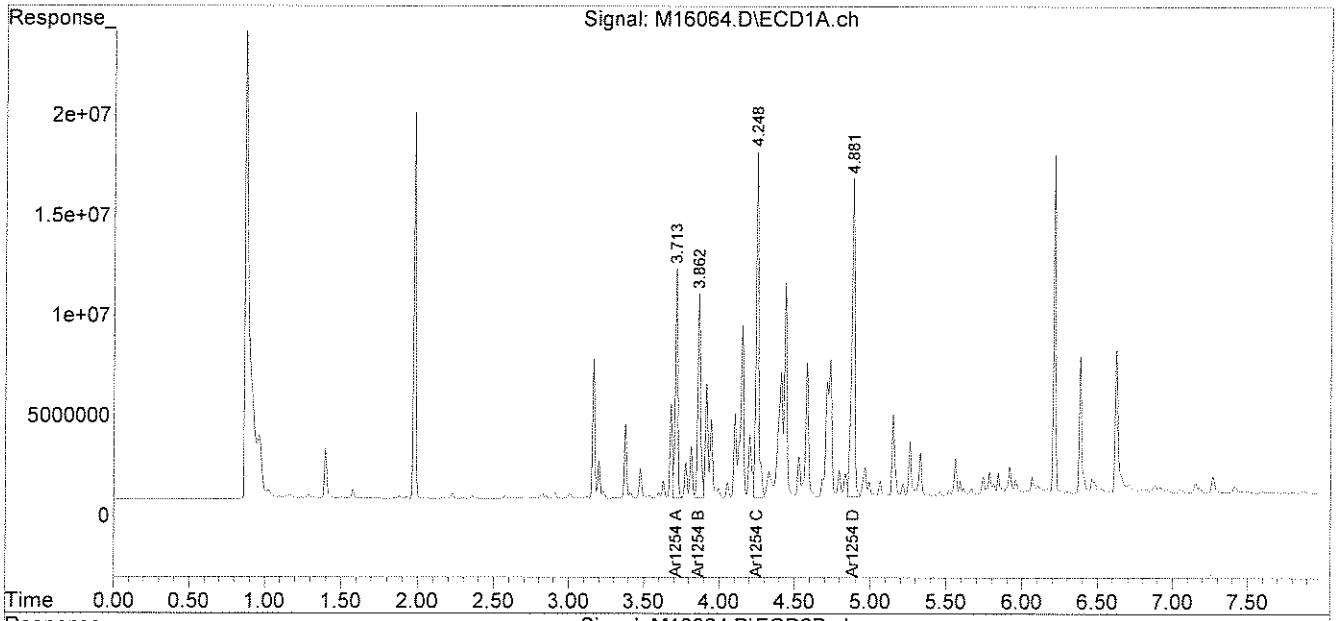
PCB FORM 10

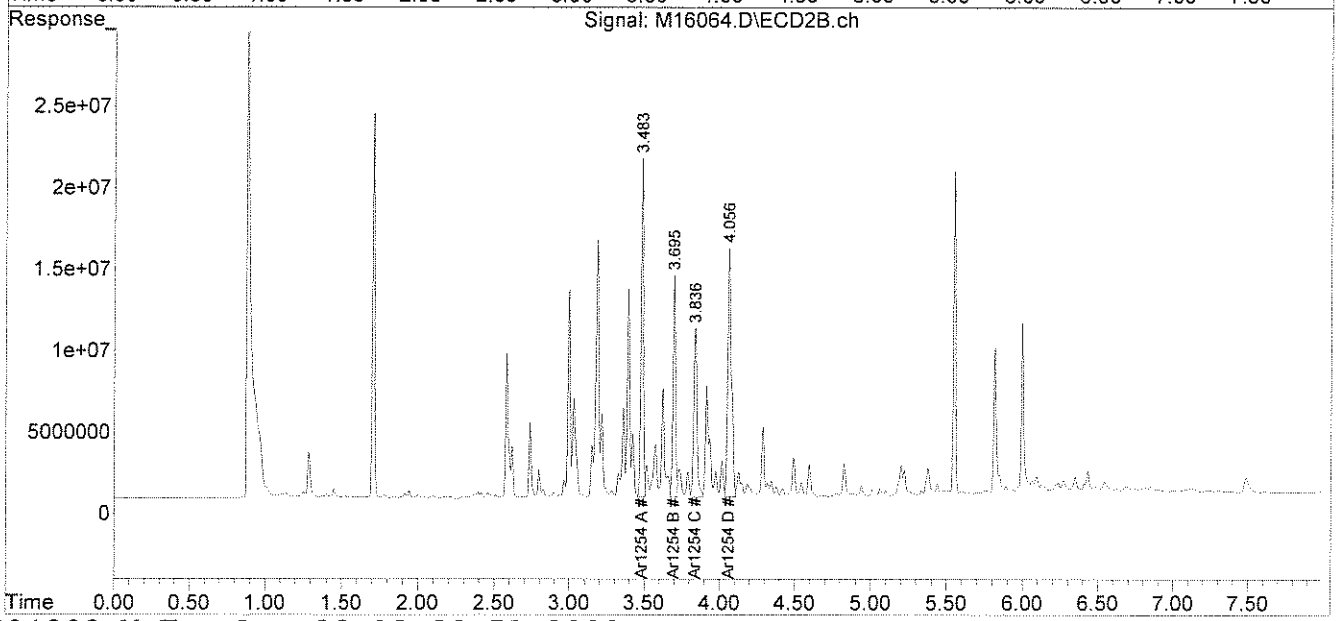
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16064.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 27 Apr 2009 2:26 pm
Operator :
Sample : 63673-13,,A/C
Misc : SOIL
ALS Vial : 71 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 12:29:45 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63673-14
Matrix:	Solid
Percent Solid:	82
Dilution Factor:	12
Collection Date:	04/22/09
Lab Receipt Date:	04/22/09
Extraction Date:	04/23/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-SS34-126

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	400	U
PCB-1221	400	U
PCB-1232	400	U
PCB-1242	400	U
PCB-1248	400	U
PCB-1254	400	**4990**
PCB-1260	400	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	124	%
Decachlorobiphenyl	117	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63673

Sample: 63673-14, 10X,,A/C

Data File: M16115.D

Dilution Factor: 11.5

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	3972	4993	22.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

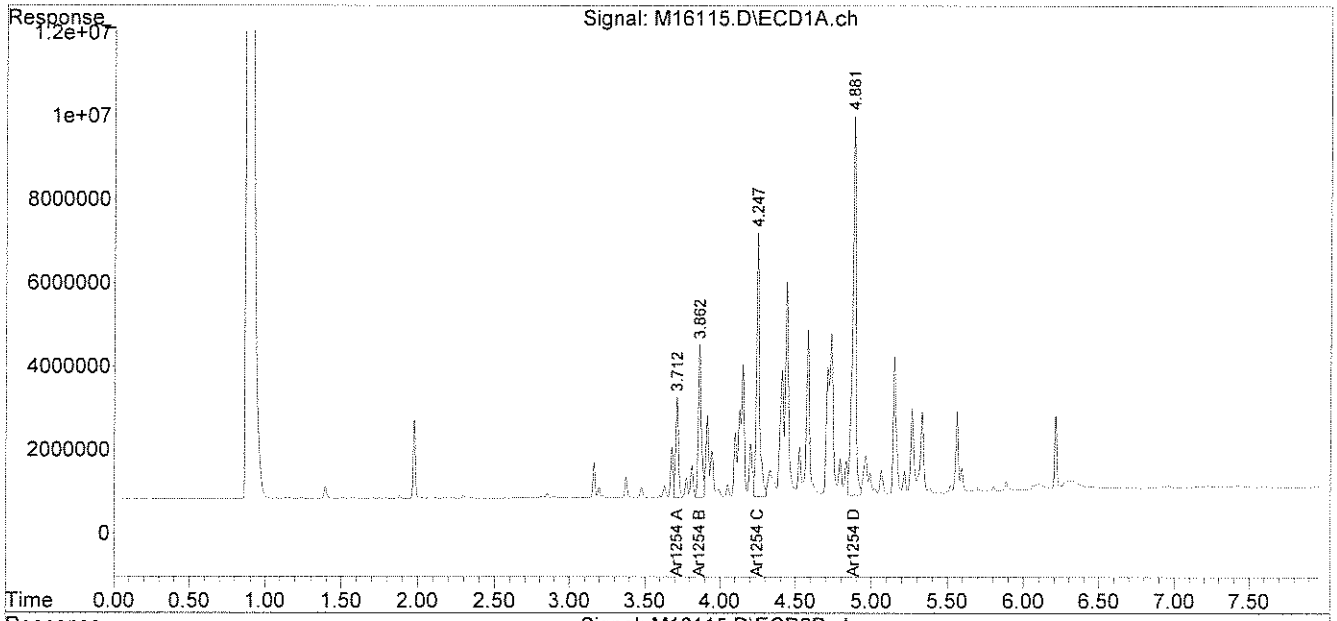
PCB FORM 10

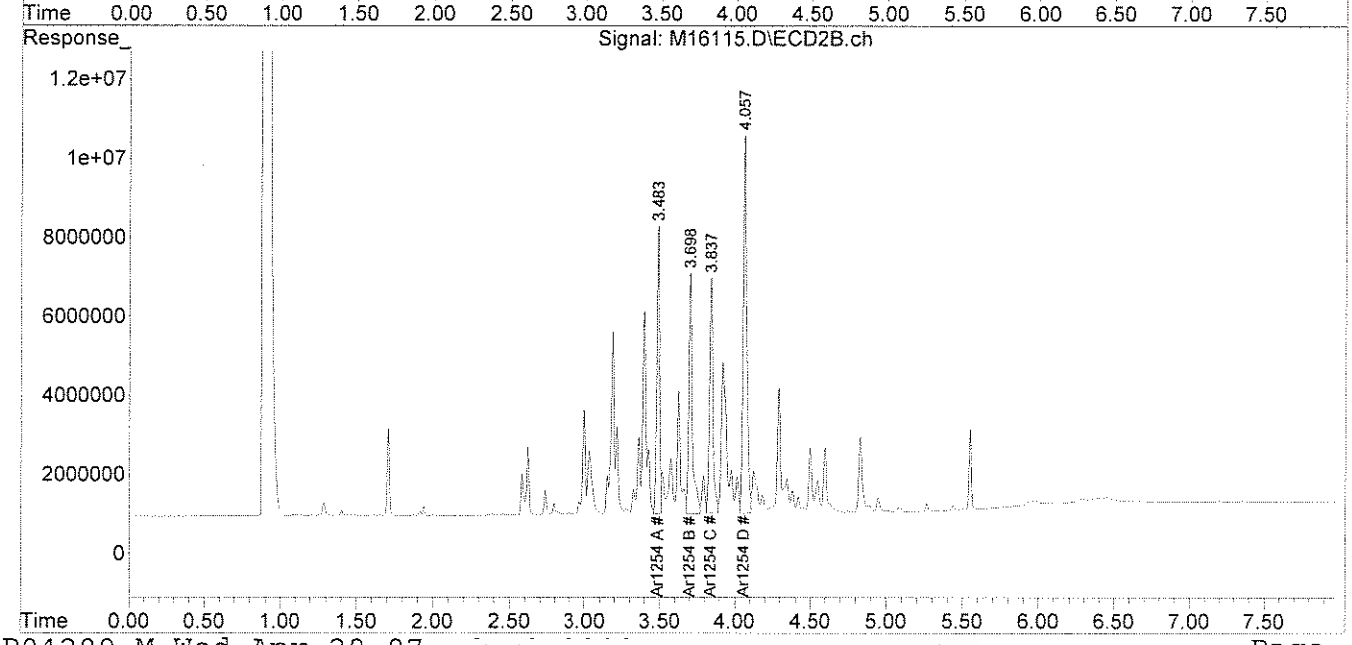
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16115.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 7:13 pm
Operator :
Sample : 63673-14, 10X,,A/C (Sig #1); ~~63673-14, 10X (Sig #2)~~
Misc : SOIL
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 07:46:48 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63673-15
Matrix:	Solid
Percent Solid:	90
Dilution Factor:	5
Collection Date:	04/22/09
Lab Receipt Date:	04/22/09
Extraction Date:	04/23/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-SS33-125

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	170	U
PCB-1221	170	U
PCB-1232	170	U
PCB-1242	170	U
PCB-1248	170	U
PCB-1254	170	**1900**
PCB-1260	170	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	108	%
Decachlorobiphenyl	114	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63673

Sample: 63673-15,5X,,A/C

Data File: M16117.D

Dilution Factor: 5.2

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	1502	1900	23.4	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

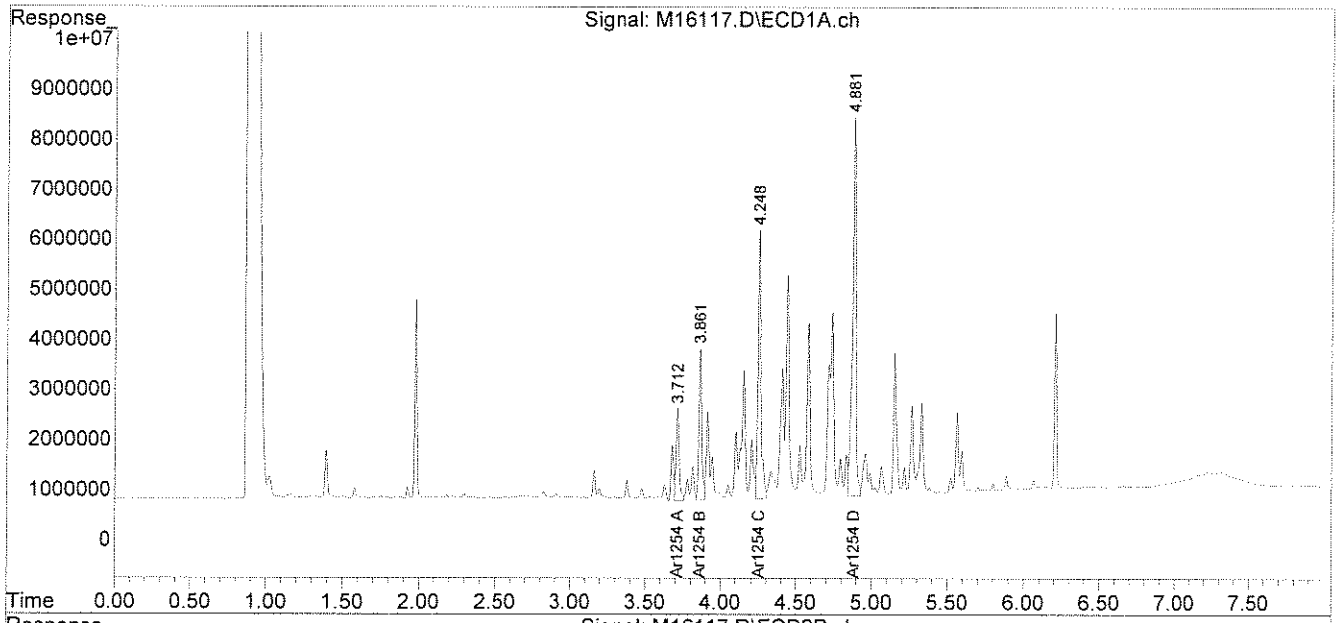
PCB FORM 10

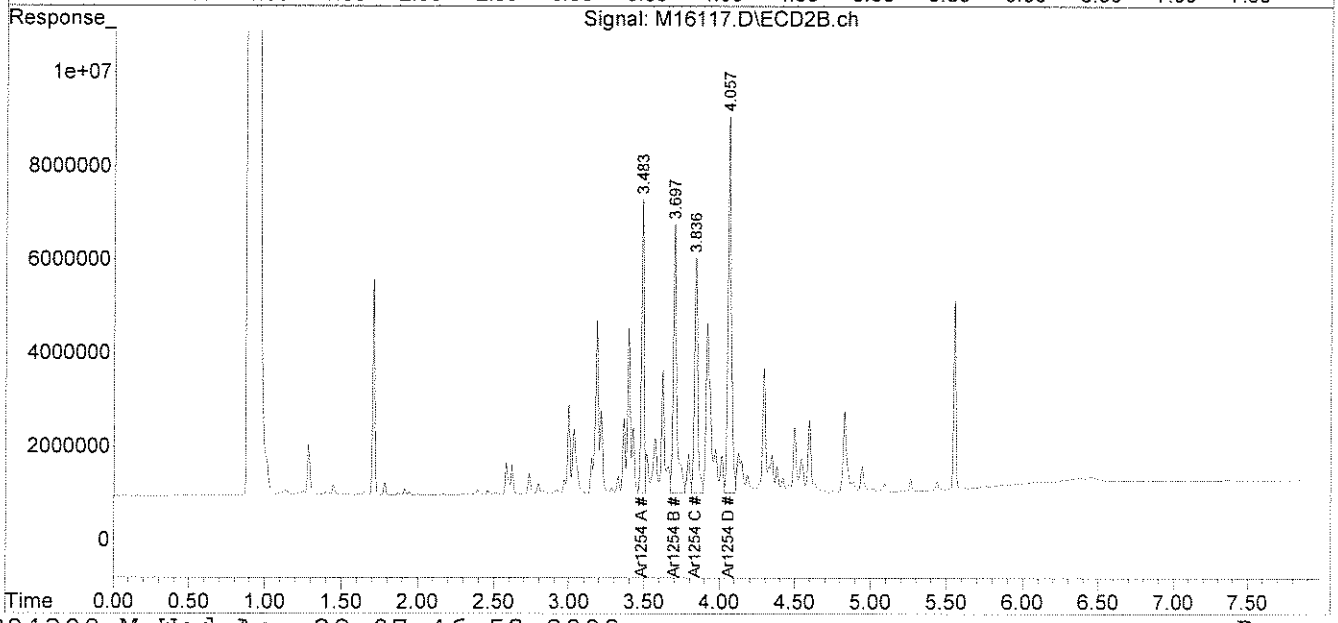
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16117.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 7:33 pm
Operator :
Sample : 63673-15,5X,,A/C (Sig #1); ~~63673-15,5X (Sig #2)~~
Misc : SOIL
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 07:46:52 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





PCB
QC FORMS

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63673

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04239PSOX,,A/C	95		105		90		97	
L04239PSOX,,A/C	92		108		97		102	
LD04239PSOX,,A/C	86		109		95		101	
63673-1,,A/C	81		103		83		98	
63673-1,MS,,A/C	82		101		84		98	
63673-1,MSD,,A/C	83		103		84		99	
63673-2,,A/C	85		106		87		106	
63673-9,,A/C	107		113		107		110	
63673-10,,A/C	95		100		97		100	
63673-11,,A/C	88		102		91		100	
63673-12,,A/C	91		98		94		99	
63673-13,,A/C	93		99		96		102	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

\# Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63673

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04239SSOX,RR,,A/C	101		115		102		110	
63673-4,,A/C	82		104		85		107	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63673

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04249PSOX,RR,,A/C	94		117		99		107	
63673-3,2X,,A/C	92		107		93		105	
63673-14, 10X,,A/C	124		117		115		112	
63673-15,5X,,A/C	108		114		104		109	
63673-8,5X,,A/C	113		118		108		113	
63673-7,5X,,A/C	111		115		107		111	
63673-5,20X,,A/C	D		D		D		D	
63673-6,20X,,A/C	D		D		D		D	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63673

Non-spiked sample: B04239PSOX,,A/C

Spike: L04239PSOX,,A/C

Spike duplicate: LD04239PSOX,,A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	200	200	65	140	30	0	215	107		223	111		3.8	
PCB 1260	200	200	60	130	30	0	194	97		191	95		1.8	
PCB 1016 #2	200	200	65	140	30	0	257	129		265	132		2.8	
PCB 1260 #2	200	200	60	130	30	0	195	98		192	96		1.5	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

PCB SOIL
MATRIX SPIKE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63673

Non-spiked sample: 63673-1,,A/C

Spike: 63673-1,MS,,A/C

Spike duplicate: 63673-1,MSD,,A/C

COMPOUND	MS SPIKE ADDED (ug/kg)	MSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	202	201	65	140	30	0	199	99		202	101		1.4	
PCB 1260	202	201	60	130	30	0	223	110		248	123		11.0	
PCB 1016 #2	202	201	65	140	30	0	197	98		206	102		4.3	
PCB 1260 #2	202	201	60	130	30	0	220	109		223	111		1.2	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

MS/MSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

PCB FORM 3

CHAIN OF CUSTODIES

Chain Of Custody Form

analytics environmental laboratory LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 3
3) Received in good condition Y or N
4) pH checked by: N/A
5) Labels checked by: 4/22/09

Project#: 210918 Proj. Name: UMASS - LGRC
Company: Woodard & Curran
Contact: GEORGE FRANKLIN/AMY WALLACE
Address: 35 New England Business Ctr.
Andover, MA 01810
Phone: (866)702-6371 PO# Quote # WCI 8091001
Sampler (Signature):

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

Station Identification	Sample Date	Sample Time	Analysis	Preservation: Unpres	4°C	HNO3	H2SO4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
LGRC-VSS-027	4/22/09	1150	PCBs - 8082	X	X						SOIL	1	Glass		63673-1
LGRC-VSS-028		1155													-2
LGRC-VSS-029		1200													-3
LGRC-VSS-030		1210													-4
LGRC-VSS-032		1215													-5
LGRC-VSS-502		1215													-6
LGRC-VSS-033		1220													-7
LGRC-VSS-034		1223													-8
LGRC-VSS-035		1227													-9
LGRC-VSS-036		1230													-10
LGRC-VSS-037		1235													-11

Received By: Time: 1:50 Date: 4/22/09
Received By: Time: Date:
Received By: Time: Date:

Email Results to:
George Franklin
Jeff Hamel
Amy Wallace

Comments / Instructions:
PCBs by 8082
SOXHLET EXTRACTION

Call GFranklin to confirm

Turnaround Time (TAT)
- [ ] 24hr*
- [ ] 48hr*
- [ ] 72hr*
- [x] 5 Days*
- [ ] 10 Days

*Fee may apply; lab approval required

Project Requirements:
*Fee may apply

Report Type:
- [ ] MCP*
- [ ] CTRCP*
- [ ] DOD*
- [ ] Standard
- [ ] Level II*
- [ ] Level III*
- [ ] Level IV*

State:
- [ ] NH
- [ ] MA
- [ ] ME
- [ ] CT
- [ ] RI

Other: TSCA

State Standard: _____ (eg. S-1 or GW-1)

EDD Required: Y* N

Type: _____

Relinquished By Sampler: Ken B. Stevens
Relinquished By:
Relinquished By:

Analytics Report 63673 page 0065 of 67

Chain Of Custody Form

analytics environmental laboratory LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 3
3) Received in good condition Y or N
4) pH checked by: N/A
5) Labels checked by: 54.2209

Project#: 210918 Proj. Name: UMASS - LGRC
Company: Woodard &Curran
Contact: George Franklin - Amy Wallace
Address: 35 New England Business Center Suite 180
Andover, MA 01810
Phone: (978)557-8150 PO# Quote # WCI 8091001
Sampler (Signature):

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

Station Identification	Sample Date	Sample Time	Analysis	Preservation: Unpres	4°C	HNO_3	H_2SO_4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
GRC-VSS-038	4/22/00	1240	PCBs. 8082	X	X						Soil	1	Glass		63673-12
GRC-VSS-039	↓	1245	↓	X	↓						↓	↓			-13
~~GRC-VSS~~															
GRC-SS34-126		1327													-14
GRC-SS33-125		1310													-15

Received By: [signature] Time: 1:50 Date: 4/22/09 1400
Received By: Time: Date:
Received By: Time: Date:

Email Results to:
George Franklin
Amy Wallace
Jeff Hamel

Turnaround Time (TAT)
☐ 24hr* ☐ 48hr*
☐ 72hr* ☒ 5 Days* — Call G. Franklin to confirm
☐ 10 Days
*Fee may apply; lab approval required

Comments / Instructions:
PCBs by 8082
SOXHLET Extraction

Project Requirements:
*Fee may apply

Report Type:
☐ MCP* ☐ Level II*
☐ CTRCP* ☐ Level III*
☐ DOD* ☐ Level IV*
☐ Standard

State:
☐ NH
☐ MA
☐ ME
☐ CT
☐ RI
Other:

State Standard:
(eg. S-1 or GW-1)
EDD Required: Y* N
Type:

Relinquished By Sampler: Kevin B. Stevens
Relinquished By:
Relinquished By:

Analytics\AEL Documents\AEL COC

Page ___ of ___

analytics environmental laboratory LLC

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 63673

CLIENT: Woodard + Curran

PROJECT: UMASS - LGRC

COOLER NUMBER: _____

NUMBER OF COOLERS: 1

DATE RECEIVED: 4/22/09

A: PRELIMINARY EXAMINATION:

DATE COOLER OPENED: 4/22/09

1. Cooler received by(initials) — Date Received: JF 4/22/09

2. Circle one: Hand delivered (If so, skip 3) — Shipped

3. Did cooler come with a shipping slip? Y N

3a. Enter carrier name and airbill number here: _____

4. Were custody seals on the outside of cooler? Y N/A
How many & where: _____ Seal Date: _____ Seal Name: _____

5. Did the custody seals arrive unbroken and intact upon arrival? Y N/A

6. COC#: _____

7. Were Custody papers filled out properly (ink,signed, etc)? Y N

8. Were custody papers sealed in a plastic bag? Y N

9. Did you sign the COC in the appropriate place? Y N

10. Was the project identifiable from the COC papers? Y N

11. Was enough ice used to chill the cooler? Y N — Temp. of cooler: 3°C

B. Log-In: Date samples were logged in: 4/22/09 By: NF

12. Type of packing in cooler (bubble wrap, popcorn) Y N

13. Were all bottles sealed in separate plastic bags? Y N

14. Did all bottles arrive unbroken and were labels in good condition? Y N

15. Were all bottle labels complete(ID,Date,time,etc.) Y N

16. Did all bottle labels agree with custody papers? Y N

17. Were the correct containers used for the tests indicated: Y N

18. Were samples received at the correct pH? Y N/A

19. Was sufficient amount of sample sent for the tests indicated? Y N

20. Were bubbles absent in VOA samples? Y N/A

If NO, List sample #'s: _____

21. Laboratory labeling verified by (initials): Date: 4-22-09

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

April 29, 2009

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

RE: Analytical Results Case Narrative
Analytics # 63715
UMASS LGRC Proj# 210918

Dear Mr. Franklin;

Enclosed please find the analytical results for samples submitted for the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed Polychlorinated Biphenyls (PCBs) by EPA Method 8082.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II data package has been assembled in the following order:

Case Narrative/Non-Conformance Summary
Sample Log Sheet - Cover Page
PCB Form 1 Data Sheet for Samples and Blanks
Chromatograms
PCB Form 10 Confirmation Results
PCB Form 3 MS/MSD (LCS) Recoveries
Chain of Custody (COC) Forms

QC NON CONFORMANCE SUMMARY

Sample Receipt:
No exceptions.

PCBs by EPA Method 8082:
Samples 63715-5, 63715-9, 63715-14, 63715-18, 63715-19 and 63715-20 required dilution due to high concentrations of PCB 1254 detected in the sample.

The MS/MSD analyzed on sample 63715-1(LGRC-VSS-040) did not meet acceptance criteria for PCB 1260 on both columns and PCB 1016 on column #2 due to concentrations of PCB 1254 in the parent sample. The laboratory control samples (L04249PSOX/LD04249PSOX) were in control for all analytes. Results were reported without qualification.

PCB 1260 had high recovery on column #1 in the MS analyzed on sample 63715-24 (LGRC-VSS-056). The MSD and laboratory control samples (L04289PSOX/LD04289PSOX) were in control for all analytes. Results were reported without qualification.

Sincerely,
ANALYTICS Environmental Laboratory, LLC

Stephen Knollmeyer
Laboratory Director

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63715

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 24 April 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63715-1	04/22/09	LGRC-VSS-040	EPA 8082 (PCBs only)	
63715-2	04/22/09	LGRC-VSS-041	EPA 8082 (PCBs only)	
63715-3	04/22/09	LGRC-VSS-042	EPA 8082 (PCBs only)	
63715-4	04/22/09	LGRC-VSS-043	EPA 8082 (PCBs only)	
63715-5	04/22/09	LGRC-VSS-044	EPA 8082 (PCBs only)	
63715-6	04/22/09	LGRC-VSS-045	EPA 8082 (PCBs only)	
63715-7	04/22/09	LGRC-VSS-046	EPA 8082 (PCBs only)	
63715-8	04/22/09	LGRC-VSS-503	EPA 8082 (PCBs only)	
63715-9	04/23/09	LGRC-SS40-129	EPA 8082 (PCBs only)	
63715-10	04/23/09	LGRC-SS86-128	EPA 8082 (PCBs only)	
63715-11	04/23/09	LGRC-SS41-130	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature Melmdalli for
Stephen L. Knollmeyer Lab. Director

Date 04/29/09

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63715

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 24 April 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63715-12	04/23/09	LGRC-SS85-127	EPA 8082 (PCBs only)	
63715-13	04/24/09	LGRC-VSS-903	EPA 8082 (PCBs only)	
63715-14	04/24/09	LGRC-VSS-047	EPA 8082 (PCBs only)	
63715-15	04/24/09	LGRC-VSS-048	EPA 8082 (PCBs only)	
63715-16	04/24/09	LGRC-VSS-049	EPA 8082 (PCBs only)	
63715-17	04/24/09	LGRC-VSS-050	EPA 8082 (PCBs only)	
63715-18	04/24/09	LGRC-VSS-051	EPA 8082 (PCBs only)	
63715-19	04/24/09	LGRC-SS87-135	EPA 8082 (PCBs only)	
63715-20	04/24/09	LGRC-VSS-052	EPA 8082 (PCBs only)	
63715-21	04/24/09	LGRC-VSS-053	EPA 8082 (PCBs only)	
63715-22	04/24/09	LGRC-VSS-054	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 04/29/09

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63715

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 24 April 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63715-23	04/24/09	LGRC-VSS-055	EPA 8082 (PCBs only)	
63715-24	04/24/09	LGRC-VSS-056	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 04/29/09

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-130	70-130	EPA 8260B
Toluene-d8	70-130	70-130	
Bromofluorobenzene	70-130	70-130	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	EPA 624/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA0	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH

PCB
DATA SUMMARIES

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID: B04289PW
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/28/09
Analysis Date: 04/29/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/L	Results µg/L
PCB-1016	0.2	U
PCB-1221	0.2	U
PCB-1232	0.2	U
PCB-1242	0.2	U
PCB-1248	0.2	U
PCB-1254	0.2	U
PCB-1260	0.2	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	71	%
Decachlorobiphenyl	53	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS:

PCB Report

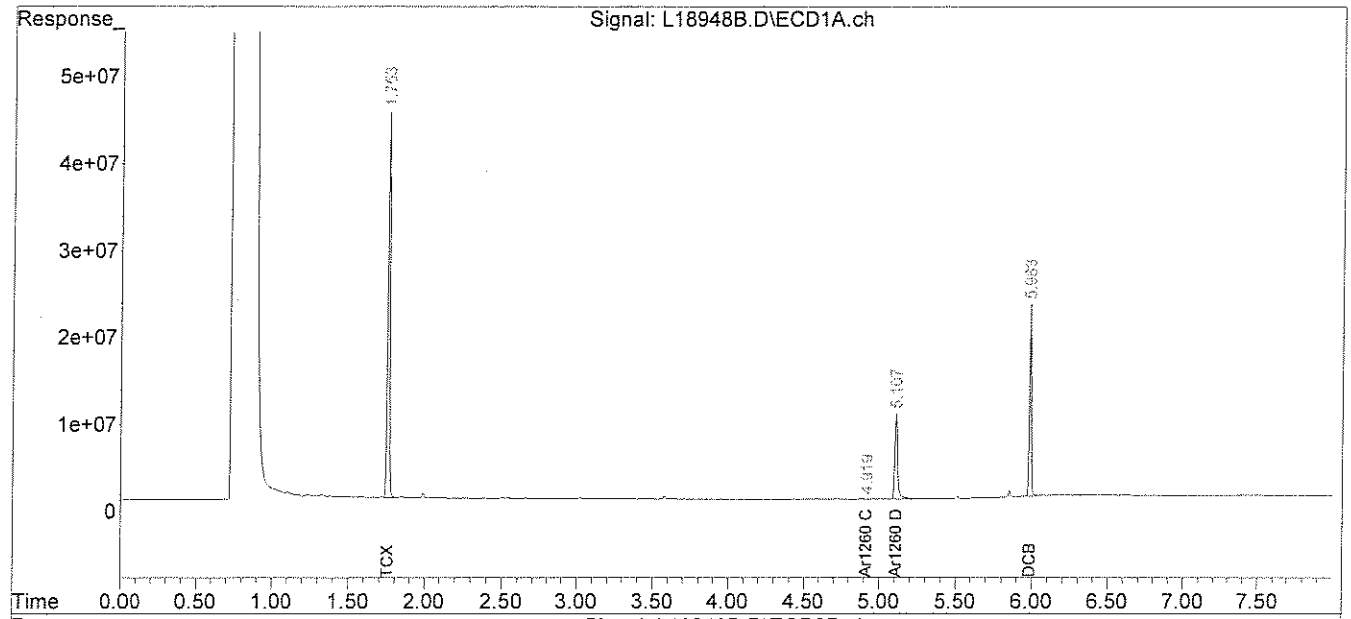
Authorized signature

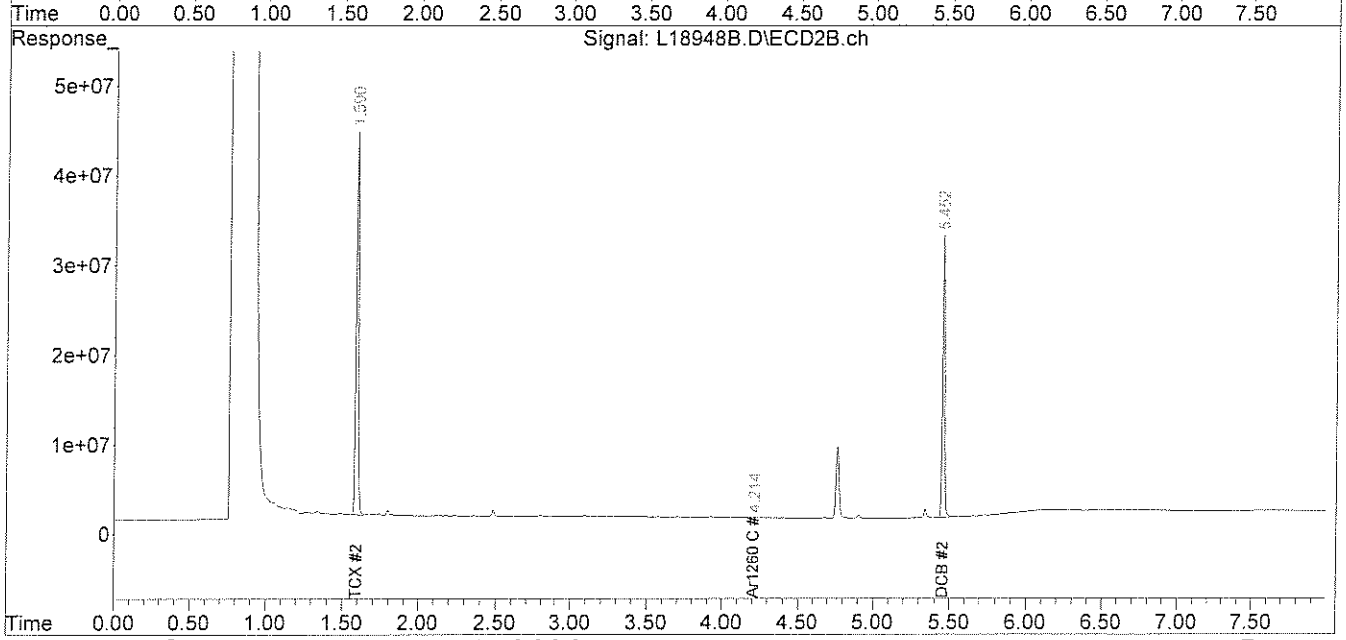
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042909-L\
Data File : L18948B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 09 9:55 am
Operator :
Sample : B04289PW
Misc :
ALS Vial : 76 Sample Multiplier: 1

Integration File signal 1: PCBINT.E
Integration File signal 2: PCBINT2.E
Quant Time: Apr 29 11:07:40 2009
Quant Method : C:\msdchem\1\METHODS\PB04229.M
Quant Title : Aroclor 1016/1260
QLast Update : Thu Apr 23 16:07:53 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 3 ul
Signal #1 Phase : DB-1701 Widebore Signal #2 Phase: DB-5 Widebore
Signal #1 Info : 0.53 mm , 1.0um f Signal #2 Info : 0.53 mm, 1.5um film





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID: B04249PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/24/09
Analysis Date: 04/28/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	102	%
Decachlorobiphenyl	118	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

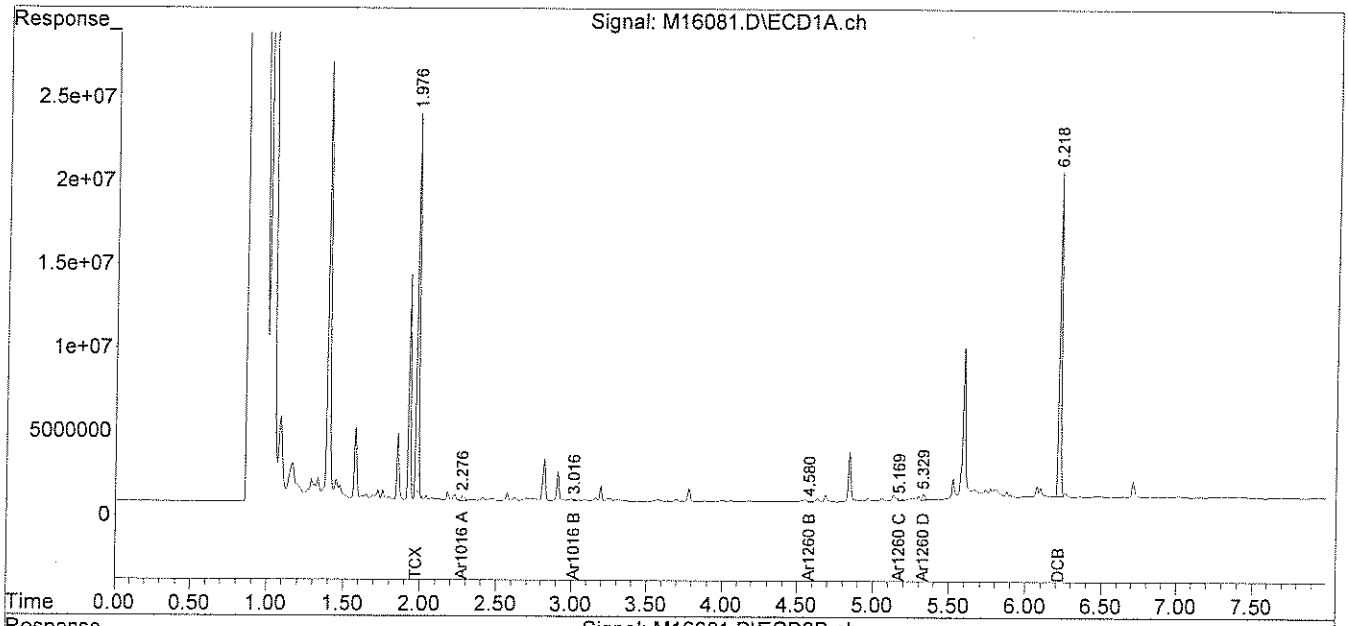
Authorized signature

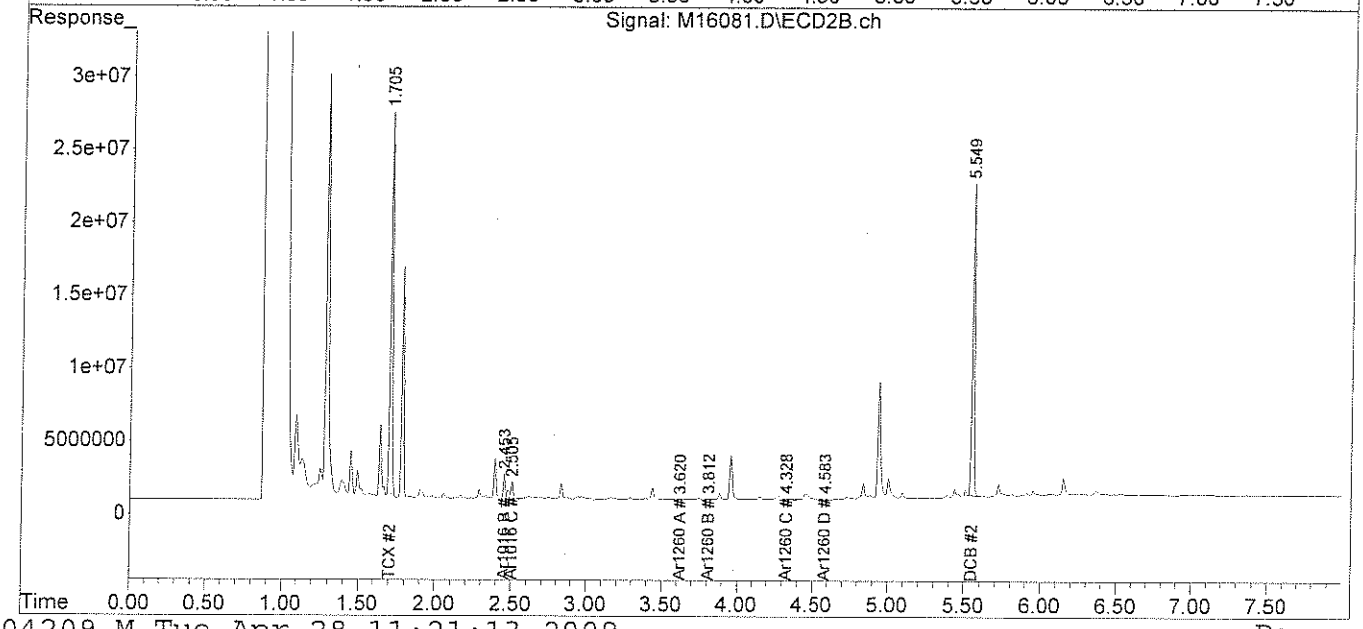
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16081.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 8:12 am
Operator :
Sample : B04249PSOX,,A/C
Misc : SOIL
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 11:21:12 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:38 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID: B04249PSOX RR
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/24/09
Analysis Date: 04/28/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	94	%
Decachlorobiphenyl	117	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

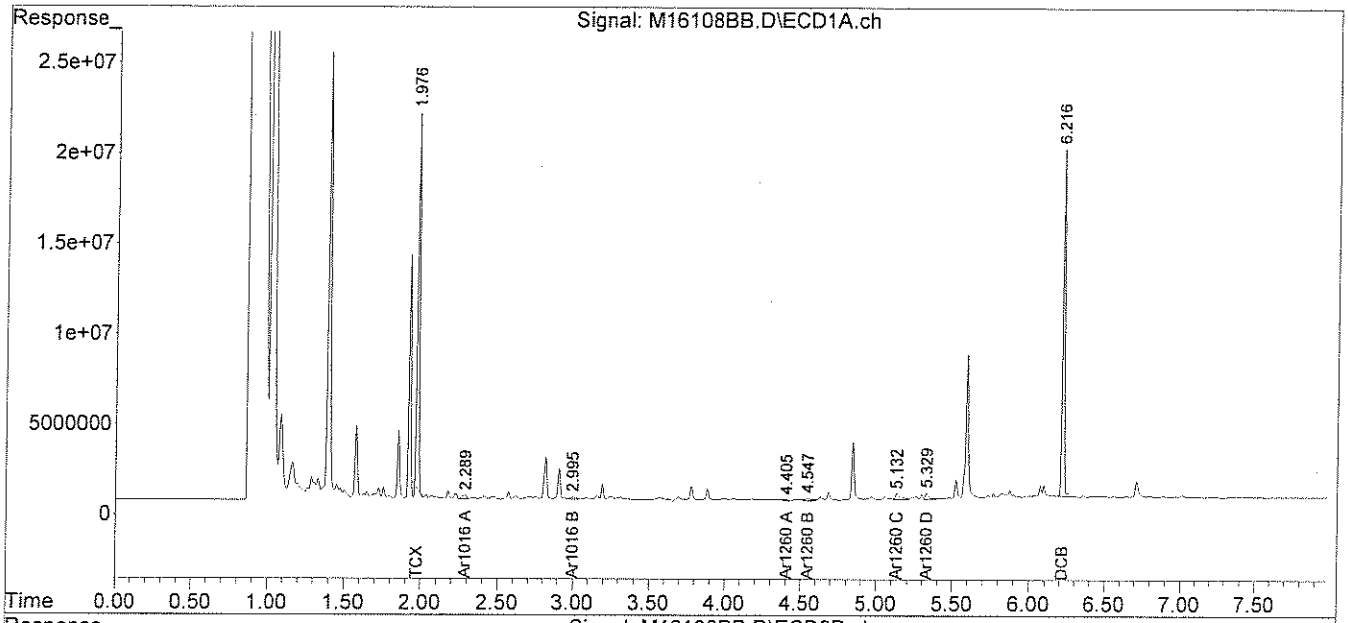
Authorized signature

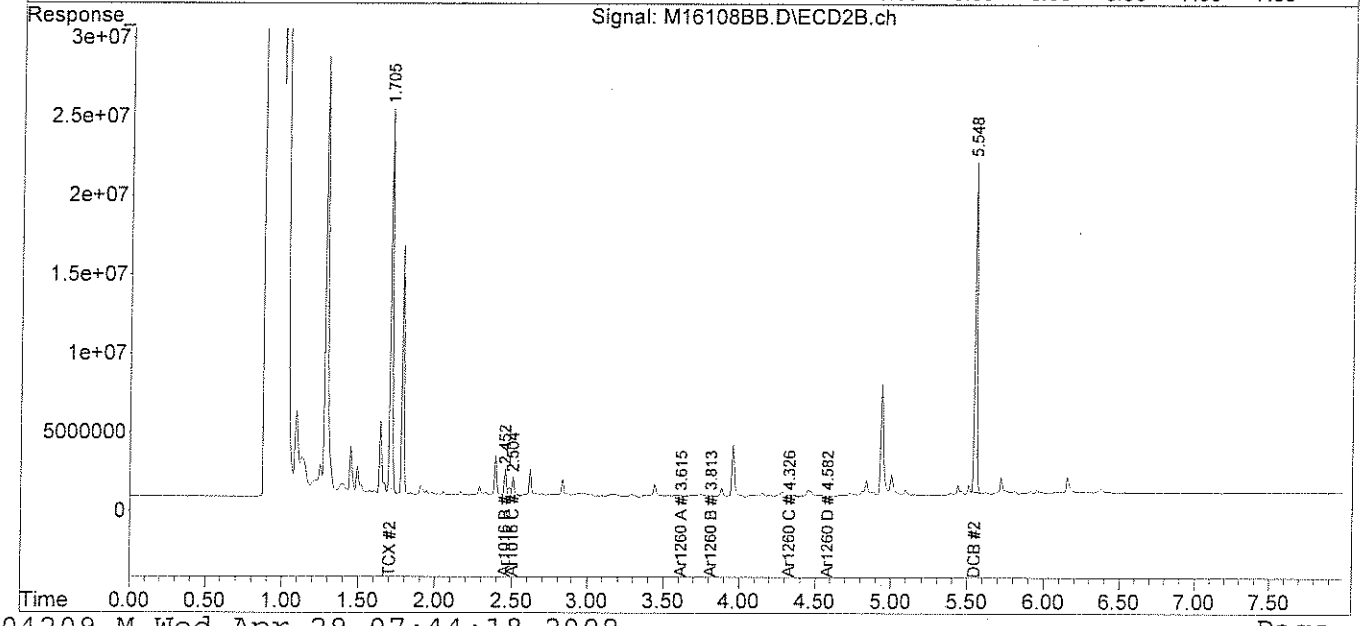
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16108BB.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 6:03 pm
Operator :
Sample : B04249PSOX,RR,,A/C (Sig #1); ~~B04249PSOX (Sig #2)~~
Misc : SOIL
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 07:44:18 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:38 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID: B04289PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/28/09
Analysis Date: 04/29/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	107	%
Decachlorobiphenyl	106	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

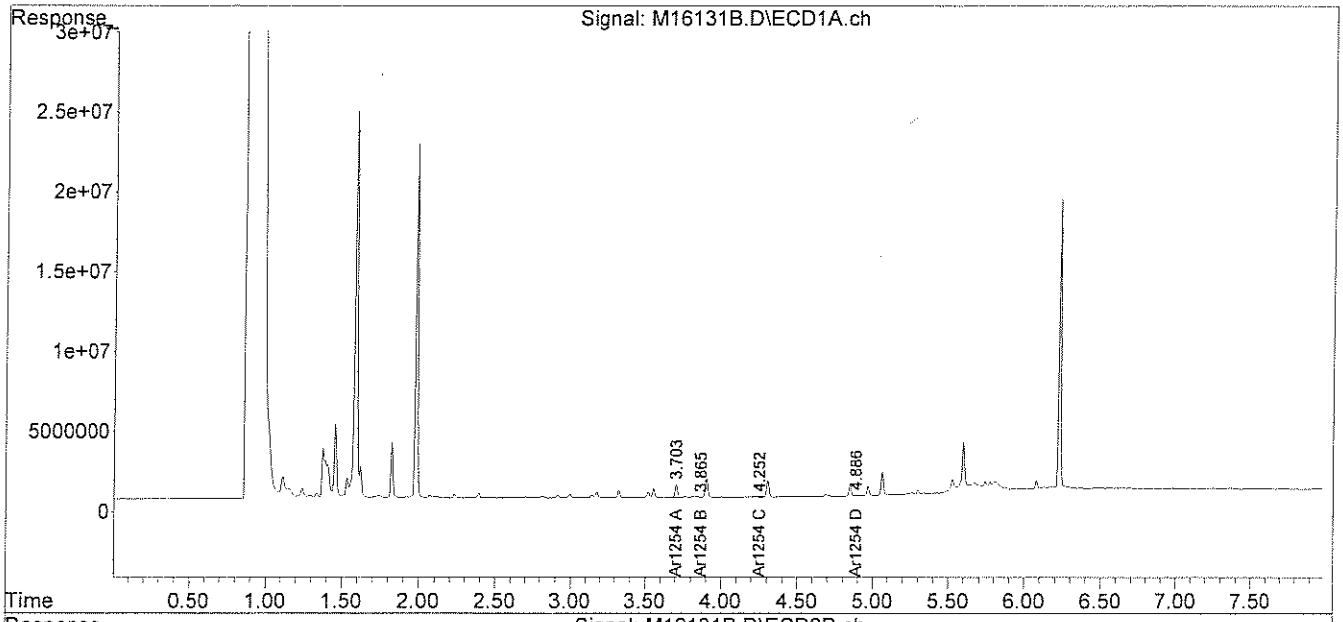
Authorized signature

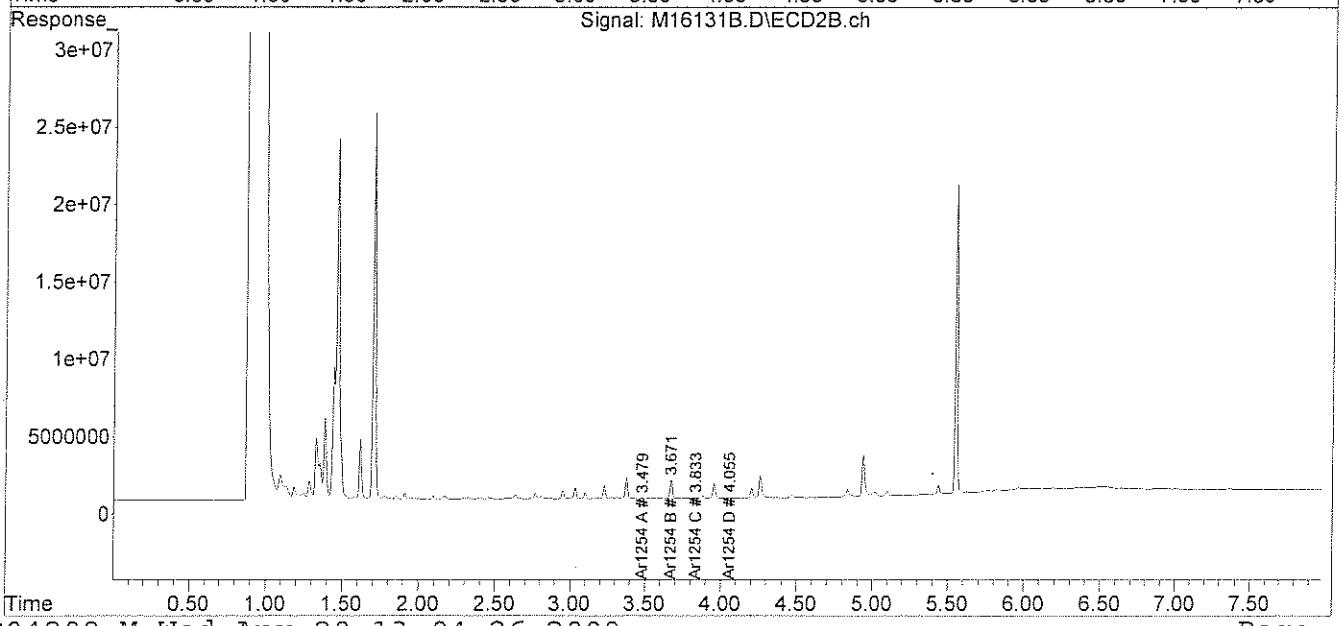
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16131B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 2009 12:53 pm
Operator :
Sample : B04289PSOX,,A/C
Misc : SOIL
ALS Vial : 75 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 13:04:26 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-1
Matrix:	Soil
Percent Solid:	92
Dilution Factor:	1.1
Collection Date:	04/22/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/24/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-040

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**376**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	90	%
Decachlorobiphenyl	94	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature M Marshall

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-1,,A/C

Data File: M16084.D

Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	376	297	23.5	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

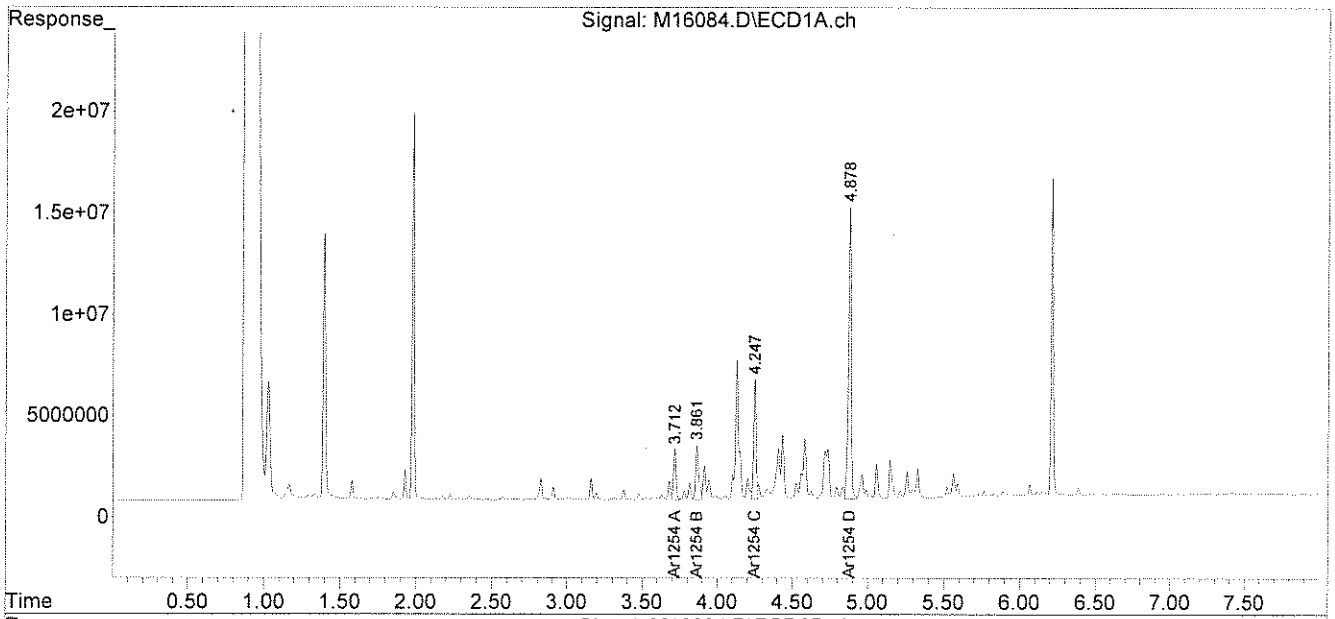
PCB FORM 10

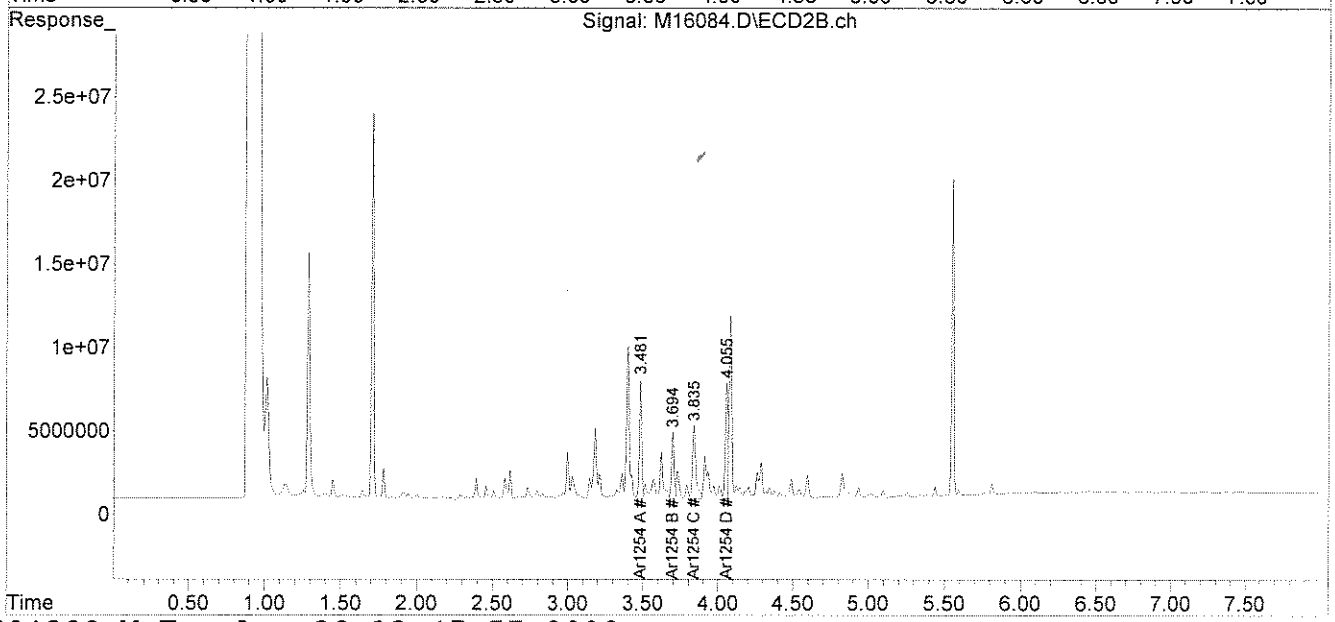
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16084.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 8:42 am
Operator :
Sample : 63715-1,,A/C
Misc : SOIL
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 13:47:57 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

CLIENT SAMPLE ID

Project Name: UMASS-LGRC

Project Number: 210918

Field Sample ID: LGRC-VSS-041

SAMPLE DATA

Lab Sample ID: 63715-2
Matrix: Solid
Percent Solid: 87
Dilution Factor: 1.1
Collection Date: 04/22/09
Lab Receipt Date: 04/24/09
Extraction Date: 04/24/09
Analysis Date: 04/28/09

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**401**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	91	%
Decachlorobiphenyl	95	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-2,,A/C

Data File: M16087.D

Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	401	381	5.2	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

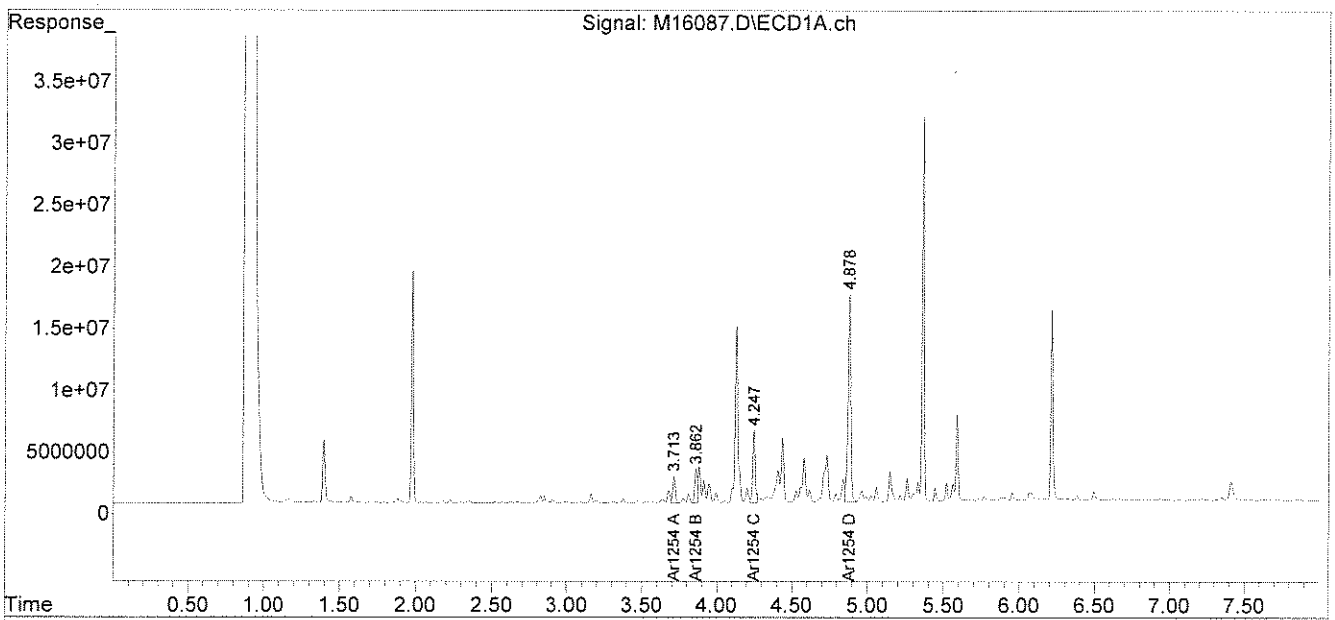
Comments: _____

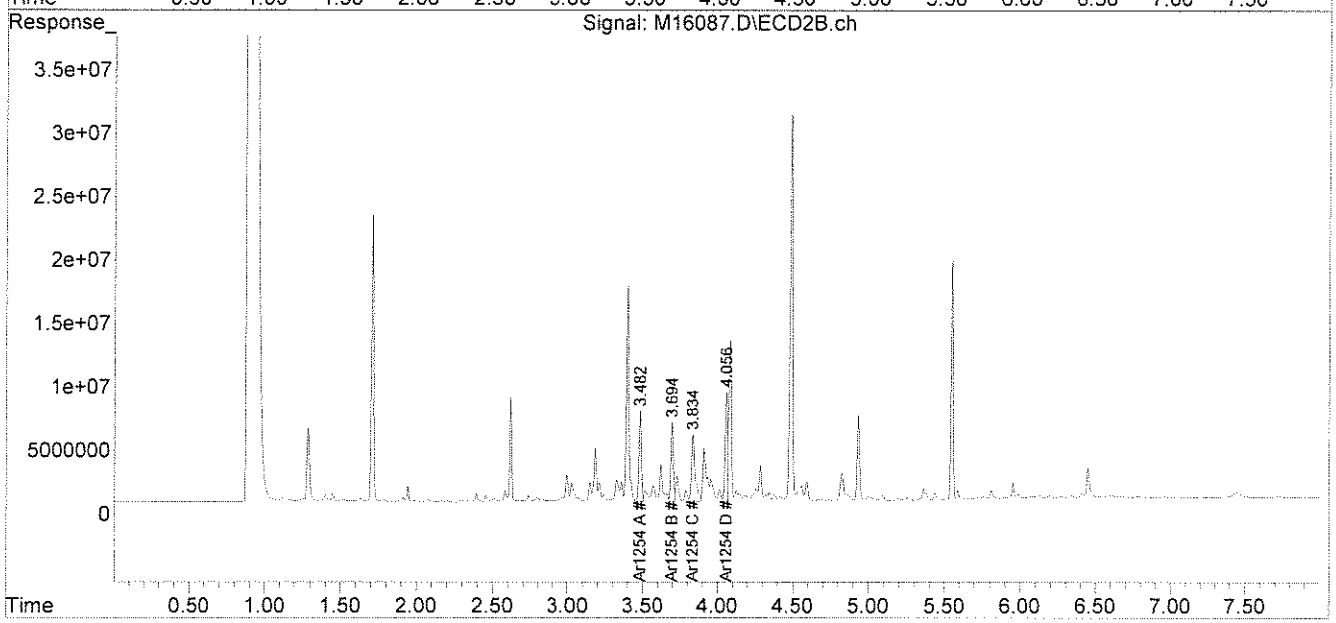
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16087.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 9:12 am
Operator :
Sample : 63715-2,,A/C
Misc : SOIL
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 13:48:16 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-3
Matrix:	Solid
Percent Solid:	91
Dilution Factor:	1.0
Collection Date:	04/22/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/24/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-042

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**247**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	97	%
Decachlorobiphenyl	95	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-3,,A/C

Data File: M16088.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	247	193	24.5	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

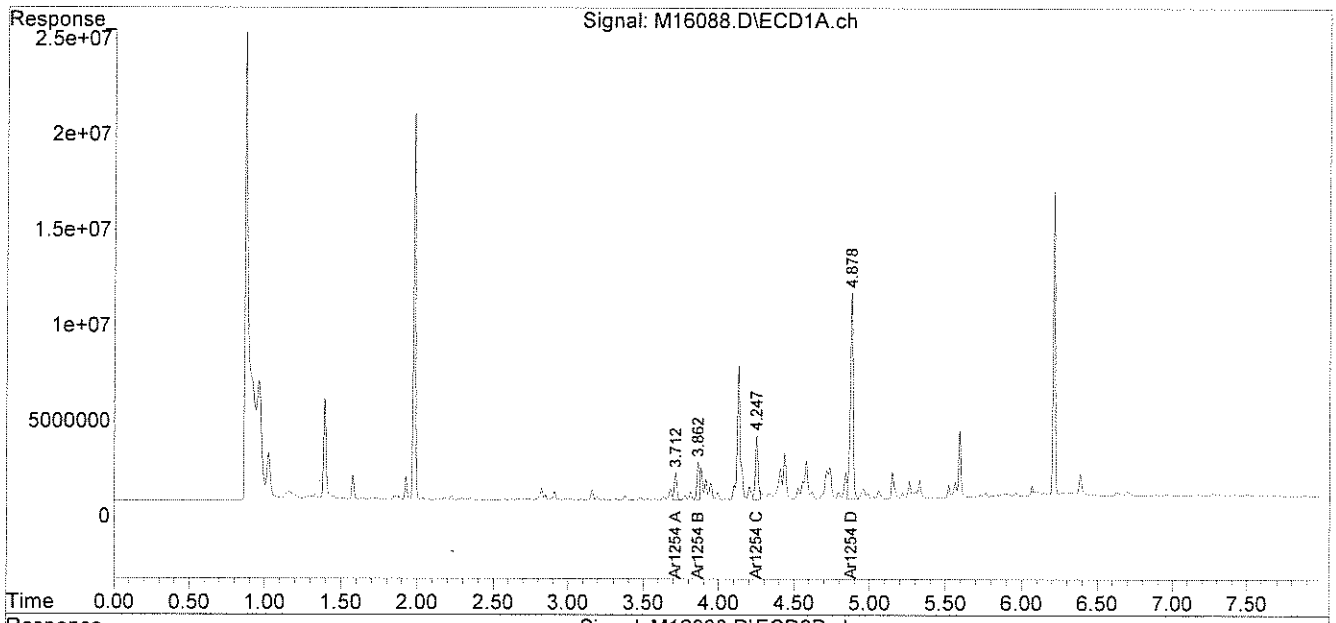
Comments: _____

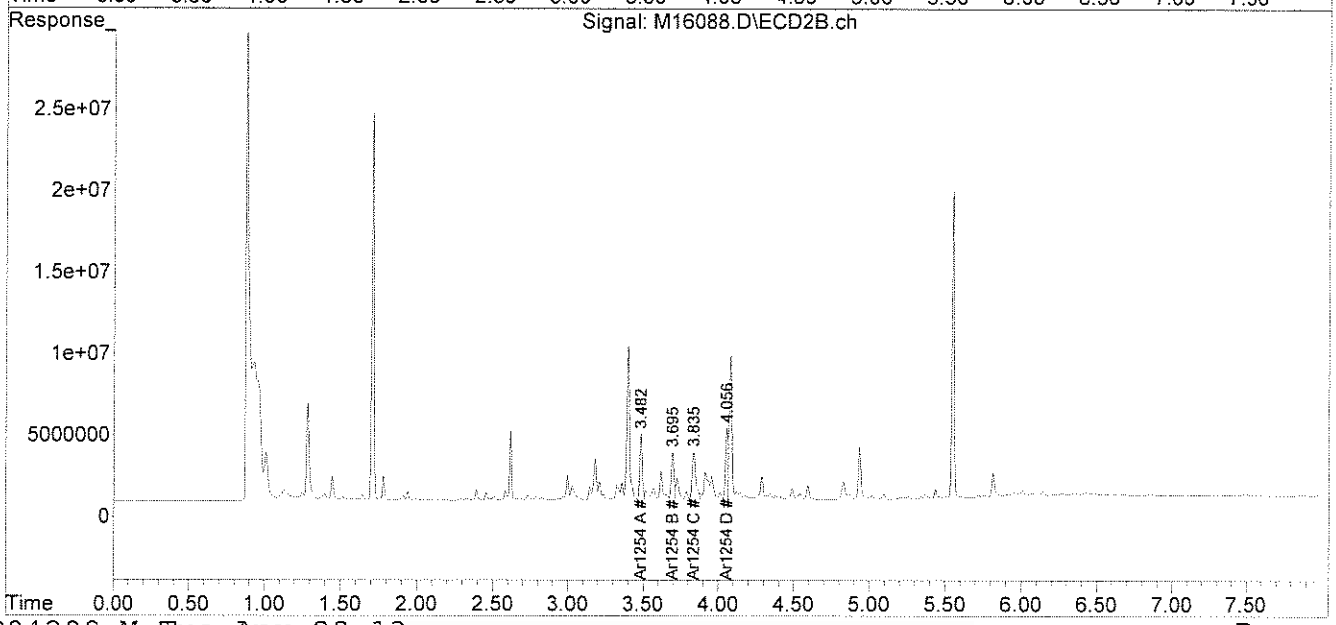
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16088.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 9:22 am
Operator :
Sample : 63715-3,,A/C
Misc : SOIL
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 13:48:30 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-4
Matrix:	Solid
Percent Solid:	88
Dilution Factor:	1.1
Collection Date:	04/22/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/24/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-043

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**508**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	99	%
Decachlorobiphenyl	96	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63715
Sample: 63715-4,,A/C
Data File: M16089.D
Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	467	508	8.4	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

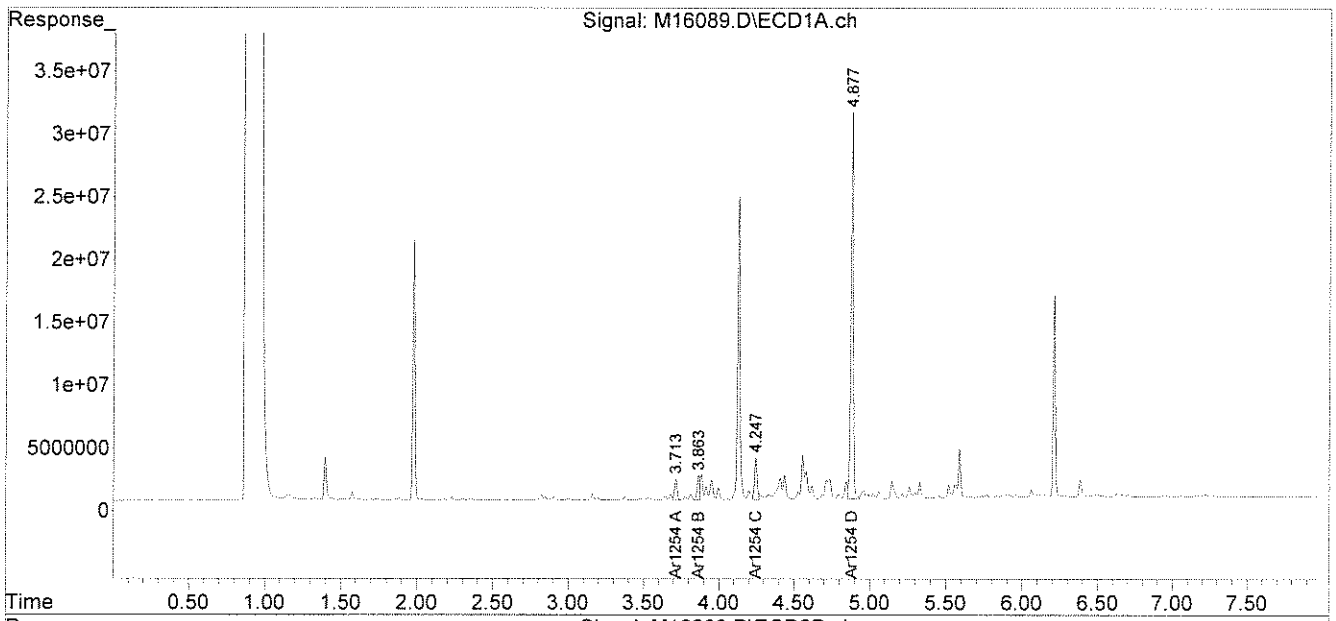
Comments: _____

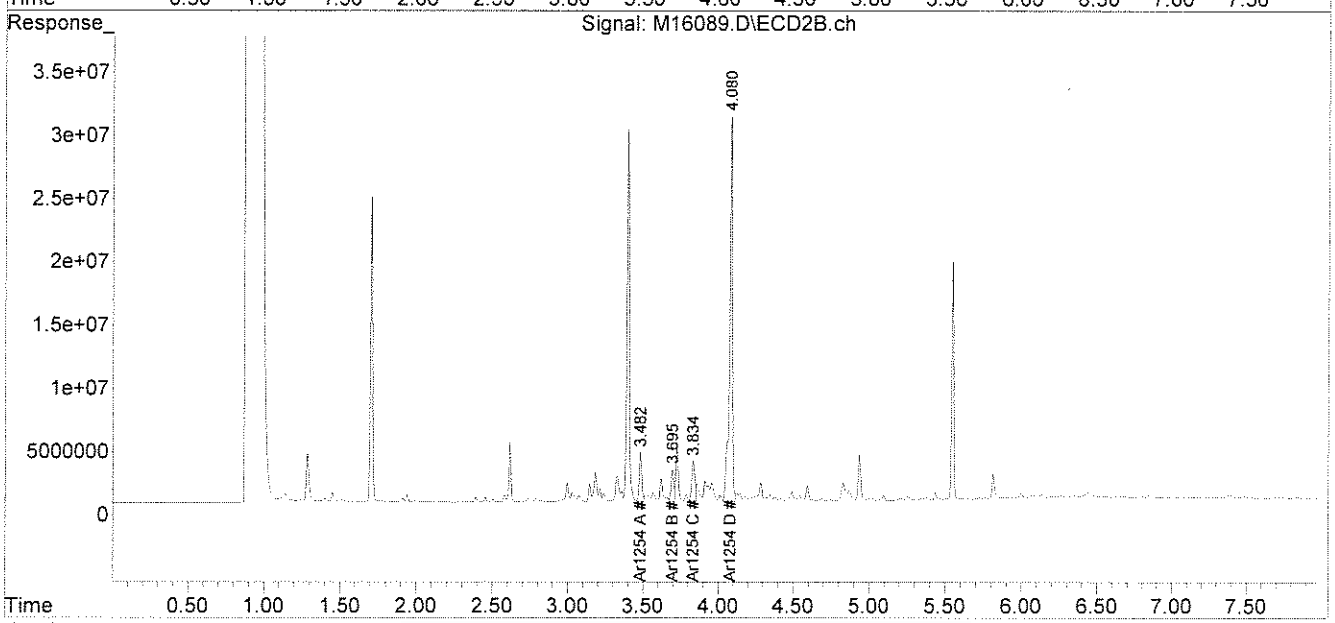
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16089.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 9:32 am
Operator :
Sample : 63715-4,,A/C
Misc : SOIL
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 13:48:40 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-5
Matrix:	Solid
Percent Solid:	93
Dilution Factor:	50
Collection Date:	04/22/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/24/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-044

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	1650	U
PCB-1221	1650	U
PCB-1232	1650	U
PCB-1242	1650	U
PCB-1248	1650	U
PCB-1254	1650	**15500**
PCB-1260	1650	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	*	%
Decachlorobiphenyl	*	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.* The surrogates were diluted out.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-5,50X,,A/C

Data File: M16125.D

Dilution Factor: 49.7

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	14828	15480	4.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

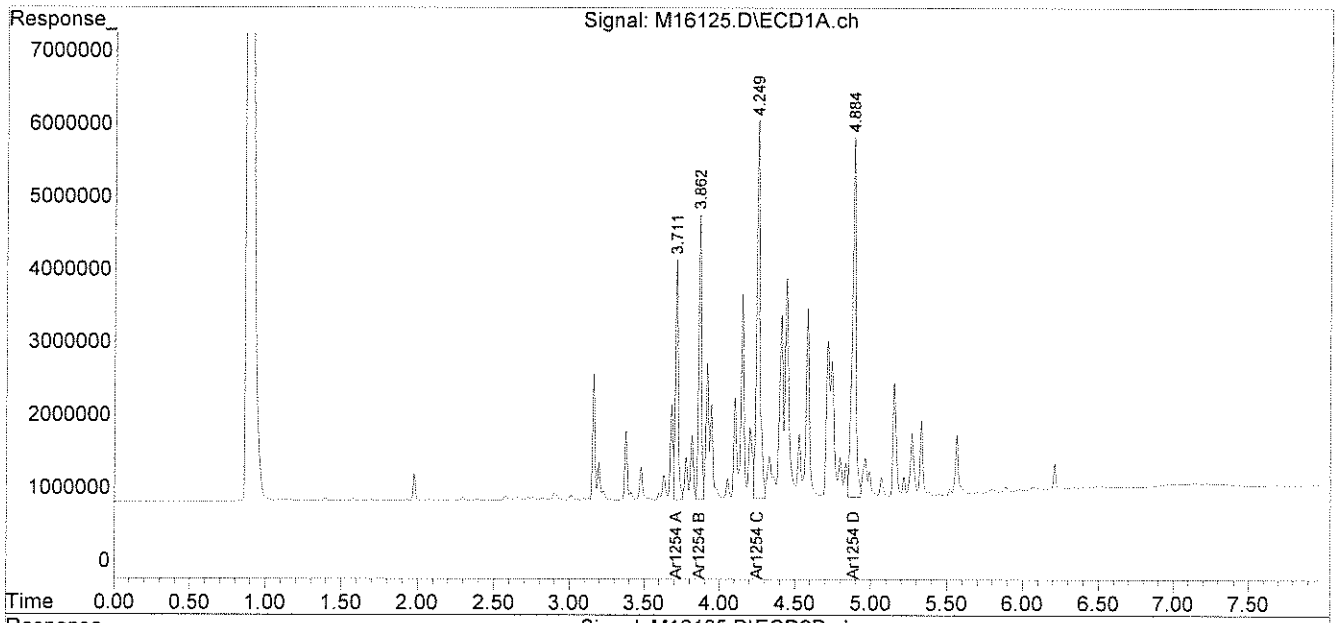
PCB FORM 10

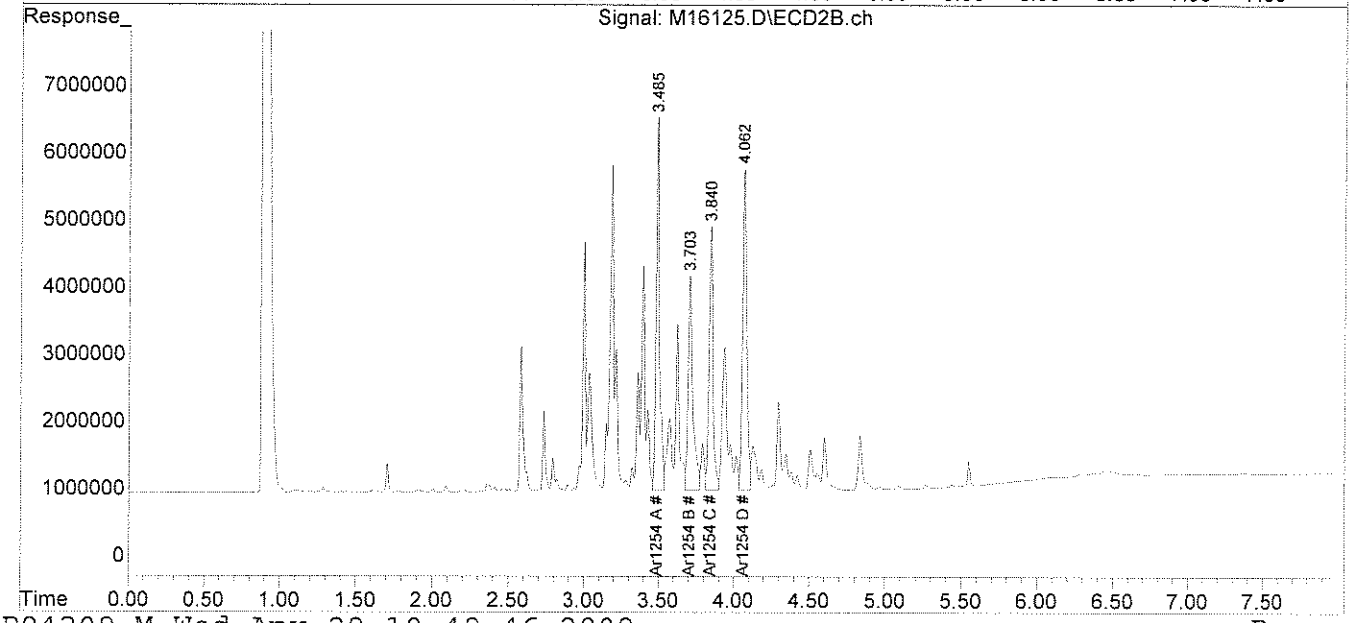
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16125.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 8:54 pm
Operator :
Sample : 63715-5,50X,,A/C (Sig #1); 63715-5,50X (Sig #2)
Misc : SOIL
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 10:49:46 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-6
Matrix:	Solid
Percent Solid:	83
Dilution Factor:	1.2
Collection Date:	04/22/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/24/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-045

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	40	U
PCB-1221	40	U
PCB-1232	40	U
PCB-1242	40	U
PCB-1248	40	U
PCB-1254	40	**561**
PCB-1260	40	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	102	%
Decachlorobiphenyl	107	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-6,,A/C

Data File: M16091.D

Dilution Factor: 1.2

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	455	561	20.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

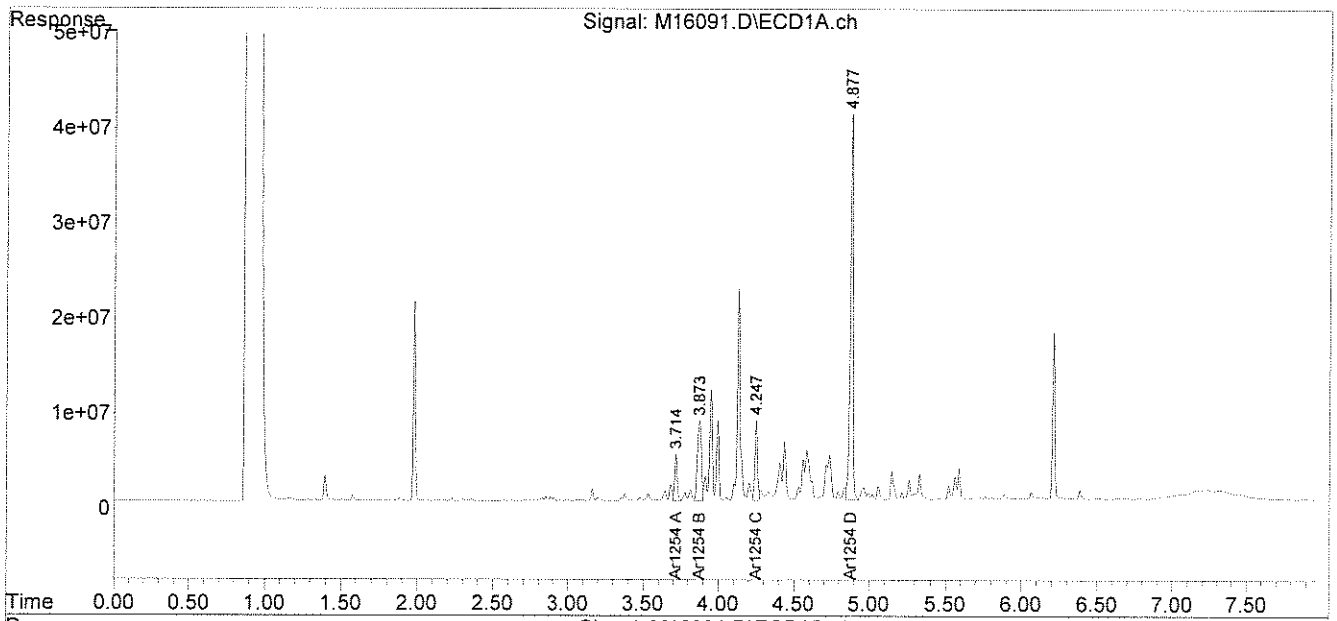
Comments: _____

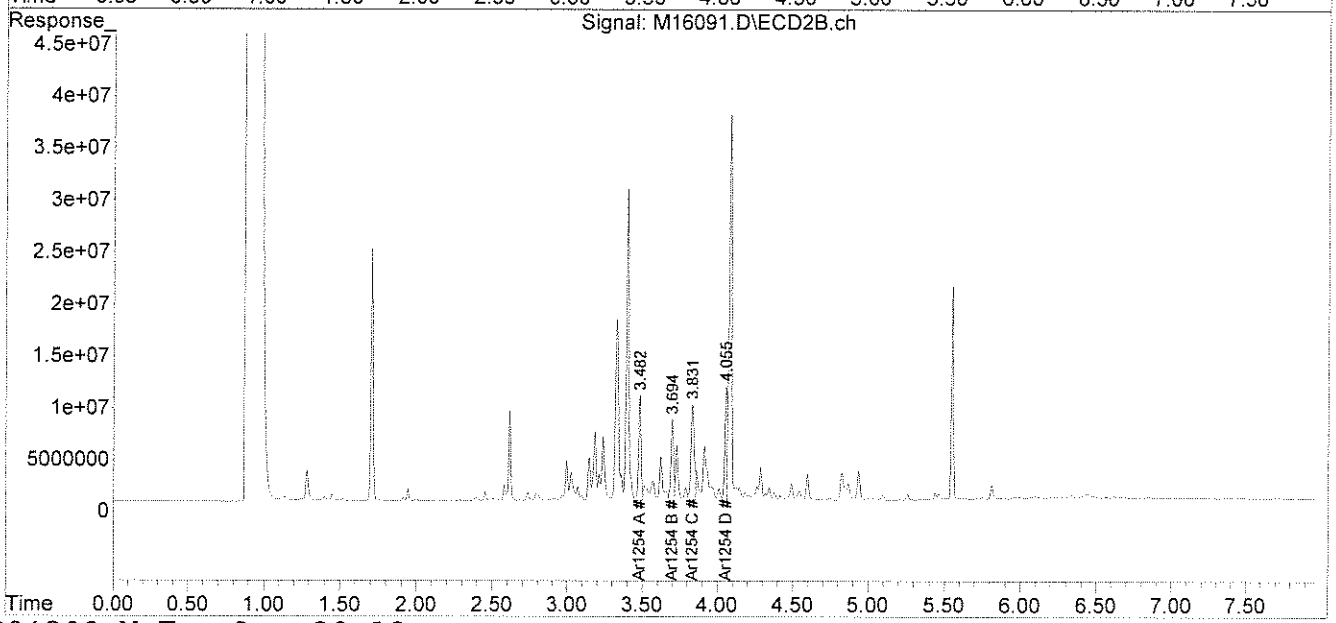
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16091.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 9:52 am
Operator :
Sample : 63715-6,,A/C
Misc : SOIL
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 13:49:20 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-7
Matrix:	Solid
Percent Solid:	88
Dilution Factor:	1.1
Collection Date:	04/22/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/24/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-046

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**1130**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	99	%
Decachlorobiphenyl	102	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-7,,A/C

Data File: M16092.D

Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	1034	1134	9.2	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

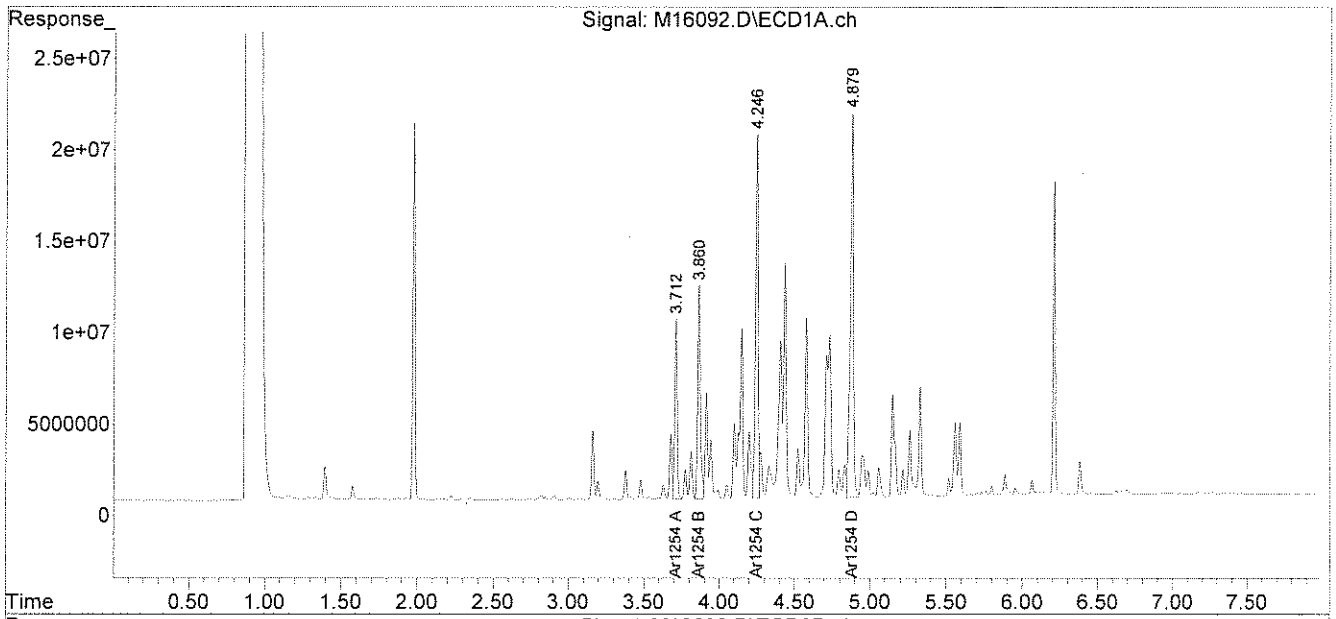
Comments: _____

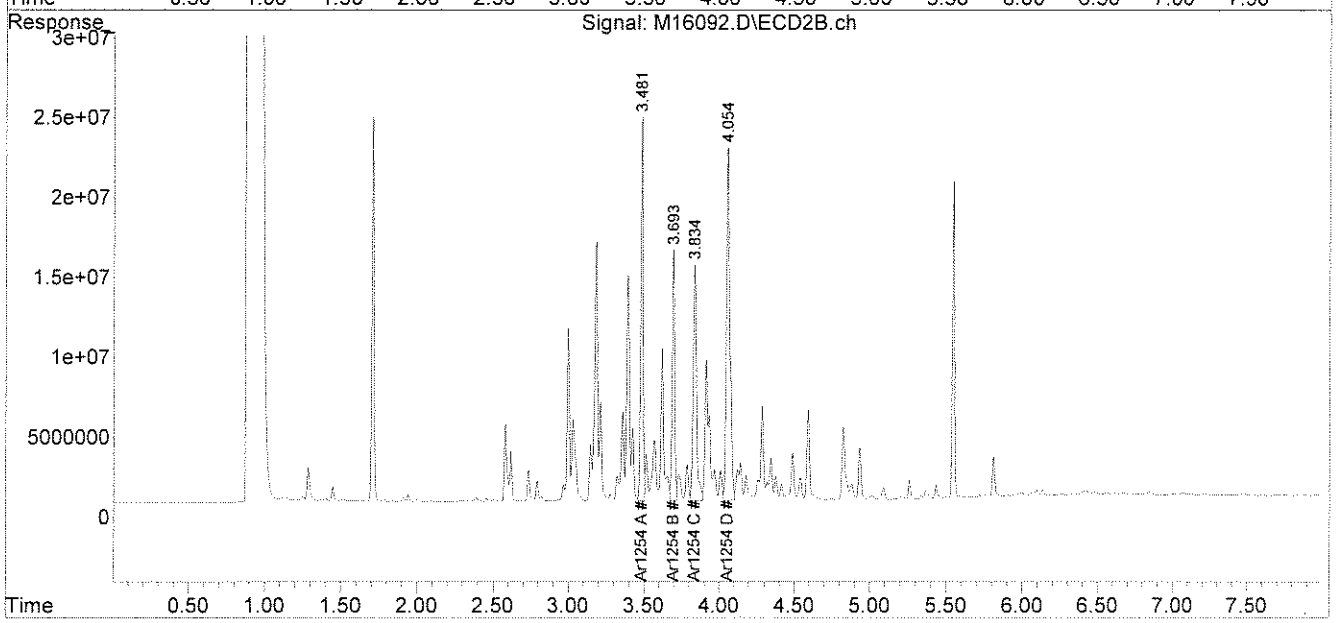
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16092.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 10:02 am
Operator :
Sample : 63715-7,,A/C
Misc : SOIL
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 13:49:52 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-8
Matrix:	Solid
Percent Solid:	89
Dilution Factor:	1.1
Collection Date:	04/22/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/24/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-503

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**984**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	102	%
Decachlorobiphenyl	102	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-8,,A/C

Data File: M16093.D

Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	943	984	4.2	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

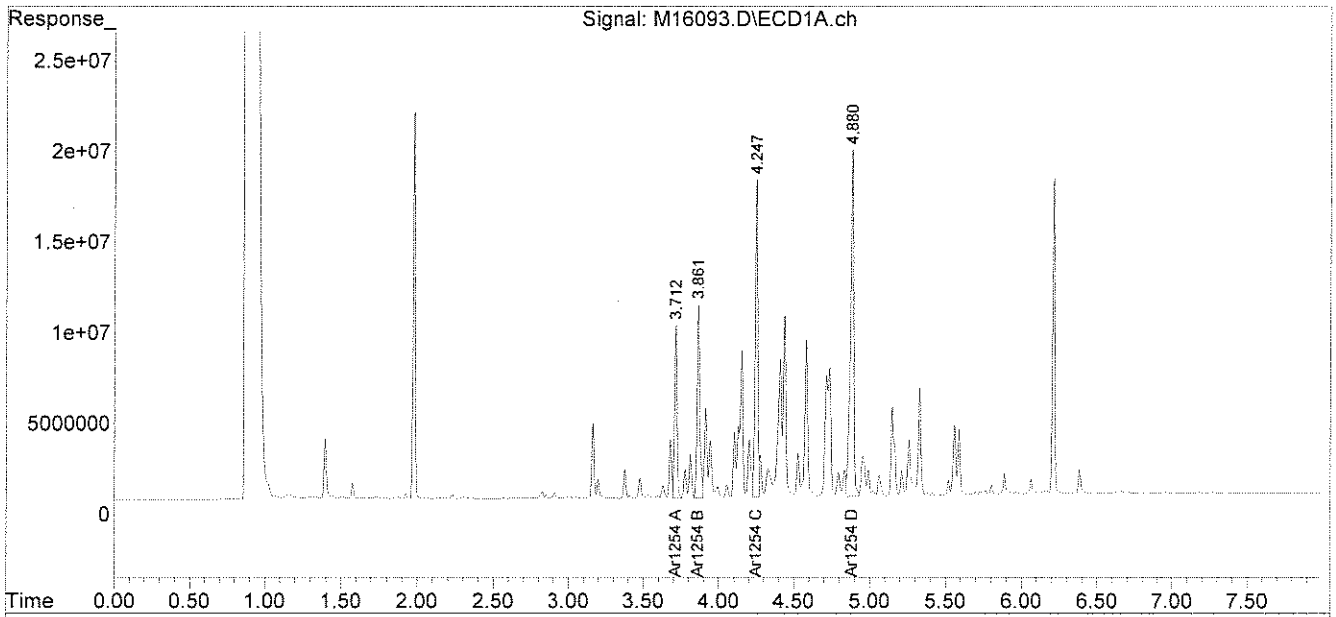
Comments: _____

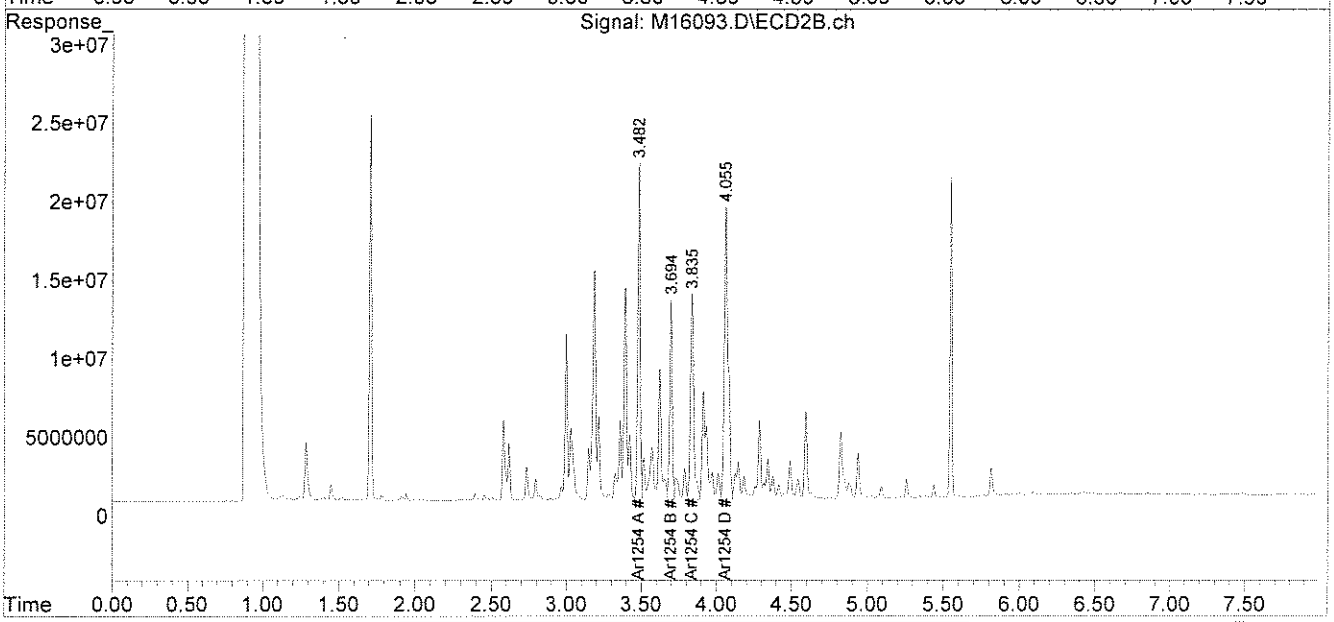
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16093.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 10:12 am
Operator :
Sample : 63715-8,,A/C
Misc : SOIL
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 13:50:19 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-9
Matrix:	Solid
Percent Solid:	84
Dilution Factor:	6
Collection Date:	04/23/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/24/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-SS40-129

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	200	U
PCB-1221	200	U
PCB-1232	200	U
PCB-1242	200	U
PCB-1248	200	U
PCB-1254	200	**3180**
PCB-1260	200	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	109	%
Decachlorobiphenyl	114	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature [signature]

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-9,5X,,A/C

Data File: M16122.D

Dilution Factor: 5.8

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	2632	3182	18.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

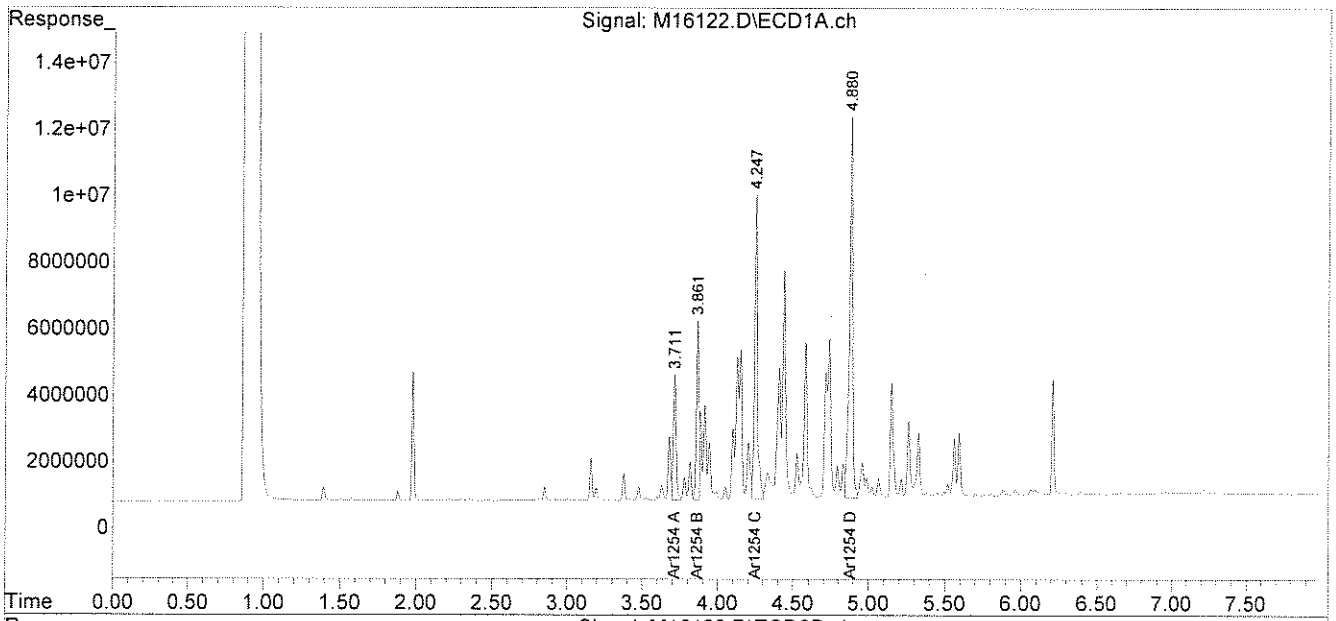
PCB FORM 10

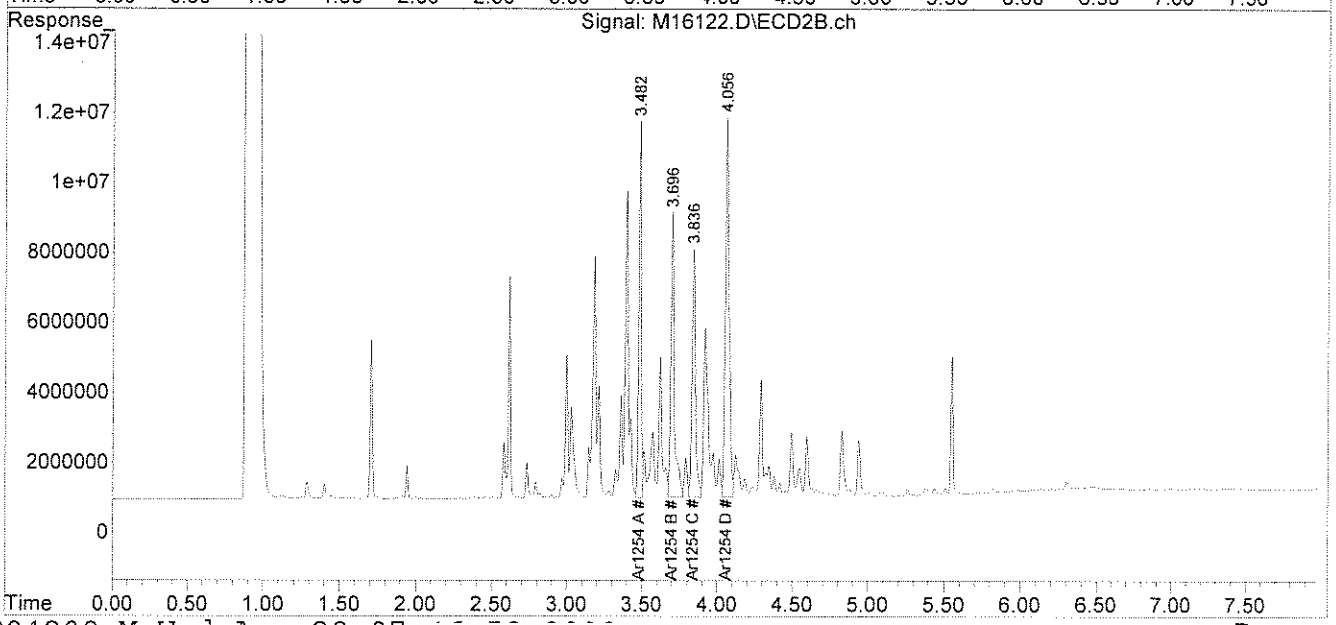
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16122.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 8:24 pm
Operator :
Sample : 63715-9,5X,,A/C (Sig #1); ~~63715-9,5X (Sig #2)~~
Misc : SOIL
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 07:46:58 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-10
Matrix:	Solid
Percent Solid:	81
Dilution Factor:	1.2
Collection Date:	04/23/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/24/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-SS86-128

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	40	U
PCB-1221	40	U
PCB-1232	40	U
PCB-1242	40	U
PCB-1248	40	U
PCB-1254	40	**248**
PCB-1260	40	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	98	%
Decachlorobiphenyl	104	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-10,,A/C

Data File: M16094.D

Dilution Factor: 1.2

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	184	248	29.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

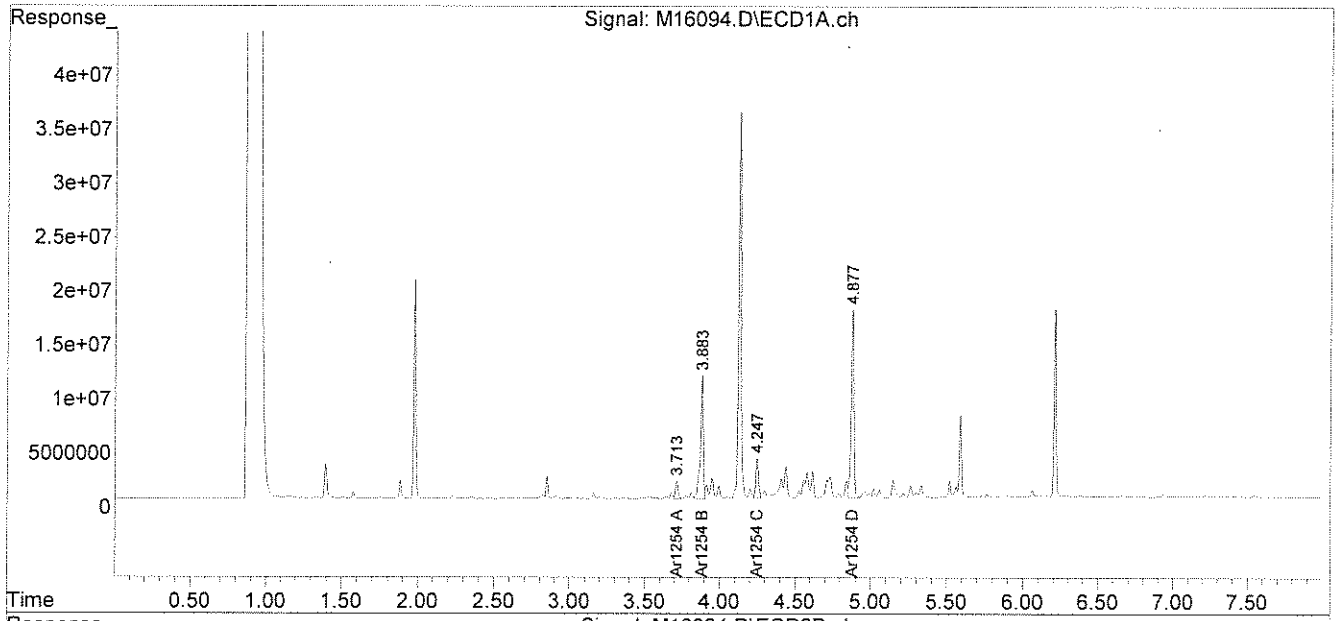
Comments: _____

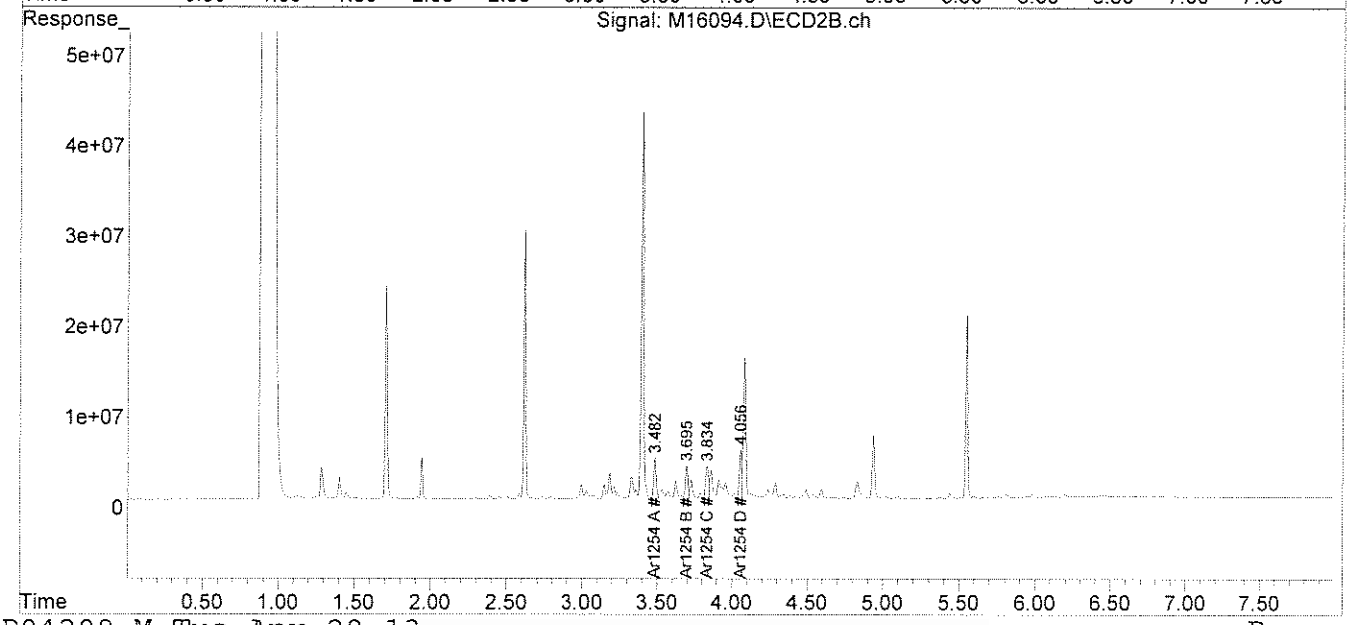
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16094.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 10:22 am
Operator :
Sample : 63715-10,,A/C
Misc : SOIL
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 13:50:33 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-11
Matrix:	Solid
Percent Solid:	79
Dilution Factor:	1.2
Collection Date:	04/23/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/24/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-SS41-130

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	40	U
PCB-1221	40	U
PCB-1232	40	U
PCB-1242	40	U
PCB-1248	40	U
PCB-1254	40	**997**
PCB-1260	40	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	101	%
Decachlorobiphenyl	109	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-11,,A/C

Data File: M16095.D

Dilution Factor: 1.2

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	997	980	1.7	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

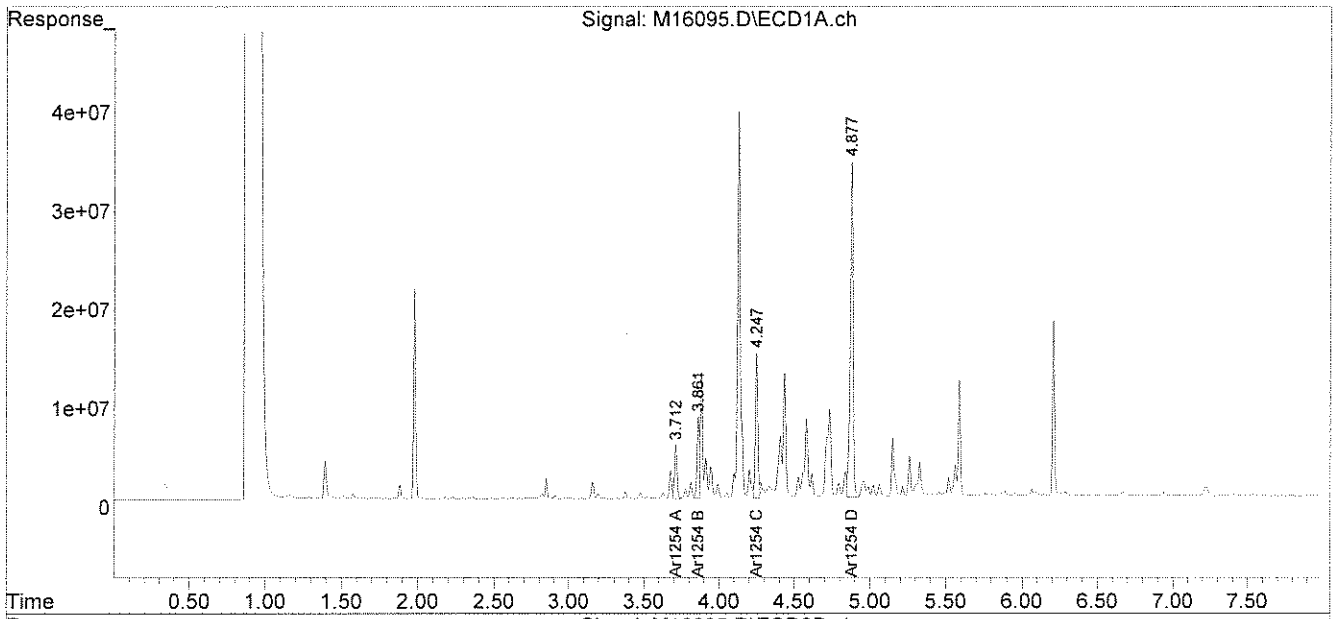
Comments: _____

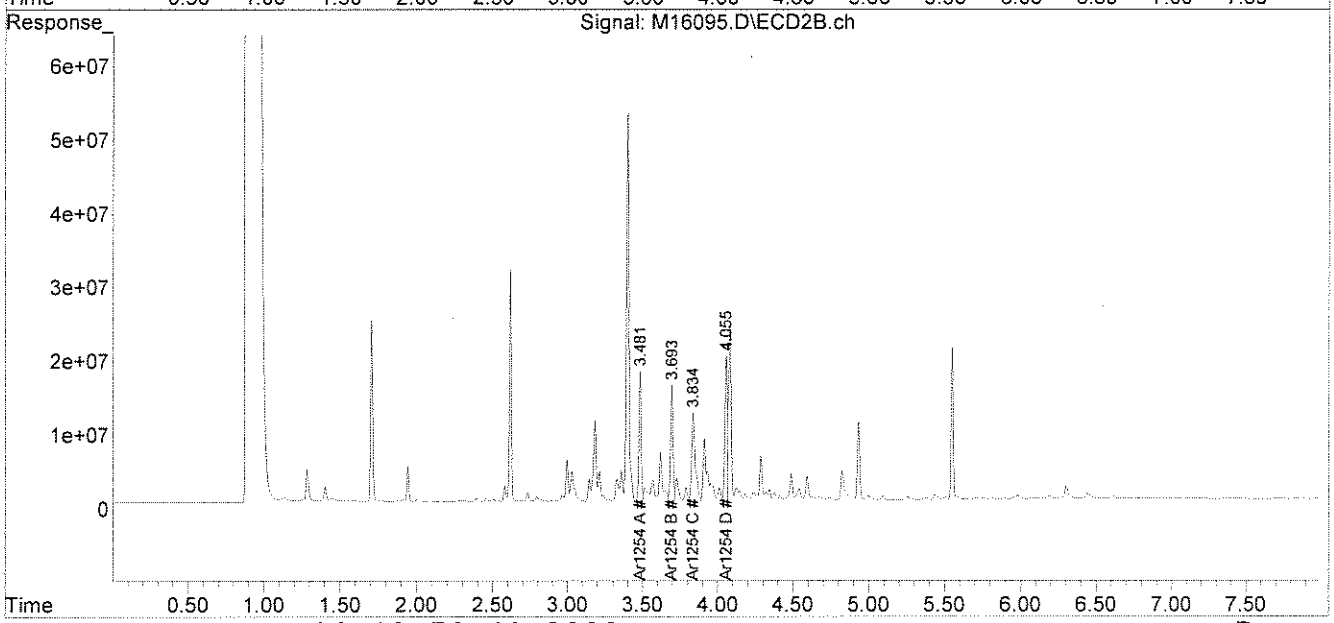
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16095.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 10:33 am
Operator :
Sample : 63715-11,,A/C
Misc : SOIL
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 13:50:41 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-12
Matrix:	Solid
Percent Solid:	81
Dilution Factor:	1.2
Collection Date:	04/23/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/24/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-SS85-127

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	40	U
PCB-1221	40	U
PCB-1232	40	U
PCB-1242	40	U
PCB-1248	40	U
PCB-1254	40	**893**
PCB-1260	40	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	102	%
Decachlorobiphenyl	106	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63715
Sample: 63715-12,,A/C
Data File: M16100.D
Dilution Factor: 1.2

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	772	893	14.5	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

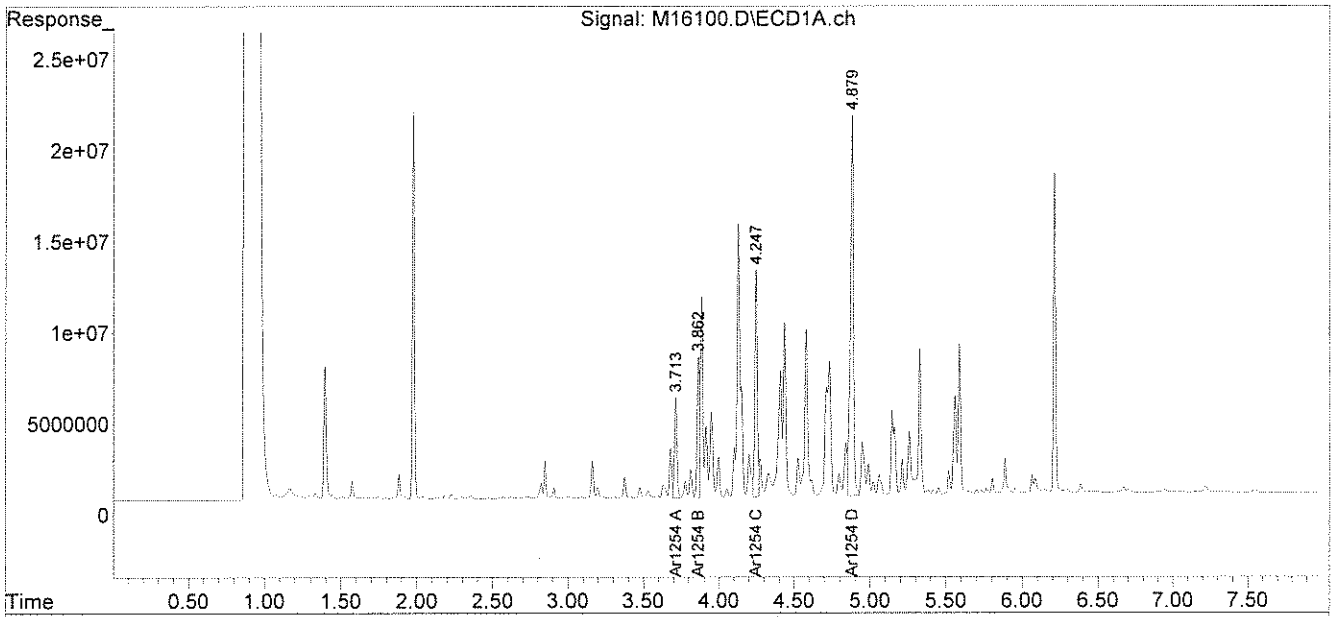
Comments: _____

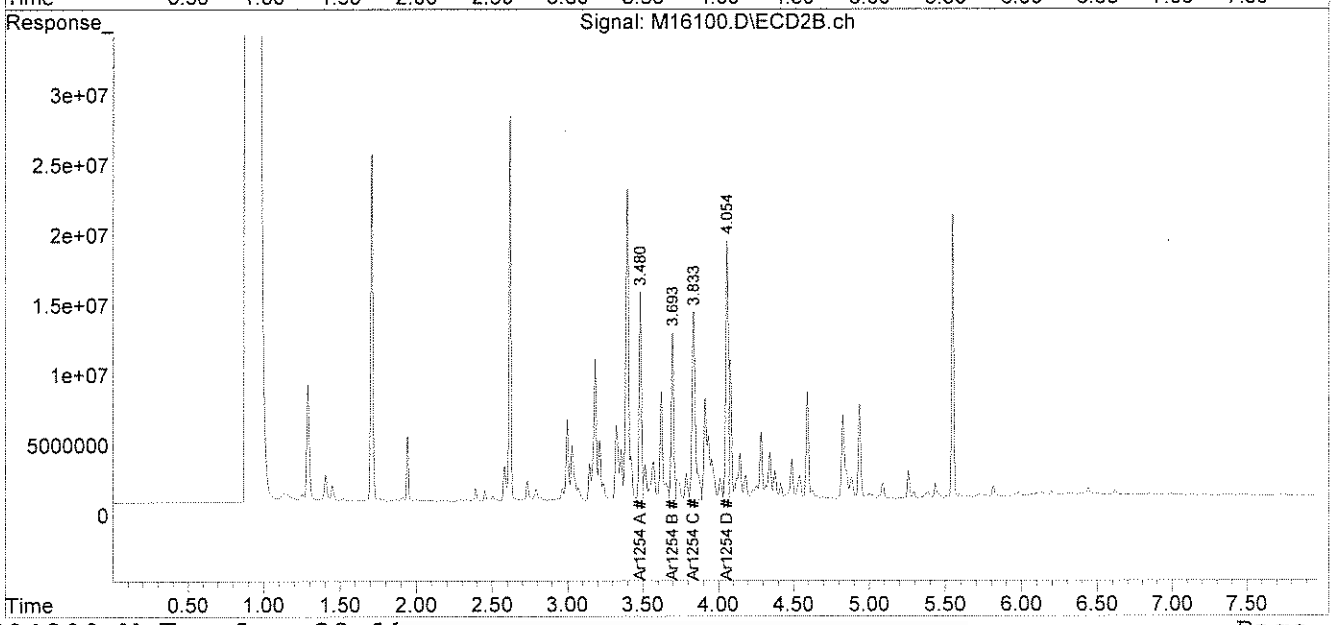
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16100.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 11:28 am
Operator :
Sample : 63715-12,,A/C
Misc : SOIL
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 13:52:04 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-13
Matrix:	Aqueous
Percent Solid:	N/A
Dilution Factor:	1.0
Collection Date:	04/24/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/28/09
Analysis Date:	04/29/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-903

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/L	Results µg/L
PCB-1016	0.2	U
PCB-1221	0.2	U
PCB-1232	0.2	U
PCB-1242	0.2	U
PCB-1248	0.2	U
PCB-1254	0.2	U
PCB-1260	0.2	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	73	%
Decachlorobiphenyl	62	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS:

PCB Report

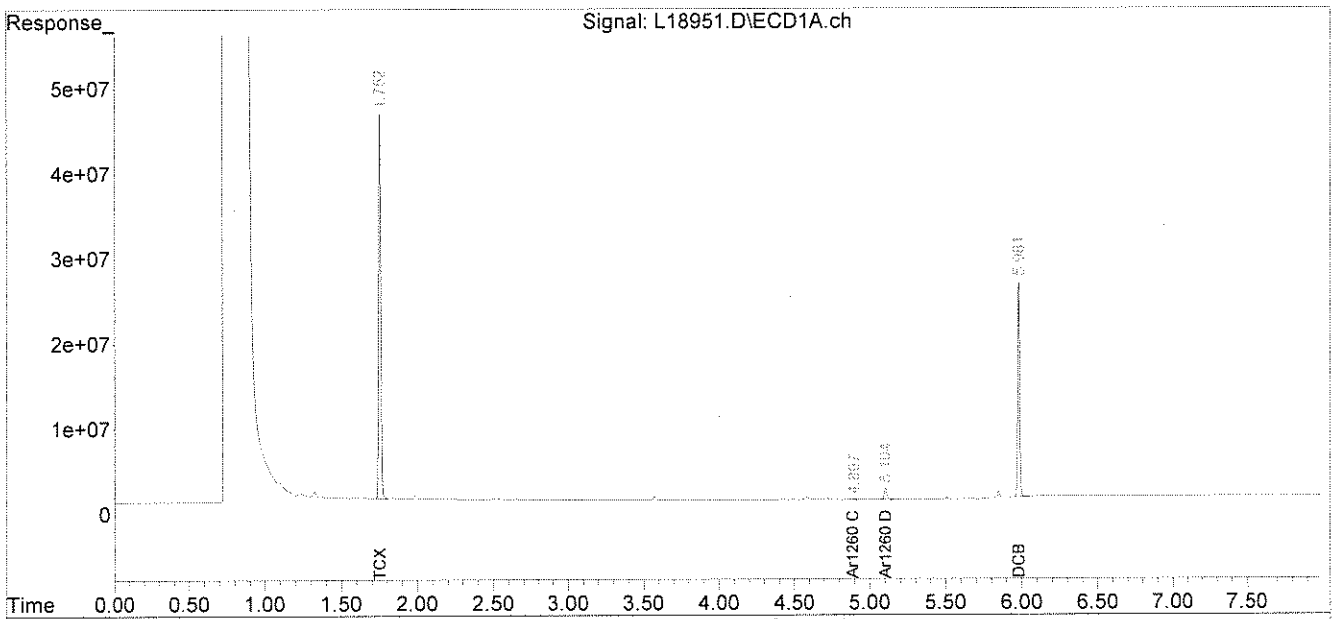
Authorized signature

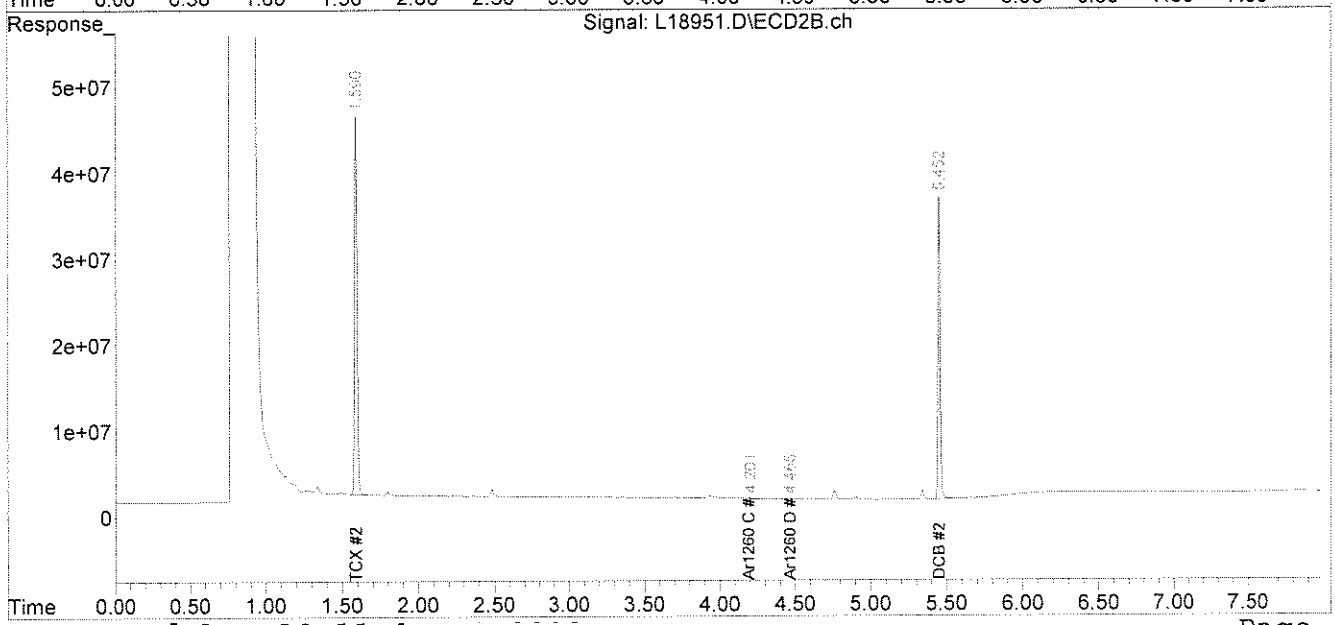
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042909-L\
Data File : L18951.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 09 10:26 am
Operator :
Sample : 63715-13
Misc :
ALS Vial : 79 Sample Multiplier: 1

Integration File signal 1: PCBINT.E
Integration File signal 2: PCBINT2.E
Quant Time: Apr 29 11:07:48 2009
Quant Method : C:\msdchem\1\METHODS\PB04229.M
Quant Title : Aroclor 1016/1260
QLast Update : Thu Apr 23 16:07:53 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 3 ul
Signal #1 Phase : DB-1701 Widebore Signal #2 Phase: DB-5 Widebore
Signal #1 Info : 0.53 mm , 1.0um f Signal #2 Info : 0.53 mm, 1.5um film





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-14
Matrix:	Solid
Percent Solid:	93
Dilution Factor:	2.0
Collection Date:	04/24/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/24/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-047

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	66	U
PCB-1221	66	U
PCB-1232	66	U
PCB-1242	66	U
PCB-1248	66	U
PCB-1254	66	**1140**
PCB-1260	66	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	101	%
Decachlorobiphenyl	100	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-14,2X,,A/C

Data File: M16112.D

Dilution Factor: 2.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	1130	1140	0.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

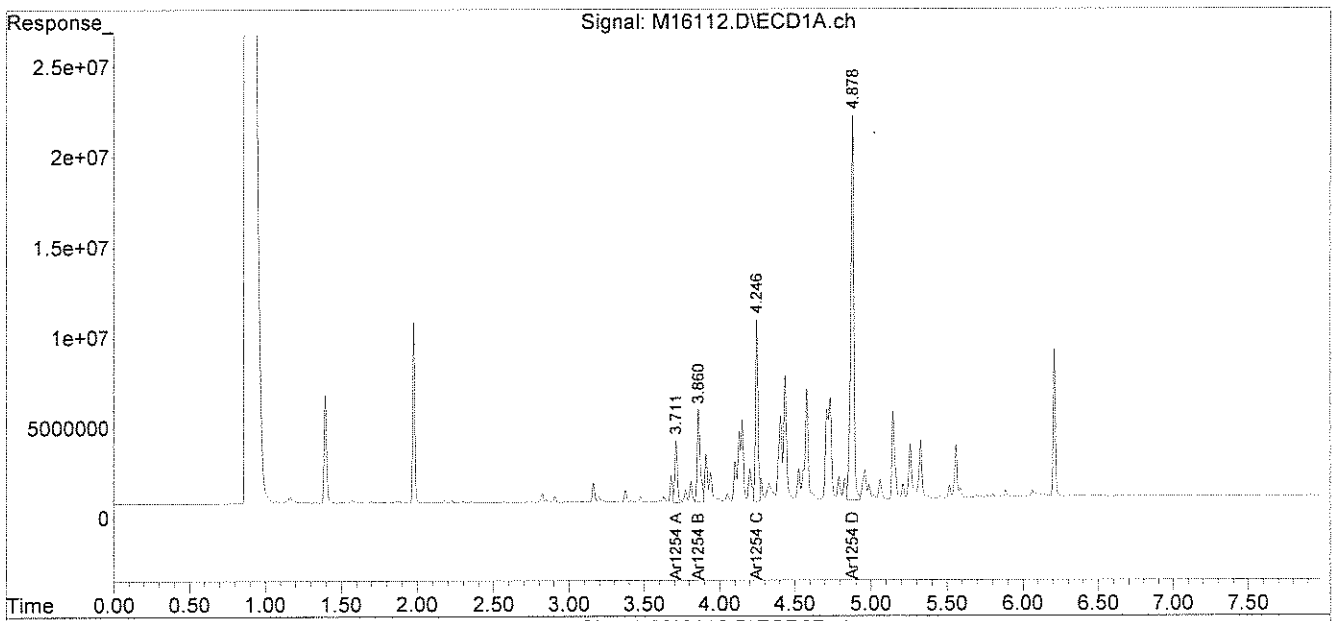
PCB FORM 10

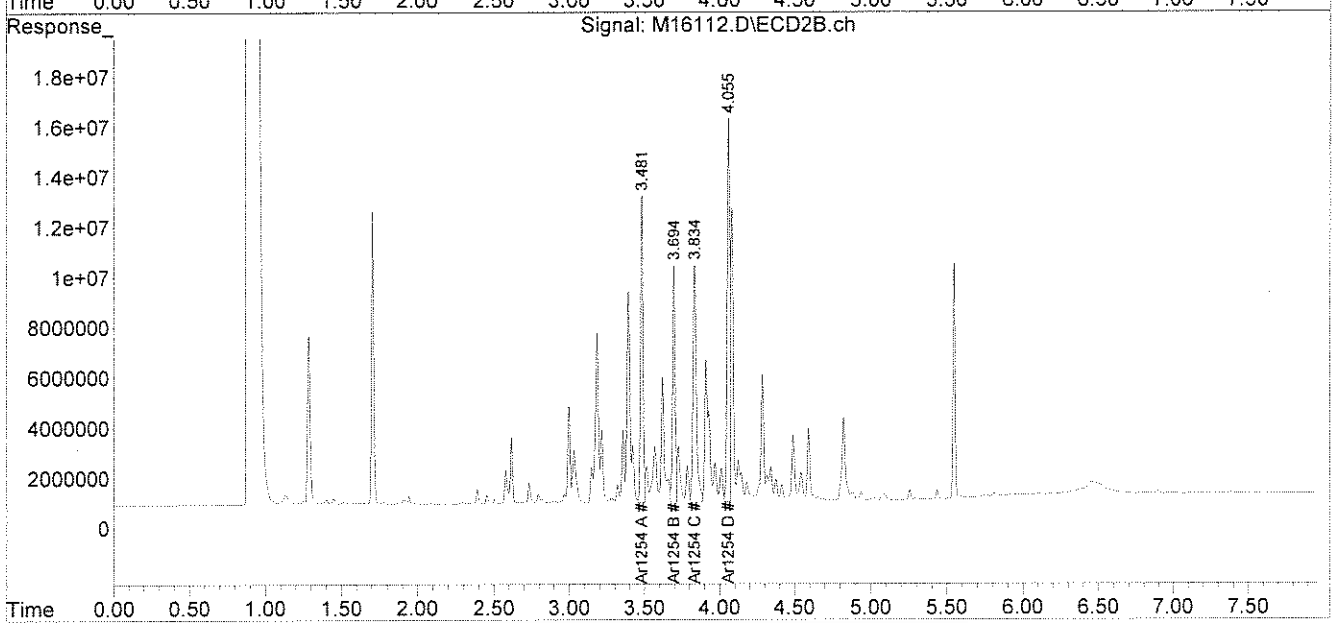
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16112.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 6:43 pm
Operator :
Sample : 63715-14,2X,,A/C (Sig #1); ~~63715-14, 2X (Sig #2)~~
Misc : SOIL
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 07:46:42 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-15
Matrix:	Solid
Percent Solid:	92
Dilution Factor:	1.1
Collection Date:	04/24/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/24/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-048

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**974**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	100	%
Decachlorobiphenyl	102	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-15,,A/C

Data File: M16096.D

Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	787	974	21.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

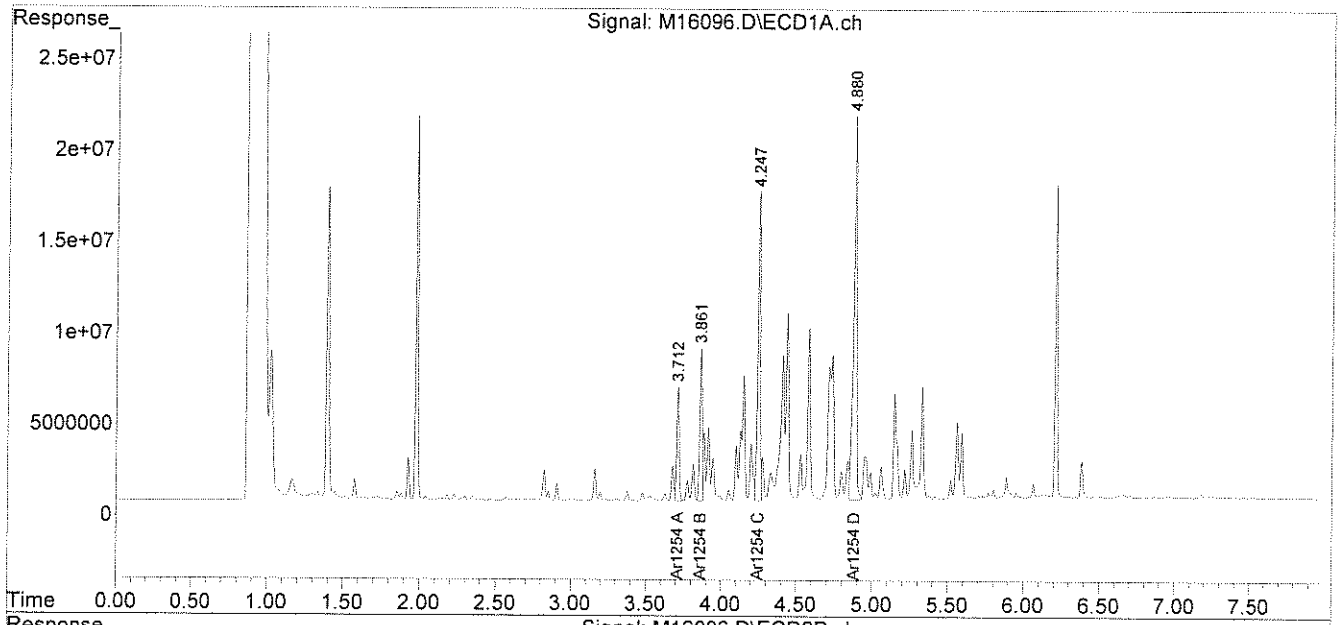
Comments: _____

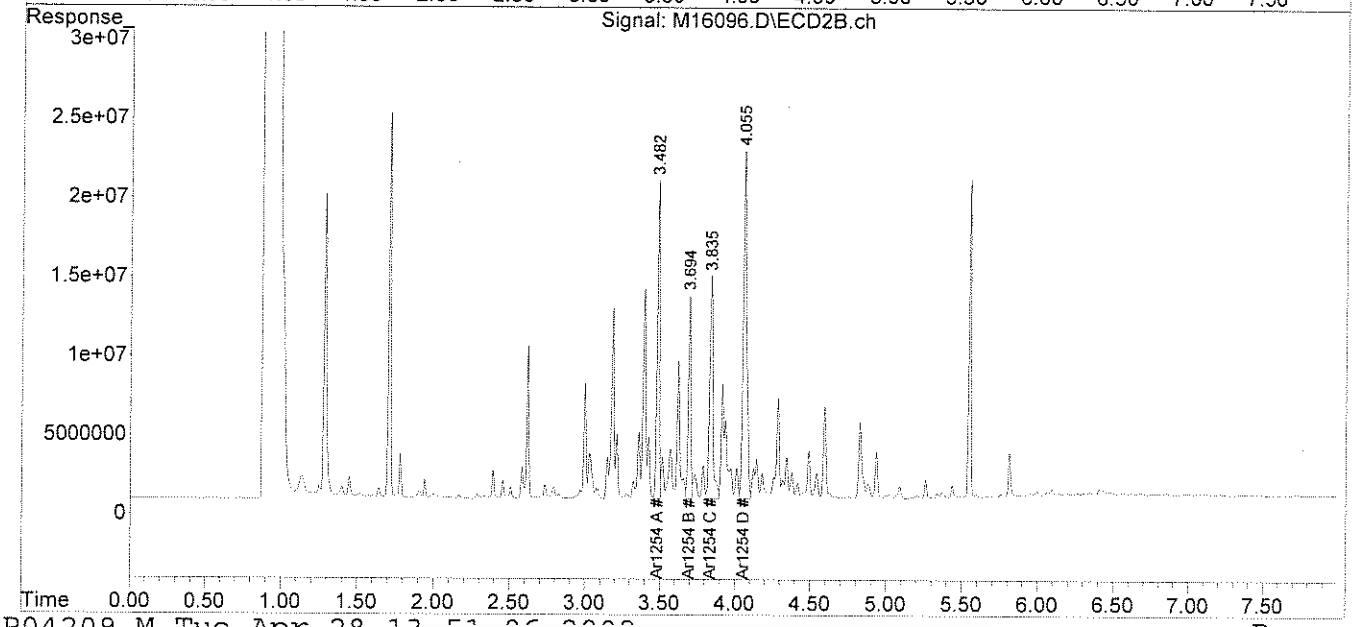
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16096.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 10:43 am
Operator :
Sample : 63715-15,,A/C
Misc : SOIL
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 13:50:49 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-16
Matrix:	Solid
Percent Solid:	91
Dilution Factor:	1.0
Collection Date:	04/24/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/24/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-049

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**529**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	98	%
Decachlorobiphenyl	100	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-16,,A/C

Data File: M16097.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	529	458	14.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

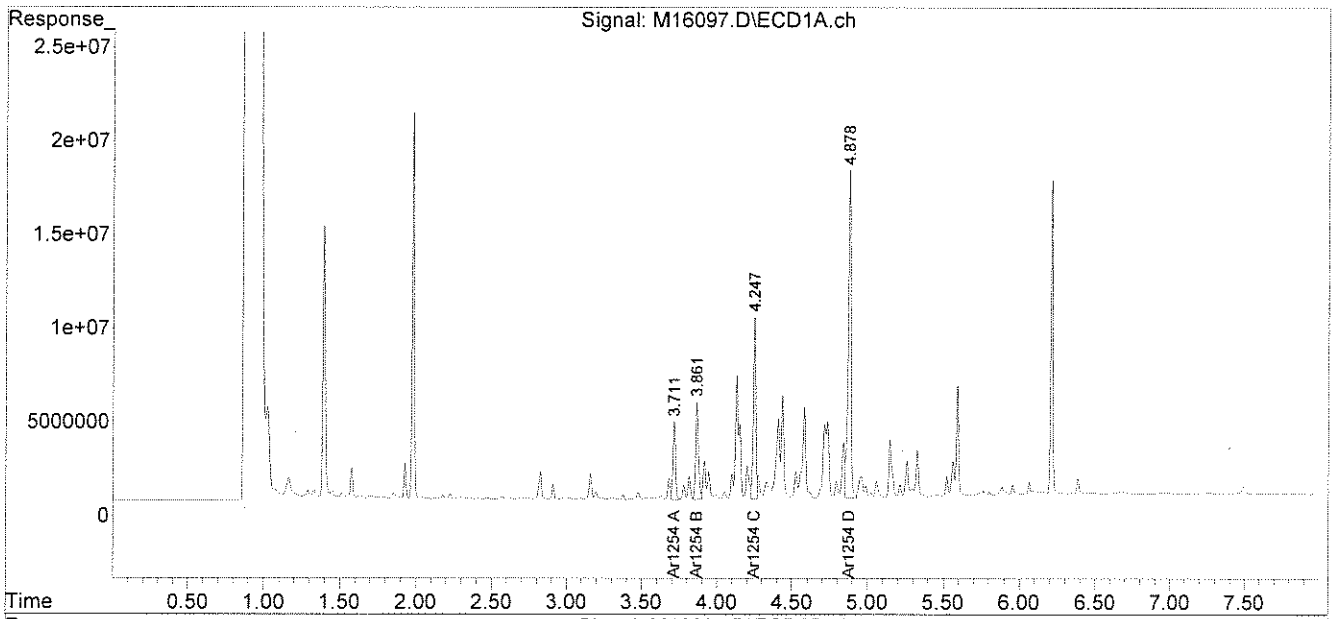
Comments: _____

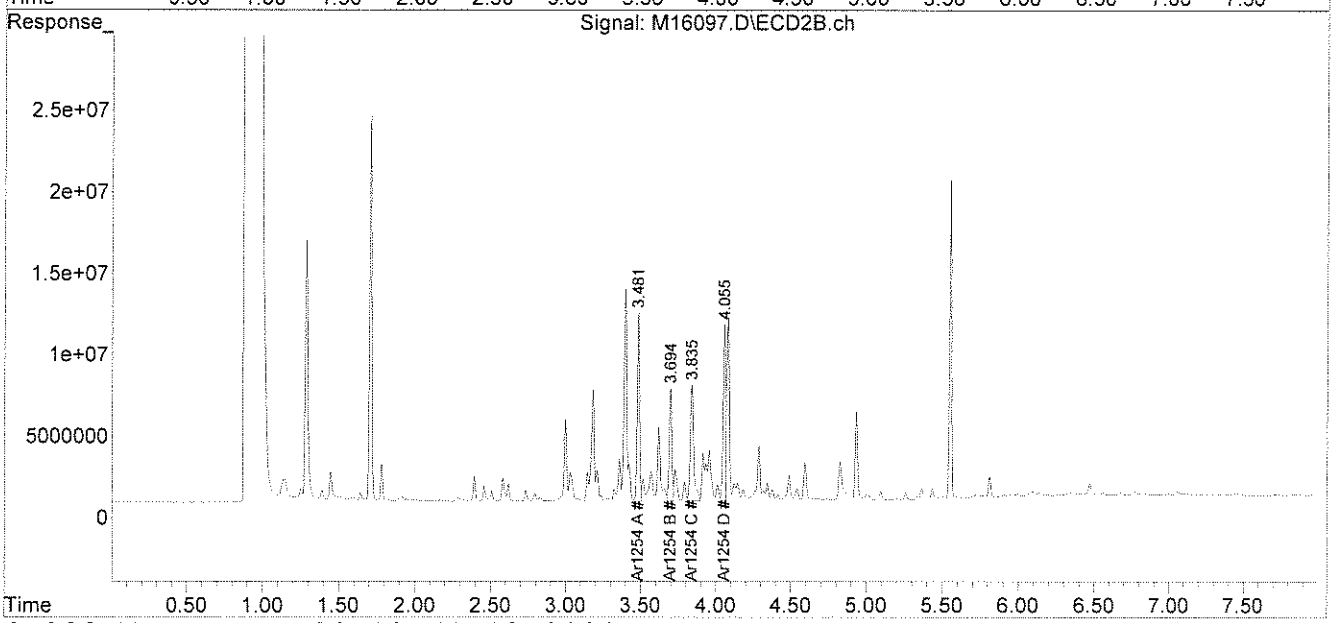
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16097.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 10:53 am
Operator :
Sample : 63715-16,,A/C
Misc : SOIL
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 13:51:12 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-17
Matrix:	Solid
Percent Solid:	90
Dilution Factor:	1.0
Collection Date:	04/24/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/24/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-050

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**1030**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	102	%
Decachlorobiphenyl	98	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-17,,A/C

Data File: M16102.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	1031	997	3.4	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

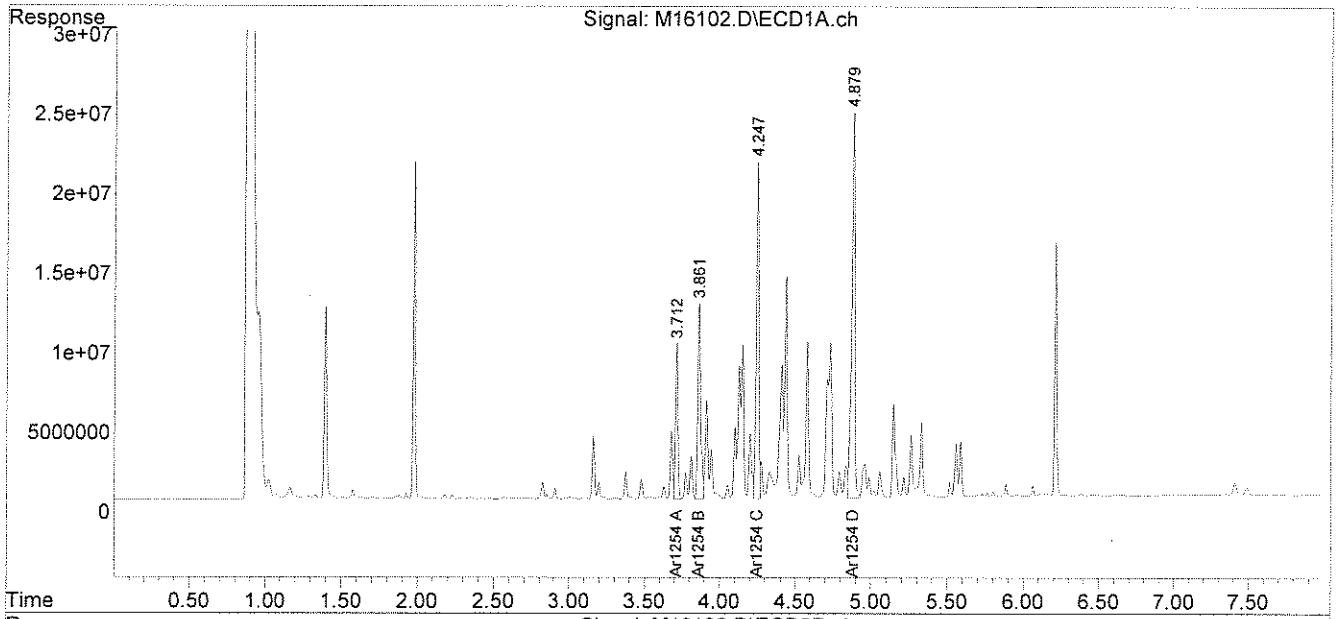
PCB FORM 10

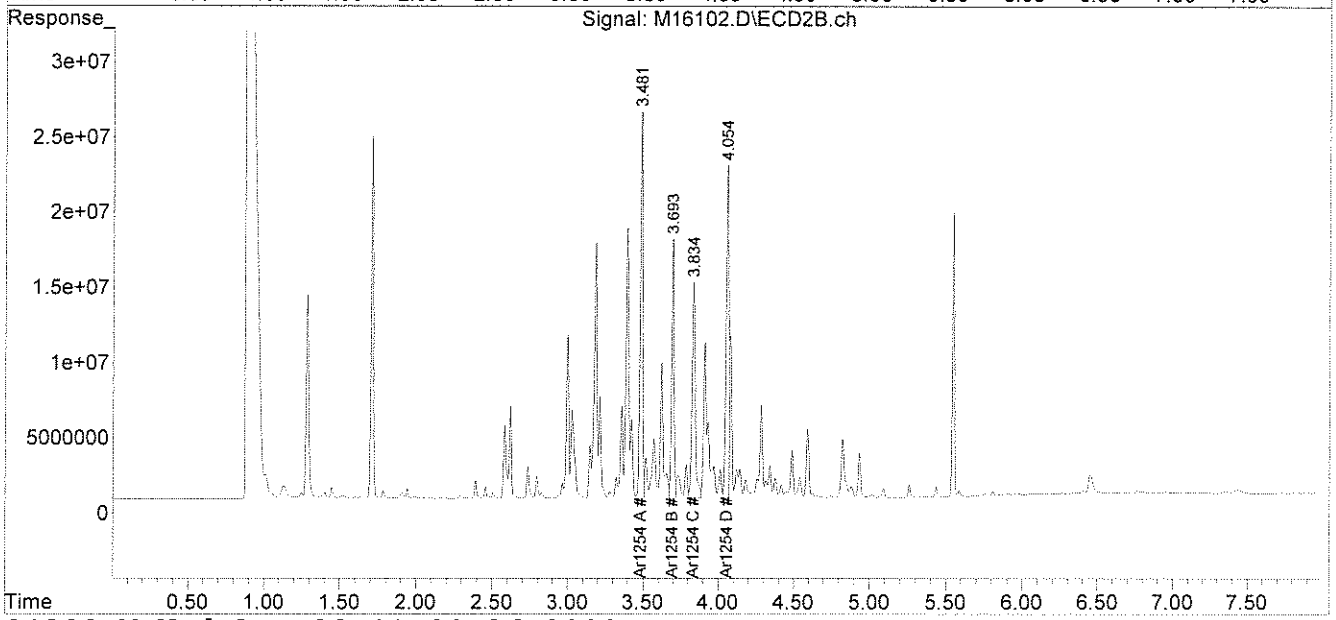
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16102.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 11:48 am
Operator :
Sample : 63715-17,,A/C
Misc : SOIL
ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 28 13:52:37 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-18
Matrix:	Solid
Percent Solid:	91
Dilution Factor:	2.1
Collection Date:	04/24/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/24/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-051

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	69	U
PCB-1221	69	U
PCB-1232	69	U
PCB-1242	69	U
PCB-1248	69	U
PCB-1254	69	**1490**
PCB-1260	69	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	76	%
Decachlorobiphenyl	101	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-18, 2X,,A/C

Data File: M16113.D

Dilution Factor: 2.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	1247	1491	17.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

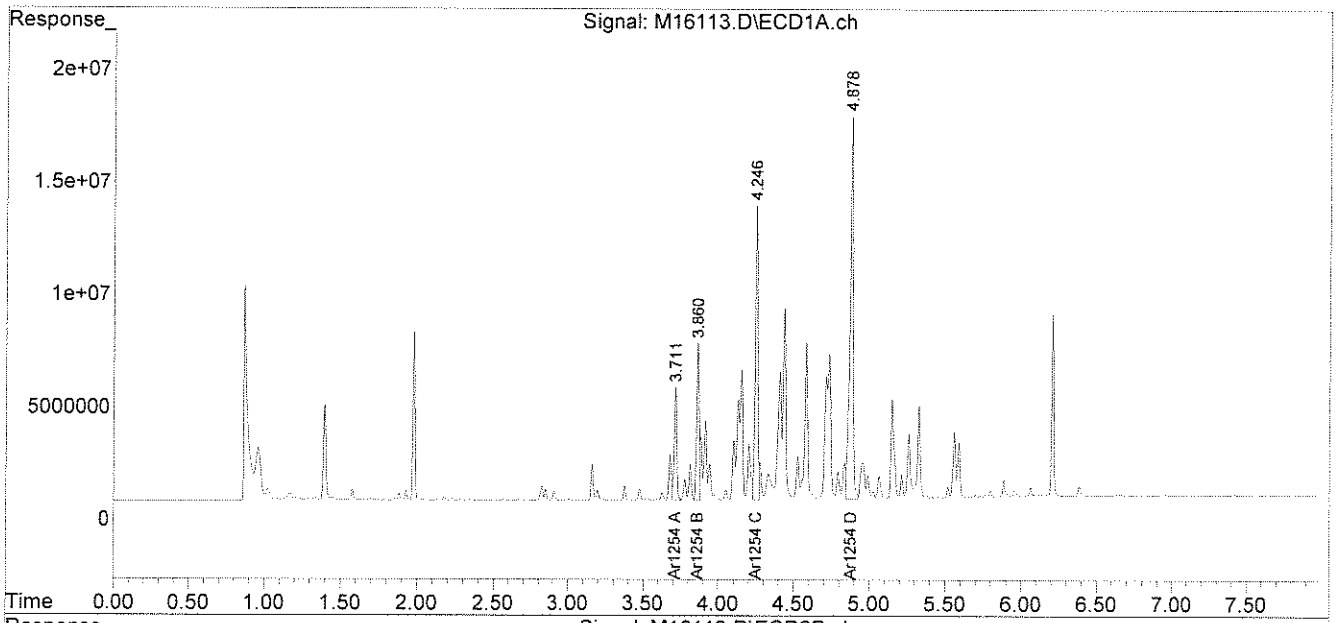
PCB FORM 10

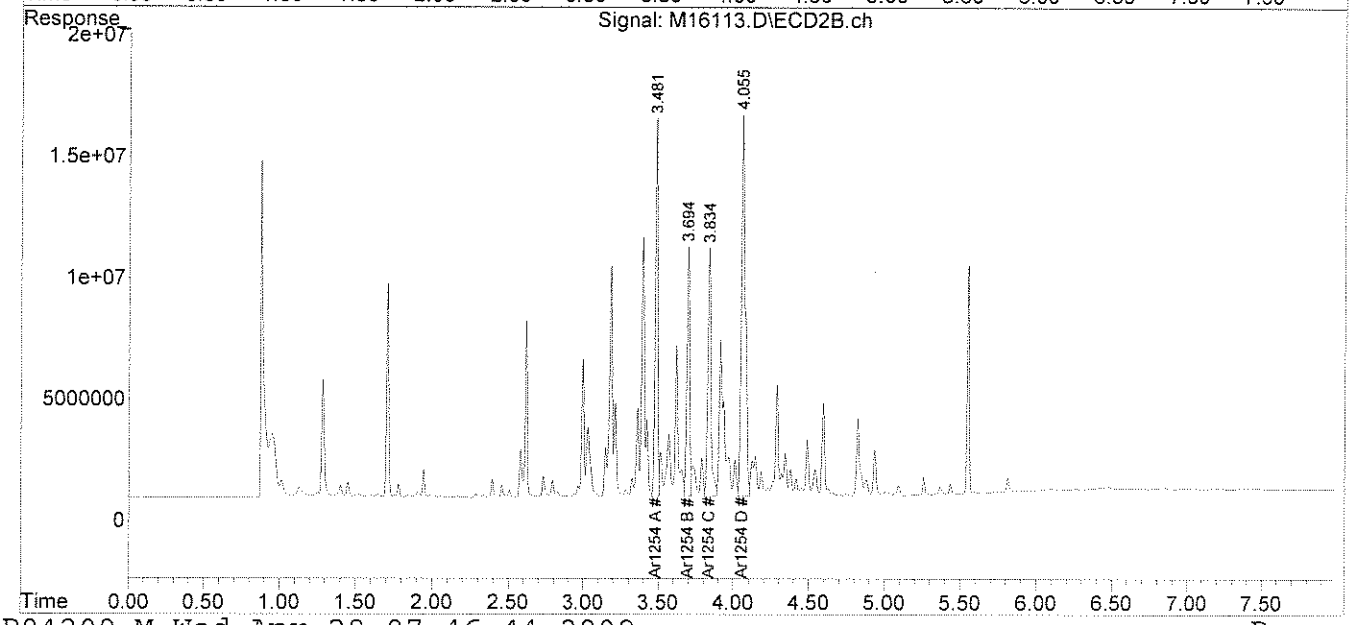
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16113.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 6:53 pm
Operator :
Sample : 63715-18, 2X,,A/C (Sig #1); ~~63715-18, 2X (Sig #2)~~
Misc : SOIL
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 07:46:44 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-19
Matrix:	Solid
Percent Solid:	74
Dilution Factor:	13
Collection Date:	04/24/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/24/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-SS87-135

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	430	U
PCB-1221	430	U
PCB-1232	430	U
PCB-1242	430	U
PCB-1248	430	U
PCB-1254	430	**6160**
PCB-1260	430	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	120	%
Decachlorobiphenyl	123	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-19,10X,,A/C

Data File: M16116.D

Dilution Factor: 13.3

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	4773	6157	25.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

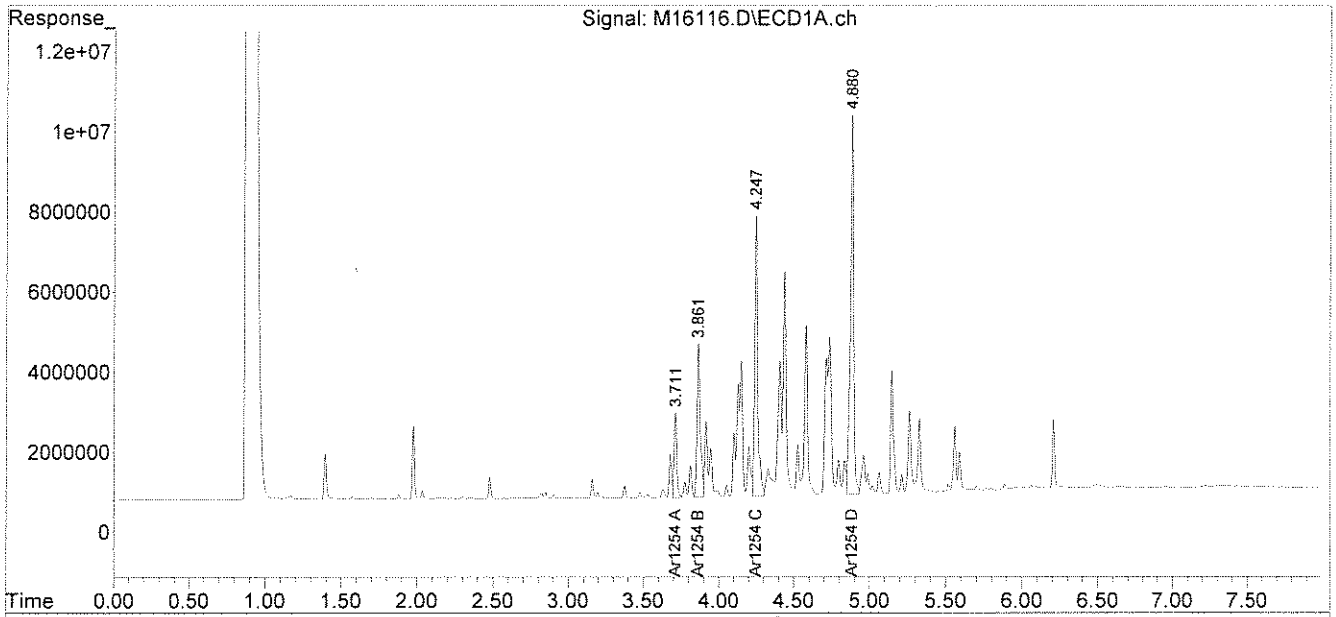
Comments: _____

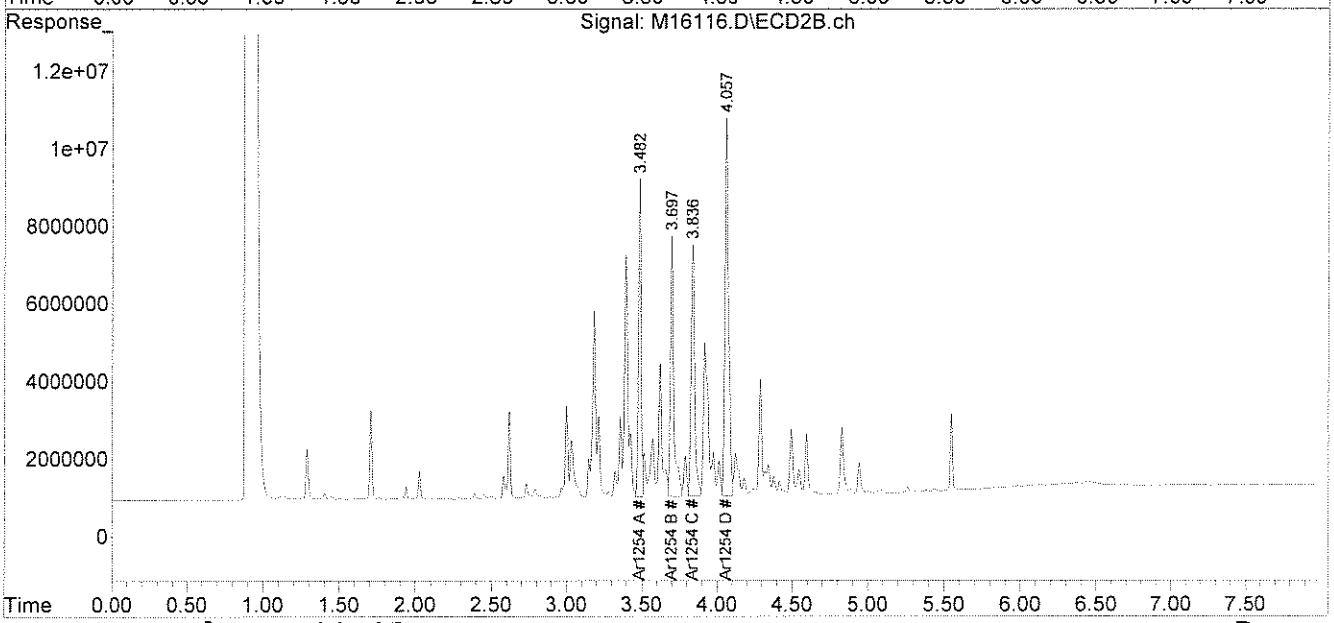
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16116.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 7:23 pm
Operator :
Sample : 63715-19,10X,,A/C (Sig #1); ~~63715-19,10X (Sig #2)~~
Misc : SOIL
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 07:46:50 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-20
Matrix:	Solid
Percent Solid:	97
Dilution Factor:	2.0
Collection Date:	04/24/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/24/09
Analysis Date:	04/28/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-052

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	66	U
PCB-1221	66	U
PCB-1232	66	U
PCB-1242	66	U
PCB-1248	66	U
PCB-1254	66	**1410**
PCB-1260	66	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	91	%
Decachlorobiphenyl	108	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-20, 2X,,A/C

Data File: M16114.D

Dilution Factor: 2.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	1087	1408	25.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

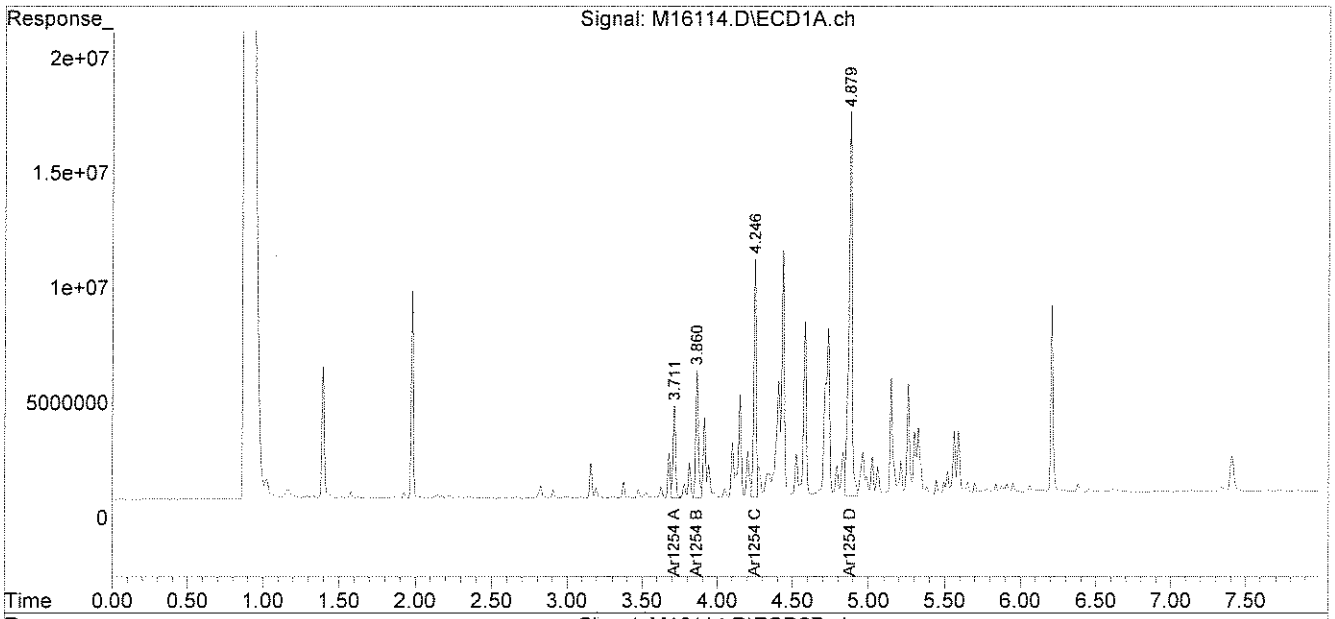
PCB FORM 10

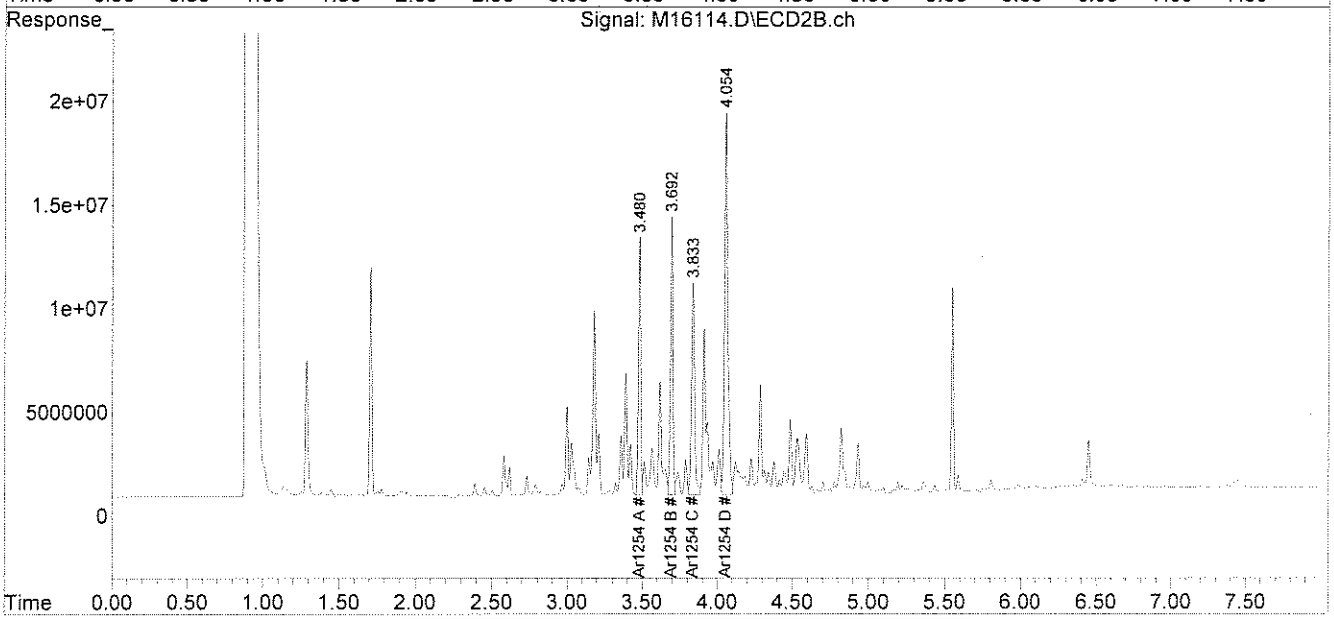
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16114.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Apr 2009 7:03 pm
Operator :
Sample : 63715-20, 2X,,A/C (Sig #1); ~~63715-20, 2X (Sig #2)~~
Misc : SOIL
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 07:46:46 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-21
Matrix:	Solid
Percent Solid:	94
Dilution Factor:	1.0
Collection Date:	04/24/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/28/09
Analysis Date:	04/29/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-053

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**541**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	98	%
Decachlorobiphenyl	96	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-21,,A/C

Data File: M16134.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	437	541	21.2	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

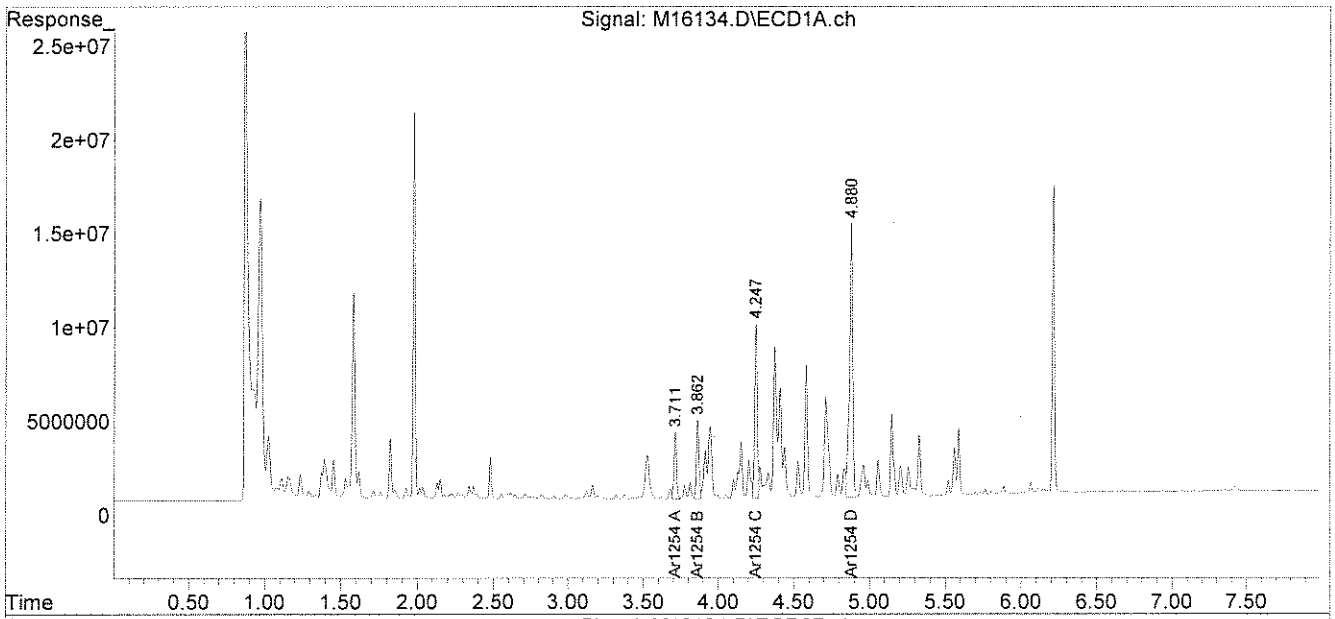
Comments: _____

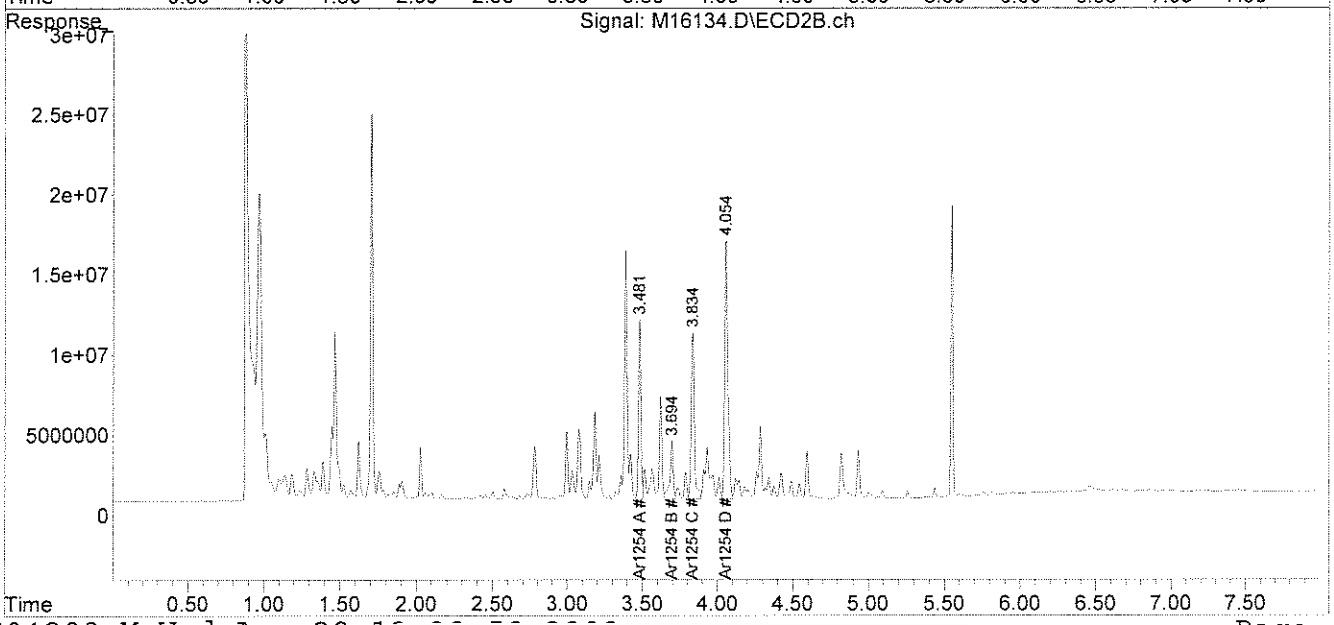
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16134.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 2009 1:24 pm
Operator :
Sample : 63715-21,,A/C
Misc : SOIL
ALS Vial : 78 Sample Multiplier: 1

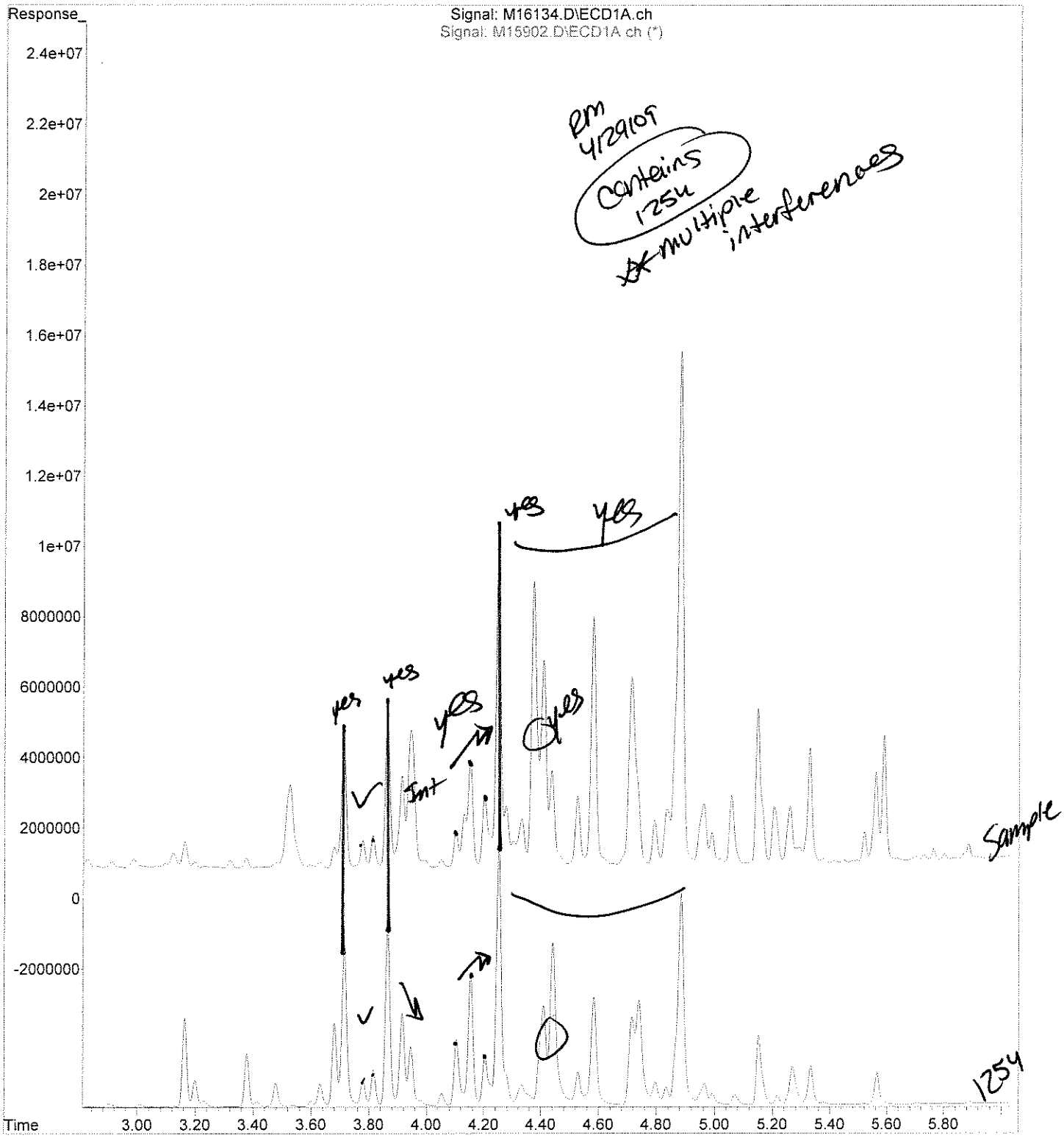
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 13:32:41 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\042709-M\M16134.D
Operator :
Acquired : 29 Apr 2009 1:24 pm using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63715-21,,A/C
Misc Info : SOIL
Vial Number: 78



analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-22
Matrix:	Solid
Percent Solid:	93
Dilution Factor:	1.0
Collection Date:	04/24/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/28/09
Analysis Date:	04/29/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-054

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**601**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	97	%
Decachlorobiphenyl	97	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63715
Sample: 63715-22,,A/C
Data File: M16135.D
Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	566	601	5.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

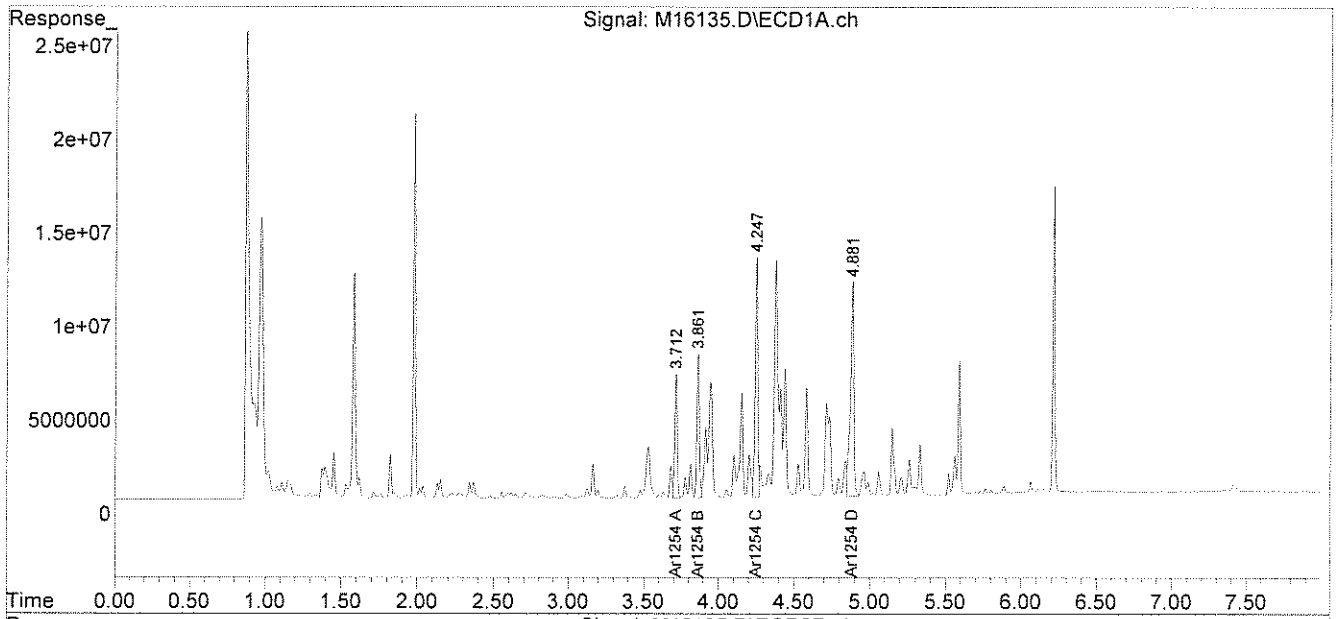
Comments: _____

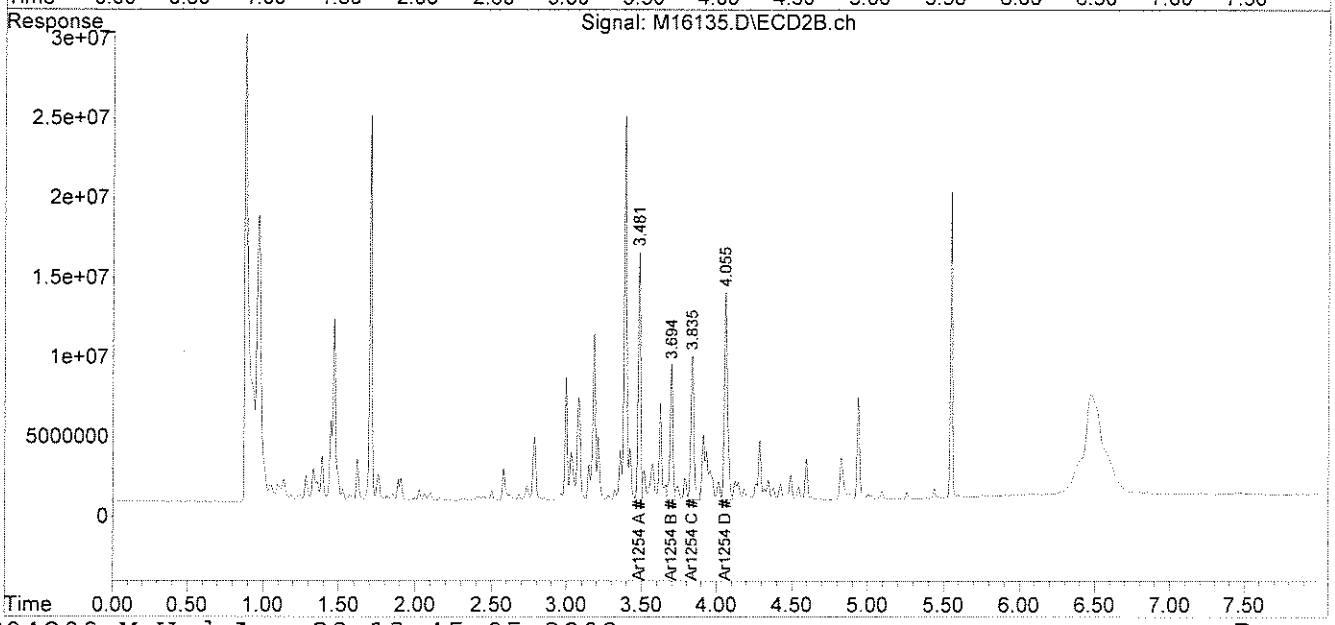
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16135.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 2009 1:34 pm
Operator :
Sample : 63715-22,,A/C
Misc : SOIL
ALS Vial : 79 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 13:44:58 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63715-23
Matrix:	Solid
Percent Solid:	94
Dilution Factor:	1.0
Collection Date:	04/24/09
Lab Receipt Date:	04/24/09
Extraction Date:	04/28/09
Analysis Date:	04/29/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-055

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**743**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	92	%
Decachlorobiphenyl	87	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-23,,A/C

Data File: M16136.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	601	743	21.0	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

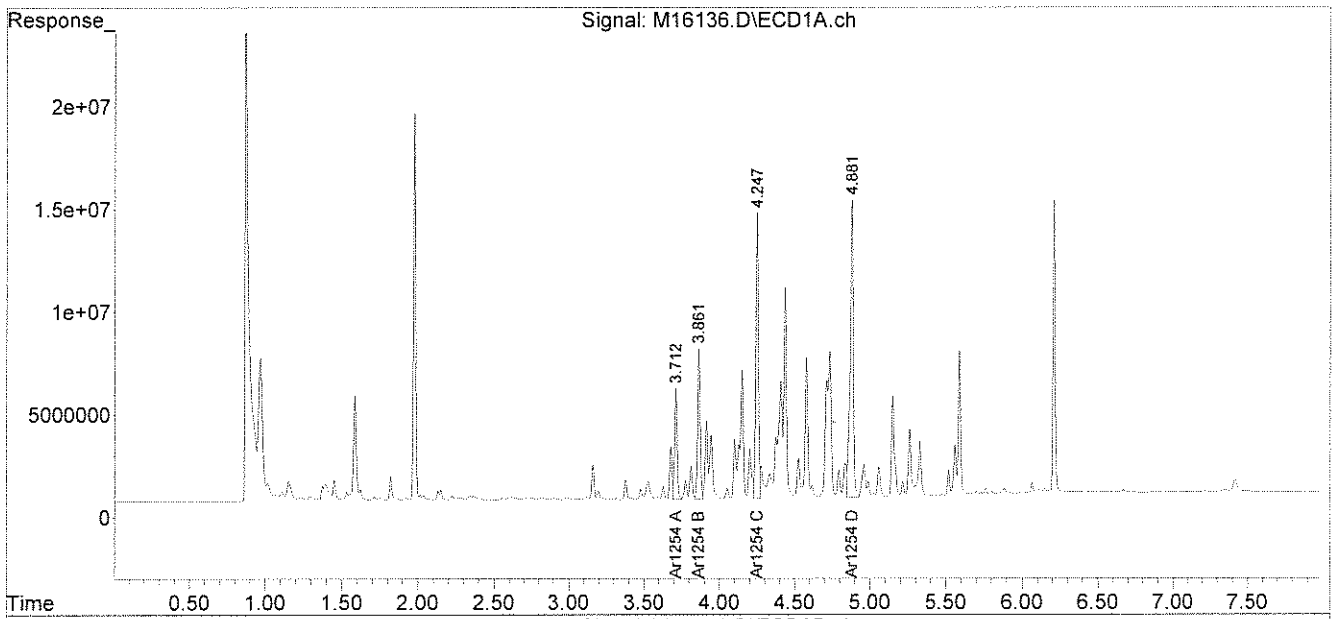
Comments: _____

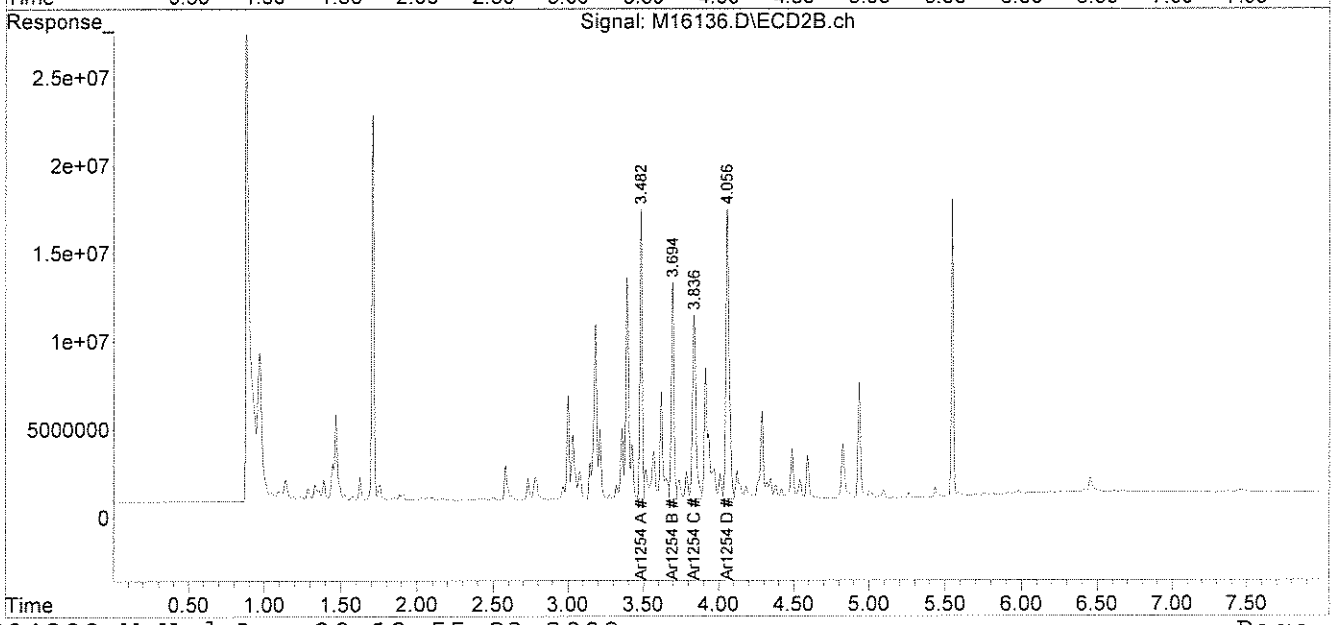
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16136.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 2009 1:44 pm
Operator :
Sample : 63715-23,,A/C
Misc : SOIL
ALS Vial : 80 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 13:55:05 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID: 63715-24
Matrix: Solid
Percent Solid: 94
Dilution Factor: 1.0
Collection Date: 04/24/09
Lab Receipt Date: 04/24/09
Extraction Date: 04/28/09
Analysis Date: 04/29/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: LGRC-VSS-056

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**177**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	102	%
Decachlorobiphenyl	103	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Sample: 63715-24,,A/C

Data File: M16137.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	177	168	5.2	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

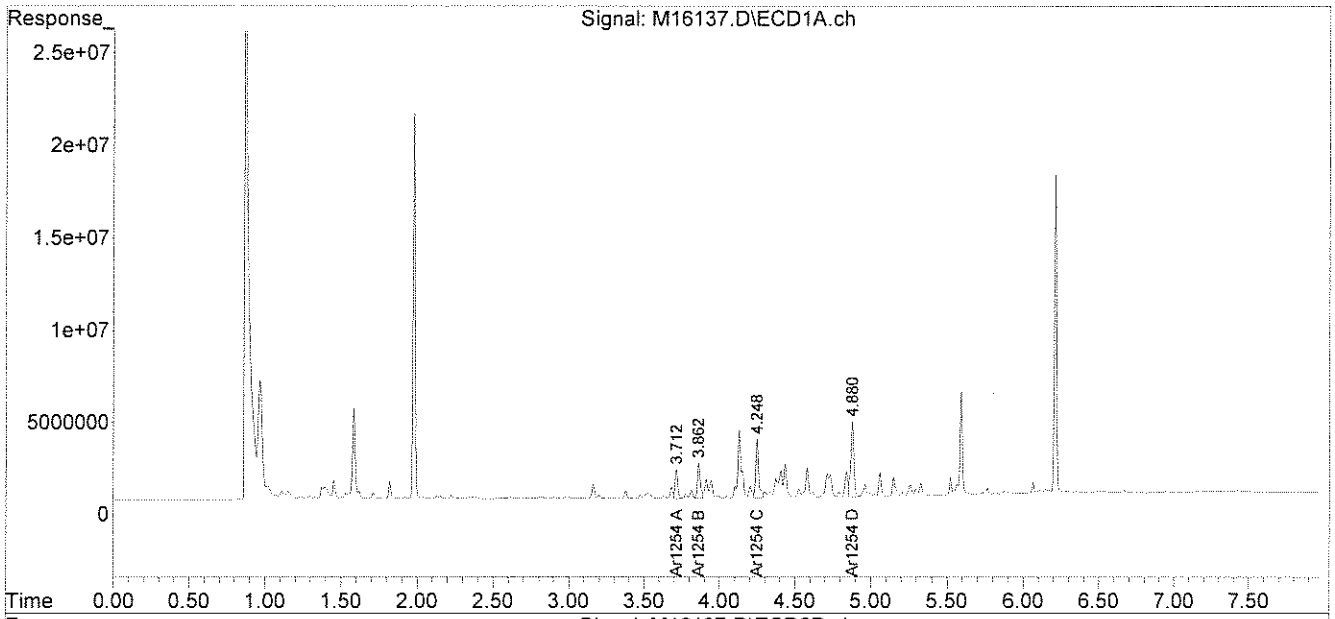
PCB FORM 10

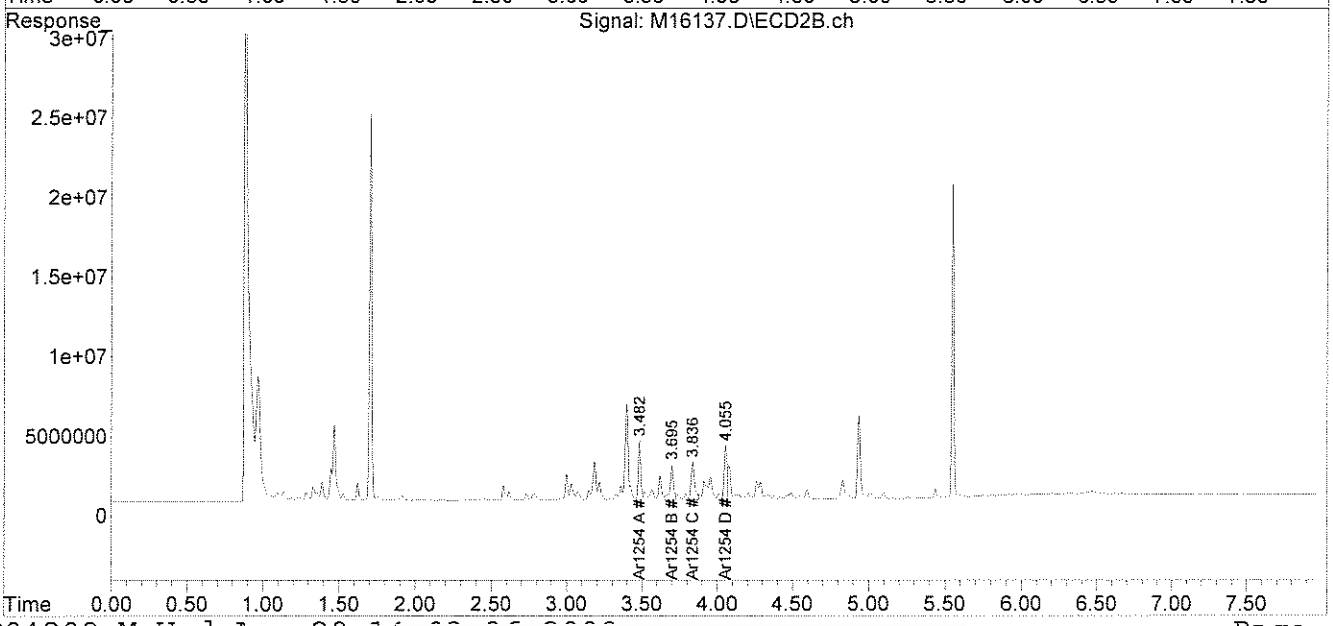
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16137.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 2009 1:54 pm
Operator :
Sample : 63715-24,,A/C
Misc : SOIL
ALS Vial : 81 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 14:03:36 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





PCB
QC FORMS

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:PCBQC.doc

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63715

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04249PSOX,,A/C	102		118		106		108	
L04249PSOX,,A/C	97		107		101		104	
LD04249PSOX,,A/C	91		110		98		107	
63715-1,,A/C	90		94		92		95	
63715-1,MS,,A/C	93		103		96		102	
63715-1,MSD,,A/C	99		101		100		103	
63715-2,,A/C	91		95		92		95	
63715-3,,A/C	97		95		97		96	
63715-4,,A/C	99		96		99		95	
63715-6,,A/C	102		107		102		102	
63715-7,,A/C	99		102		98		102	
63715-8,,A/C	102		102		101		103	
63715-10,,A/C	98		104		98		102	
63715-11,,A/C	101		109		100		105	
63715-15,,A/C	100		102		102		101	
63715-16,,A/C	98		100		98		98	
63715-12,,A/C	102		106		102		102	
63715-17,,A/C	102		98		100		94	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63715

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04249PSOX,RR,,A/C	94		117		99		107	
63715-14,2X,,A/C	101		100		100		98	
63715-18, 2X,,A/C	76		101		76		97	
63715-20, 2X,,A/C	91		108		93		101	
63715-19,10X,,A/C	120		123		120		110	
63715-9,5X,,A/C	109		114		106		108	
63715-5,50X,,A/C	D		D		D		D	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB AQUEOUS
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: L
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63715

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04289PW	71		53		66		56	
L04289PWB	66		67		62		71	
LD04289PWB	70		49		66		52	
63715-13	73		62		68		62	

		Lower Limit	Upper Limit
SMC #1 =	TCX	46	122
SMC #2 =	DCB	40	135

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63715

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04289PSOX,,A/C	107		106		106		102	
L04289PSOX,,A/C	107		111		107		108	
LD04289PSOX,,A/C	101		106		101		103	
63715-21,,A/C	98		96		102		89	
63715-22,,A/C	97		97		102		95	
63715-23,,A/C	92		87		93		85	
63715-24,,A/C	102		103		101		101	
63715-24,MS,,A/C	100		102		101		101	
63715-24,MSD,,A/C	99		103		99		101	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Non-spiked sample: B04249PSOX,,A/C

Spike: L04249PSOX,,A/C

Spike duplicate: LD04249PSOX,,A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	200	200	65	140	30	0	231	115		248	124		7.4	
PCB 1260	200	200	60	130	30	0	207	104		205	103		0.8	
PCB 1016 #2	200	200	65	140	30	0	258	129		277	139		7.0	
PCB 1260 #2	200	200	60	130	30	0	209	104		207	103		1.1	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

PCB FORM 3

PCB SOIL
MATRIX SPIKE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Non-spiked sample: 63715-1,,A/C

Spike: 63715-1,MS,,A/C

Spike duplicate: 63715-1,MSD,,A/C

COMPOUND	MS SPIKE ADDED (ug/kg)	MSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	211	210	65	140	30	0	228	108		240	114		4.9	
PCB 1260	211	210	60	130	30	0	366	174	*	362	173	*	1.0	
PCB 1016 #2	211	210	65	140	30	0	297	141	*	262	125		12.2	
PCB 1260 #2	211	210	60	130	30	0	322	153	*	321	153	*	0.3	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

MS/MSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

PCB AQUEOUS
LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE
PERCENT RECOVERY

Instrument ID: L

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63715

Non-spiked sample: B04289PW

Spike: L04289PWB

Spike duplicate: LD04289PWB

COMPOUND	LCS SPIKE ADDED (ug/L)	LCSD SPIKE ADDED (ug/L)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
PCB 1016	1.6	1.6	79	113	25	0.00	1.52	96		1.54	97		0.9	
PCB 1260	1.8	1.8	58	115	25	0.00	1.52	87		1.40	80		8.3	
PCB 1016 #2	1.5	1.5	81	112	25	0.00	1.41	95		1.42	96		0.8	
PCB 1260 #2	1.6	1.6	54	123	25	0.00	1.43	88		1.31	80		9.2	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been volume adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

PCB FORM 3

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG:

Non-spiked sample: B04289PSOX,,A/C

Spike: L04289PSOX,,A/C

Spike duplicate: LD04289PSOX,,A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	200	200	65	140	30	0	228	114		226	113		0.9	
PCB 1260	200	200	60	130	30	0	207	103		203	101		1.8	
PCB 1016 #2	200	200	65	140	30	0	222	111		222	111		0.0	
PCB 1260 #2	200	200	60	130	30	0	213	107		204	102		4.7	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

PCB SOIL
MATRIX SPIKE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG:

Non-spiked sample: 63715-24,,A/C

Spike: 63715-24,MS,,A/C

Spike duplicate: 63715-24,MSD,,A/C

COMPOUND	MS SPIKE ADDED (ug/kg)	MSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	203	200	65	140	30	0	229	113		226	113		1.4	
PCB 1260	203	200	60	130	30	0	282	139	*	243	122		14.6	
PCB 1016 #2	203	200	65	140	30	0	208	102		205	102		1.1	
PCB 1260 #2	203	200	60	130	30	0	261	129		251	125		4.2	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

MS/MSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

CHAIN OF CUSTODIES

Chain Of Custody Form

analytics environmental laboratory LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 4
3) Received in good condition Y or N
4) pH checked by: N/A
5) Labels checked by: SC 4/24/09

Project#: 210918 Proj. Name: UMASS - LGRC
Company: Woodard & Curran
Contact: GEORGE FRANKLIN/AMY WALLACE
Address: 35 New England Business Ctr.
Andover, MA 01810
Phone: (866)702-6371 PO# Quote # WCI 8091001
Sampler (Signature):

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

Station Identification	Sample Date	Sample Time	Analysis	Unpres	4°C	HNO_3	H_2SO_4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
LGRC-VSS-040	4/22/09	1547	PCBs - 8082	X	X						SOL	1	G		63715-1
LGRC-VSS-041	4/22/09	1552		X	X										-2
LGRC-VSS-042	4/22/09	1612		X	X										-3
LGRC-VSS-043	4/22/09	1619		X	X										-4
LGRC-VSS-044	4/22/09	1622		X	X										-5
LGRC-VSS-045	4/22/09	1626		X	X										-6
LGRC-VSS-046	4/22/09	1632		X	X										-7
LGRC-VSS-503	4/22/09	1632		X	X										-8
LGRC-SS40-129	4/23/09	1455		X	X										-9
LGRC-SS86-128	4/23/09	1540		X	X										-10
LGRC-SS41-130	4/23/09	1350		X	X										-11

Received By: Time: 1350 Date: 4/24/09
Received By: Time: Date:
Received By: Time: Date:
Relinquished By Sampler: Date:
Relinquished By: Date:
Relinquished By: Date:

Email Results to:
George Franklin
Jeff Hamel
Amy Wallace

Comments / Instructions:
PCBs by 8082
SOXHLET EXTRACTION

Turnaround Time (TAT)
☐ 24hr* ☐ 48hr*
☐ 72hr* ☒ 5 Days* — Call G. Franklin/A. Wallace to confirm please
☐ 10 Days
*Fee may apply; lab approval required

Project Requirements:
*Fee may apply

Report Type:
☐ MCP* ☑ Level II*
☐ CTRCP* ☐ Level III*
☐ DOD* ☐ Level IV*
☐ Standard

State:
☐ NH
☐ MA
☐ ME
☐ CT
☐ RI
Other: TSCA

State Standard: _____ (eg. S-1 or GW-1)
EDD Required: Y* N
Type: _____

Analytics Report 63715 page 0099 of 102

Chain Of Custody Form

analytics environmental laboratory LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 4
3) Received in good condition Y or N
4) pH checked by: N/A
5) Labels checked by: 8/4/24/09
Amber liter for PCB 8082, 63715-13, tested negative for residual chlorine w/KI paper. NF 4/24/09

Project#: 210918 Proj. Name: UMASS - LGRC
Company: Woodard & Curran
Contact: GEORGE FRANKLIN/AMY WALLACE
Address: 35 New England Business Ctr.
Andover, MA 01810
Phone: (866)702-6371 PO# Quote # WCI 8091001
Sampler (Signature):

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

Preservation

Location Identification	Sample Date	Sample Time	Analysis	Unpres	4°C	HNO3	H2SO4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
LGRC-SS85-127	4/23/09	0935	PCBS-8082	X	X						SOIL	1	G		63715-12
LGRC-VSS-903	4/24/09	0659		X	X						W	1	G		-13
LGRC-VSS-047	4/24/09	0828		X	X						SOIL	1	G		-14
LGRC-VSS-048	4/24/09	0930													-15
LGRC-VSS-~~0935~~ 049 KBS	4/24/09	0935													-16
LGRC-VSS-~~0945~~ 050 KBS	4/24/09	0945													-17
LGRC-VSS-051	4/24/09	1120													-18
LGRC-SS87-135	4/24/09	~~1416~~ 1305 KBS													-19
LGRC-VSS-052	4/24/09	1416													-20
LGRC-VSS-053	4/24/09	1514													-21
LGRC-VSS-054	4/24/09	~~1521~~ 14:16* CP 4/27/09													-22

Email Results to:
George Franklin
Jeff Hamel
Amy Wallace

Turnaround Time (TAT)
☐ 24hr* ☐ 48hr*
☐ 72hr* ☒ 5 Days* — Call G. Franklin/ to confirm please
☐ 10 Days
*Fee may apply; lab approval required

Comments / Instructions:
PCBs by 8082
SOXHLET EXTRACTION
* Correct time of 14:16 as per W+C
-CP 4/27/09

Project Requirements:
*Fee may apply

Report Type:
☐ MCP* ☑ Level II*
☐ CTRCP* ☐ Level III*
☐ DOD* ☐ Level IV*
☐ Standard

State:
☐ NH
☐ MA
☐ ME
☐ CT
☐ RI
Other: TSCA

State Standard:
(eg. S-1 or GW-1)
EDD Required: Y* N
Type:

Received By: [signature] Time: 1750 Date: 4/24/09
Received By: Time: Date:
Received By: Time: Date:
Relinquished By Sampler: [signature] Relinquished By: Relinquished By:

Analytics\AEL Documents\AEL COC

Page ____ of ____

Chain Of Custody Form

analytics environmental laboratory LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 4
3) Received in good condition (Y) or N
4) pH checked by: N/A
5) Labels checked by: SC 4/24/09

Project#: 210918 Proj. Name: UMASS - LGRC
Company: Woodard & Curran
Contact: GEORGE FRANKLIN / AMY WALLACE
Address: 35 New England Business Ctr.
Andover, MA 01810
Phone: (866)702-6371 PO# Quote # WCI 8091001
Sampler (Signature):

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

Station Identification	Sample Date	Sample Time	Analysis	Unpres	4°C	HNO_3	H_2SO_4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
RC-VSS-055	4/24/09	1519	PCBs - 8082	X	X						SOIL	1	G		63715 - 23
RC-VSS-056	4/24/09	1521	↓	↓	↓						↓	1	1		- 24

Preservation

Comments / Instructions:
PCBs by 8082
SOXHLET EXTRACTION

Email Results to:
George Franklin
Jeff Hamel
Amy Wallace

Turnaround Time (TAT)
☐ 24hr* ☐ 48hr*
☐ 72hr* ☐ 5 Days*
☐ 10 Days
*Fee may apply; lab approval required

Project Requirements:
*Fee may apply

Report Type:
☐ MCP* ☑ Level II*
☐ CTRCP* ☐ Level III*
☐ DOD* ☐ Level IV*
☐ Standard

State:
☐ NH
☐ MA
☐ ME
☐ CT
☐ RI
Other: TSCA

State Standard: _____ (eg. S-1 or GW-1)

EDD Required: Y* N
Type: _____

Relinquished By Sampler:	Relinquished By:	Relinquished By:
Date: 4/24/09	Date:	Date:
Time: 1750	Time:	Time:
Received By:	Received By:	Received By:

Analytics Report 63715 page 0101 of 102

analytics environmental laboratory LLC

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 63715

CLIENT: Woodard + Curran

PROJECT: UMASS - LGRC

COOLER NUMBER: _____

NUMBER OF COOLERS: 1

DATE RECEIVED: 4/24/08

A: PRELIMINARY EXAMINATION:

DATE COOLER OPENED: 4/24/08

1. Cooler received by(initials) — Date Received: NF 4/24/08

2. Circle one: Hand delivered (If so, skip 3) — Shipped

3. Did cooler come with a shipping slip? — Y — N

3a. Enter carrier name and airbill number here: _____

4. Were custody seals on the outside of cooler? — Y — N/A
How many & where: _____ Seal Date: _____ Seal Name: _____

5. Did the custody seals arrive unbroken and intact upon arrival? — Y — N/A

6. COC#: _____

7. Were Custody papers filled out properly (ink,signed, etc)? — Y — N

8. Were custody papers sealed in a plastic bag? — Y — N

9. Did you sign the COC in the appropriate place? — Y — N

10. Was the project identifiable from the COC papers? — Y — N

11. Was enough ice used to chill the cooler? — Y — N — Temp. of cooler: 4°C

B. Log-In: Date samples were logged in: 4/24/09 By: NF

12. Type of packing in cooler(bubble wrap, popcorn) — Y — N

13. Were all bottles sealed in separate plastic bags? — Y — N

14. Did all bottles arrive unbroken and were labels in good condition? — Y — N

15. Were all bottle labels complete(ID,Date,time,etc.) — Y — N

16. Did all bottle labels agree with custody papers? — Y — N

17. Were the correct containers used for the tests indicated: — Y — N

18. Were samples received at the correct pH? — Y — N/A

19. Was sufficient amount of sample sent for the tests indicated? — Y — N

20. Were bubbles absent in VOA samples? — Y — N/A

If NO, List sample #'s: _____

21. Laboratory labeling verified by (initials): JL — Date: 4/24/09

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

May 1, 2009

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

RE: Analytical Results Case Narrative
Analytics # 63731
UMASS LGRC Proj# 210918

Dear Mr. Franklin;

Enclosed please find the analytical results for samples submitted for the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed Polychlorinated Biphenyls (PCBs) by EPA Method 8082.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II data package has been assembled in the following order:

Case Narrative/Non-Conformance Summary
Sample Log Sheet - Cover Page
PCB Form 1 Data Sheet for Samples and Blanks
Chromatograms
PCB Form 10 Confirmation Results
PCB Form 3 MS/MSD (LCS) Recoveries
Chain of Custody (COC) Forms

QC NON CONFORMANCE SUMMARY

Sample Receipt:
No exceptions.

PCBs by EPA Method 8082:
Samples 63731-1, 63731-2, 63731-3, 63731-4 and 63731-6 required dilution due to high concentrations of PCB 1254 detected in the sample.

Sincerely,
ANALYTICS Environmental Laboratory, LLC

Stephen Knollmeyer
Laboratory Director

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63731

Revision: Rev. 0

Re: UMASS - LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 28 April 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63731-1	04/27/09	LGRC-SS50-134	EPA 8082 (PCBs only)	
63731-2	04/27/09	LGRC-SS49-133	EPA 8082 (PCBs only)	
63731-3	04/27/09	LGRC-SS48-132	EPA 8082 (PCBs only)	
63731-4	04/27/09	LGRC-SS47-131	EPA 8082 (PCBs only)	
63731-5	04/27/09	LGRC-VSS-057	EPA 8082 (PCBs only)	
63731-6	04/27/09	LGRC-VSS-058	EPA 8082 (PCBs only)	
63731-7	04/27/09	LGRC-VSS-059	EPA 8082 (PCBs only)	
63731-8	04/27/09	LGRC-VSS-060	EPA 8082 (PCBs only)	
63731-9	04/27/09	LGRC-VSS-061	EPA 8082 (PCBs only)	
63731-10	04/27/09	LGRC-VSS-062	EPA 8082 (PCBs only)	
63731-11	04/28/09	LGRC-VSS-904	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 5/1/2009

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63731

Revision: Rev. 0

Re: UMASS - LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 28 April 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63731-12	04/28/09	LGRC-VSS-069	EPA 8082 (PCBs only)	
63731-13	04/28/09	LGRC-VSS-068	EPA 8082 (PCBs only)	
63731-14	04/28/09	LGRC-VSS-067	EPA 8082 (PCBs only)	
63731-15	04/28/09	LGRC-VSS-066	EPA 8082 (PCBs only)	
63731-16	04/28/09	LGRC-VSS-065	EPA 8082 (PCBs only)	
63731-17	04/28/09	LGRC-VSS-504	EPA 8082 (PCBs only)	
63731-18	04/28/09	LGRC-VSS-064	EPA 8082 (PCBs only)	
63731-19	04/28/09	LGRC-VSS-063	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 5/1/2009

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-130	70-130	EPA 8260B
Toluene-d8	70-130	70-130	
Bromofluorobenzene	70-130	70-130	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	EPA 624/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA0	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH

PCB
DATA SUMMARIES

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID: B04289PW
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/28/09
Analysis Date: 04/29/09

CLIENT SAMPLE ID

Project Name: UMASS - LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/L	Results µg/L
PCB-1016	0.2	U
PCB-1221	0.2	U
PCB-1232	0.2	U
PCB-1242	0.2	U
PCB-1248	0.2	U
PCB-1254	0.2	U
PCB-1260	0.2	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	71	%
Decachlorobiphenyl	53	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS:

PCB Report

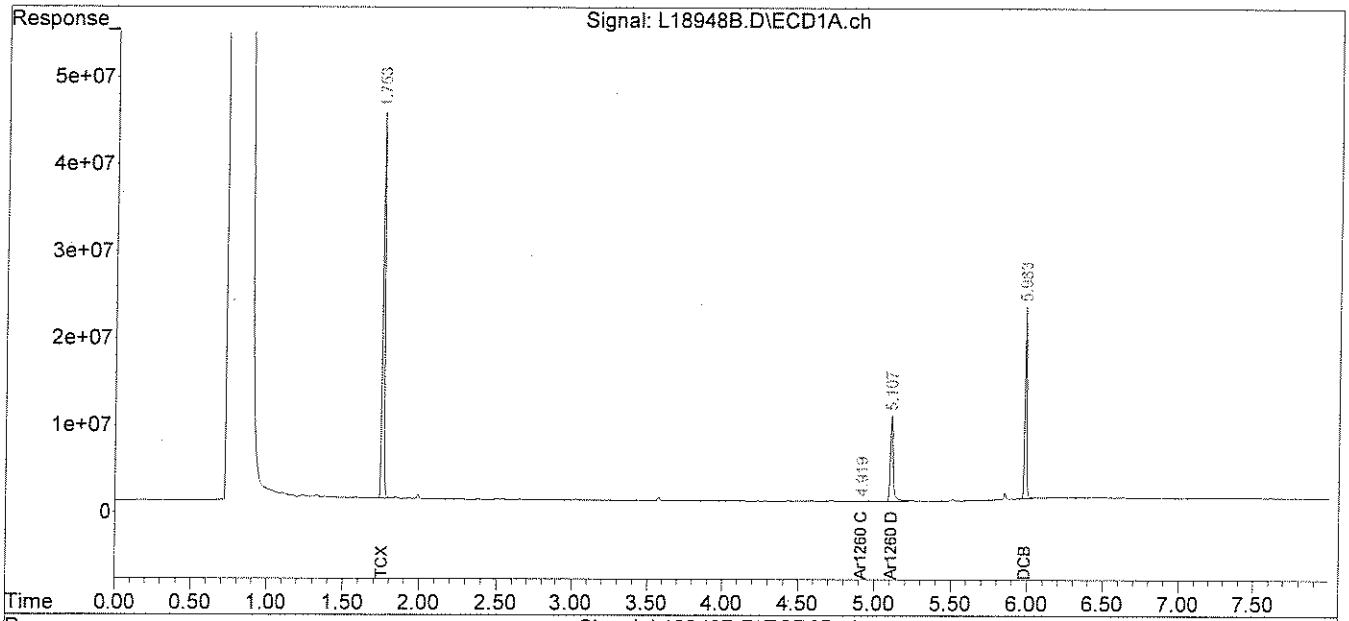
Authorized signature

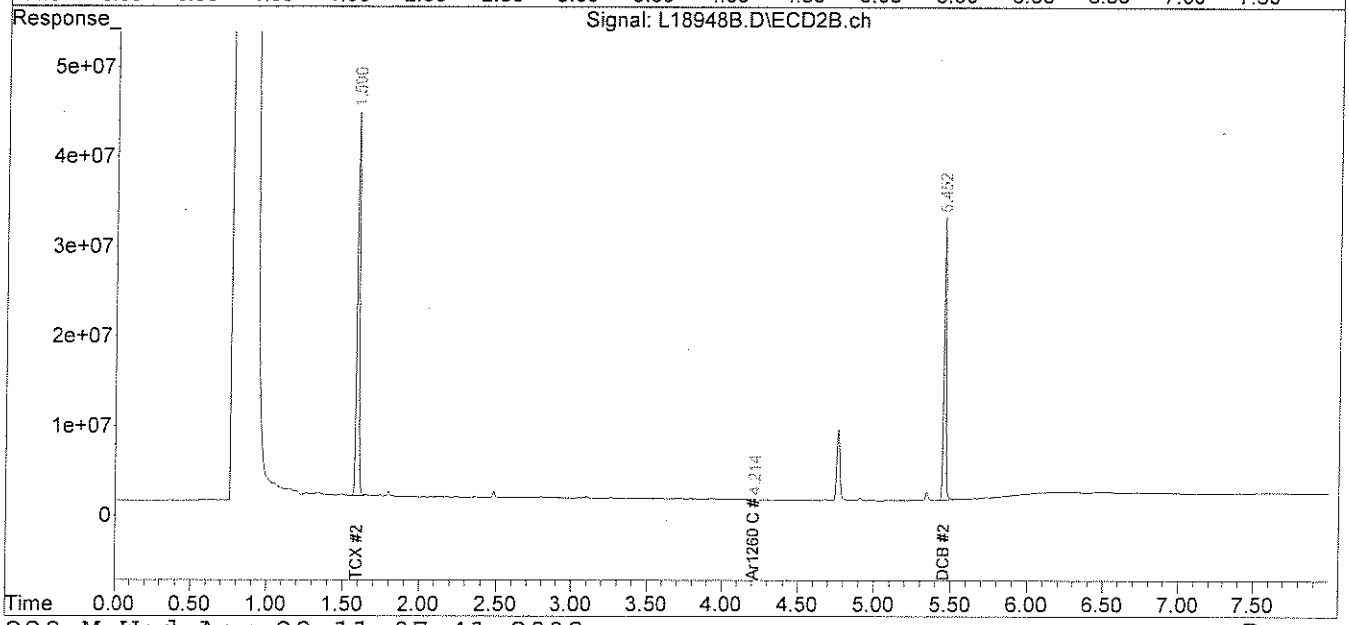
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042909-L\
Data File : L18948B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 09 9:55 am
Operator :
Sample : B04289PW
Misc :
ALS Vial : 76 Sample Multiplier: 1

Integration File signal 1: PCBINT.E
Integration File signal 2: PCBINT2.E
Quant Time: Apr 29 11:07:40 2009
Quant Method : C:\msdchem\1\METHODS\PB04229.M
Quant Title : Aroclor 1016/1260
QLast Update : Thu Apr 23 16:07:53 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 3 ul
Signal #1 Phase : DB-1701 Widebore Signal #2 Phase: DB-5 Widebore
Signal #1 Info : 0.53 mm , 1.0um f Signal #2 Info : 0.53 mm, 1.5um film





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID: B04289PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/28/09
Analysis Date: 04/29/09

CLIENT SAMPLE ID

Project Name: UMASS - LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	107	%
Decachlorobiphenyl	106	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

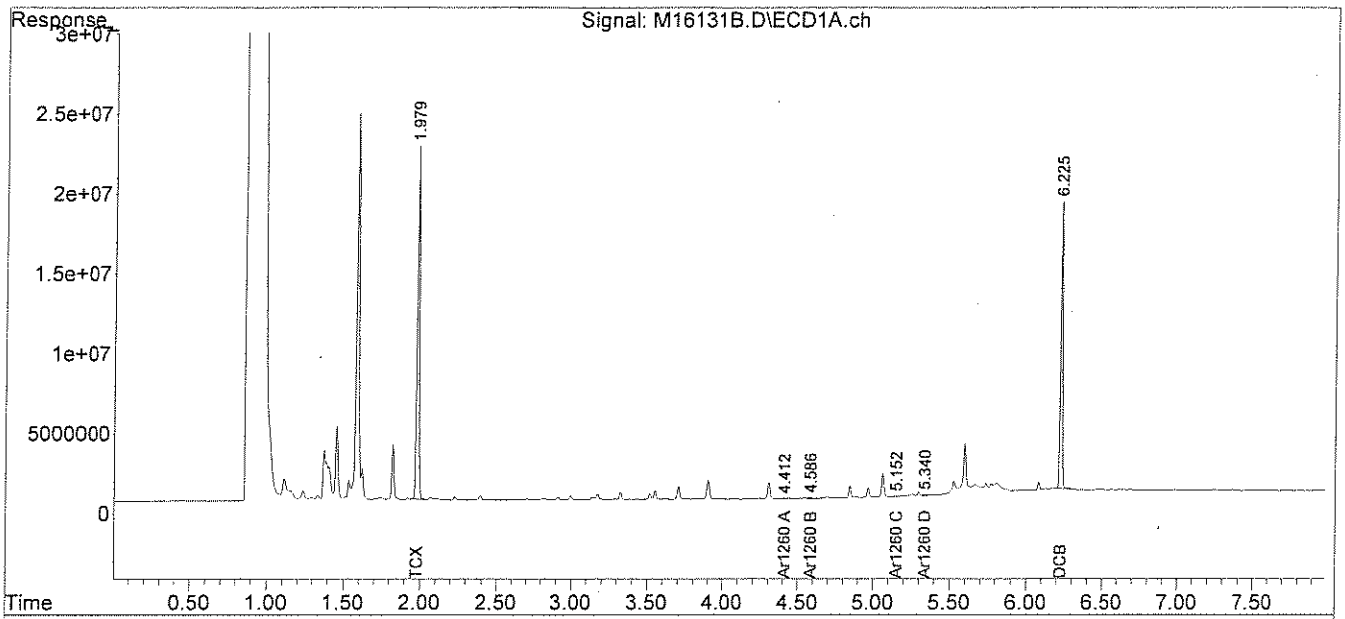
Authorized signature

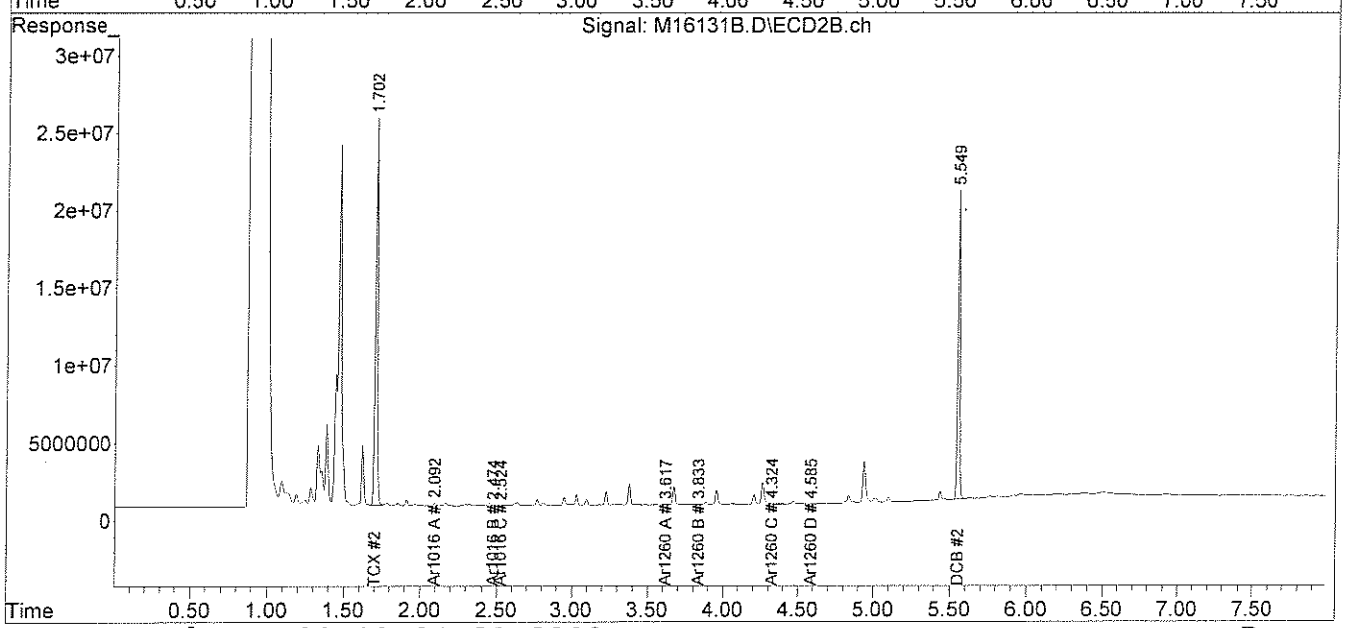
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16131B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 2009 12:53 pm
Operator :
Sample : B04289PSOX,,A/C
Misc : SOIL
ALS Vial : 75 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 13:04:21 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:46 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 1, 2009

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: UMASS - LGRC

Project Number: 210918

Field Sample ID: Lab QC

Lab Sample ID: B04289PSOX RR
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/28/09
Analysis Date: 04/29/09

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	105	%
Decachlorobiphenyl	111	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

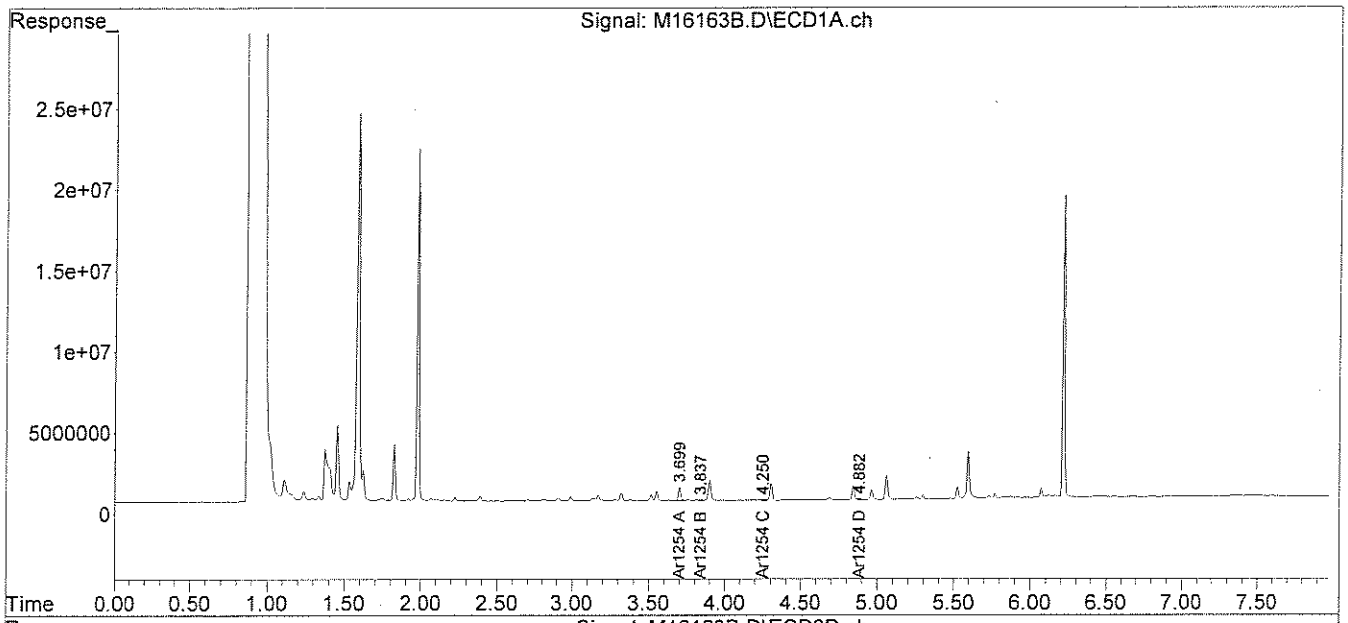
Authorized signature

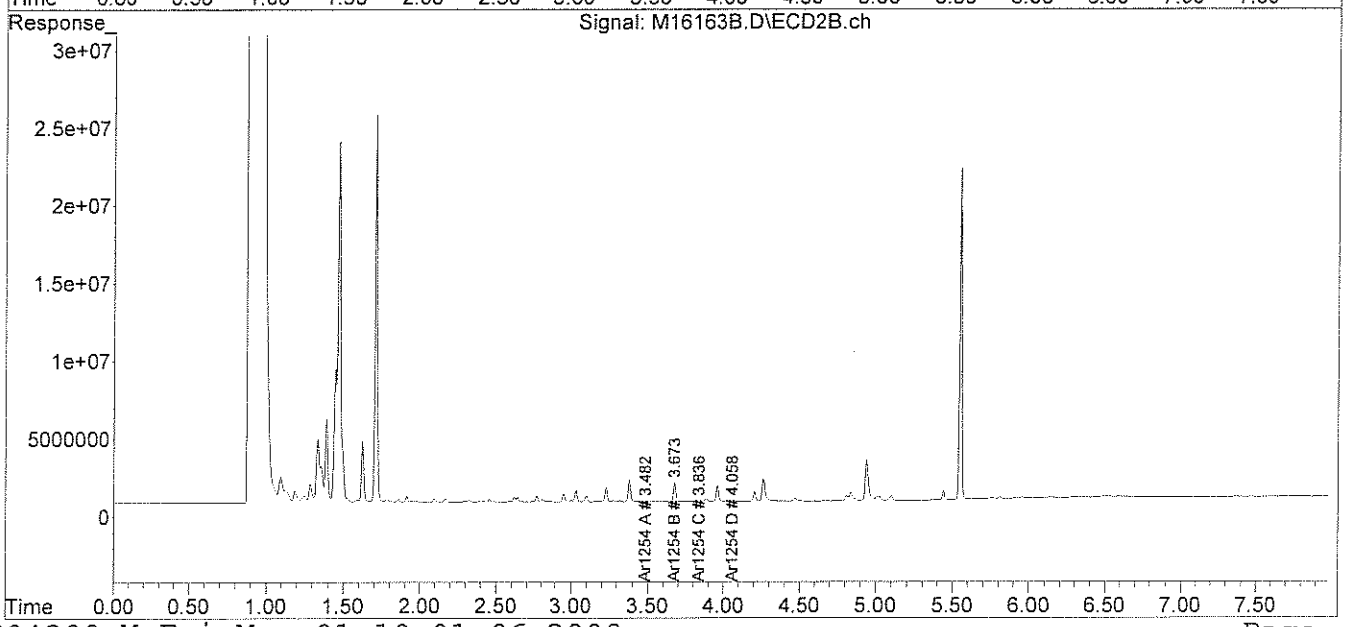
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16163B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 2009 5:20 pm
Operator :
Sample : B04289PSOX,RR,,A/C
Misc : SOIL
ALS Vial : 75 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 01 10:01:06 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 1, 2009

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: UMASS - LGRC

Project Number: 210918

Field Sample ID: Lab QC

Lab Sample ID: B04299PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/29/09
Analysis Date: 04/30/09

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	91	%
Decachlorobiphenyl	113	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

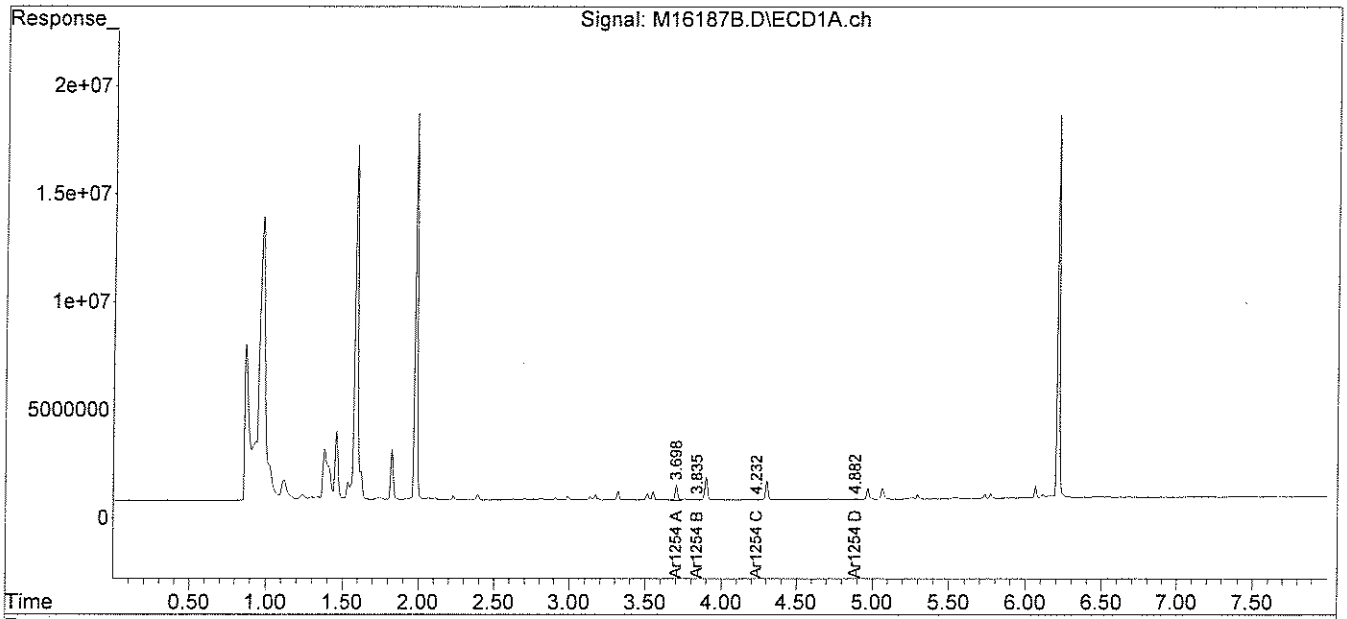
Authorized signature

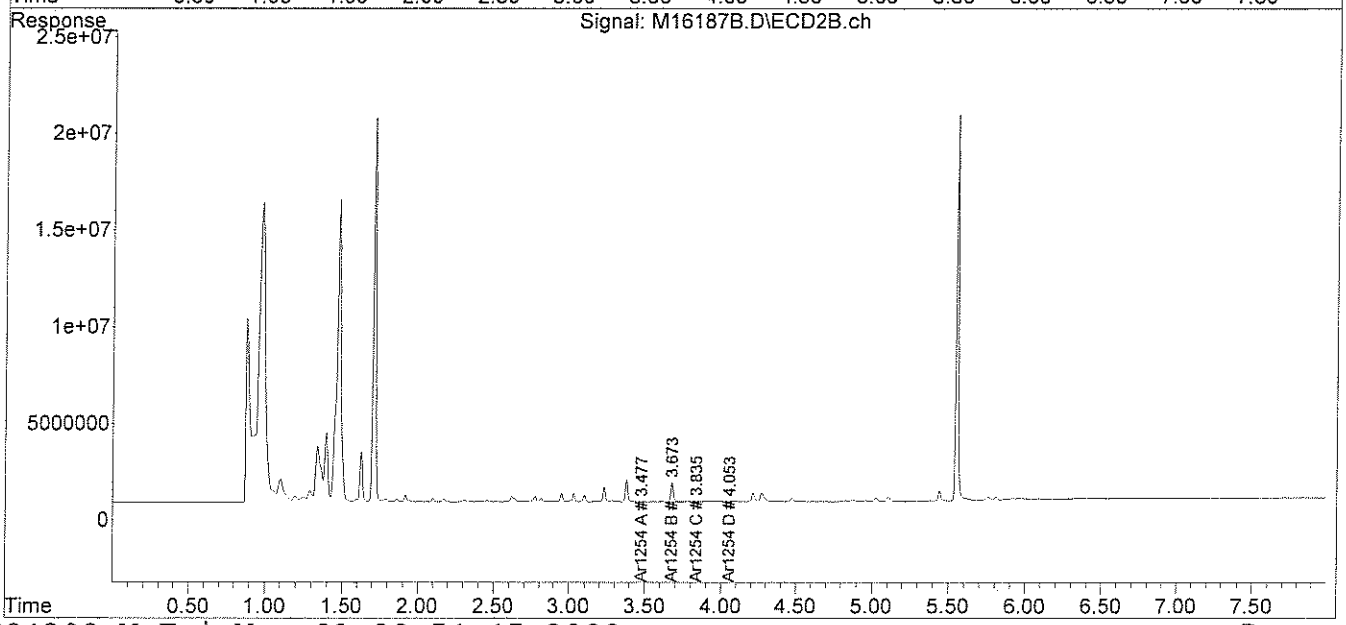
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\043009-M\
Data File : M16187B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 30 Apr 2009 7:51 pm
Operator :
Sample : B04299PSOX,,A/C
Misc : SOIL
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 01 09:54:45 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 1, 2009

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: UMASS - LGRC

Project Number: 210918

Field Sample ID: Lab QC

Lab Sample ID: B04299PSOX RR
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/29/09
Analysis Date: 05/01/09

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	84	%
Decachlorobiphenyl	99	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

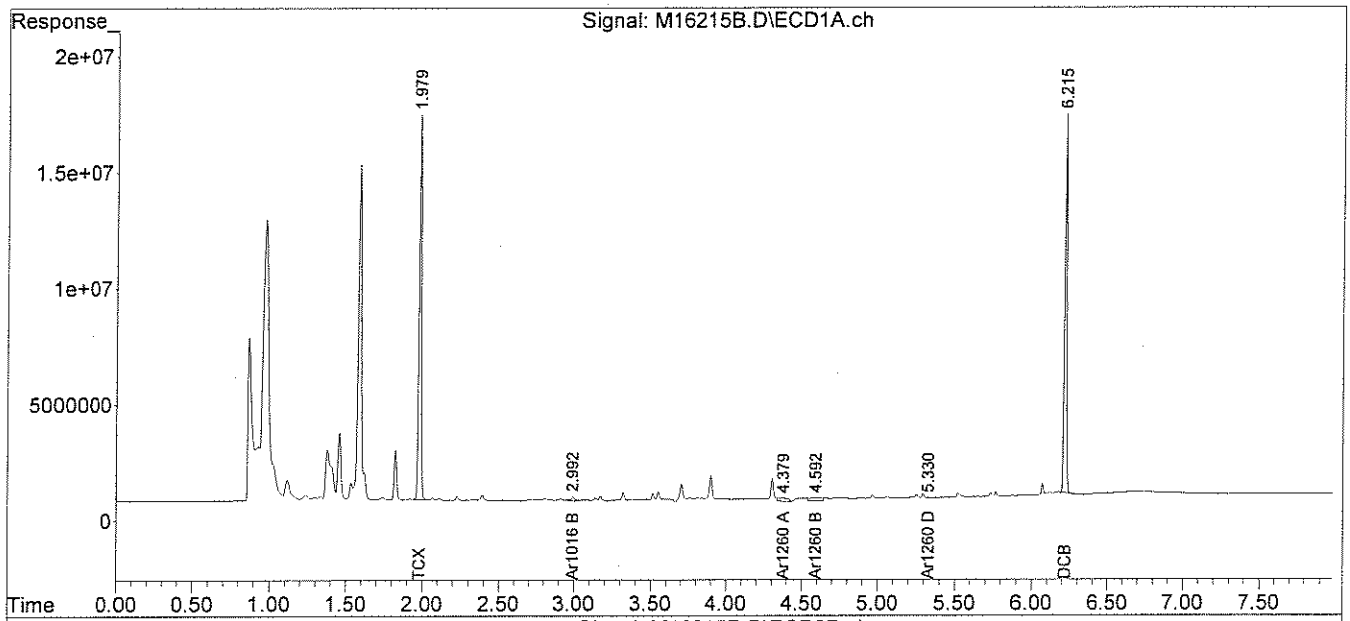
Authorized signature

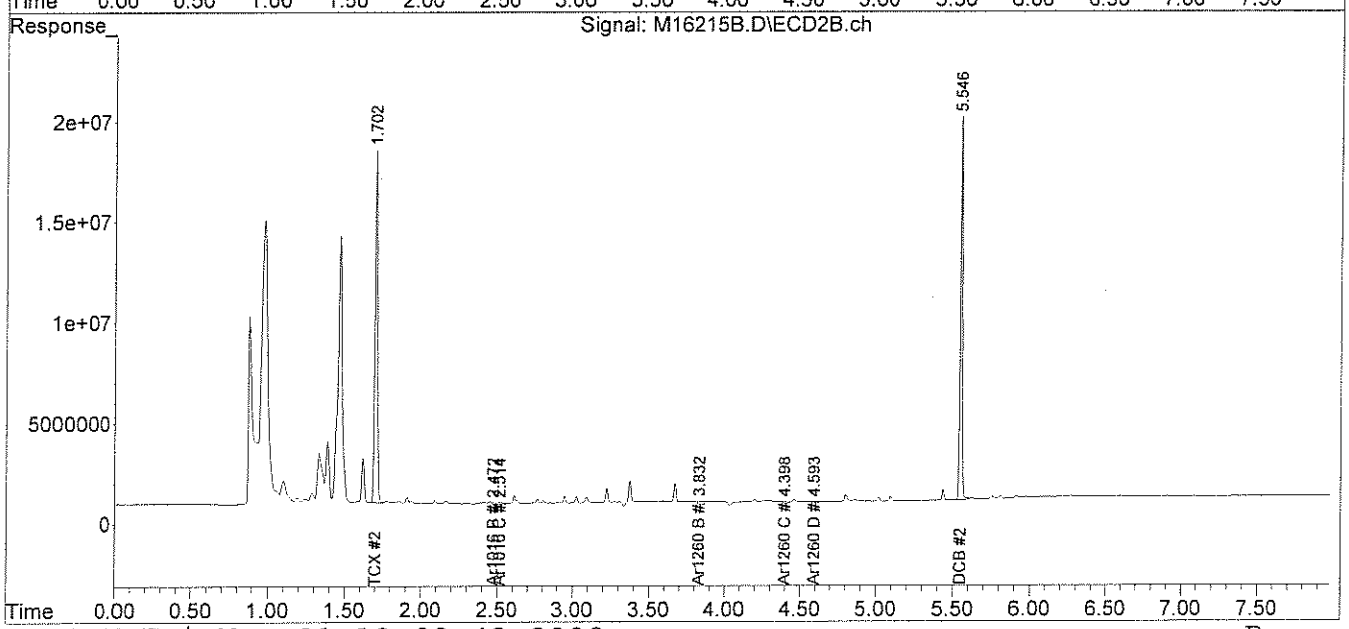
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050109-M\
Data File : M16215B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 1 May 2009 10:58 am
Operator :
Sample : B04299PSOX,RR,,A/C
Misc : SOIL
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 01 12:02:43 2009
Quant Method : C:\msdchem\1\METHODS\PCB04309.M
Quant Title : Aroclor 1016/1260
QLast Update : Fri May 01 08:55:37 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63731-1
Matrix:	Solid
Percent Solid:	86
Dilution Factor:	23
Collection Date:	04/27/09
Lab Receipt Date:	04/28/09
Extraction Date:	04/28/09
Analysis Date:	04/29/09

CLIENT SAMPLE ID

Project Name:	UMASS - LGRC
Project Number:	210918
Field Sample ID:	LGRC-SS50-134

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	760	U
PCB-1221	760	U
PCB-1232	760	U
PCB-1242	760	U
PCB-1248	760	U
PCB-1254	760	**16100**
PCB-1260	760	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	*	%
Decachlorobiphenyl	*	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.* The surrogates were diluted out.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63731
Sample: 63731-1,1:20,,A/C
Data File: M16146.D
Dilution Factor: 22.6

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	12682	16108	23.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

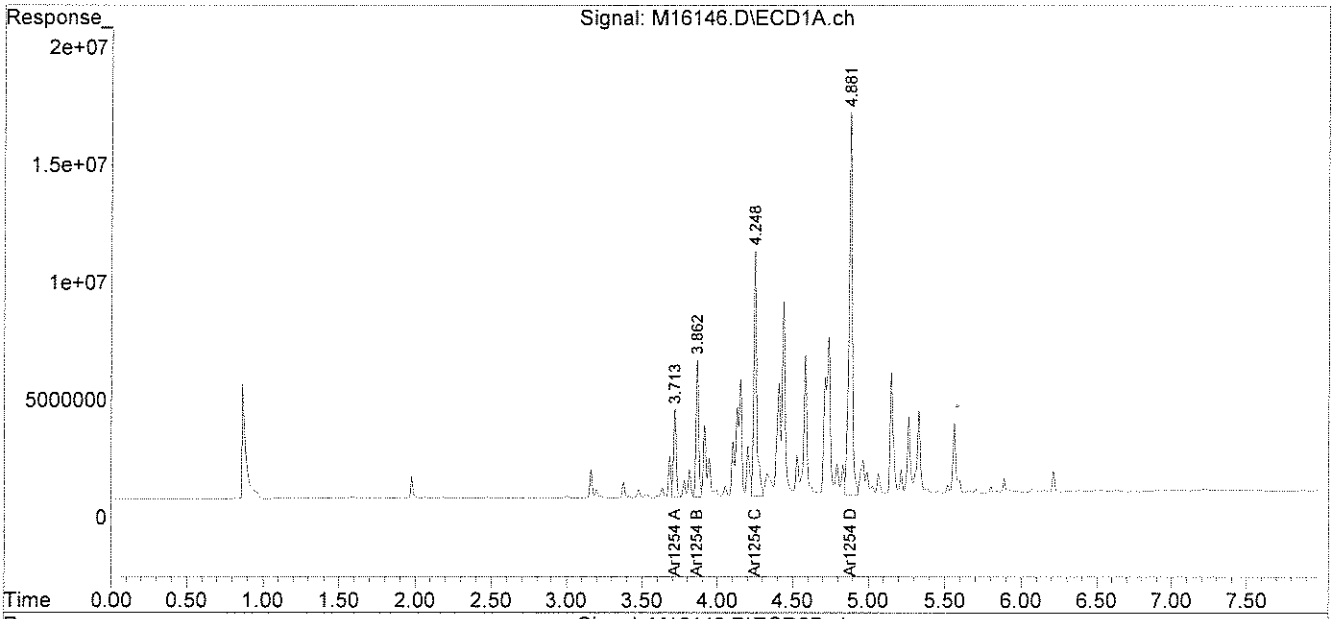
PCB FORM 10

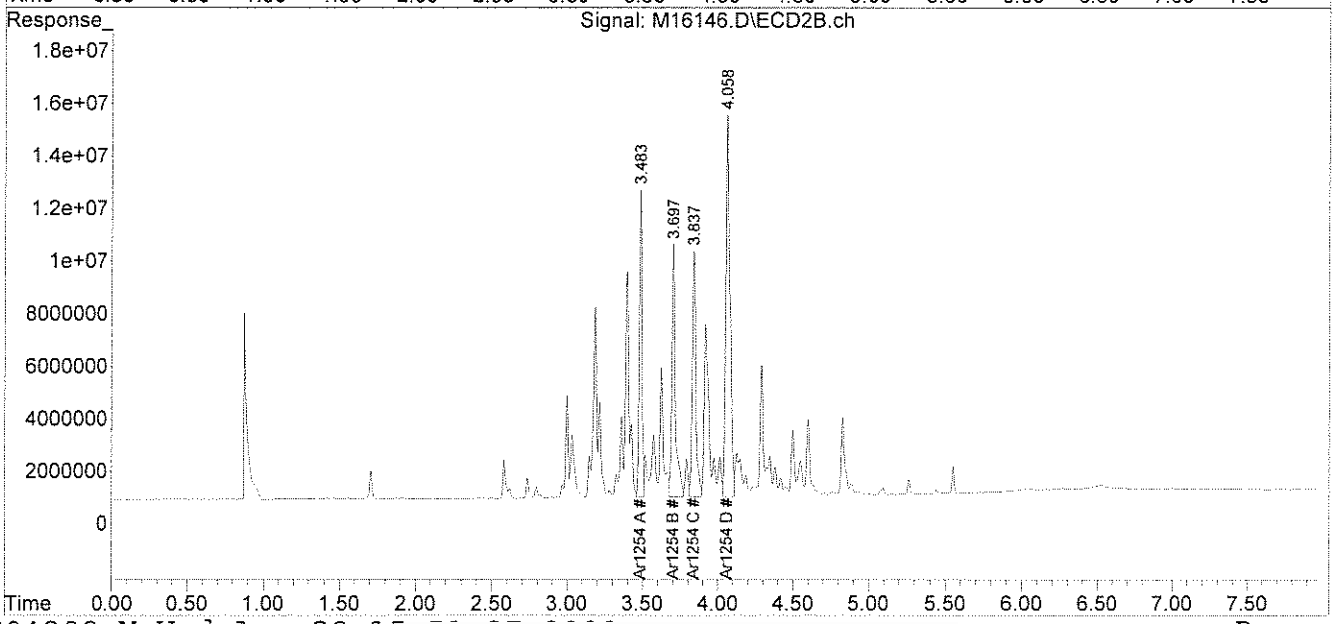
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16146.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 2009 3:42 pm
Operator :
Sample : 63731-1,1:20,,A/C
Misc : SOIL
ALS Vial : 90 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 15:51:27 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63731-2
Matrix:	Solid
Percent Solid:	88
Dilution Factor:	21
Collection Date:	04/27/09
Lab Receipt Date:	04/28/09
Extraction Date:	04/28/09
Analysis Date:	04/29/09

CLIENT SAMPLE ID

Project Name:	UMASS - LGRC
Project Number:	210918
Field Sample ID:	LGRC-SS49-133

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	690	U
PCB-1221	690	U
PCB-1232	690	U
PCB-1242	690	U
PCB-1248	690	U
PCB-1254	690	**15700**
PCB-1260	690	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	*	%
Decachlorobiphenyl	*	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.* The surrogates were diluted out.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63731
Sample: 63731-2,1:20,,A/C
Data File: M16147.D
Dilution Factor: 21.2

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	11877	15684	27.6	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

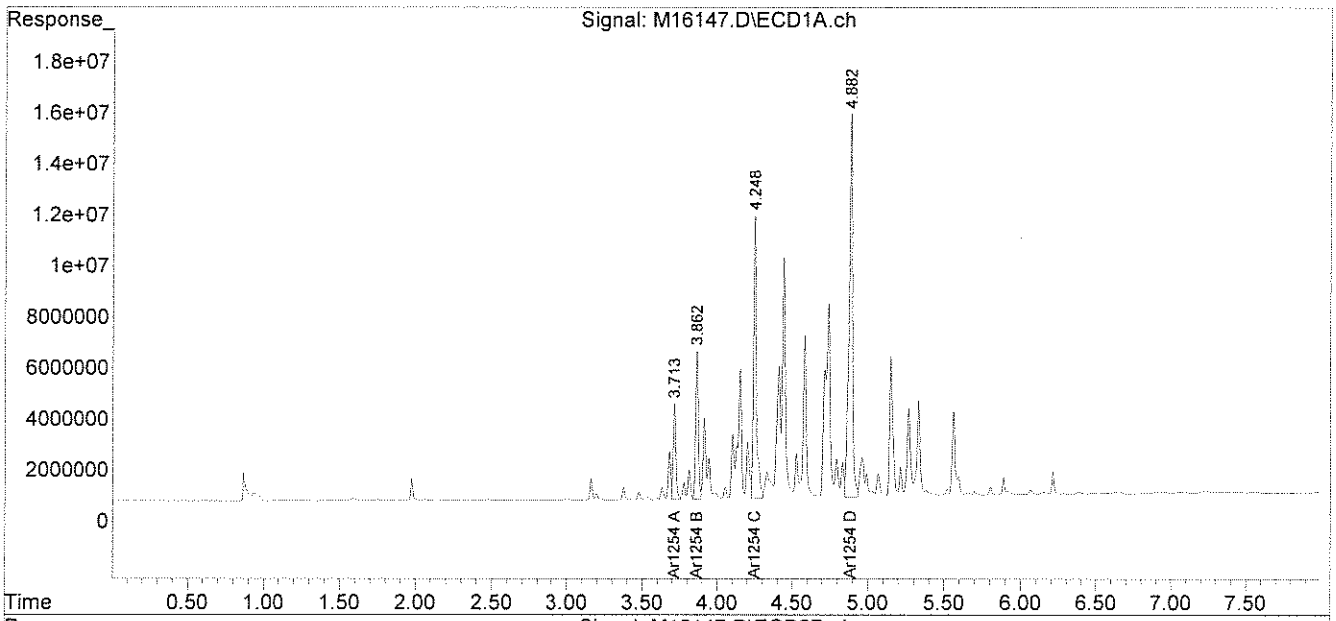
PCB FORM 10

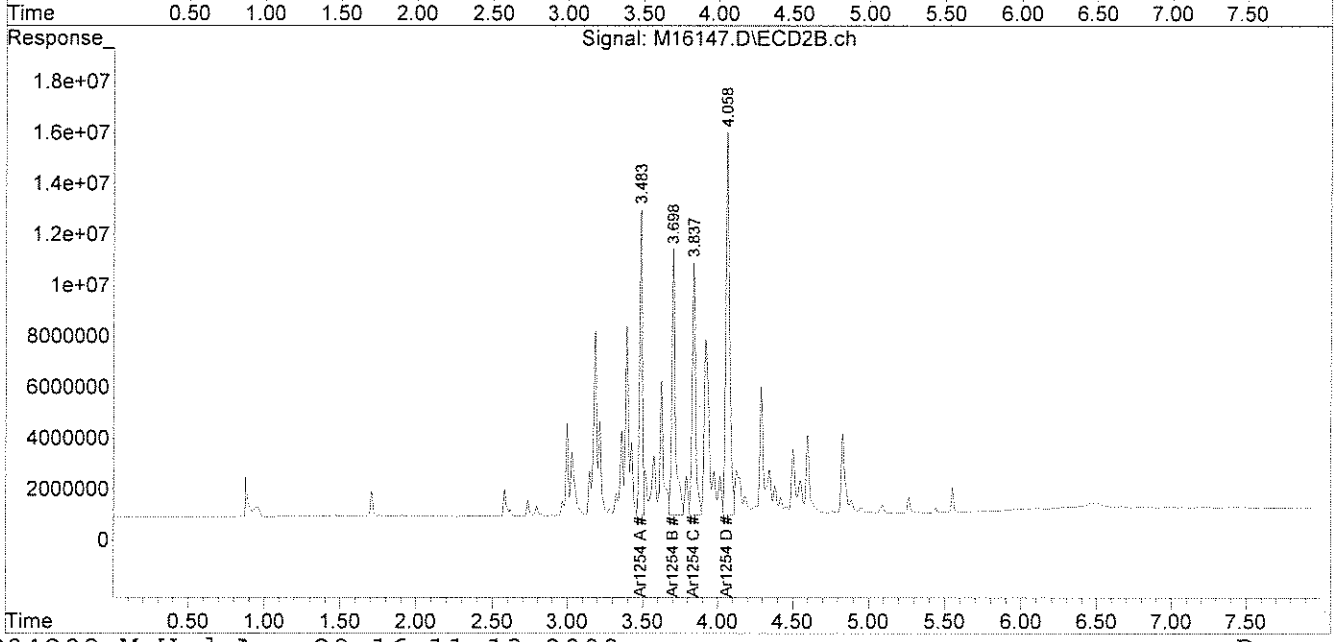
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16147.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 2009 3:52 pm
Operator :
Sample : 63731-2,1:20,,A/C
Misc : SOIL
ALS Vial : 91 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 16:11:13 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63731-3
Matrix:	Solid
Percent Solid:	84
Dilution Factor:	24
Collection Date:	04/27/09
Lab Receipt Date:	04/28/09
Extraction Date:	04/28/09
Analysis Date:	04/29/09

CLIENT SAMPLE ID

Project Name:	UMASS - LGRC
Project Number:	210918
Field Sample ID:	LGRC-SS48-132

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	790	U
PCB-1221	790	U
PCB-1232	790	U
PCB-1242	790	U
PCB-1248	790	U
PCB-1254	790	**10700**
PCB-1260	790	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	*	%
Decachlorobiphenyl	*	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.* The surrogates were diluted out.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63731

Sample: 63731-3,1:20,,A/C

Data File: M16148.D

Dilution Factor: 23.6

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	8281	10709	25.6	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

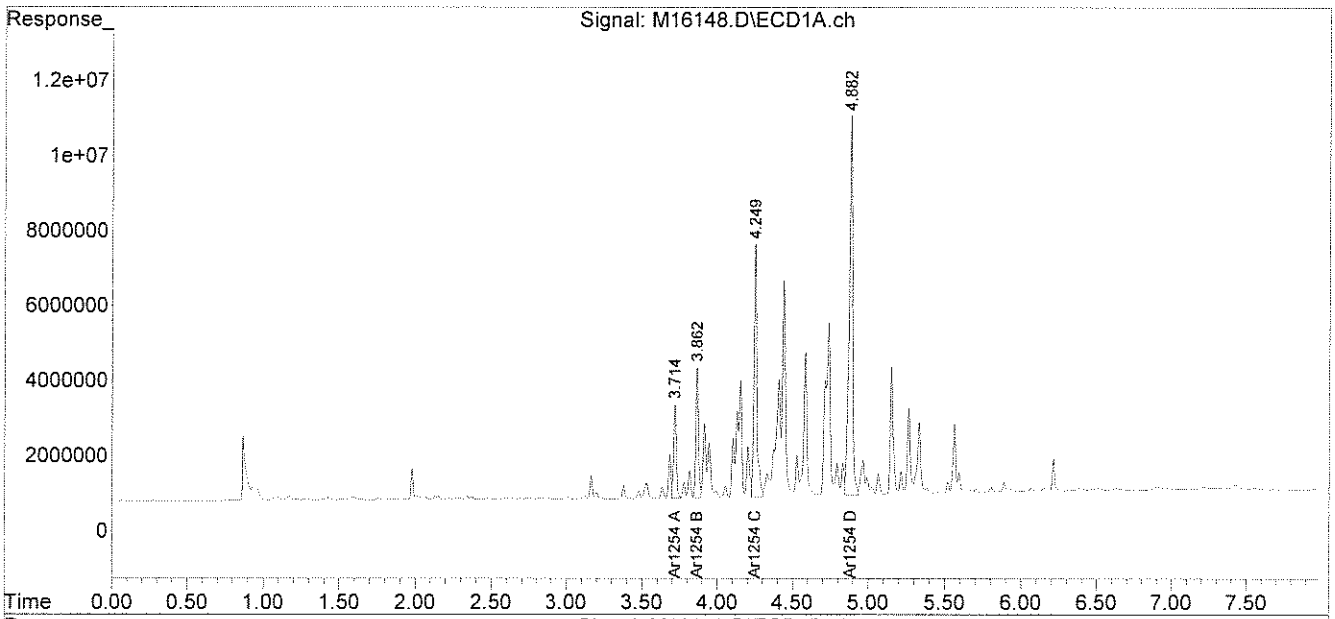
PCB FORM 10

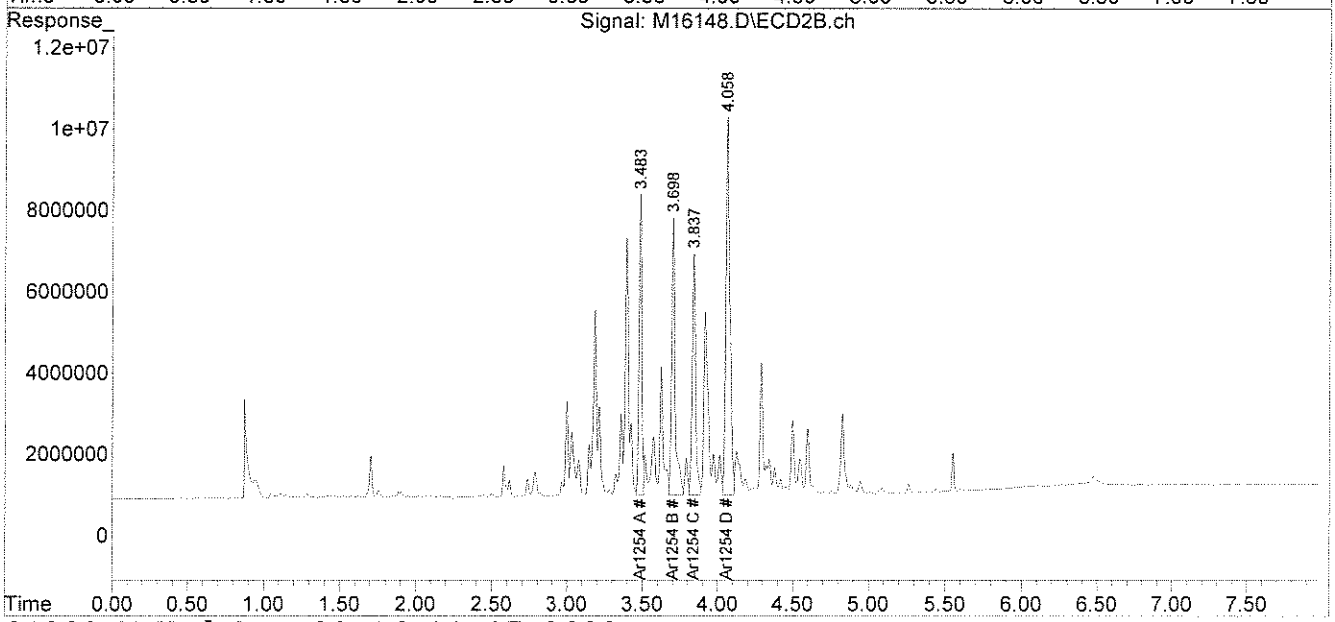
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16148.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 2009 4:02 pm
Operator :
Sample : 63731-3,1:20,,A/C
Misc : SOIL
ALS Vial : 92 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 16:11:16 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID:	63731-4
Matrix:	Solid
Percent Solid:	85
Dilution Factor:	110
Collection Date:	04/27/09
Lab Receipt Date:	04/28/09
Extraction Date:	04/28/09
Analysis Date:	04/29/09

CLIENT SAMPLE ID

Project Name:	UMASS - LGRC
Project Number:	210918
Field Sample ID:	LGRC-SS47-131

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	3630	U
PCB-1221	3630	U
PCB-1232	3630	U
PCB-1242	3630	U
PCB-1248	3630	U
PCB-1254	3630	**51900**
PCB-1260	3630	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	*	%
Decachlorobiphenyl	*	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.* The surrogates were diluted out.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63731
Sample: 63731-4,1:100,,A/C
Data File: M16149.D
Dilution Factor: 110.4

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	40321	51896	25.1	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

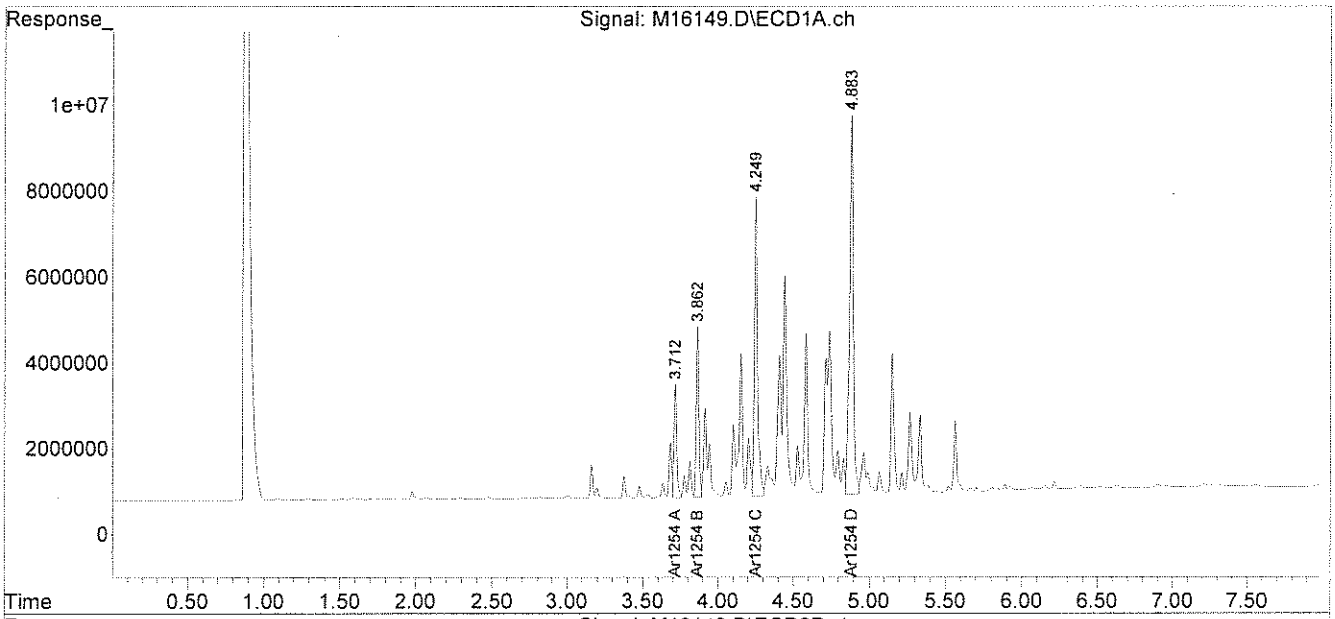
PCB FORM 10

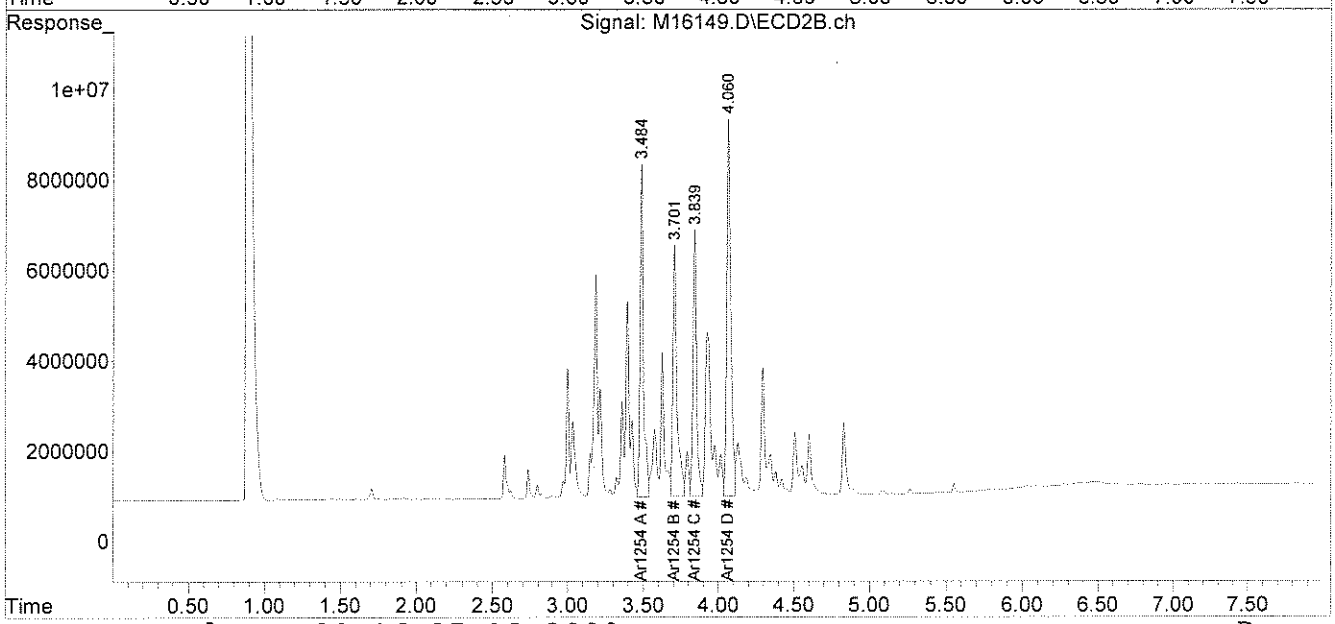
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16149.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 2009 4:12 pm
Operator :
Sample : 63731-4,1:100,,A/C
Misc : SOIL
ALS Vial : 93 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 29 16:25:06 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 1, 2009

SAMPLE DATA

Lab Sample ID:	63731-5
Matrix:	Solid
Percent Solid:	90
Dilution Factor:	1.1
Collection Date:	04/27/09
Lab Receipt Date:	04/28/09
Extraction Date:	04/28/09
Analysis Date:	04/29/09

CLIENT SAMPLE ID

Project Name:	UMASS - LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-057

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**239**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	99	%
Decachlorobiphenyl	98	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63731
Sample: 63731-5,,A/C
Data File: M16152.D
Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	235	239	1.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

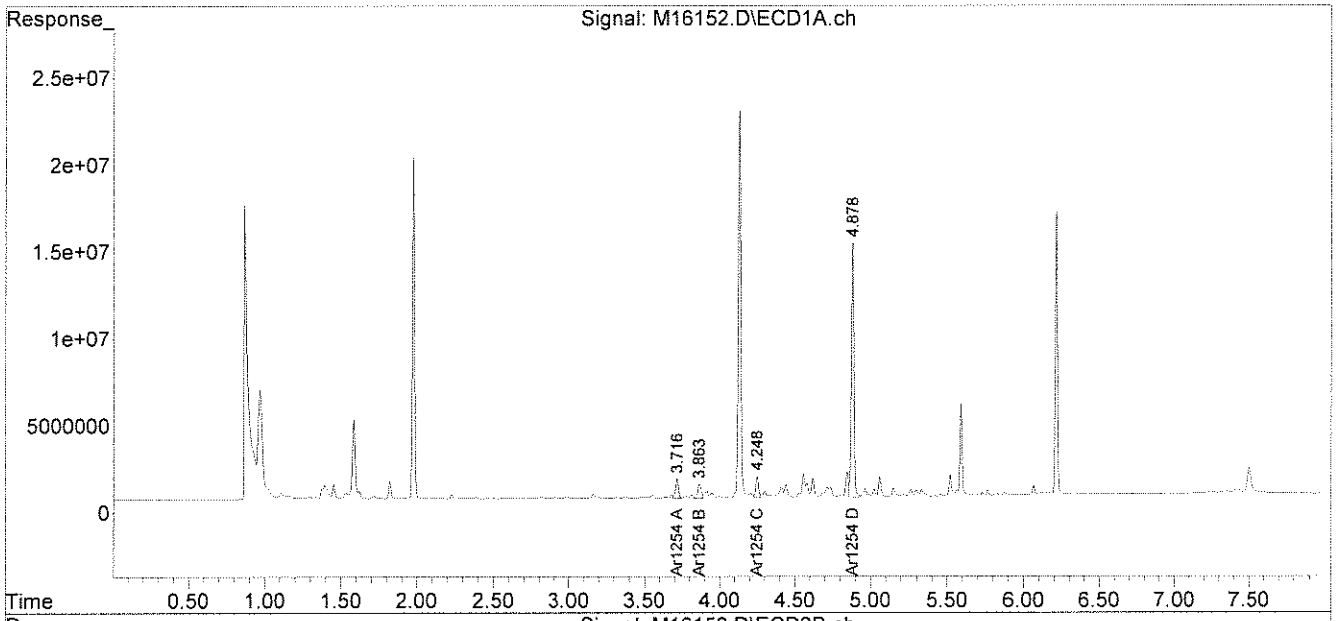
PCB FORM 10

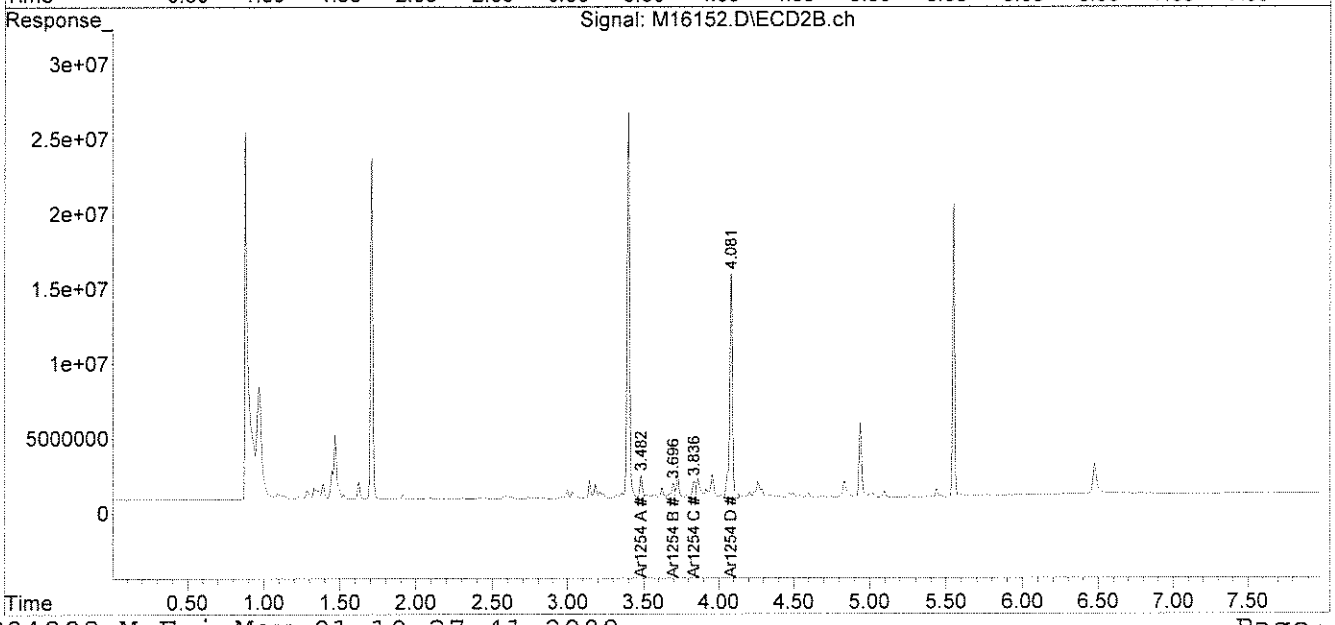
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16152.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 2009 5:30 pm
Operator :
Sample : 63731-5,,A/C
Misc : SOIL
ALS Vial : 1 Sample Multiplier: 1

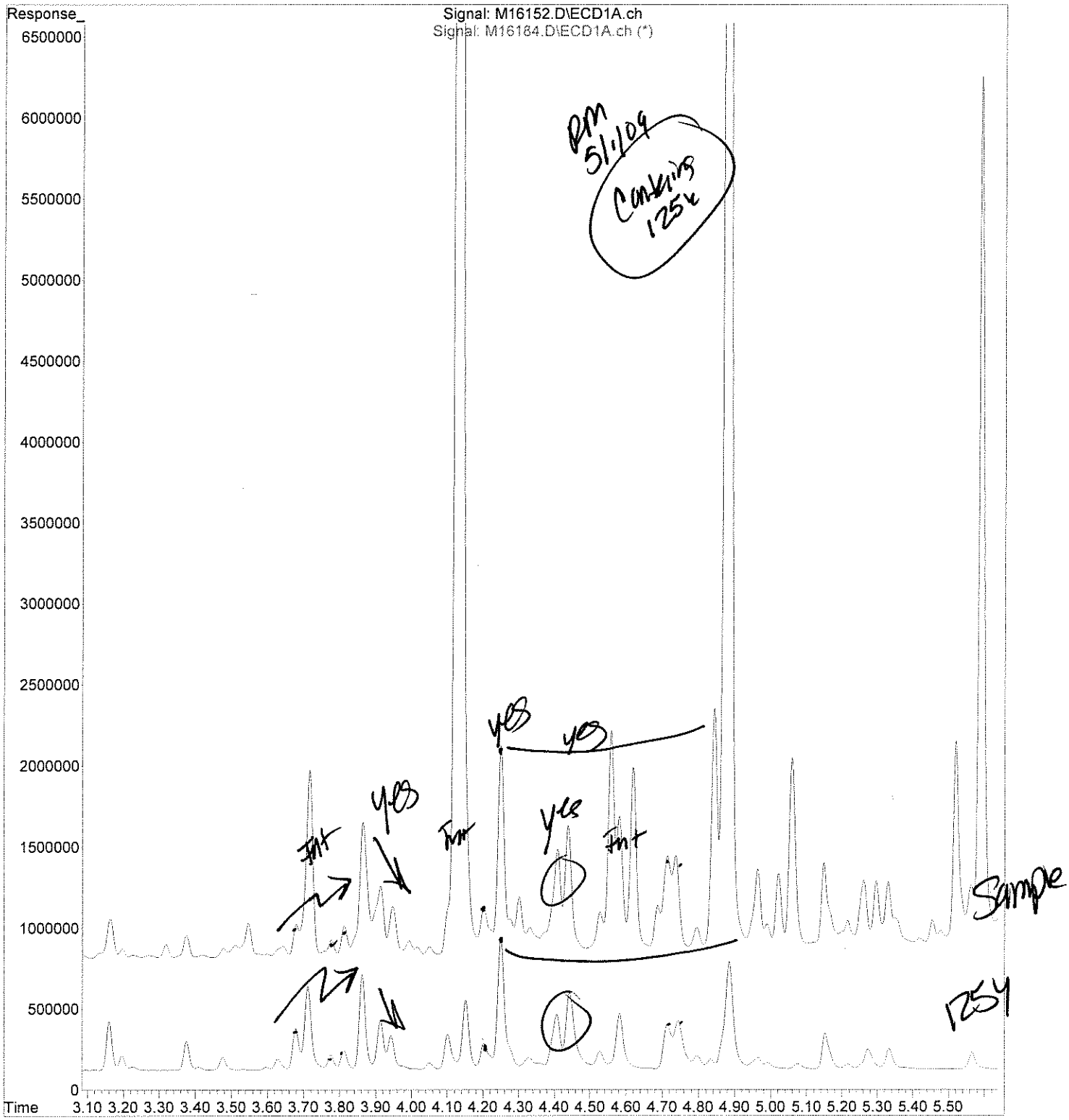
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 01 10:27:41 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\042709-M\M16152.D
Operator :
Acquired : 29 Apr 2009 5:30 pm using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63731-5,,A/C
Misc Info : SOIL
Vial Number: 1



 5-107

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 1, 2009

SAMPLE DATA

Lab Sample ID:	63731-6
Matrix:	Solid
Percent Solid:	91
Dilution Factor:	5.0
Collection Date:	04/27/09
Lab Receipt Date:	04/28/09
Extraction Date:	04/28/09
Analysis Date:	05/01/09

CLIENT SAMPLE ID

Project Name:	UMASS - LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-058

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	170	U
PCB-1221	170	U
PCB-1232	170	U
PCB-1242	170	U
PCB-1248	170	U
PCB-1254	170	**1830**
PCB-1260	170	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	80	%
Decachlorobiphenyl	95	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63731
Sample: 63731-6,1:5,,A/C
Data File: M16219.D
Dilution Factor: 5.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	1814	1831	0.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

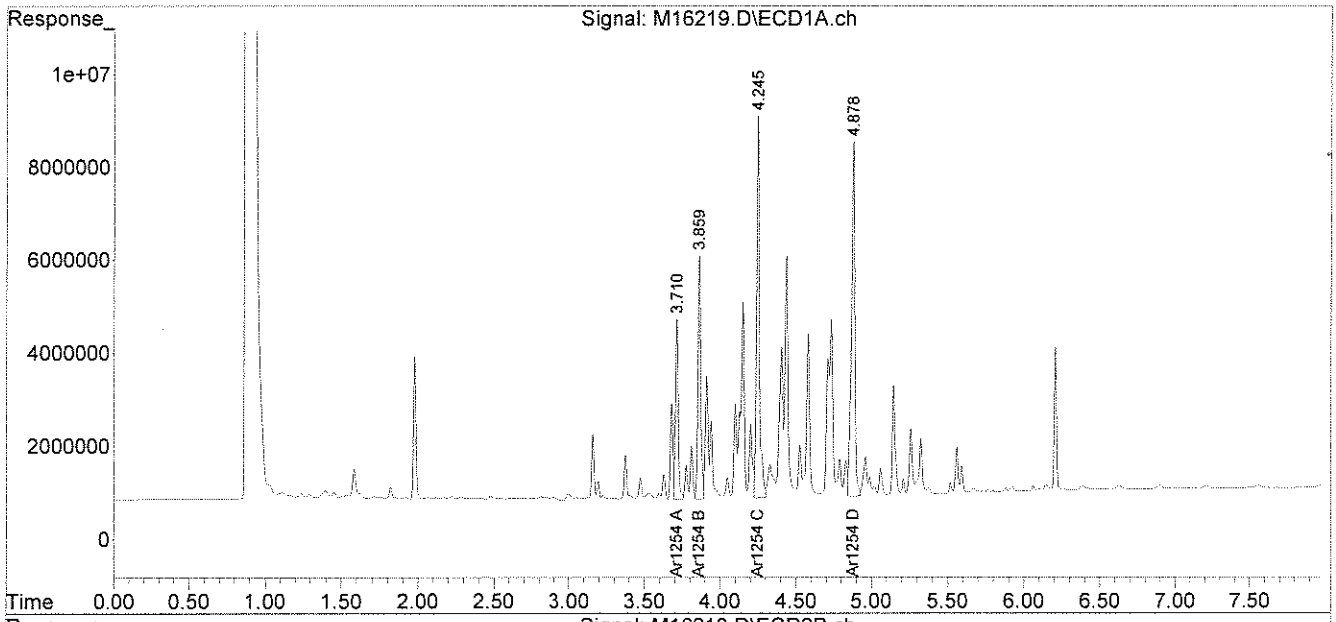
PCB FORM 10

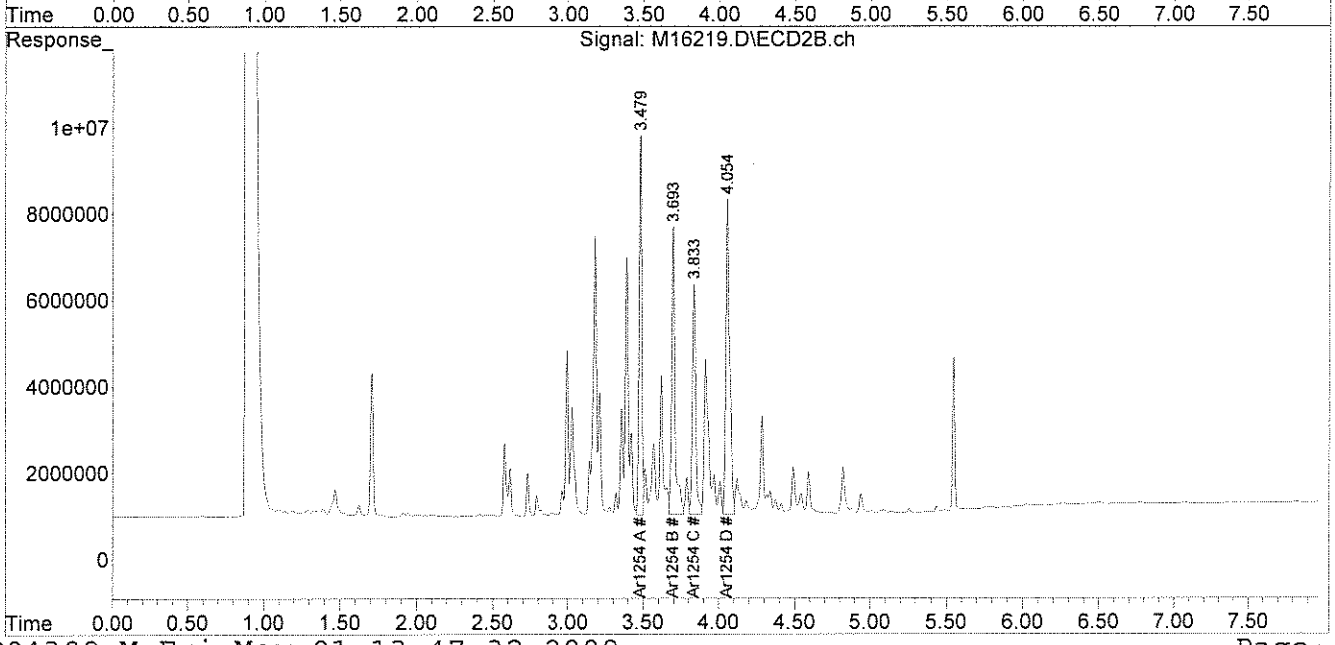
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050109-M\
Data File : M16219.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 1 May 2009 11:38 am
Operator :
Sample : 63731-6,1:5,,A/C
Misc : SOIL
ALS Vial : 50 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 01 13:47:32 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 1, 2009

SAMPLE DATA

Lab Sample ID:	63731-7
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	1.0
Collection Date:	04/27/09
Lab Receipt Date:	04/28/09
Extraction Date:	04/28/09
Analysis Date:	04/29/09

CLIENT SAMPLE ID

Project Name:	UMASS - LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-059

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	**52**

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	94	%
Decachlorobiphenyl	95	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63731
Sample: 63731-7,,A/C
Data File: M16154.D
Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1260	52	49	5.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

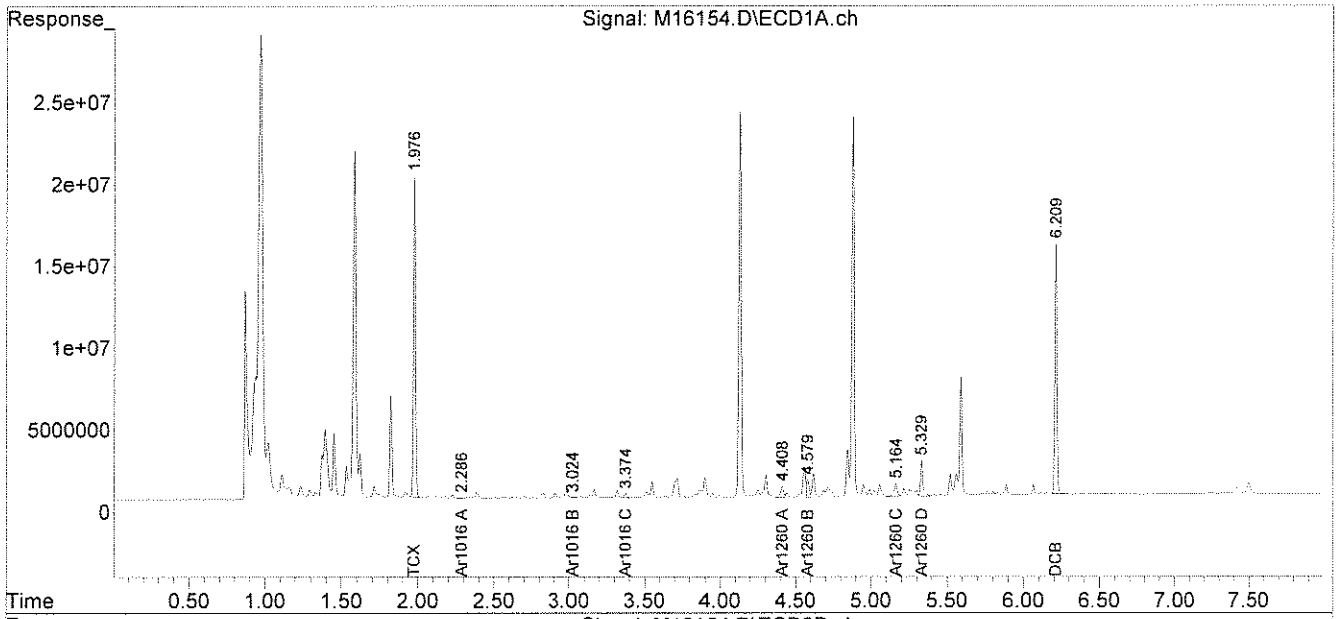
PCB FORM 10

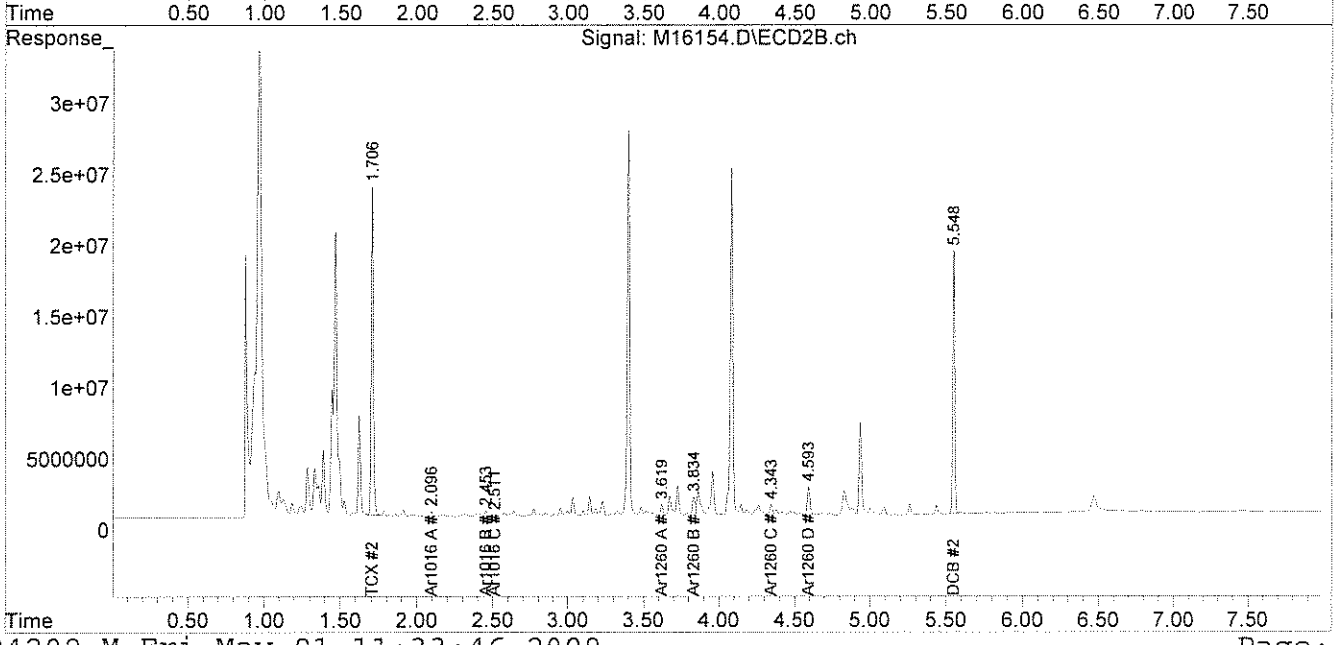
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16154.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 2009 5:50 pm
Operator :
Sample : 63731-7,,A/C
Misc : SOIL
ALS Vial : 3 Sample Multiplier: 1

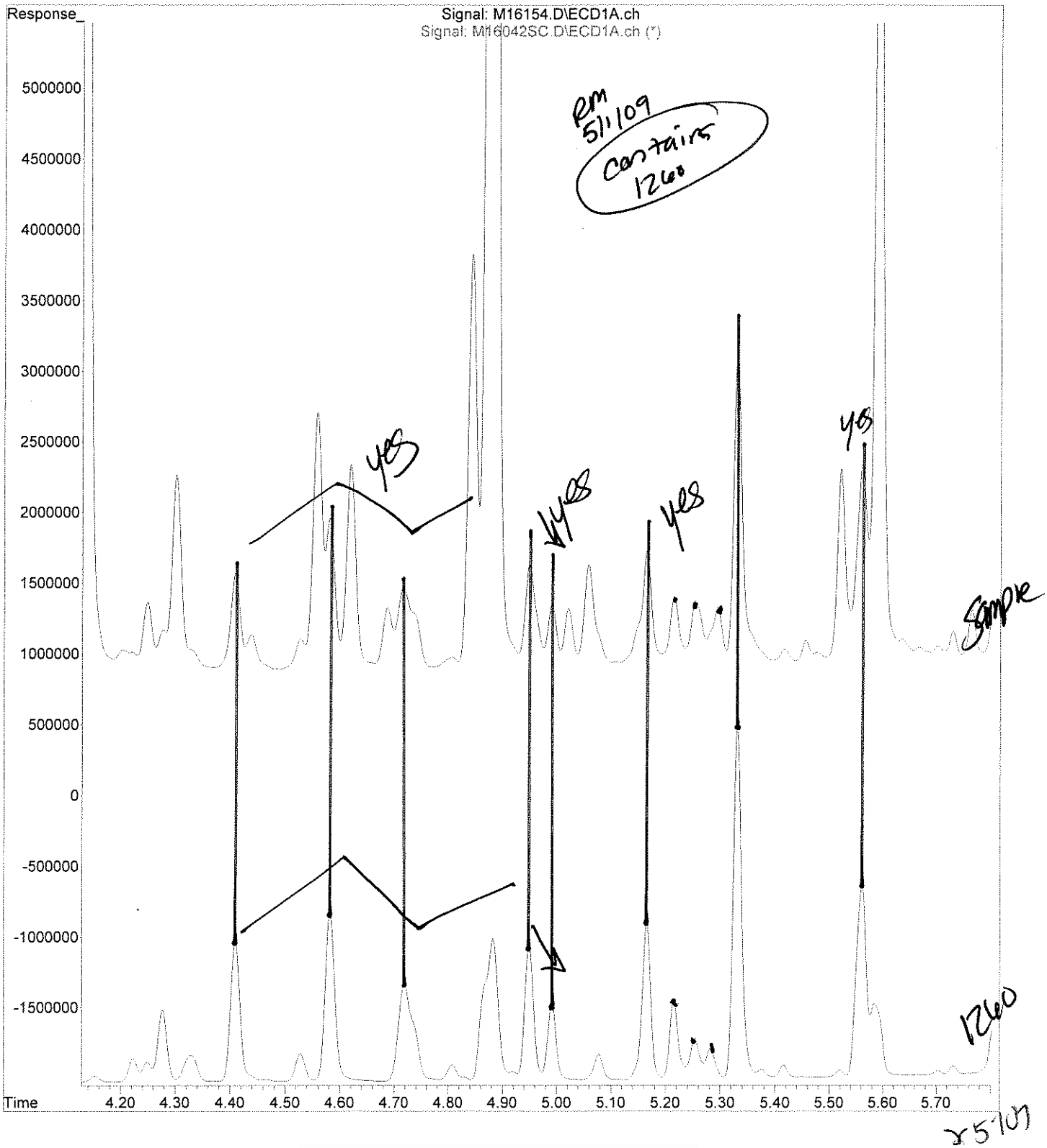
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 01 11:33:35 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:38 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\042709-M\M16154.D
Operator :
Acquired : 29 Apr 2009 5:50 pm using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63731-7,,A/C
Misc Info : SOIL
Vial Number: 3



analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 1, 2009

SAMPLE DATA

Lab Sample ID:	63731-8
Matrix:	Solid
Percent Solid:	90
Dilution Factor:	1.1
Collection Date:	04/27/09
Lab Receipt Date:	04/28/09
Extraction Date:	04/28/09
Analysis Date:	04/29/09

CLIENT SAMPLE ID

Project Name:	UMASS - LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-060

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**897**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	96	%
Decachlorobiphenyl	93	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63731
Sample: 63731-8,,A/C
Data File: M16155.D
Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	733	897	20.1	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

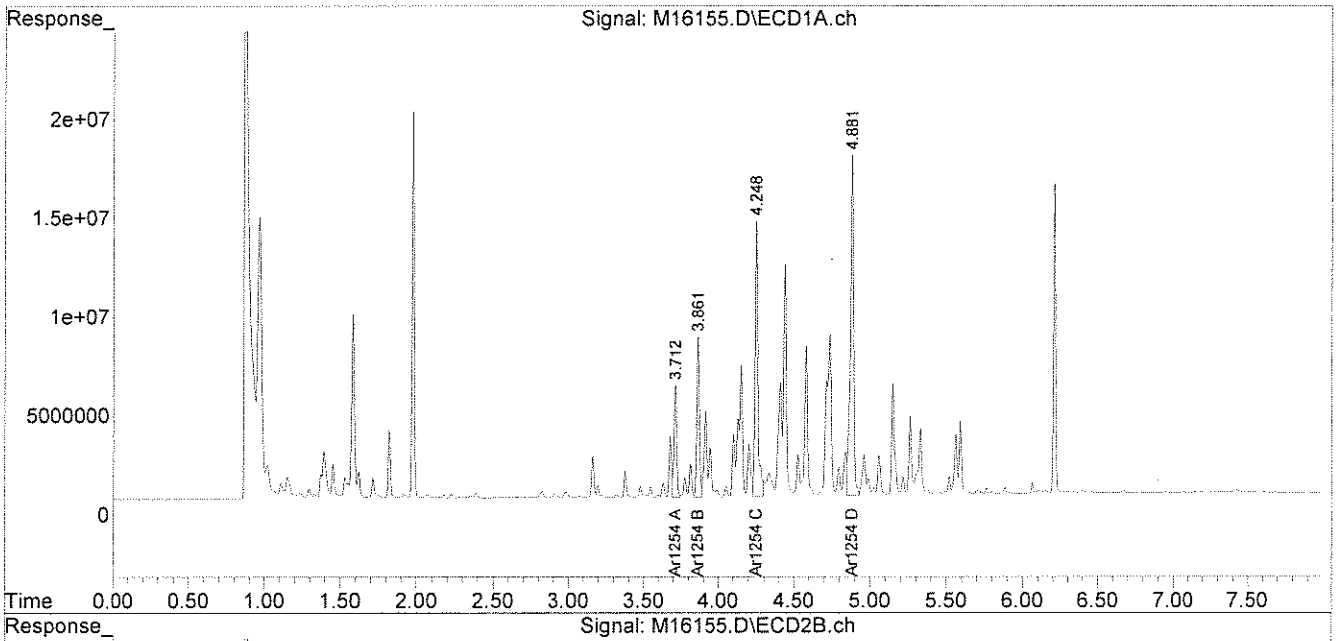
PCB FORM 10

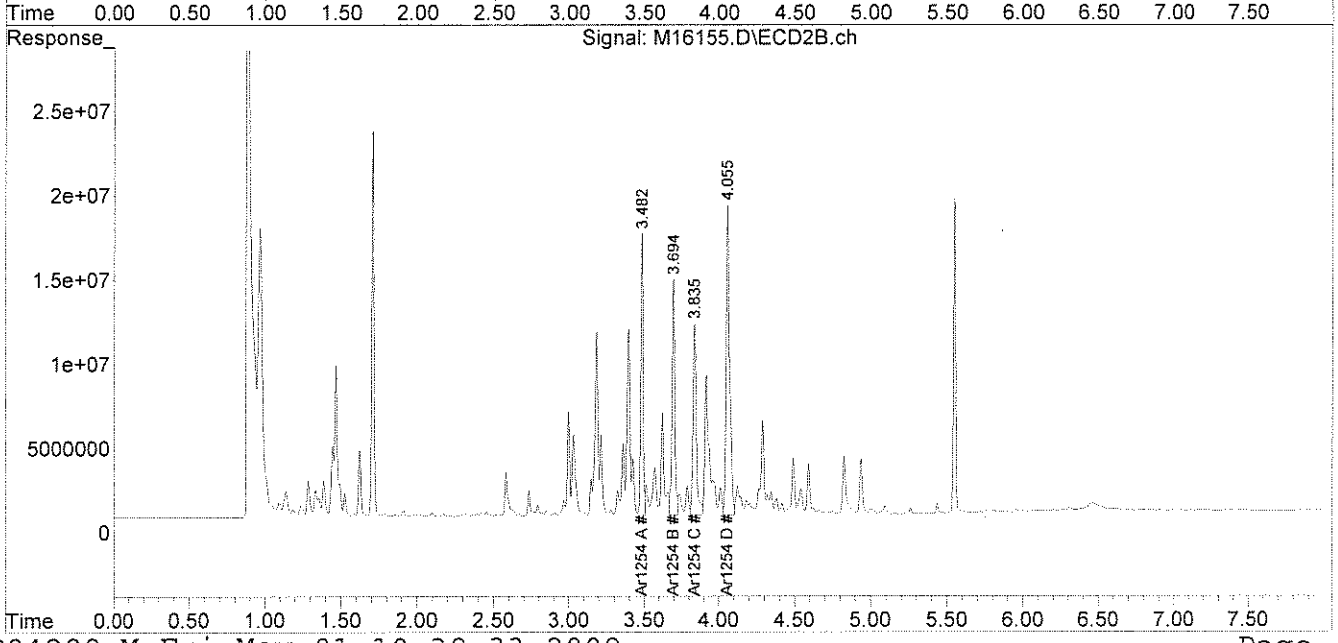
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16155.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 2009 6:00 pm
Operator :
Sample : 63731-8,,A/C
Misc : SOIL
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 01 10:39:26 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 1, 2009

SAMPLE DATA

Lab Sample ID:	63731-9
Matrix:	Solid
Percent Solid:	96
Dilution Factor:	1.0
Collection Date:	04/27/09
Lab Receipt Date:	04/28/09
Extraction Date:	04/28/09
Analysis Date:	04/29/09

CLIENT SAMPLE ID

Project Name:	UMASS - LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-061

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**96**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	96	%
Decachlorobiphenyl	103	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63731

Sample: 63731-9,,A/C

Data File: M16156.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	96	93	3.6	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

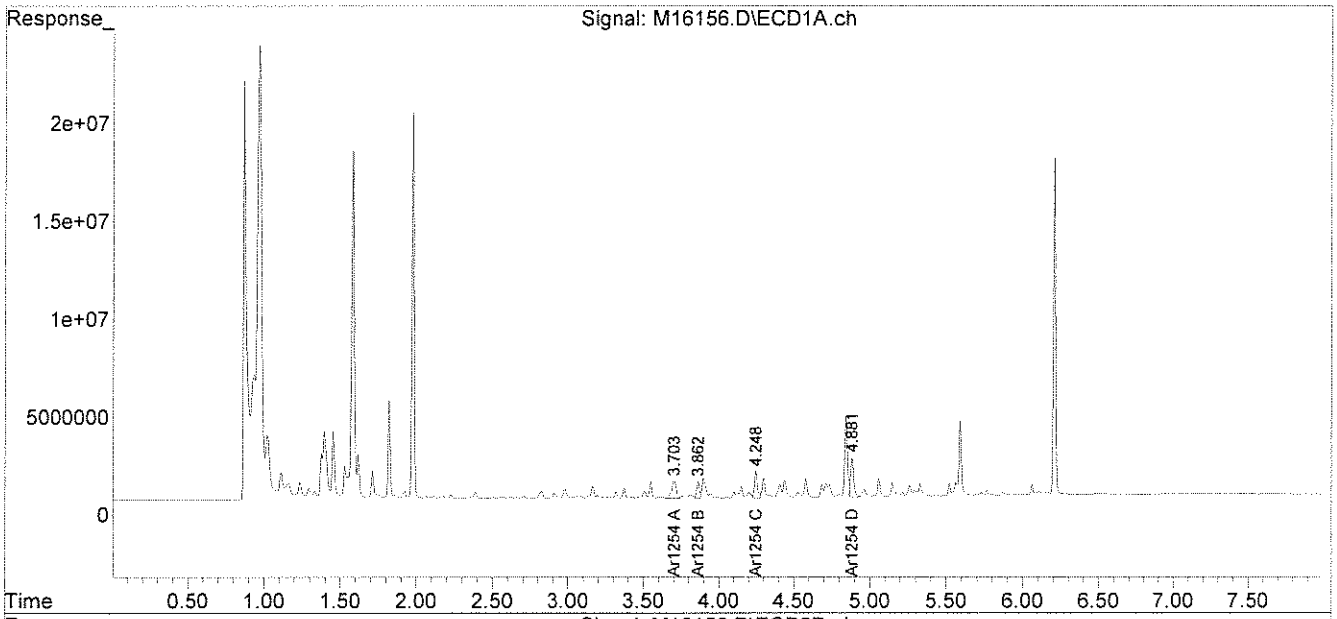
PCB FORM 10

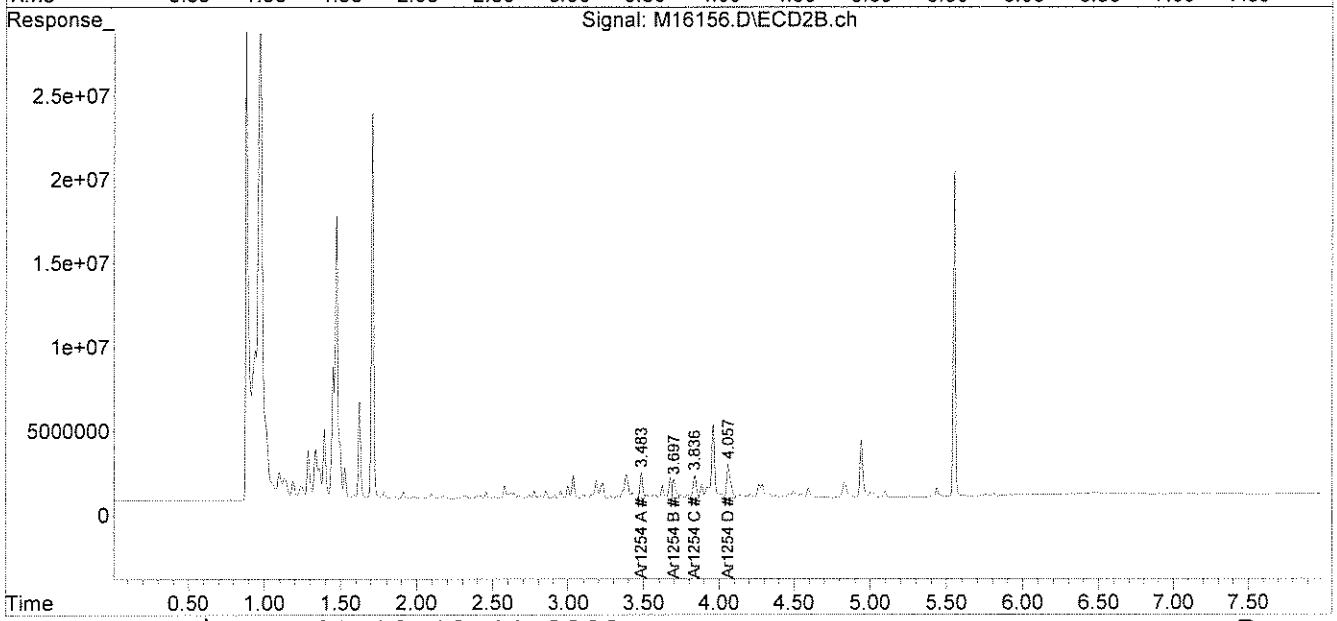
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16156.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 2009 6:10 pm
Operator :
Sample : 63731-9,,A/C
Misc : SOIL
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 30 15:29:49 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 1, 2009

SAMPLE DATA

Lab Sample ID:	63731-10
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	1.0
Collection Date:	04/27/09
Lab Receipt Date:	04/28/09
Extraction Date:	04/28/09
Analysis Date:	04/29/09

CLIENT SAMPLE ID

Project Name:	UMASS - LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-062

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**139**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	96	%
Decachlorobiphenyl	102	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63731
Sample: 63731-10,,A/C
Data File: M16157.D
Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	139	128	8.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

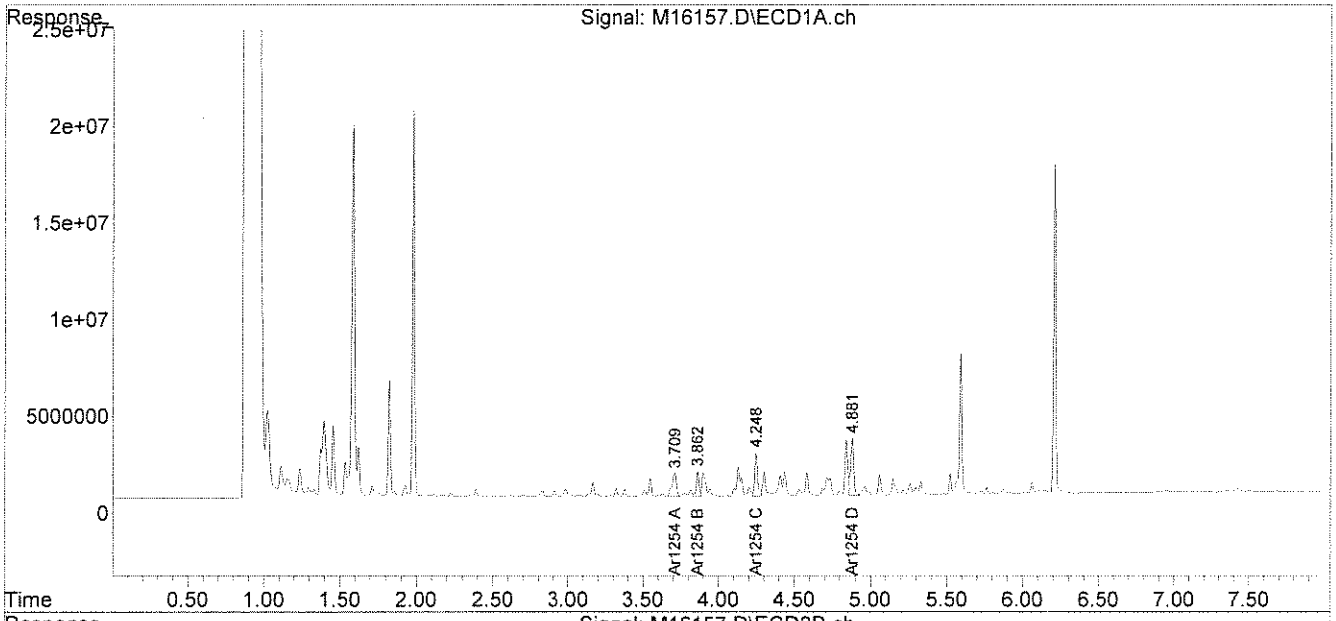
PCB FORM 10

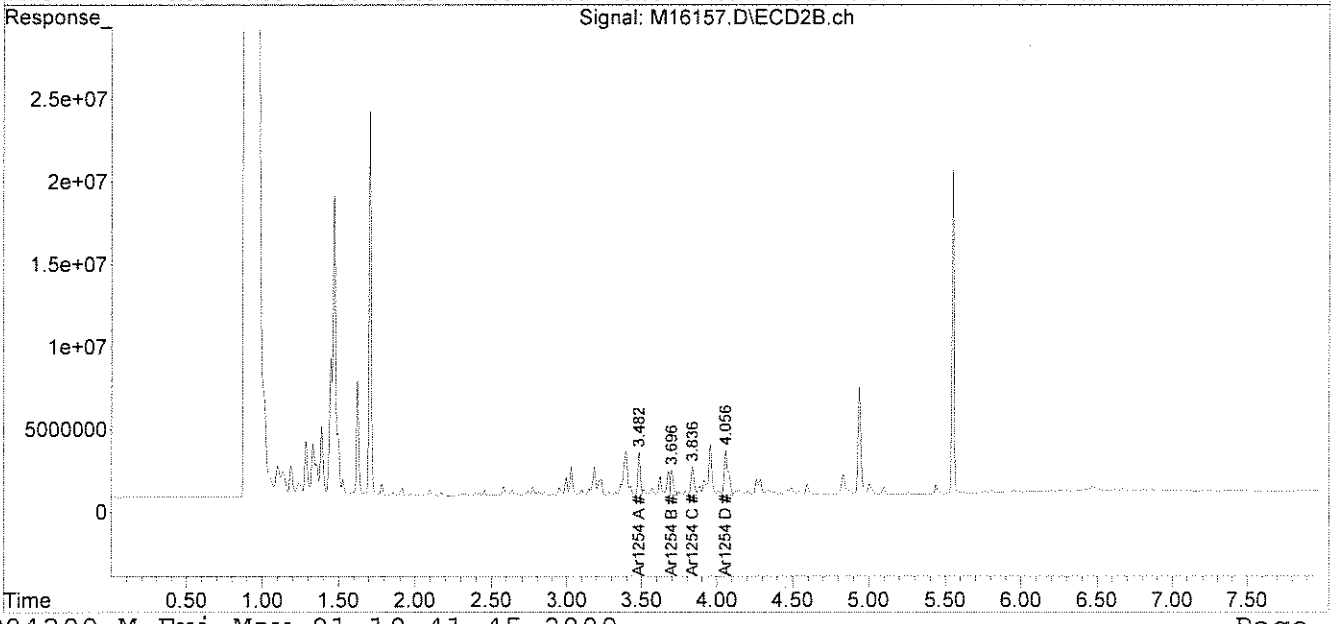
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16157.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 2009 6:20 pm
Operator :
Sample : 63731-10,,A/C
Misc : SOIL
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 01 10:41:45 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

April 29, 2009

SAMPLE DATA

Lab Sample ID: 63731-11
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date: 04/28/09
Lab Receipt Date: 04/28/09
Extraction Date: 04/29/09
Analysis Date: 04/29/09

CLIENT SAMPLE ID

Project Name: UMASS - LGRC
Project Number: 210918
Field Sample ID: LGRC-VSS-904

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/L	Results µg/L
PCB-1016	0.2	U
PCB-1221	0.2	U
PCB-1232	0.2	U
PCB-1242	0.2	U
PCB-1248	0.2	U
PCB-1254	0.2	U
PCB-1260	0.2	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	77	%
Decachlorobiphenyl	66	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS:

PCB Report

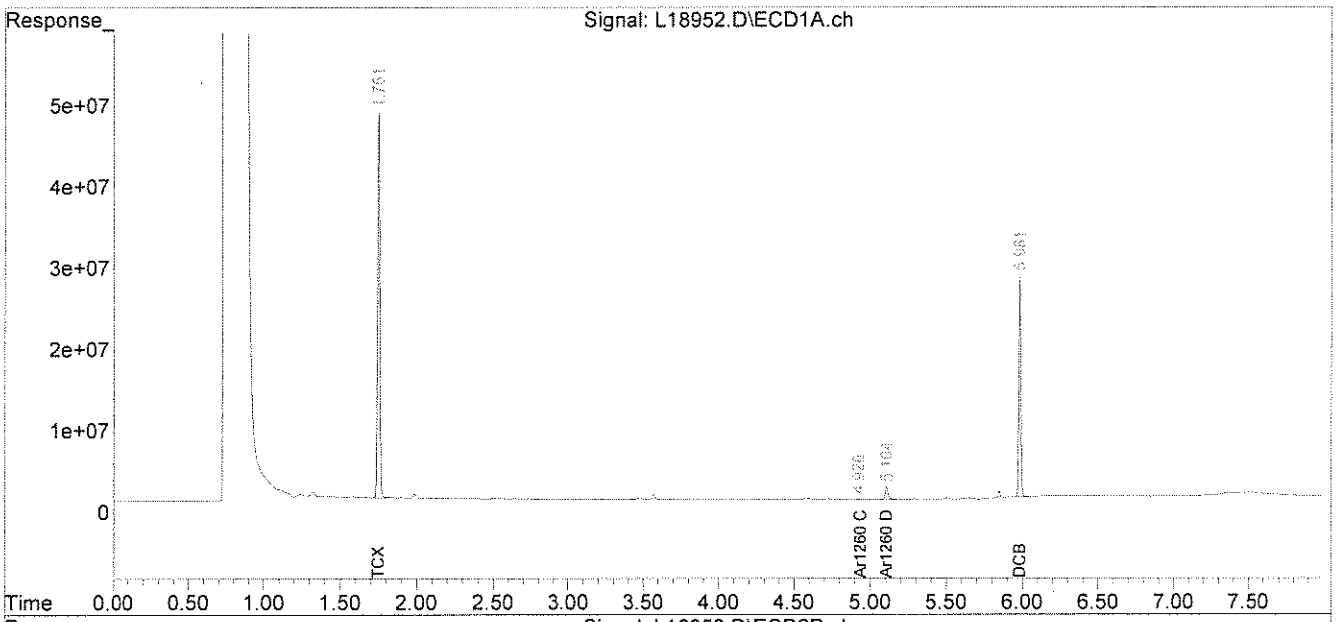
Authorized signature

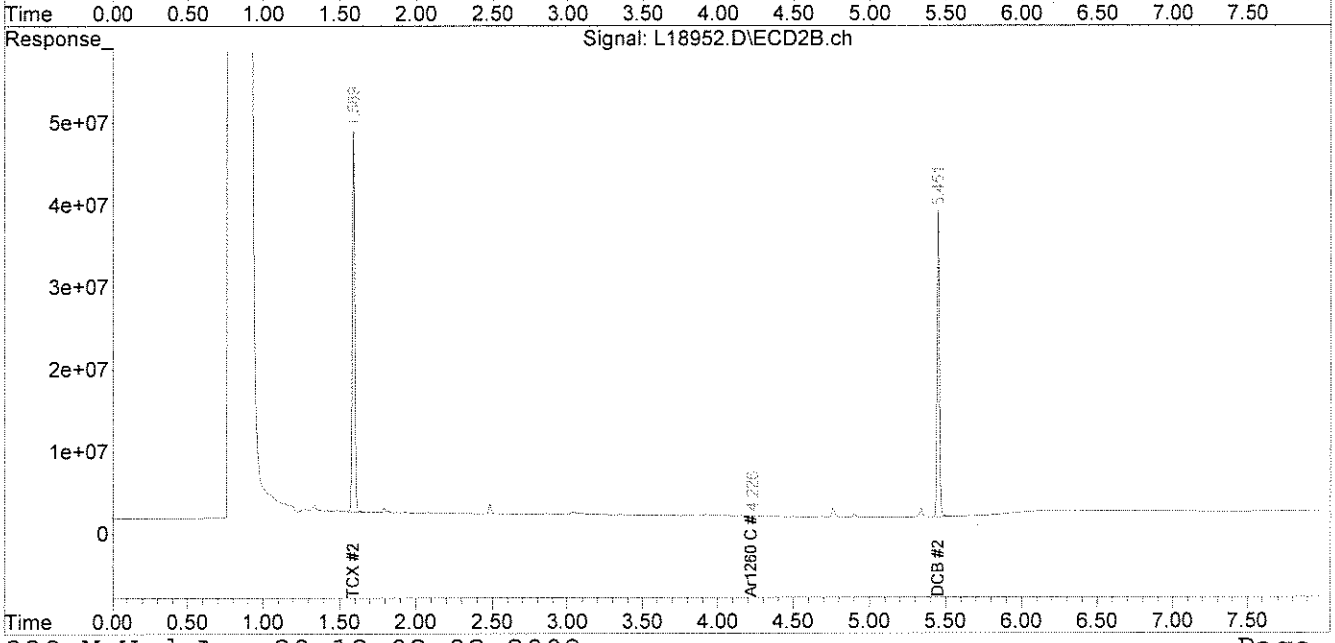
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042909-L\
Data File : L18952.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 09 10:36 am
Operator :
Sample : 63731-11 (Sig #1); ~~63715-11 (Sig #2)~~ Rm 4/29/09
Misc :
ALS Vial : 80 Sample Multiplier: 1

Integration File signal 1: PCBINT.E
Integration File signal 2: PCBINT2.E
Quant Time: Apr 29 12:02:01 2009
Quant Method : C:\msdchem\1\METHODS\PB04229.M
Quant Title : Aroclor 1016/1260
QLast Update : Thu Apr 23 16:07:53 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 3 ul
Signal #1 Phase : DB-1701 Widebore Signal #2 Phase: DB-5 Widebore
Signal #1 Info : 0.53 mm , 1.0um f Signal #2 Info : 0.53 mm, 1.5um film





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 1, 2009

SAMPLE DATA

Lab Sample ID:	63731-12
Matrix:	Solid
Percent Solid:	91
Dilution Factor:	1.1
Collection Date:	04/28/09
Lab Receipt Date:	04/28/09
Extraction Date:	04/28/09
Analysis Date:	04/29/09

CLIENT SAMPLE ID

Project Name:	UMASS - LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-069

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	U
PCB-1260	36	**54**

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	98	%
Decachlorobiphenyl	100	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63731
Sample: 63731-12,,A/C
Data File: M16158.D
Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1260	54	53	1.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

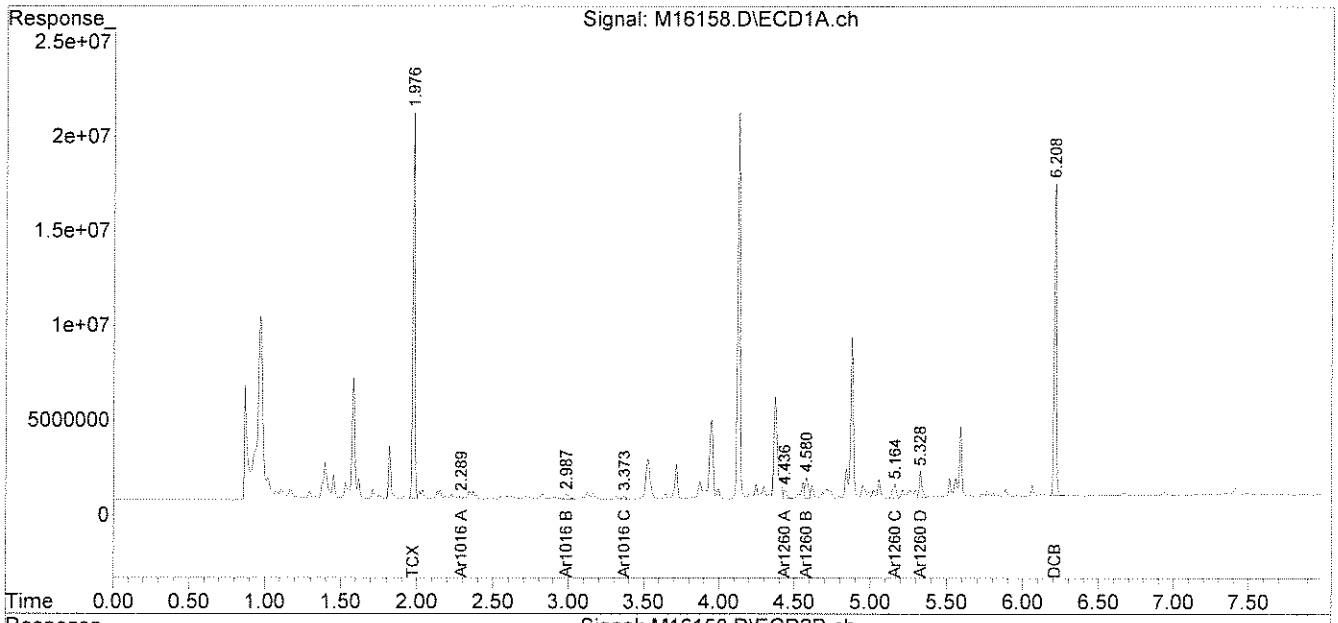
PCB FORM 10

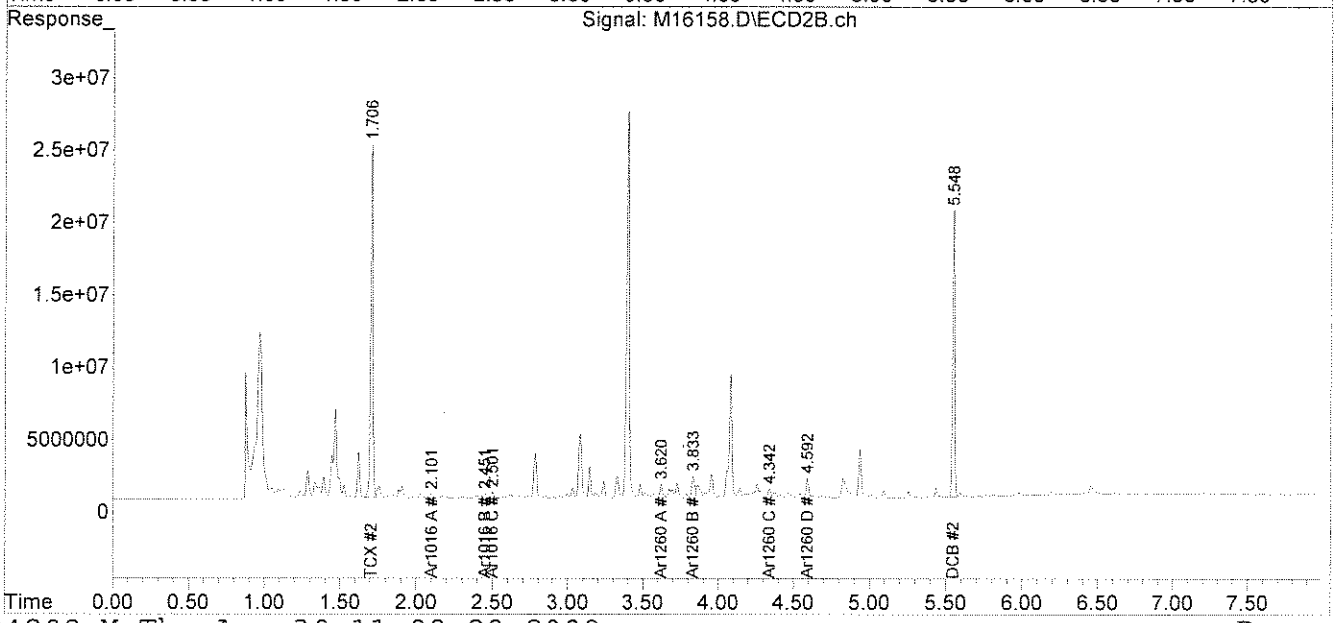
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16158.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 2009 6:30 pm
Operator :
Sample : 63731-12,,A/C
Misc : SOIL
ALS Vial : 7 Sample Multiplier: 1

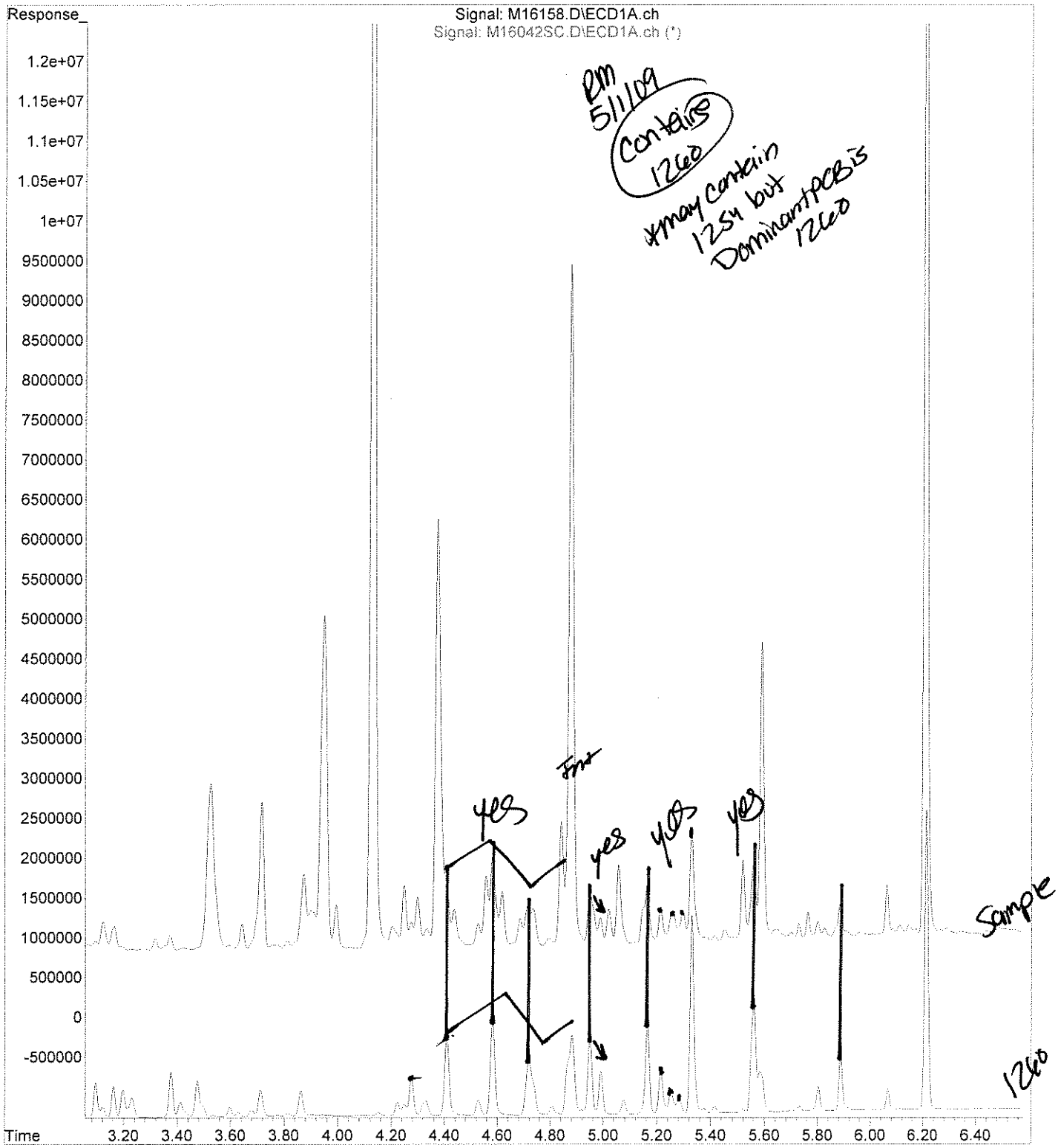
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 30 11:08:28 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:38 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\042709-M\M16158.D
Operator :
Acquired : 29 Apr 2009 6:30 pm using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63731-12,,A/C
Misc Info : SOIL
Vial Number: 7



analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 1, 2009

SAMPLE DATA

Lab Sample ID:	63731-13
Matrix:	Solid
Percent Solid:	92
Dilution Factor:	1.1
Collection Date:	04/28/09
Lab Receipt Date:	04/28/09
Extraction Date:	04/28/09
Analysis Date:	04/29/09

CLIENT SAMPLE ID

Project Name:	UMASS - LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-068

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**177**
PCB-1260	36	**112**

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	97	%
Decachlorobiphenyl	99	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63731
Sample: 63731-13,,A/C
Data File: M16159.D
Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1260	112	101	10.6	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

PCB FORM 10

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63731

Sample: 63731-13,,A/C

Data File: M16159.D

Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	177	151	16.0	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

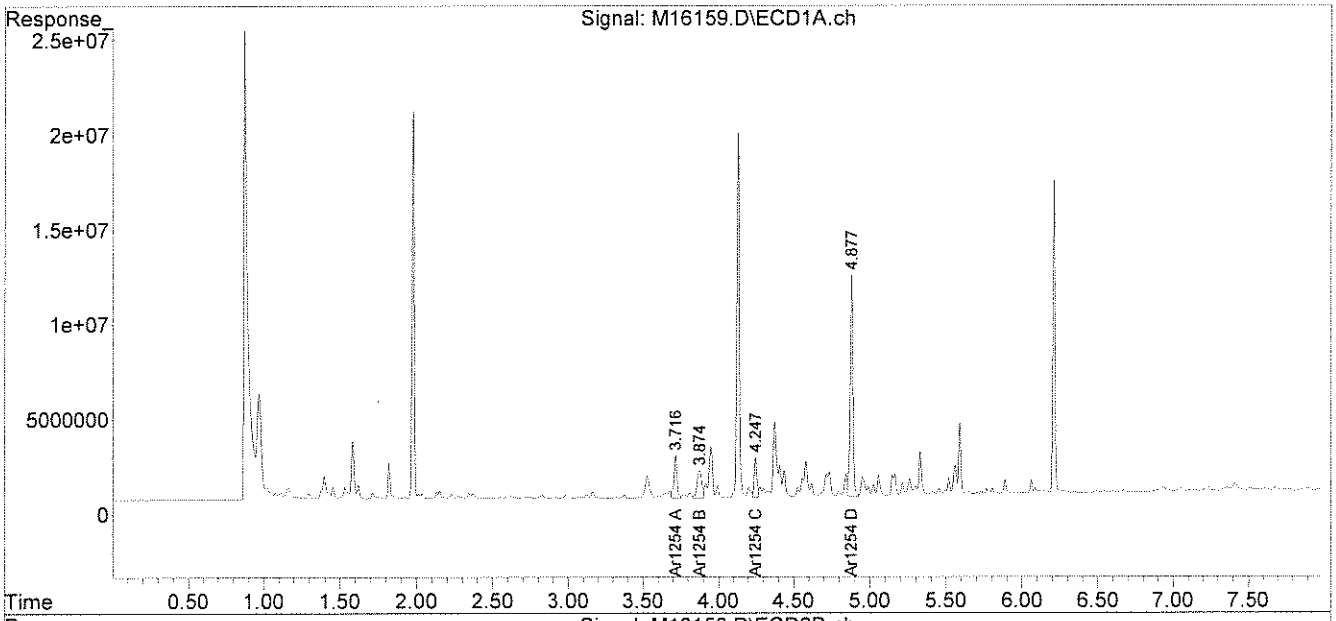
PCB FORM 10

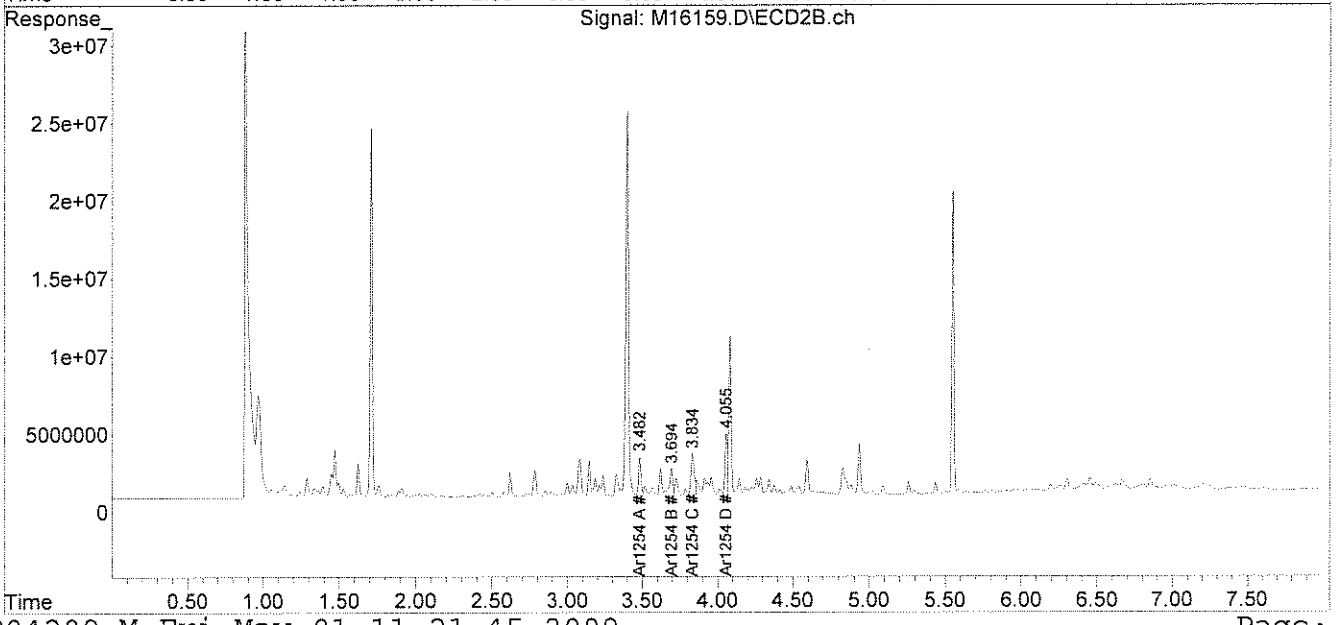
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16159.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 2009 6:41 pm
Operator :
Sample : 63731-13,,A/C
Misc : SOIL
ALS Vial : 8 Sample Multiplier: 1

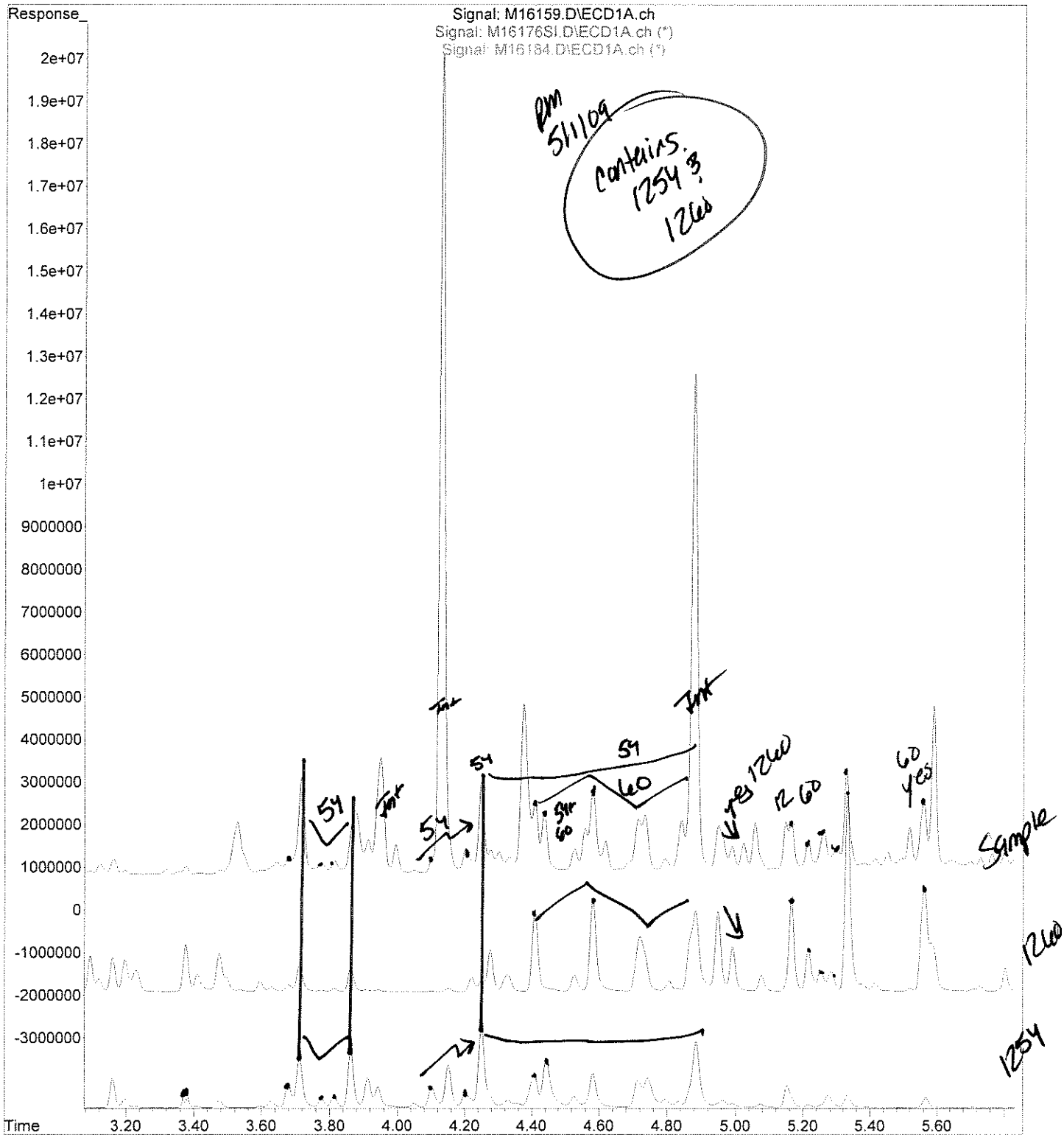
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 01 11:21:36 2009
Quant Method : C:\msdchem\1\METHODS\54SP04209.M
Quant Title :
QLast Update : Tue Apr 21 10:03:18 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\042709-M\M16159.D
Operator :
Acquired : 29 Apr 2009 6:41 pm using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63731-13,,A/C
Misc Info : SOIL
Vial Number: 8



35107

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 1, 2009

SAMPLE DATA

Lab Sample ID:	63731-14
Matrix:	Solid
Percent Solid:	91
Dilution Factor:	1.1
Collection Date:	04/28/09
Lab Receipt Date:	04/28/09
Extraction Date:	04/28/09
Analysis Date:	04/29/09

CLIENT SAMPLE ID

Project Name:	UMASS - LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-067

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	U
PCB-1260	36	**59**

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	100	%
Decachlorobiphenyl	101	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63731
Sample: 63731-14,,A/C
Data File: M16160.D
Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1260	59	55	6.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

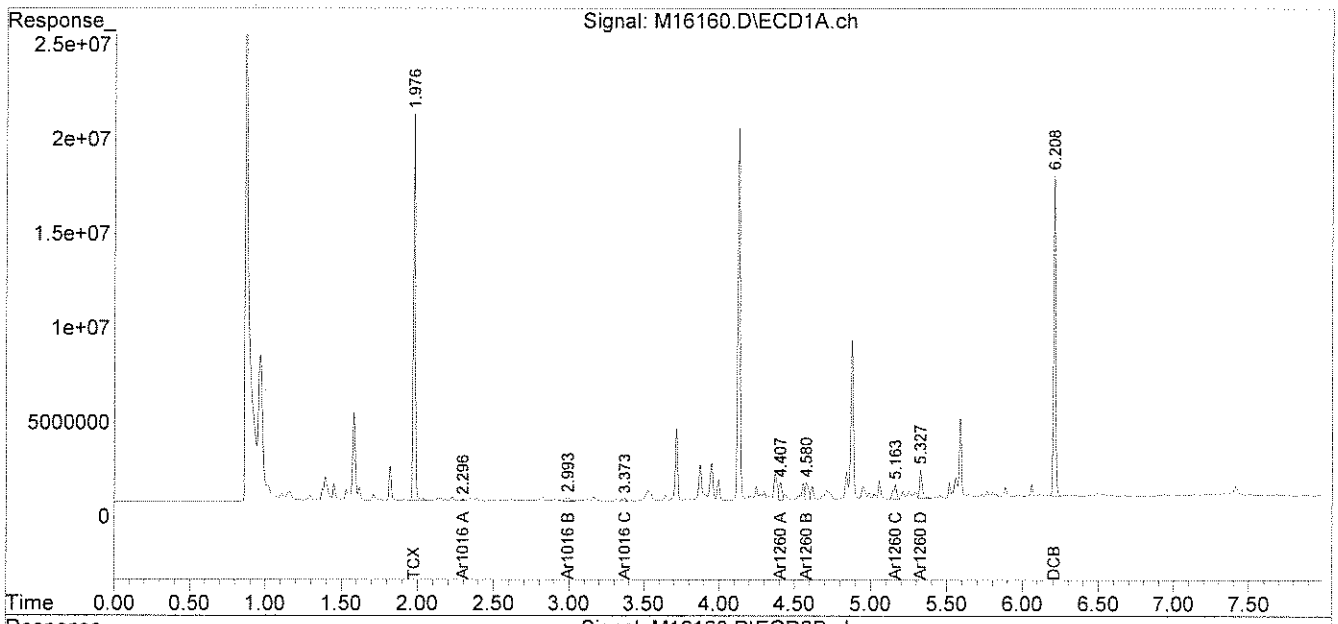
Comments: _____

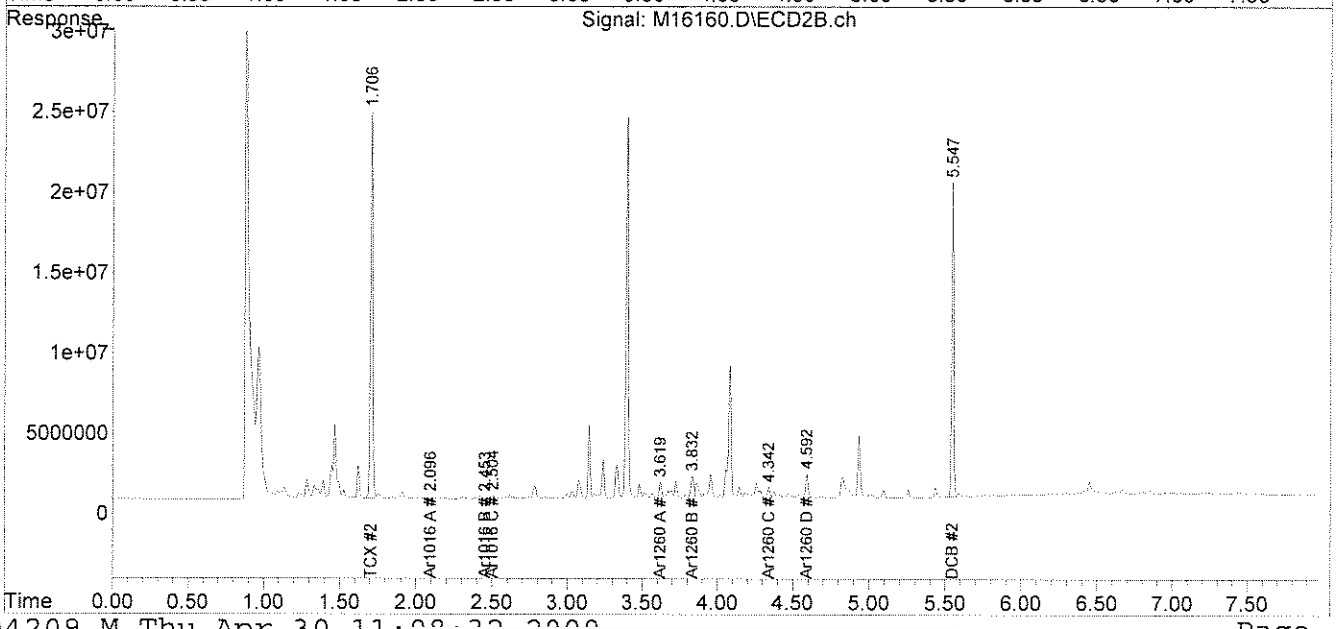
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\042709-M\
Data File : M16160.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 29 Apr 2009 6:51 pm
Operator :
Sample : 63731-14,,A/C
Misc : SOIL
ALS Vial : 9 Sample Multiplier: 1

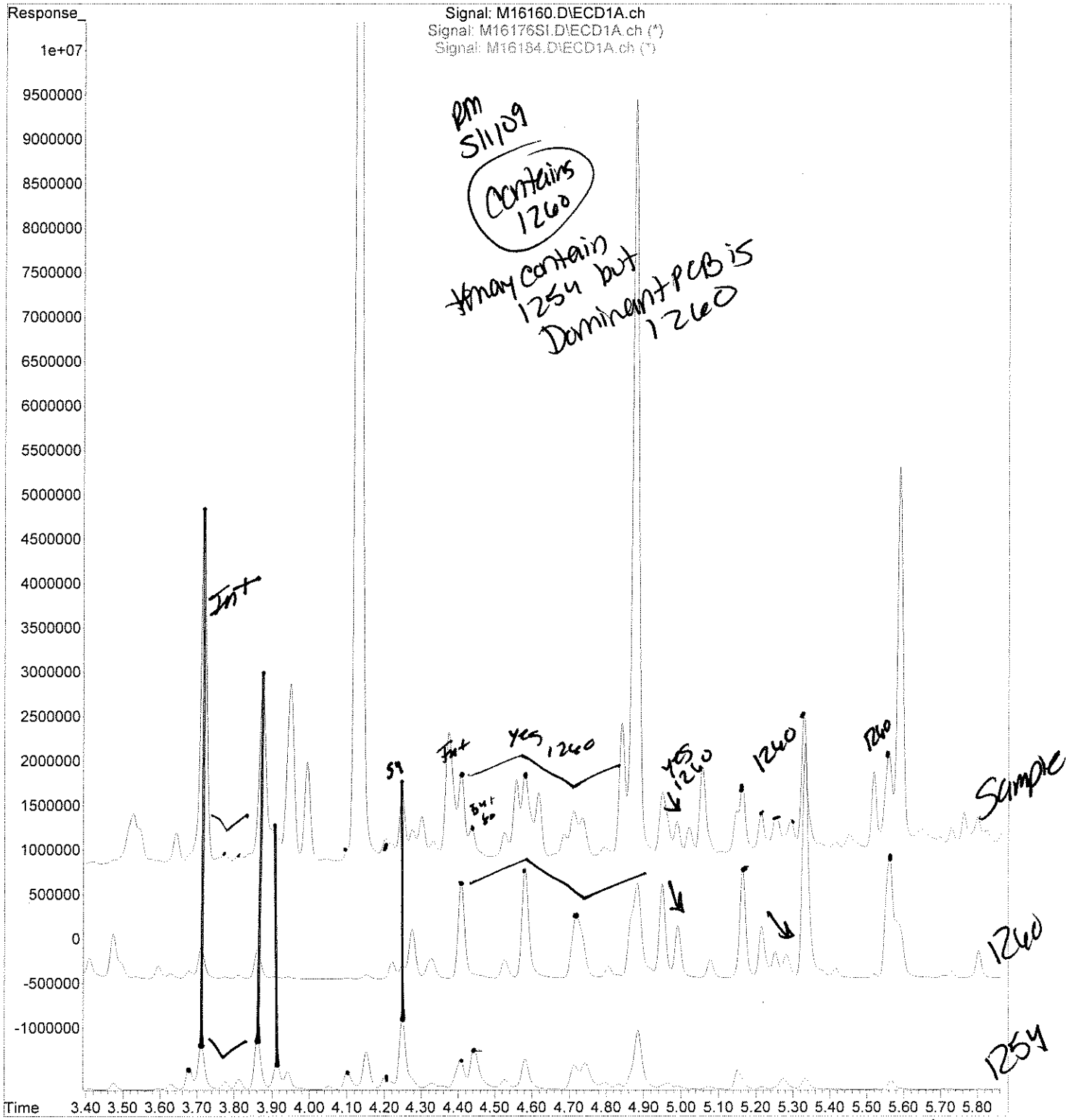
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 30 11:08:32 2009
Quant Method : C:\msdchem\1\METHODS\PCB04209.M
Quant Title : Aroclor 1016/1260
QLast Update : Mon Apr 20 10:39:38 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\042709-M\M16160.D
Operator :
Acquired : 29 Apr 2009 6:51 pm using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63731-14,,A/C
Misc Info : SOIL
Vial Number: 9



analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 1, 2009

SAMPLE DATA

Lab Sample ID:	63731-15
Matrix:	Solid
Percent Solid:	78
Dilution Factor:	1.3
Collection Date:	04/28/09
Lab Receipt Date:	04/28/09
Extraction Date:	04/29/09
Analysis Date:	04/30/09

CLIENT SAMPLE ID

Project Name:	UMASS - LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-066

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	43	U
PCB-1221	43	U
PCB-1232	43	U
PCB-1242	43	U
PCB-1248	43	U
PCB-1254	43	U
PCB-1260	43	**125**

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	90	%
Decachlorobiphenyl	110	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63731
Sample: 63731-15,,A/C
Data File: M16194.D
Dilution Factor: 1.3

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1260	125	92	30.4	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

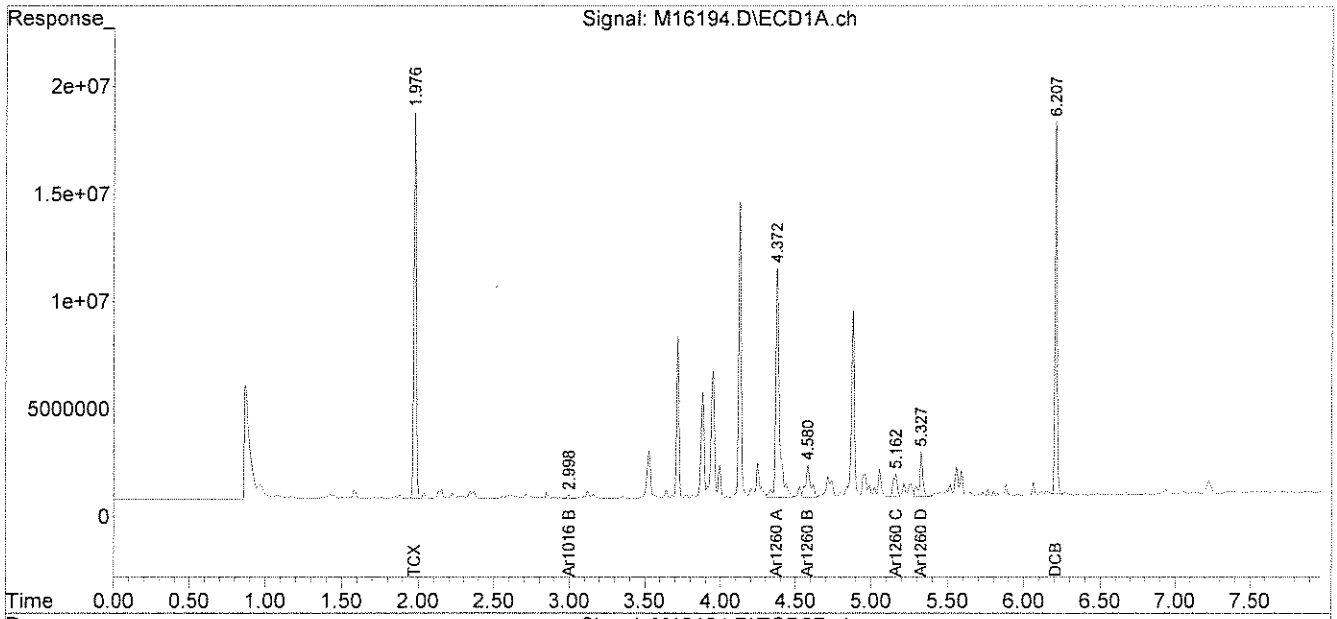
PCB FORM 10

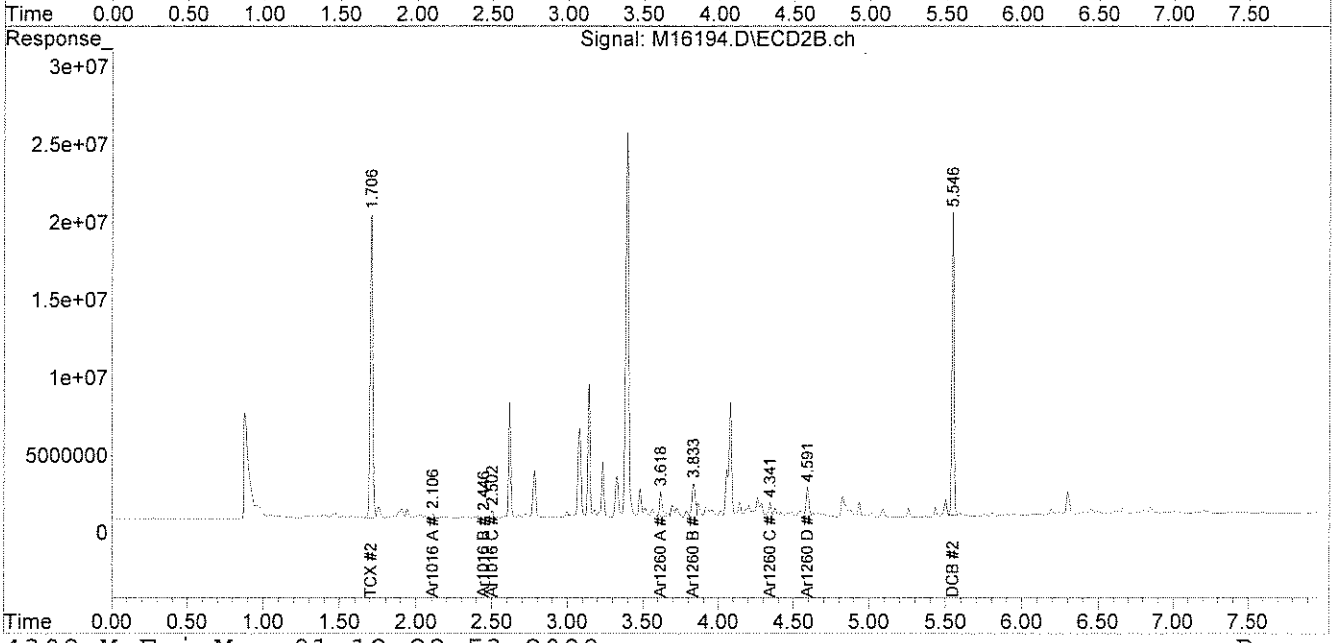
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\043009-M\
Data File : M16194.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 30 Apr 2009 9:02 pm
Operator :
Sample : 63731-15,,A/C
Misc : SOIL
ALS Vial : 34 Sample Multiplier: 1

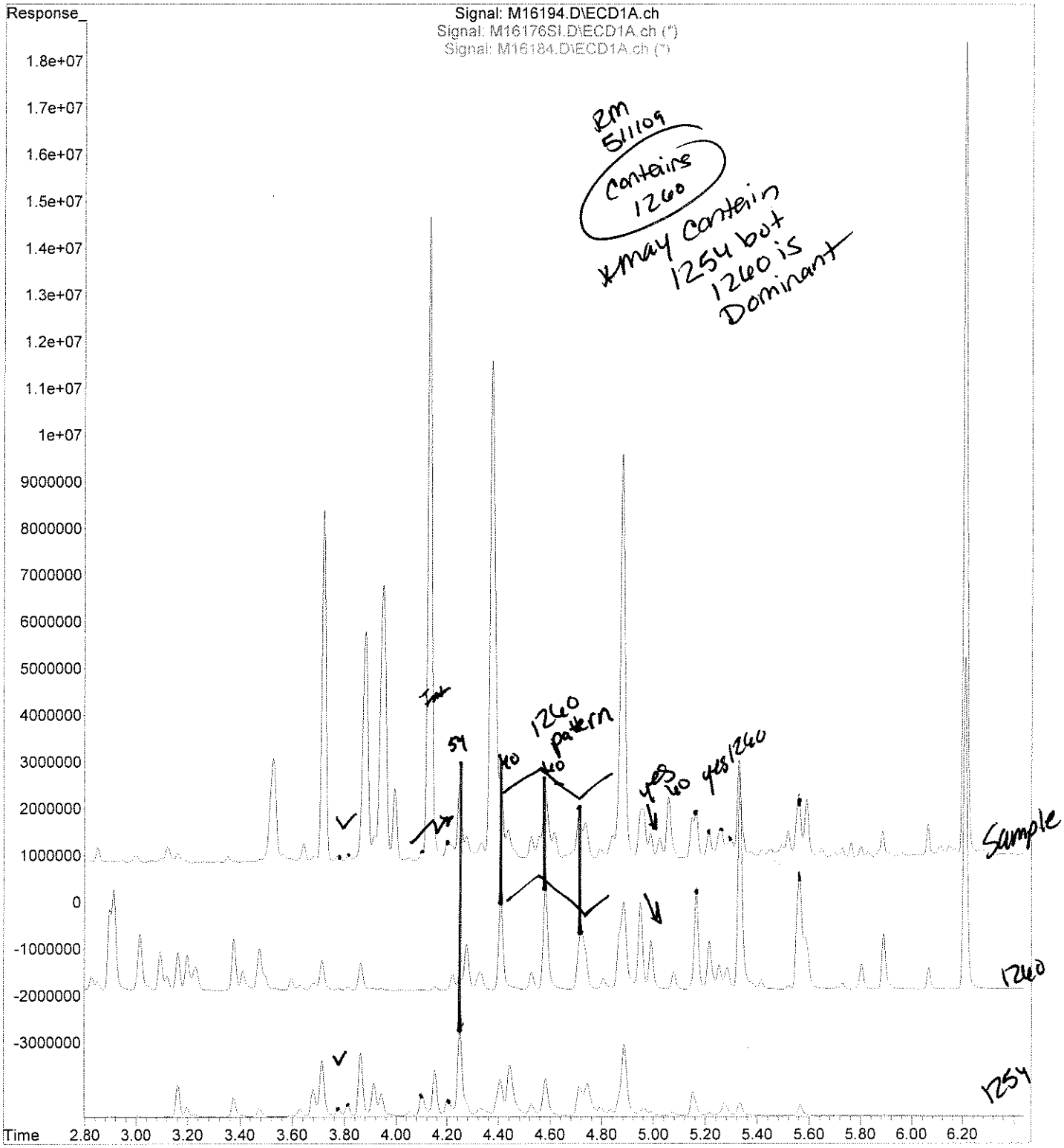
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 01 08:59:49 2009
Quant Method : C:\msdchem\1\METHODS\PCB04309.M
Quant Title : Aroclor 1016/1260
QLast Update : Fri May 01 08:55:37 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\043009-M\M16194.D
Operator :
Acquired : 30 Apr 2009 9:02 pm using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63731-15,,A/C
Misc Info : SOIL
Vial Number: 34



D5/09

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 1, 2009

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: UMASS - LGRC

Project Number: 210918

Field Sample ID: LGRC-VSS-065

Lab Sample ID: 63731-16
Matrix: Solid
Percent Solid: 89
Dilution Factor: 1.1
Collection Date: 04/28/09
Lab Receipt Date: 04/28/09
Extraction Date: 04/29/09
Analysis Date: 04/30/09

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**259**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	83	%
Decachlorobiphenyl	95	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63731
Sample: 63731-16,,A/C
Data File: M16197.D
Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	228	259	12.7	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

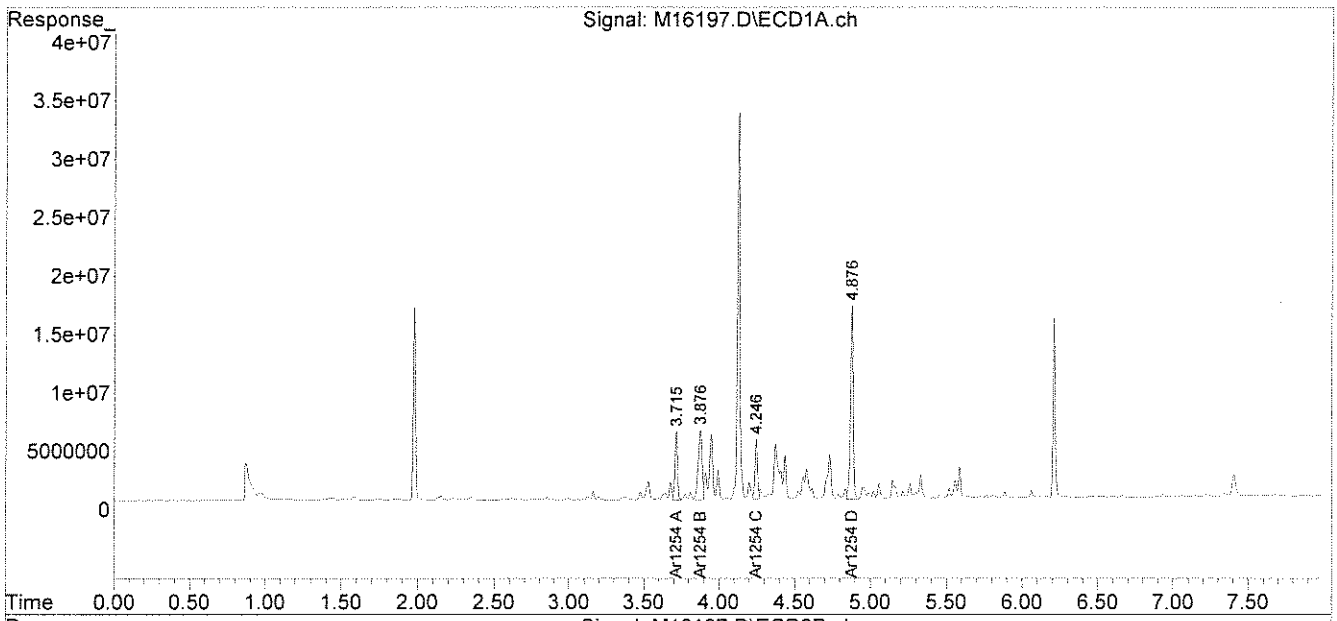
PCB FORM 10

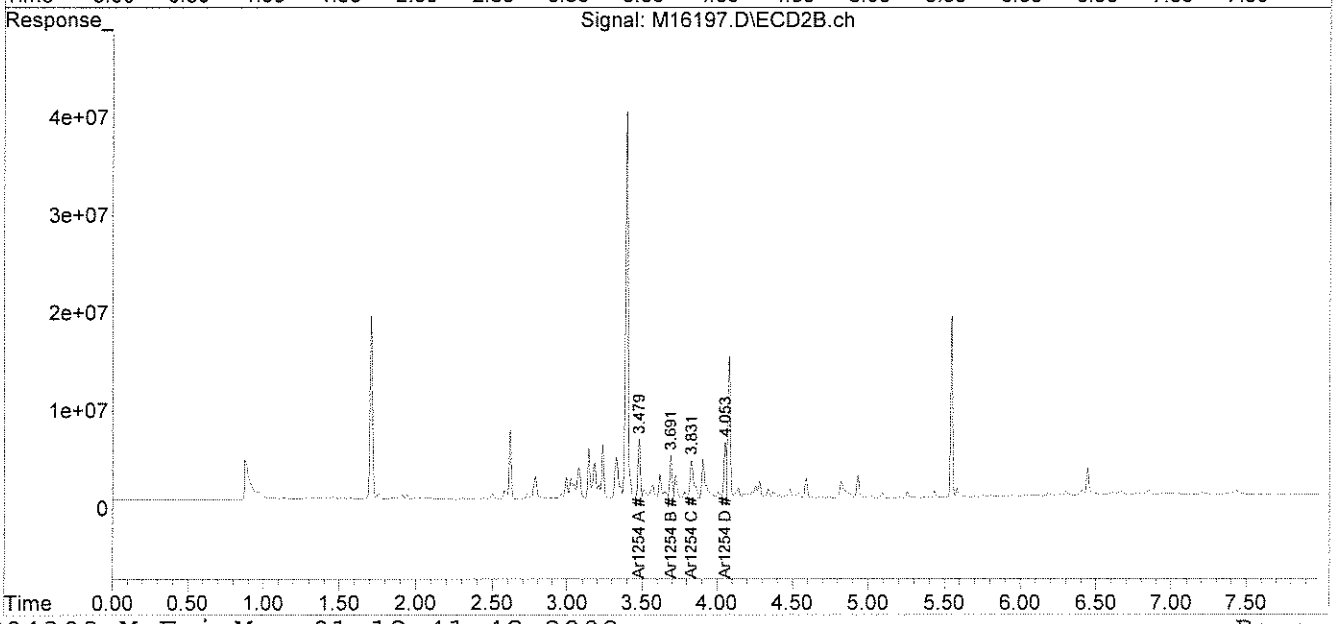
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\043009-M\
Data File : M16197.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 30 Apr 2009 9:32 pm
Operator :
Sample : 63731-16,,A/C
Misc : SOIL
ALS Vial : 37 Sample Multiplier: 1

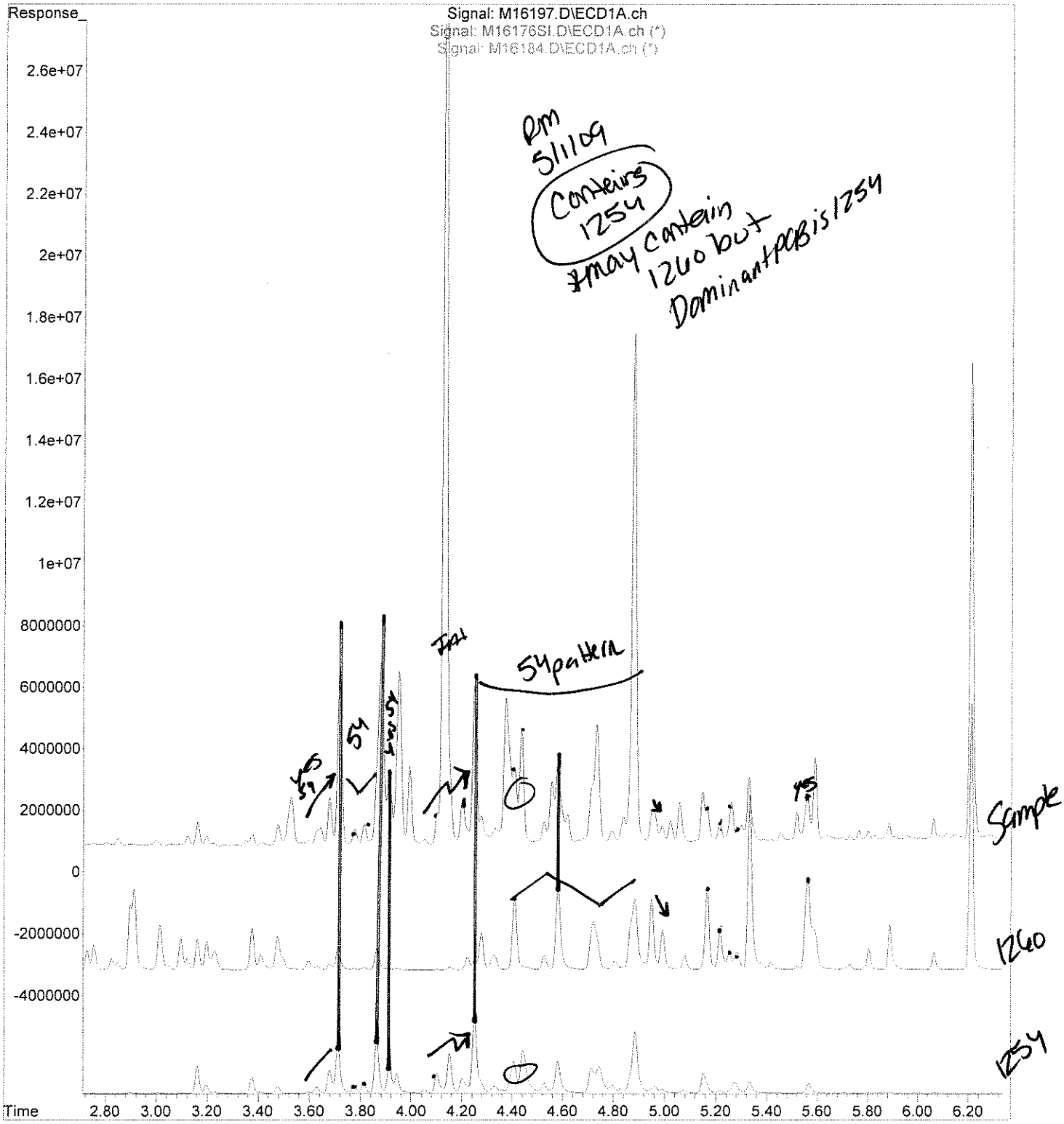
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 01 12:41:42 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\043009-M\M16197.D
Operator :
Acquired : 30 Apr 2009 9:32 pm using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63731-16,,A/C
Misc Info : SOIL
Vial Number: 37



5-1-09

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 1, 2009

SAMPLE DATA

Lab Sample ID:	63731-17
Matrix:	Solid
Percent Solid:	91
Dilution Factor:	1.1
Collection Date:	04/28/09
Lab Receipt Date:	04/28/09
Extraction Date:	04/29/09
Analysis Date:	04/30/09

CLIENT SAMPLE ID

Project Name:	UMASS - LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-504

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**229**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	85	%
Decachlorobiphenyl	94	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63731
Sample: 63731-17,,A/C
Data File: M16198.D
Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	193	229	17.0	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

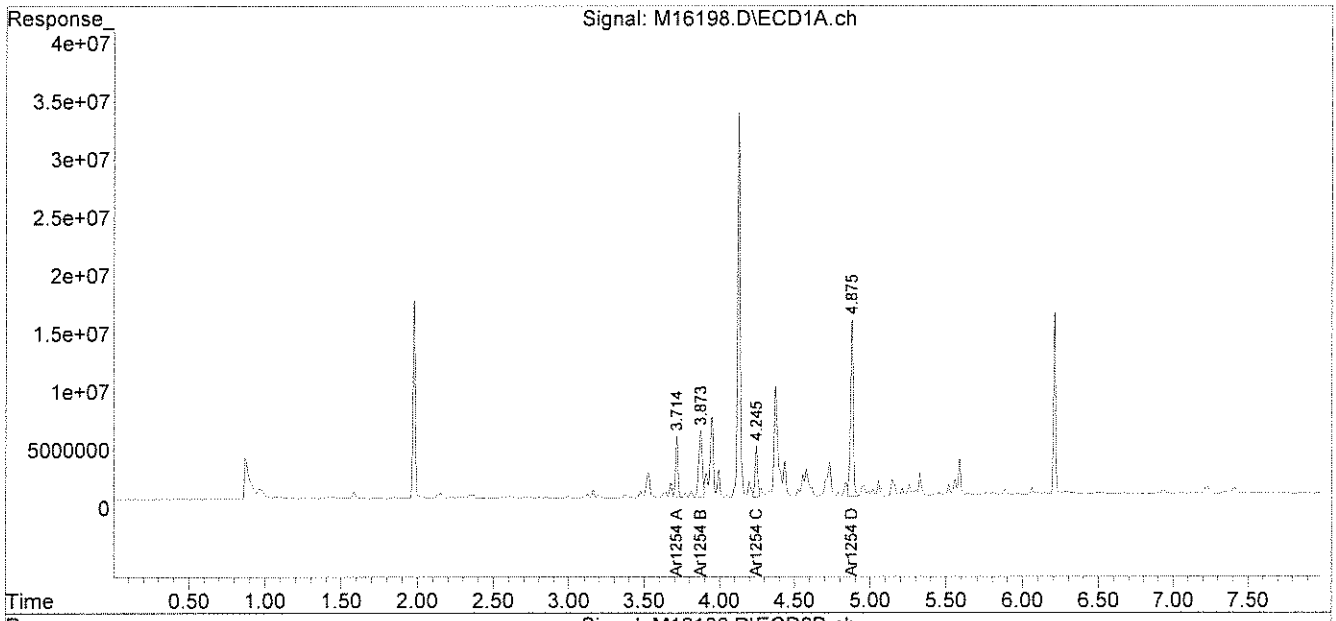
PCB FORM 10

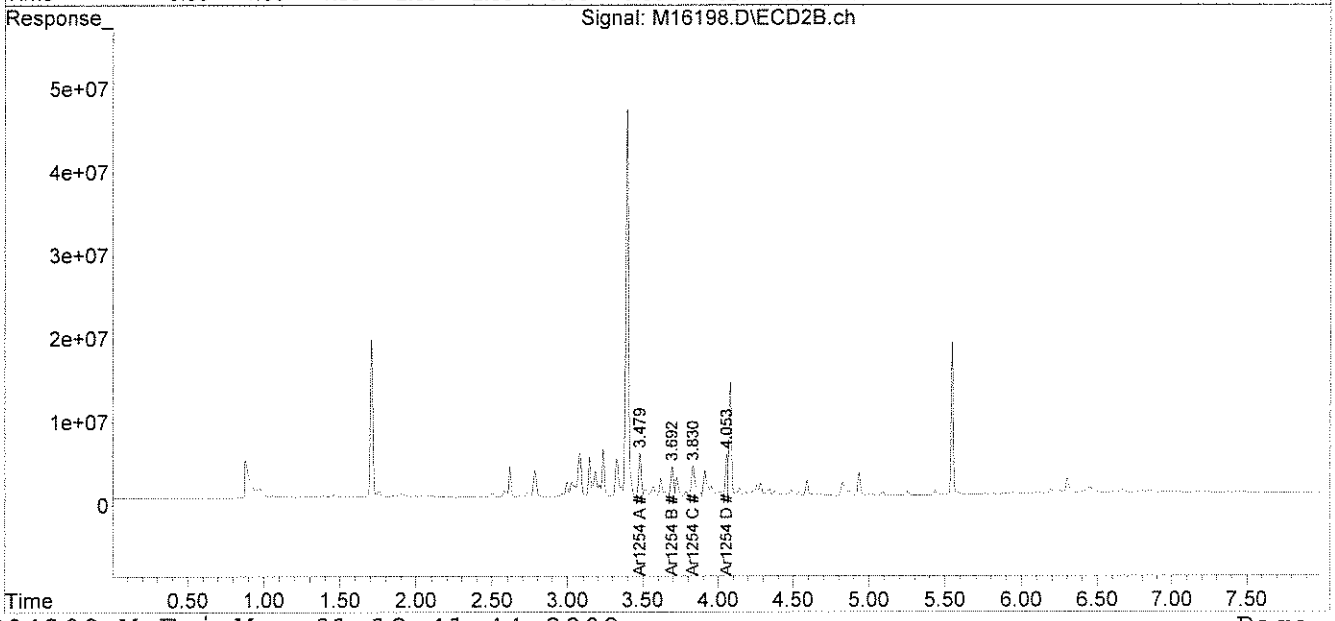
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\043009-M\
Data File : M16198.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 30 Apr 2009 9:42 pm
Operator :
Sample : 63731-17,,A/C
Misc : SOIL
ALS Vial : 38 Sample Multiplier: 1

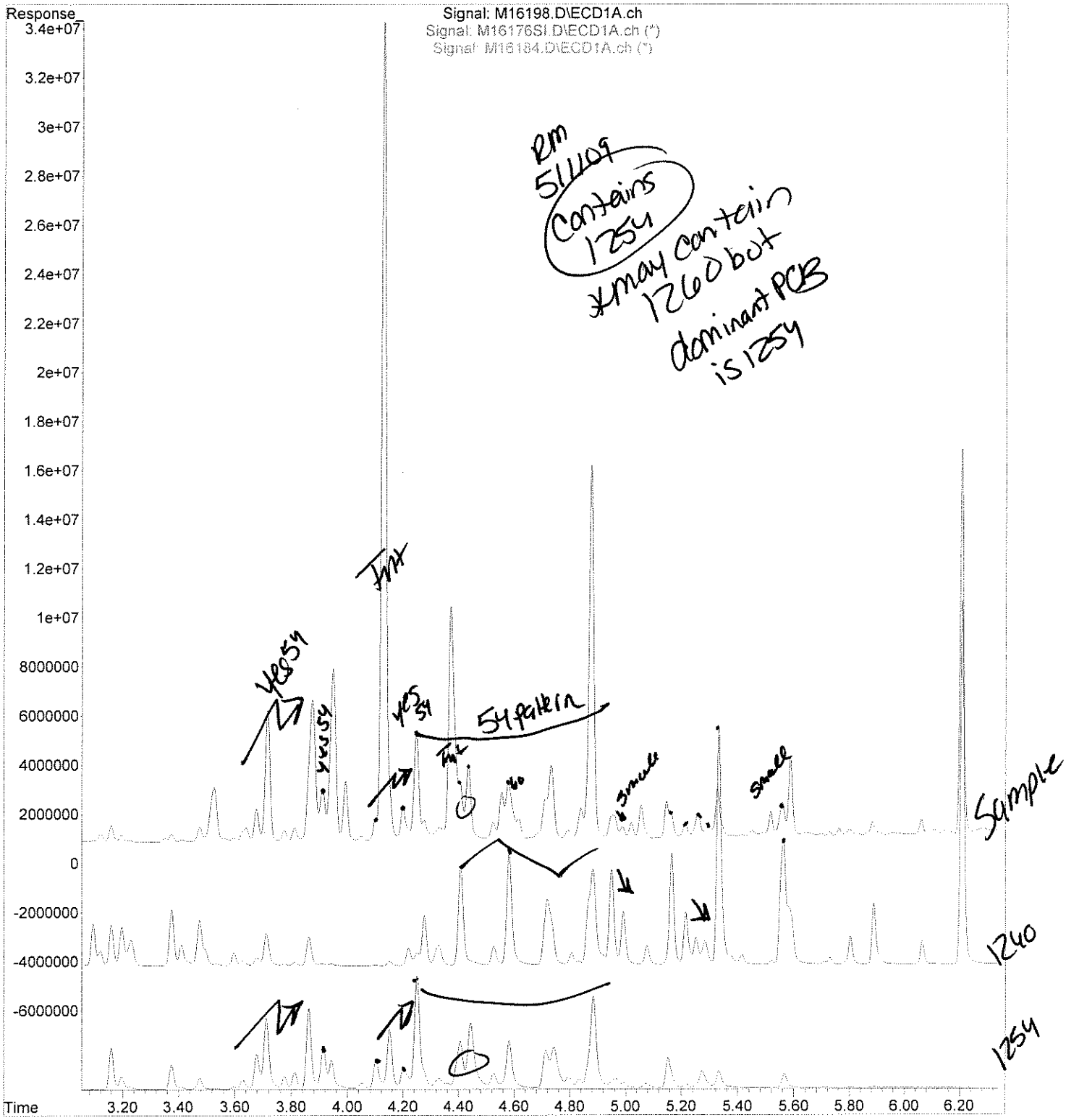
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 01 12:41:44 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\043009-M\M16198.D
Operator :
Acquired : 30 Apr 2009 9:42 pm using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63731-17,,A/C
Misc Info : SOIL
Vial Number: 38



 55/109

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 1, 2009

SAMPLE DATA

Lab Sample ID:	63731-18
Matrix:	Solid
Percent Solid:	91
Dilution Factor:	1.1
Collection Date:	04/28/09
Lab Receipt Date:	04/28/09
Extraction Date:	04/29/09
Analysis Date:	04/30/09

CLIENT SAMPLE ID

Project Name:	UMASS - LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-064

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**133**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	91	%
Decachlorobiphenyl	99	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63731

Sample: 63731-18,,A/C

Data File: M16199.D

Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	121	133	9.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

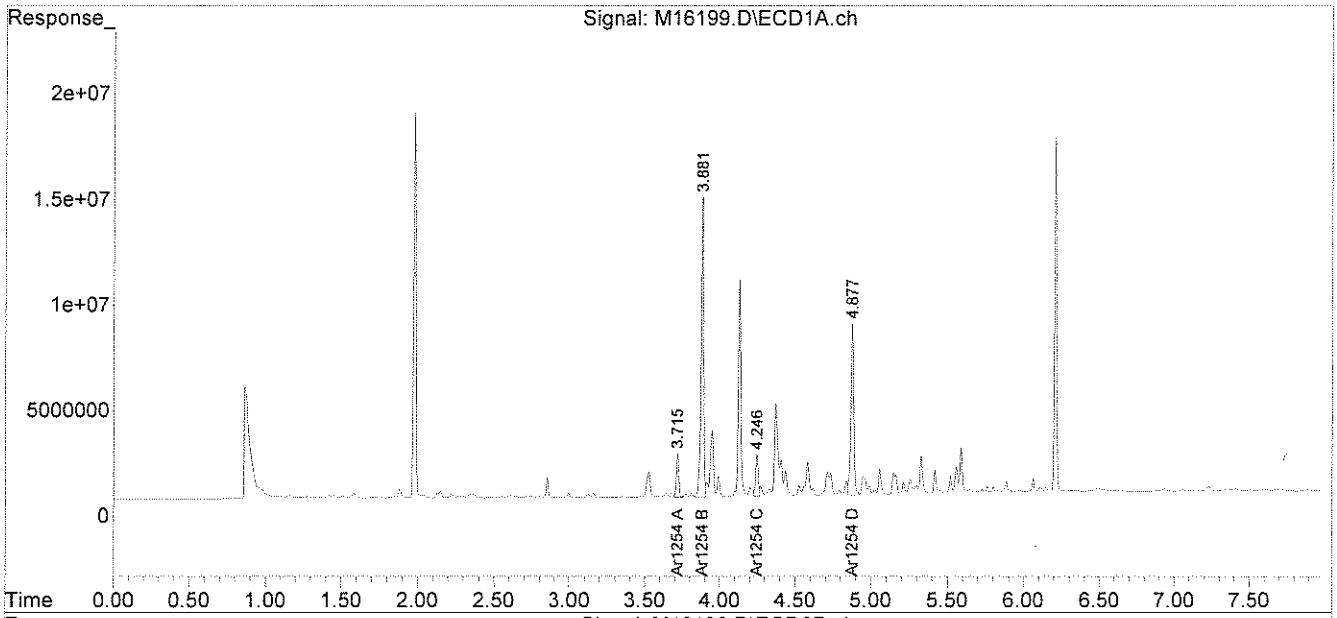
PCB FORM 10

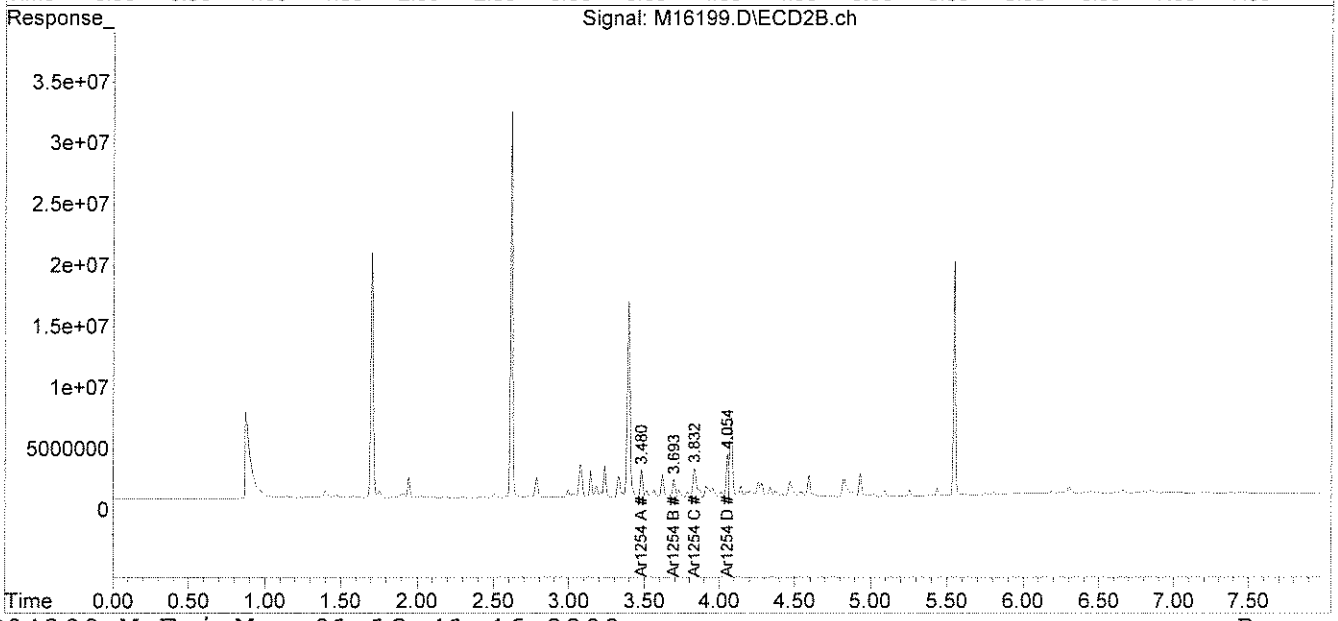
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\043009-M\
Data File : M16199.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 30 Apr 2009 9:52 pm
Operator :
Sample : 63731-18,,A/C
Misc : SOIL
ALS Vial : 39 Sample Multiplier: 1

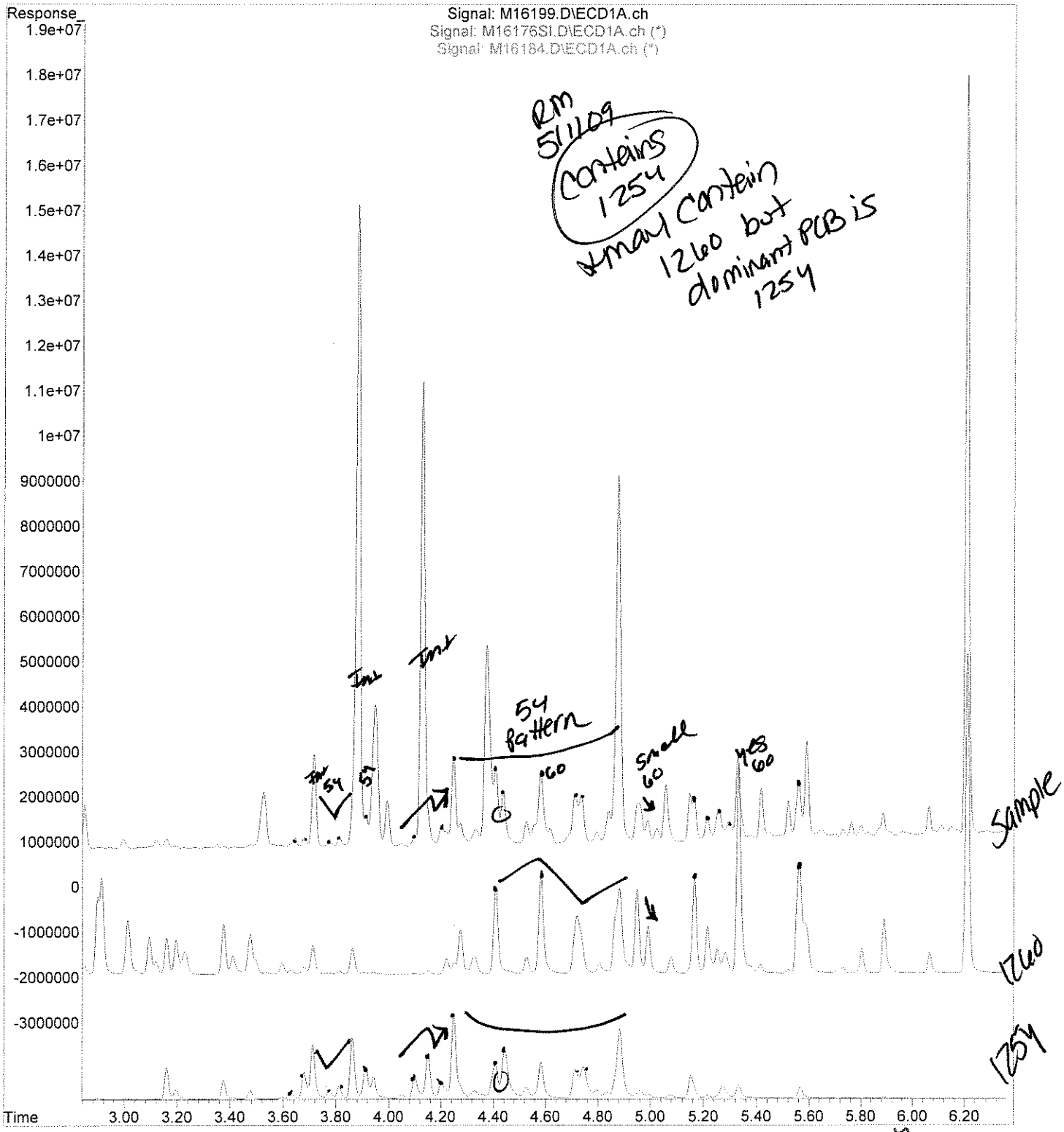
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 01 12:41:46 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\043009-M\M16199.D
Operator :
Acquired : 30 Apr 2009 9:52 pm using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63731-18,,A/C
Misc Info : SOIL
Vial Number: 39



5514

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 1, 2009

SAMPLE DATA

Lab Sample ID:	63731-19
Matrix:	Solid
Percent Solid:	92
Dilution Factor:	1.0
Collection Date:	04/28/09
Lab Receipt Date:	04/28/09
Extraction Date:	04/29/09
Analysis Date:	04/30/09

CLIENT SAMPLE ID

Project Name:	UMASS - LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-063

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**364 P**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	91	%
Decachlorobiphenyl	100	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis. P=Sample did not meet confirmation acceptance criteria for percent difference.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63731

Sample: 63731-19,,A/C

Data File: M16200.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	226	364	46.7	*

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

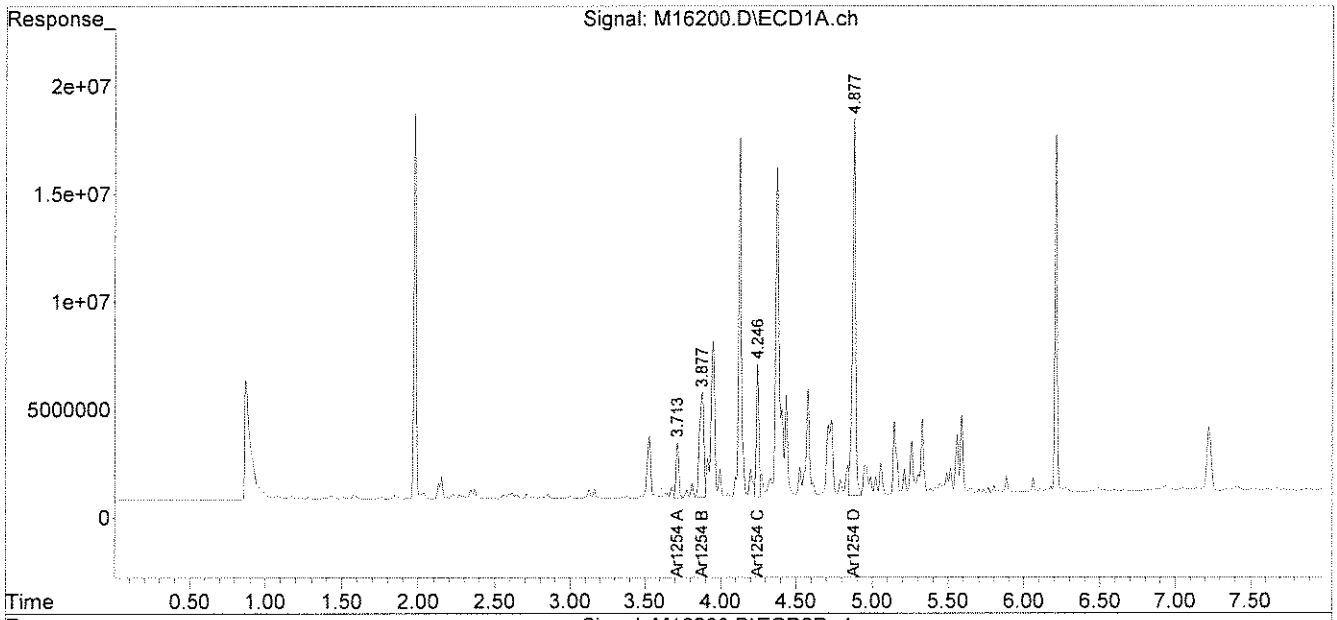
PCB FORM 10

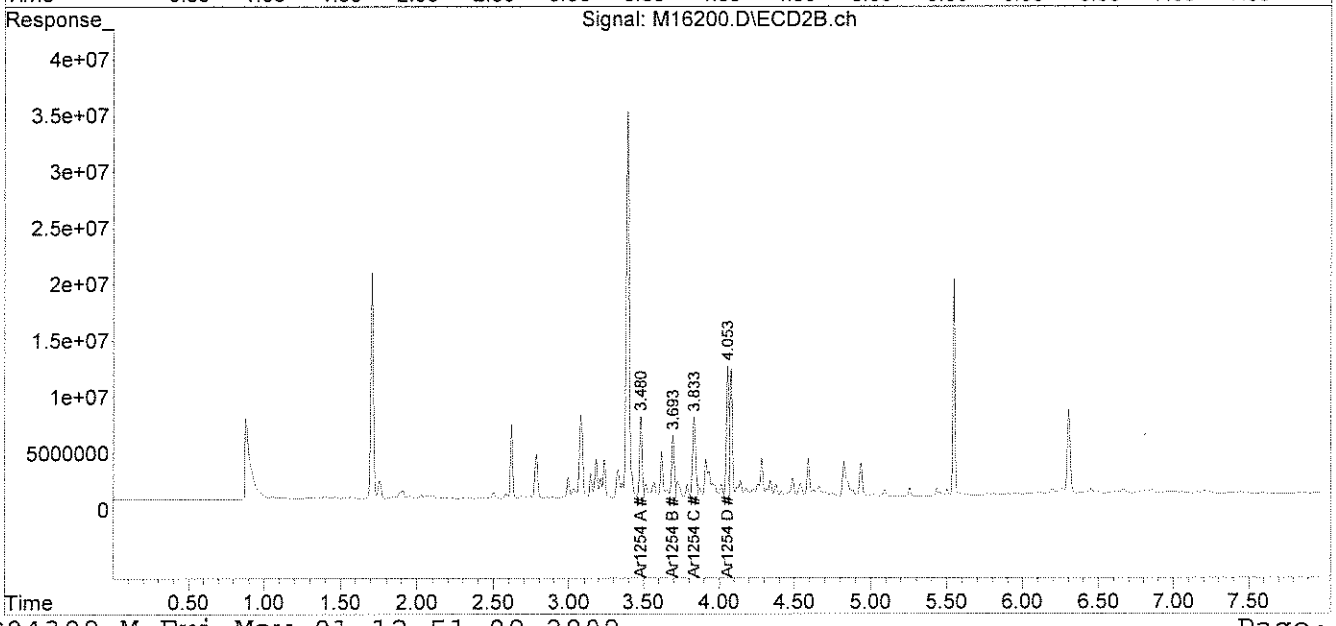
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\043009-M\
Data File : M16200.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 30 Apr 2009 10:02 pm
Operator :
Sample : 63731-19,,A/C
Misc : SOIL
ALS Vial : 40 Sample Multiplier: 1

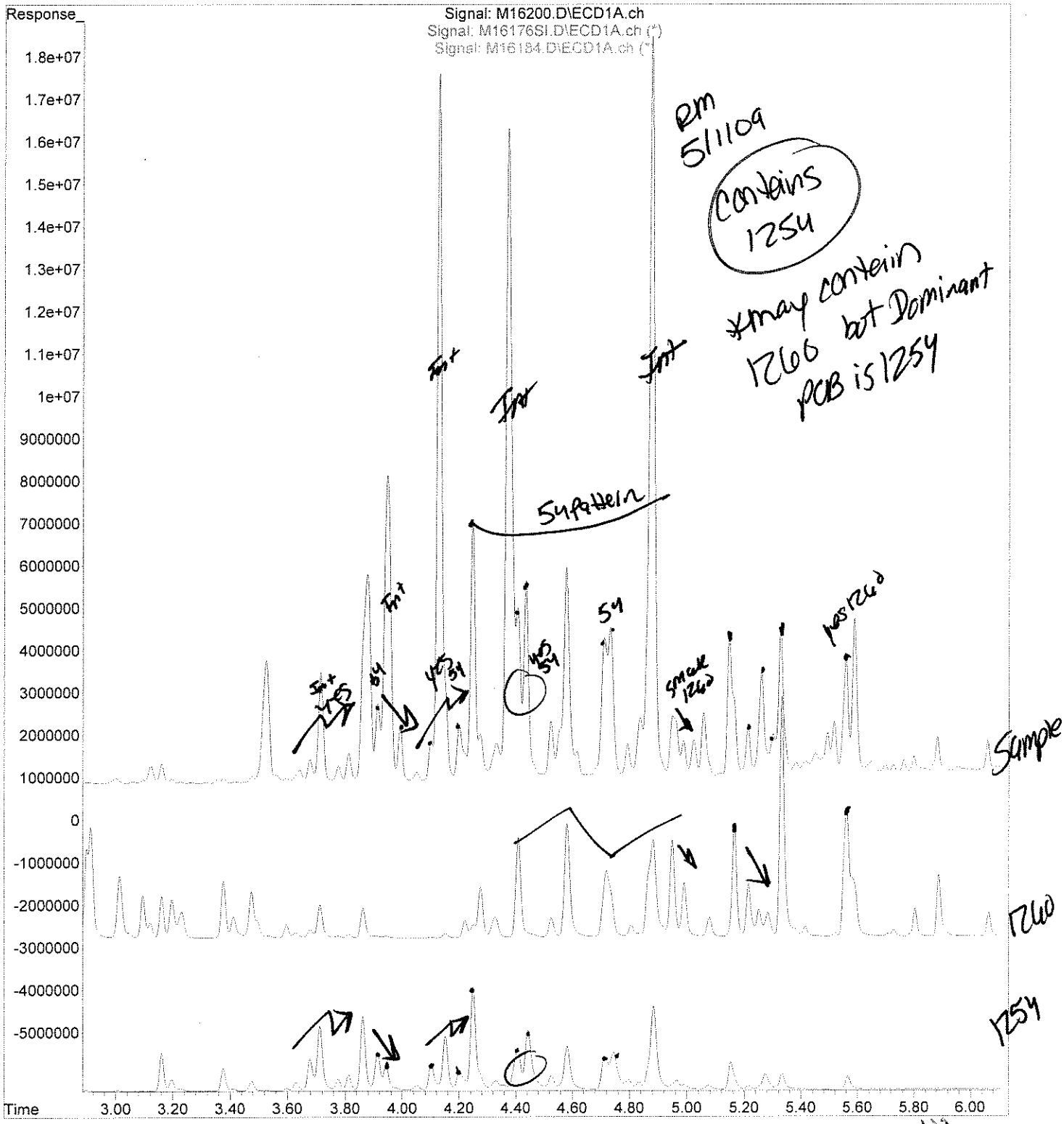
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 01 12:51:00 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\043009-M\M16200.D
Operator :
Acquired : 30 Apr 2009 10:02 pm using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63731-19,,A/C
Misc Info : SOIL
Vial Number: 40



analytics environmental laboratory LLC

PCB
QC FORMS

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:PCBQC.doc

PCB AQUEOUS
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: L
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63731

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04289PW	71		53		66		56	
L04289PWB	66		67		62		71	
LD04289PWB	70		49		66		52	
63731-11	77		66		72		66	

		Lower Limit	Upper Limit
SMC #1 =	TCX	46	122
SMC #2 =	DCB	40	135

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63731

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04289PSOX,,A/C	107		106		106		102	
L04289PSOX,,A/C	107		111		107		108	
LD04289PSOX,,A/C	101		106		101		103	
63731-1,1:20,,A/C	D		D		D		D	
63731-2,1:20,,A/C	D		D		D		D	
63731-3,1:20,,A/C	D		D		D		D	
63731-4,1:100,,A/C	D		D		D		D	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

\# Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63731

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04289PSOX,RR,,A/C	105		111		106		110	
63731-5,,A/C	98		99		99		98	
63731-7,,A/C	94		95		96		94	
63731-8,,A/C	94		95		96		93	
63731-9,,A/C	96		103		97		101	
63731-10,,A/C	96		102		98		100	
63731-12,,A/C	98		100		103		100	
63731-13,,A/C	97		99		99		98	
63731-14,,A/C	100		101		100		99	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB FORM 2

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63731

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04299PSOX,,A/C	91		113		91		113	
L04299PSOX,,A/C	87		111		87		109	
LD04299PSOX,,A/C	86		108		86		106	
63731-15,,A/C	90		110		90		102	
63731-15,MS,,A/C	90		105		89		101	
63731-15,MSD,,A/C	92		107		91		103	
63731-16,,A/C	83		98		83		95	
63731-17,,A/C	85		96		85		94	
63731-18,,A/C	92		102		91		99	
63731-19,,A/C	89		102		91		100	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63731

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04299PSOX,RR,,A/C	84		99		81		102	
63731-6,1:5,,A/C	85		96		80		95	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB FORM 2

PCB AQUEOUS
LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE
PERCENT RECOVERY

Instrument ID: L

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63731

Non-spiked sample: B04289PW

Spike: L04289PWB

Spike duplicate: LD04289PWB

COMPOUND	LCS SPIKE ADDED (ug/L)	LCSD SPIKE ADDED (ug/L)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
PCB 1016	1.6	1.6	79	113	25	0.00	1.52	96		1.54	97		0.9	
PCB 1260	1.8	1.8	58	115	25	0.00	1.52	87		1.40	80		8.3	
PCB 1016 #2	1.5	1.5	81	112	25	0.00	1.41	95		1.42	96		0.8	
PCB 1260 #2	1.6	1.6	54	123	25	0.00	1.43	88		1.31	80		9.2	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been volume adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

PCB FORM 3

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63731

Non-spiked sample: B04289PSOX,,A/C

Spike: L04289PSOX,,A/C

Spike duplicate: LD04289PSOX,,A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	200	200	65	140	30	0	228	114		226	113		0.9	
PCB 1260	200	200	60	130	30	0	207	103		203	101		1.8	
PCB 1016 #2	200	200	65	140	30	0	222	111		222	111		0.0	
PCB 1260 #2	200	200	60	130	30	0	213	107		204	102		4.7	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

PCB FORM 3

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63731

Non-spiked sample: B04299PSOX,,A/C

Spike: L04299PSOX,,A/C

Spike duplicate: LD04299PSOX,,A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	200	200	65	140	30	0	183	91		179	89		2.3	
PCB 1260	200	200	60	130	30	0	184	92		179	90		2.4	
PCB 1016 #2	200	200	65	140	30	0	176	88		172	86		2.0	
PCB 1260 #2	200	200	60	130	30	0	185	93		180	90		2.8	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

PCB SOIL
MATRIX SPIKE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63731

Non-spiked sample: 63731-15,,A/C

Spike: 63731-15,MS,,A/C

Spike duplicate: 63731-15,MSD,,A/C

COMPOUND	MS SPIKE ADDED (ug/kg)	MSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	243	250	65	140	30	0	215	88		224	89		4.2	
PCB 1260	243	250	60	130	30	126	294	69		316	76		7.1	
PCB 1016 #2	243	250	65	140	30	0	233	96		244	97		4.5	
PCB 1260 #2	243	250	60	130	30	92	292	82		315	89		7.6	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

MS/MSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

CHAIN OF CUSTODIES

Chain Of Custody Form

analytics environmental laboratory LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 6 (on ice) JF 4/28/09
3) Received in good condition Y or N
4) pH checked by: JF 4/28/09
5) Labels checked by: 4-28-09

Project#: 210918 Proj. Name: UMASS - LGRC
Company: Woodard & Curran
Contact: GEORGE FRANKLIN/AMY WALLACE
Address: 35 New England Business Ctr.
Andover, MA 01810
Phone: (866)702-6371 PO# Quote # WCI 8091001
Sampler (Signature):

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

Preservation

Location Identification	Sample Date	Sample Time	Analysis	Unpres	4°C	HNO3	H2SO4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
LGRC-SS50-134	4/27/09	1322	PCBs-8082	X	X						Soil	1	G		63731-1
LGRC-SS49-133	↓	1329		X	X						↓	↓	↓		-2
LGRC-SS48-132		1345		X	X										-3
LGRC-SS47-131		1350		X	X										-4
LGRC-VSS-057		1603		X	X										-5
LGRC-VSS-058		1607		X	X										-6
LGRC-VSS-059		1610		X	X										-7
LGRC-VSS-060		1613		X	X										-8
LGRC-VSS-061		1625		X	X										-9
LGRC-VSS-062	↓	1730		X	X						↓	↓	↓		-10
LGRC-VSS-904	4/28/09	0940		X	X						Water	1	G		-11

Email Results to:
George Franklin
Jeff Hamel
Amy Wallace

Turnaround Time (TAT)
☐ 24hr* ☐ 48hr*
☐ 72hr* ☒ 5 Days*
☐ 10 Days
*Fee may apply; lab approval required

Comments / Instructions:
PCBs by 8082
SOXHLET EXTRACTION
Amber Liter tested neg. for residual Chlorine. JF 4/28/09
Amber Liter checked for pH. 5.5 JF 4/28/09
- Call George or Amy to confirm

Project Requirements:
*Fee may apply

Report Type:
☐ MCP* ☑ Level II*
☐ CTRCP* ☐ Level III*
☐ DOD* ☐ Level IV*
☐ Standard

State:
☐ NH
☐ MA
☐ ME
☐ CT
☐ RI
Other: TSCA

State Standard:
(eg. S-1 or GW-1)
EDD Required: Y* N
Type:

Received By: [signature] Time: 1415 Date: 4/28/09
Received By: Time: Date:
Received By: Time: Date:
Relinquished By Sampler: [signature] Relinquished By: Relinquished By:

Chain Of Custody Form

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 6 (on ice) JF 4/28/09
3) Received in good condition (Y) or N
4) pH checked by: JF 4/28/09
5) Labels checked by: lg 4/28/09

Project#: 210918 Proj. Name: UMASS - LGRC
Company: Woodard & Curran
Contact: GEORGE FRANKLIN/AMY WALLACE
Address: 35 New England Business Ctr.
Andover, MA 01810
Phone: (866)702-6371 PO# Quote # WCI 8091001
Sampler (Signature):

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

Station Identification	Sample Date	Sample Time	Analysis	Unpres	4°C	HNO_3	H_2SO_4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
LGRC-VSS-069	4/28/09	1327	PCBs-8082	X	X						SOIL	1	6		63731-12
LGRC-VSS-068	4/28/09	1330		X	X										-13
LGRC-VSS-067		1333		X	X										-14
LGRC-VSS-066		1336		X	X										-15
LGRC-VSS-065		1339		X	X										-16
LGRC-VSS-504		1339		X	X										-17
LGRC-VSS-064		1342		X	X										-18
LGRC-VSS-063		1345		X	X										-19

Email Results to:
George Franklin
Jeff Hamel
Amy Wallace

Comments / Instructions:
PCBs by 8082
SOXHLET EXTRACTION

Turnaround Time (TAT)
☐ 24hr* ☐ 48hr*
☐ 72hr* ☒ 5 Days* — call GJF to confirm AW
☐ 10 Days
*Fee may apply; lab approval required

Project Requirements:
*Fee may apply

Report Type:
☐ MCP* ☑ Level II*
☐ CTRCP* ☐ Level III*
☐ DOD* ☐ Level IV*
☐ Standard

State:
☐ NH
☐ MA
☐ ME
☐ CT
☐ RI
Other: TSCA

State Standard: _____ (eg. S-1 or GW-1)
EDD Required: Y* N
Type: _____

Relinquished By Sampler: [signature] Date: 4/28/09 Time: 1915
Received By: [signature]
Relinquished By: Date: Time:
Received By:
Relinquished By: Date: Time:
Received By:

Analytics Report 63731 page 0096 of 97

analytics environmental laboratory LLC

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 63731

CLIENT: WOODARD

PROJECT: UMASS

COOLER NUMBER: —

NUMBER OF COOLERS: 1

DATE RECEIVED: 4.28.09

A: PRELIMINARY EXAMINATION:

DATE COOLER OPENED: 4.28.09

1. Cooler received by(initials) — Date Received: 4.28.09

2. Circle one: Hand delivered (If so, skip 3) — Shipped

3. Did cooler come with a shipping slip? Y N NA

3a. Enter carrier name and airbill number here: _____

4. Were custody seals on the outside of cooler? Y N NA
How many & where: _____ Seal Date: _____ Seal Name: _____

5. Did the custody seals arrive unbroken and intact upon arrival? Y N NA

6. COC#: _____

7. Were Custody papers filled out properly (ink,signed, etc)? Y N

8. Were custody papers sealed in a plastic bag? Y N

9. Did you sign the COC in the appropriate place? Y N

10. Was the project identifiable from the COC papers? Y N

11. Was enough ice used to chill the cooler? Y N — Temp. of cooler: 6°C on ice

B. Log-In: Date samples were logged in: 4.28.09 By: JF

12. Type of packing in cooler(bubble wrap, popcorn) Y N

13. Were all bottles sealed in separate plastic bags? Y N

14. Did all bottles arrive unbroken and were labels in good condition? Y N

15. Were all bottle labels complete(ID,Date,time,etc.) Y N

16. Did all bottle labels agree with custody papers? Y N

17. Were the correct containers used for the tests indicated: Y N

18. Were samples received at the correct pH? Y N

19. Was sufficient amount of sample sent for the tests indicated? Y N

20. Were bubbles absent in VOA samples? Y N NA

If NO, List sample #'s: _____

21. Laboratory labeling verified by (initials): Date: 4.28.09

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

May 5, 2009

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

RE: Analytical Results Case Narrative
Analytics # 63759
UMASS LGRC Proj# 210918

Dear Mr. Franklin;

Enclosed please find the analytical results for samples submitted for the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed Polychlorinated Biphenyls (PCBs) by EPA Method 8082.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II data package has been assembled in the following order:

Case Narrative/Non-Conformance Summary
Sample Log Sheet - Cover Page
PCB Form 1 Data Sheet for Samples and Blanks
Chromatograms
PCB Form 10 Confirmation Results
PCB Form 3 MS/MSD (LCS) Recoveries
Chain of Custody (COC) Forms

QC NON CONFORMANCE SUMMARY

Sample Receipt:
No exceptions.

PCBs by EPA Method 8082:
Samples 63759-2 and 63759-10 required dilution due to high concentrations of PCB 1254 detected in the sample.

Sincerely,
ANALYTICS Environmental Laboratory, LLC

Stephen Knollmeyer
Laboratory Director

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63759

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 30 April 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63759-1	04/29/09	LGRC-VSS-070	EPA 8082 (PCBs only)	
63759-2	04/29/09	LGRC-VSS-071	EPA 8082 (PCBs only)	
63759-3	04/29/09	LGRC-VSS-072	EPA 8082 (PCBs only)	
63759-4	04/29/09	LGRC-VSS-073	EPA 8082 (PCBs only)	
63759-5	04/29/09	LGRC-VSS-074	EPA 8082 (PCBs only)	
63759-6	04/29/09	LGRC-VSS-075	EPA 8082 (PCBs only)	
63759-7	04/29/09	LGRC-VSS-076	EPA 8082 (PCBs only)	
63759-8	04/30/09	LGRC-VSS-077	EPA 8082 (PCBs only)	
63759-9	04/30/09	LGRC-VSS-078	EPA 8082 (PCBs only)	
63759-10	04/30/09	LGRC-SS88-136	EPA 8082 (PCBs only)	
63759-11	04/30/09	LGRC-VSS-079	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 5/4/2009

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63759

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 30 April 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63759-12	04/30/09	LGRC-VSS-080	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 5/4/2009

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-130	70-130	EPA 8260B
Toluene-d8	70-130	70-130	
Bromofluorobenzene	70-130	70-130	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	EPA 624/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA0	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH

PCB
DATA SUMMARIES

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 4, 2009

SAMPLE DATA

Lab Sample ID: B04299PSOX RR2
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/29/09
Analysis Date: 05/01/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	97	%
Decachlorobiphenyl	112	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

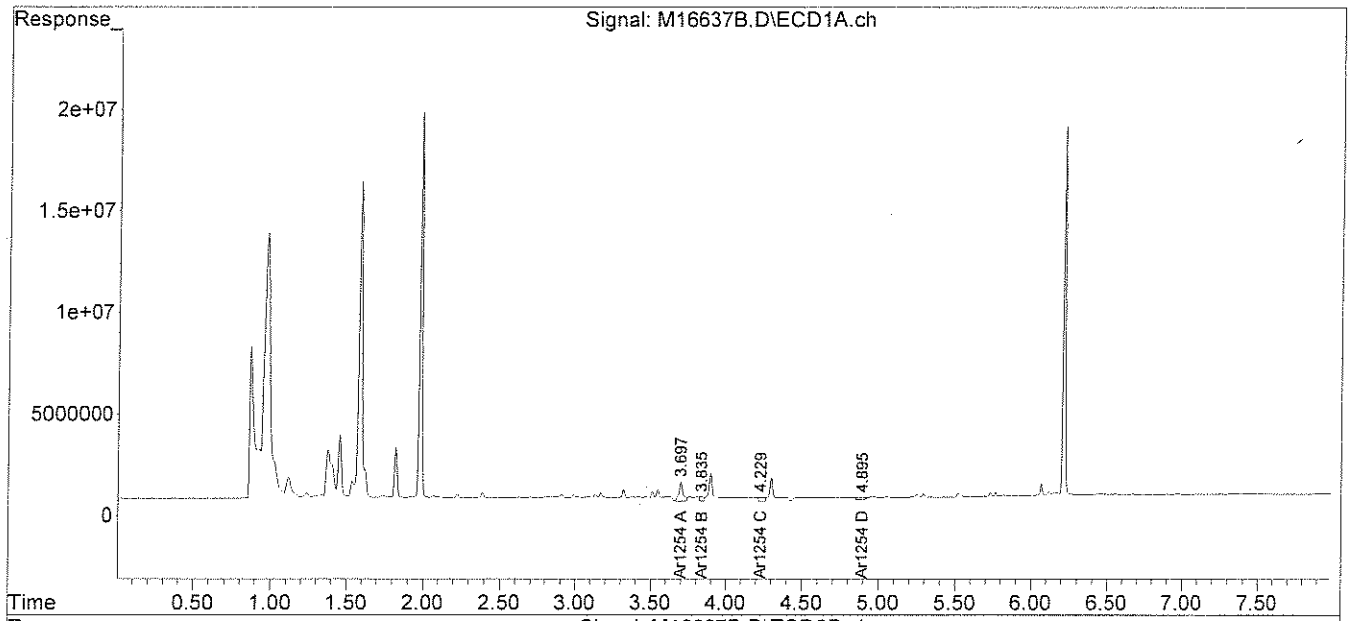
Authorized signature

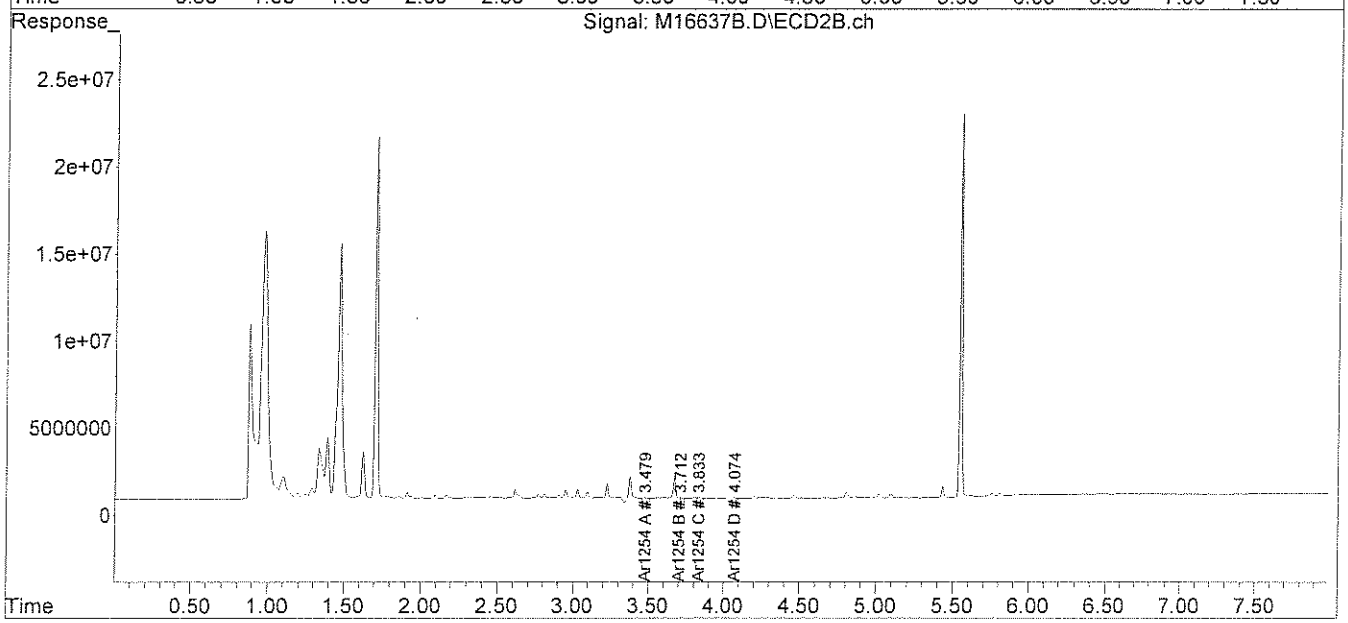
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050109-M\
Data File : M16637B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 1 May 2009 5:33 pm
Operator :
Sample : B04299PSOX,RR2,,A/C
Misc : SOIL
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 04 09:02:19 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 4, 2009

SAMPLE DATA

Lab Sample ID: B04309PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/30/09
Analysis Date: 05/01/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	93	%
Decachlorobiphenyl	105	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

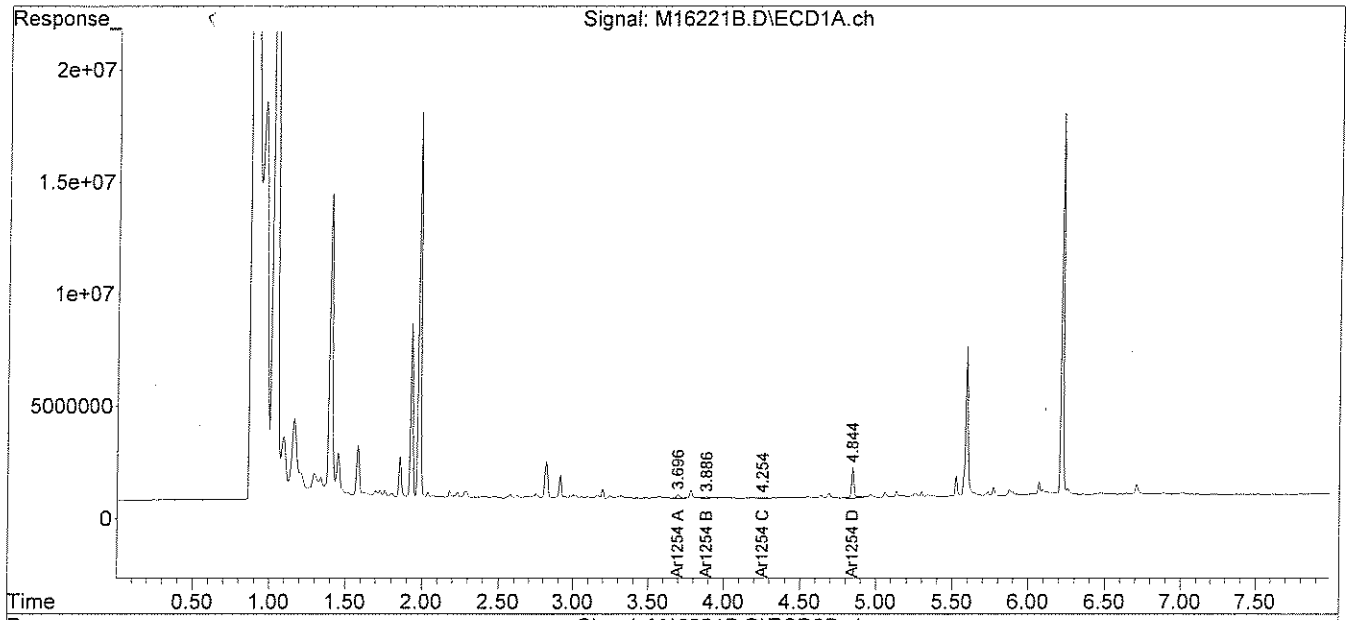
Authorized signature

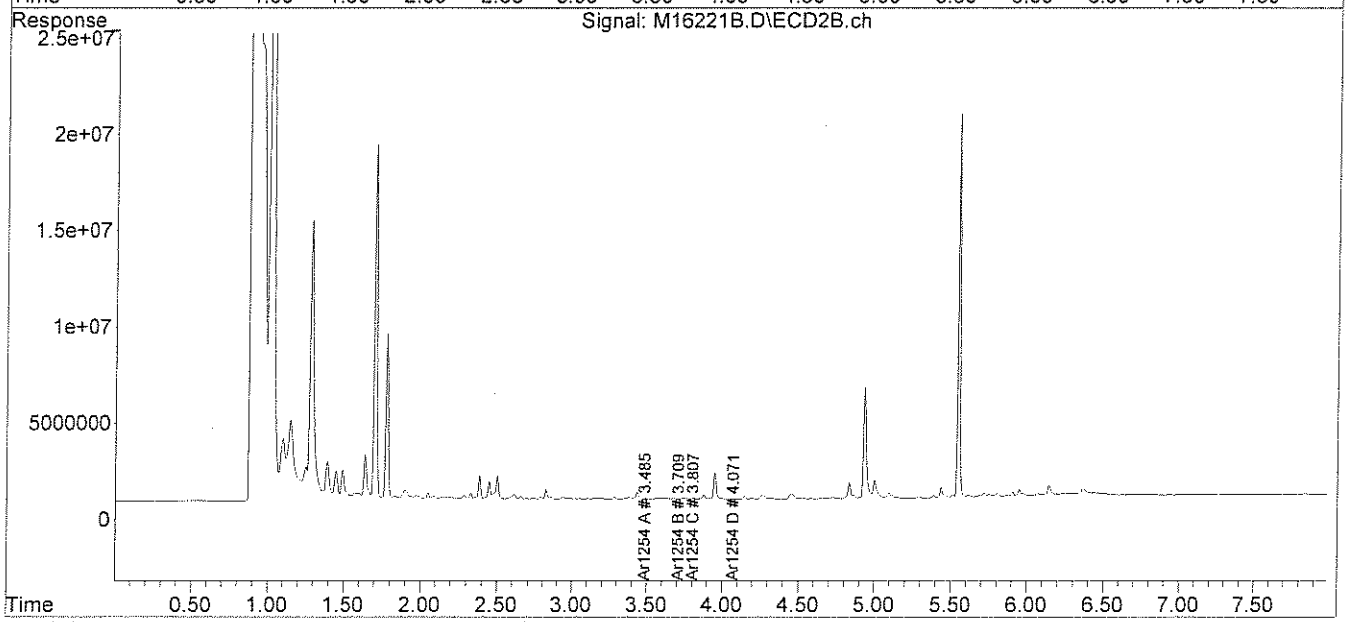
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050109-M\
Data File : M16221B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 1 May 2009 12:03 pm
Operator :
Sample : B04309PSOX,,A/C
Misc : SOIL
ALS Vial : 51 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 04 08:55:05 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 4, 2009

SAMPLE DATA

Lab Sample ID: B04299PSOX RR3
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/29/09
Analysis Date: 05/04/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	100	%
Decachlorobiphenyl	108	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

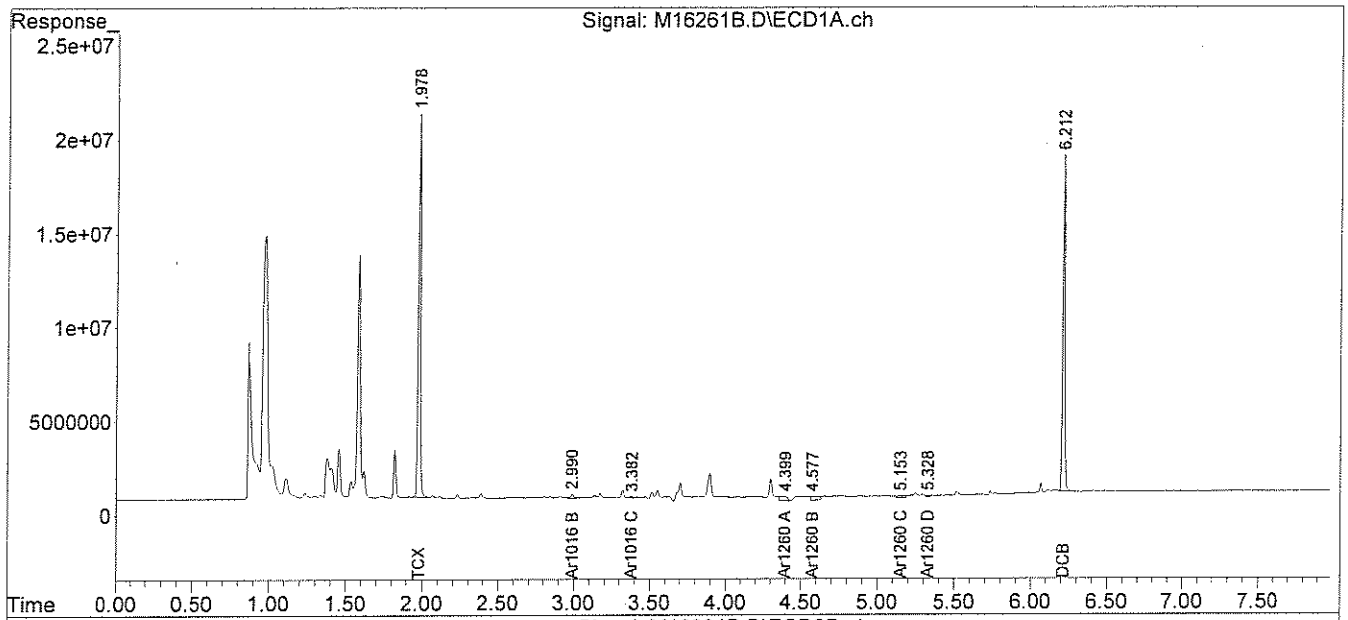
Authorized signature

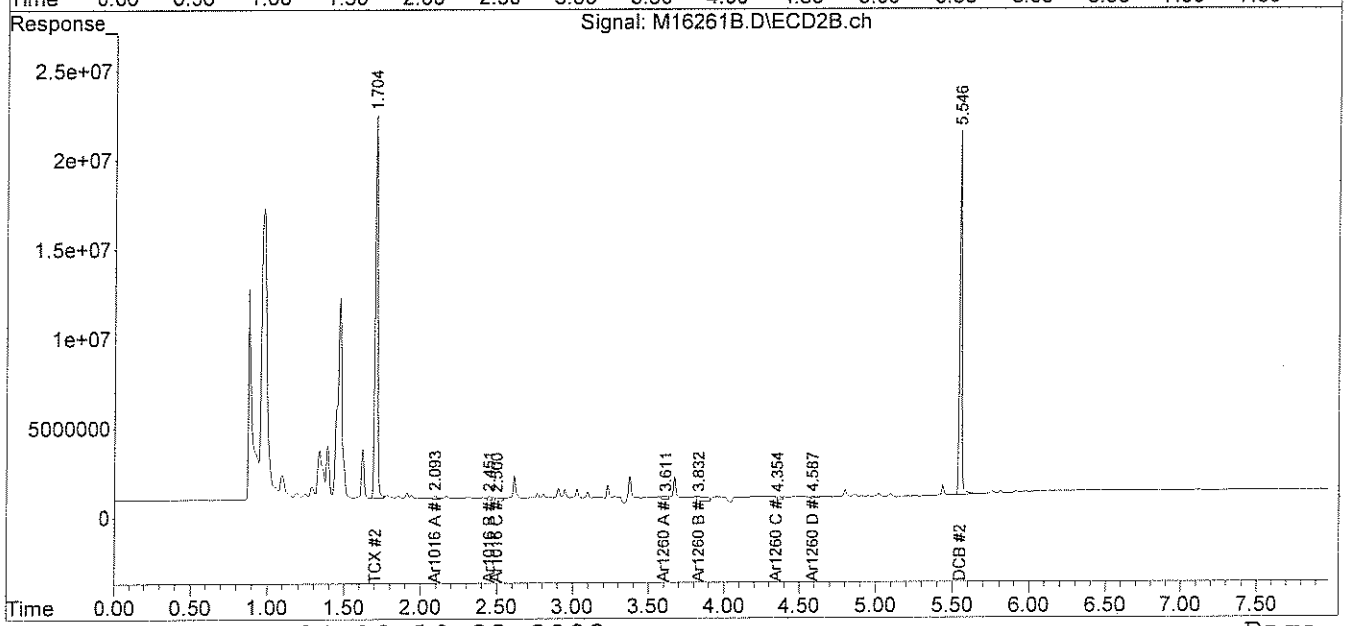
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050409-M\
Data File : M16261B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 4 May 2009 9:22 am
Operator :
Sample : B04299PSOX,RR3,,A/C
Misc : SOIL
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 04 10:10:33 2009
Quant Method : C:\msdchem\1\METHODS\PCB04309.M
Quant Title : Aroclor 1016/1260
QLast Update : Fri May 01 08:55:37 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 5, 2009

SAMPLE DATA

Lab Sample ID: B05049PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 05/04/09
Analysis Date: 05/05/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	112	%
Decachlorobiphenyl	92	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

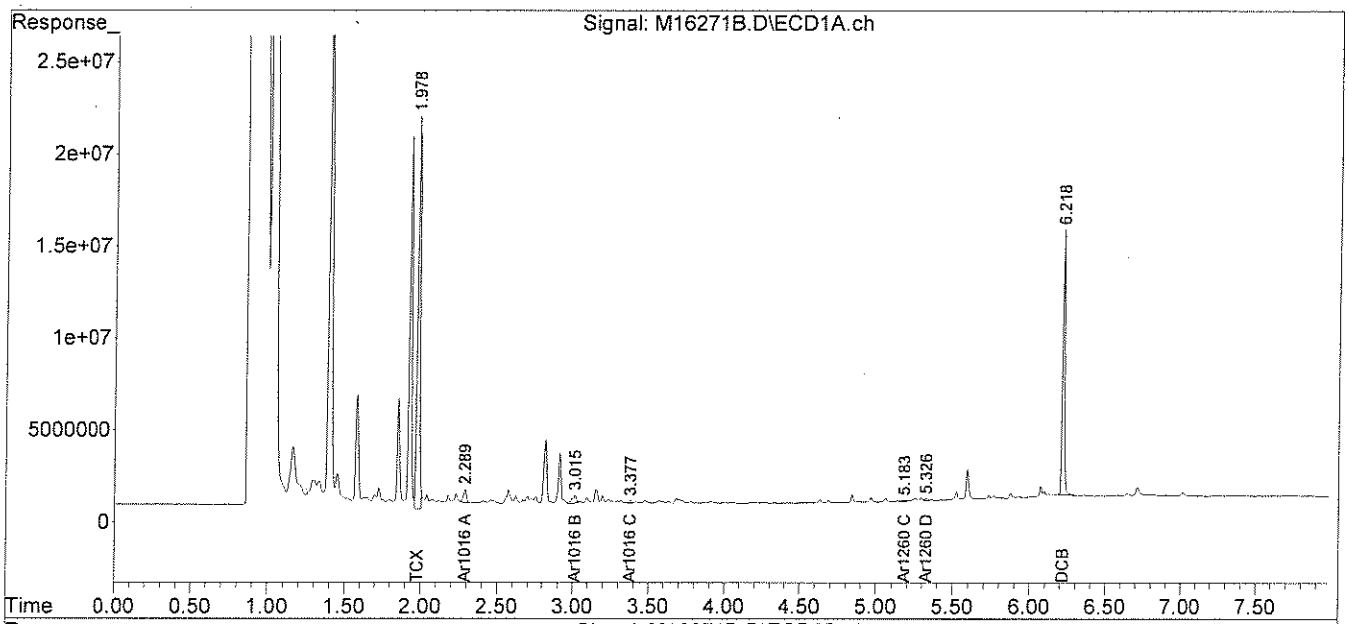
Authorized signature

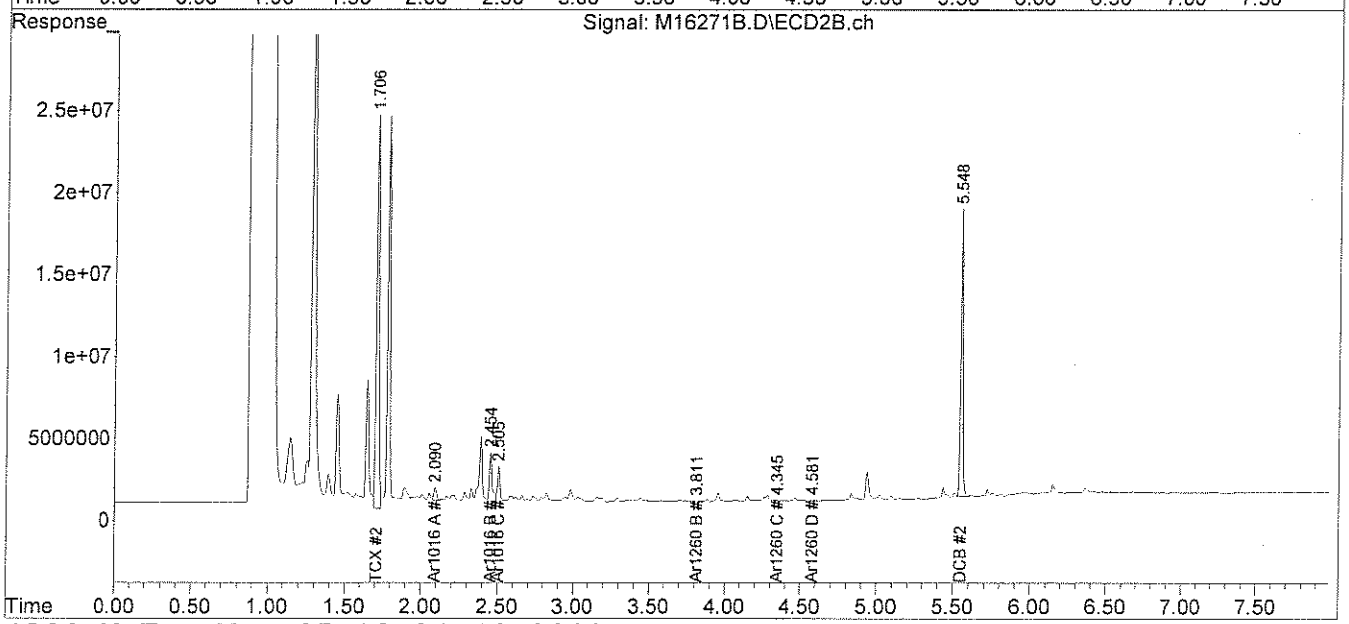
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\050409-M\
Data File : M16271B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 5 May 2009 11:56 am
Operator :
Sample : B05049PSOX,,A/C
Misc : SOIL
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 05 12:34:33 2009
Quant Method : C:\msdchem\1\METHODS\PCB04309.M
Quant Title : Aroclor 1016/1260
QLast Update : Fri May 01 08:55:37 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 4, 2009

SAMPLE DATA

Lab Sample ID:	63759-1
Matrix:	Soil
Percent Solid:	96
Dilution Factor:	1.0
Collection Date:	04/29/09
Lab Receipt Date:	04/30/09
Extraction Date:	04/30/09
Analysis Date:	05/01/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-070

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**431**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	85	%
Decachlorobiphenyl	100	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63759

Sample: 63759-1,,A/C

Data File: M16643.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	423	431	2.0	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

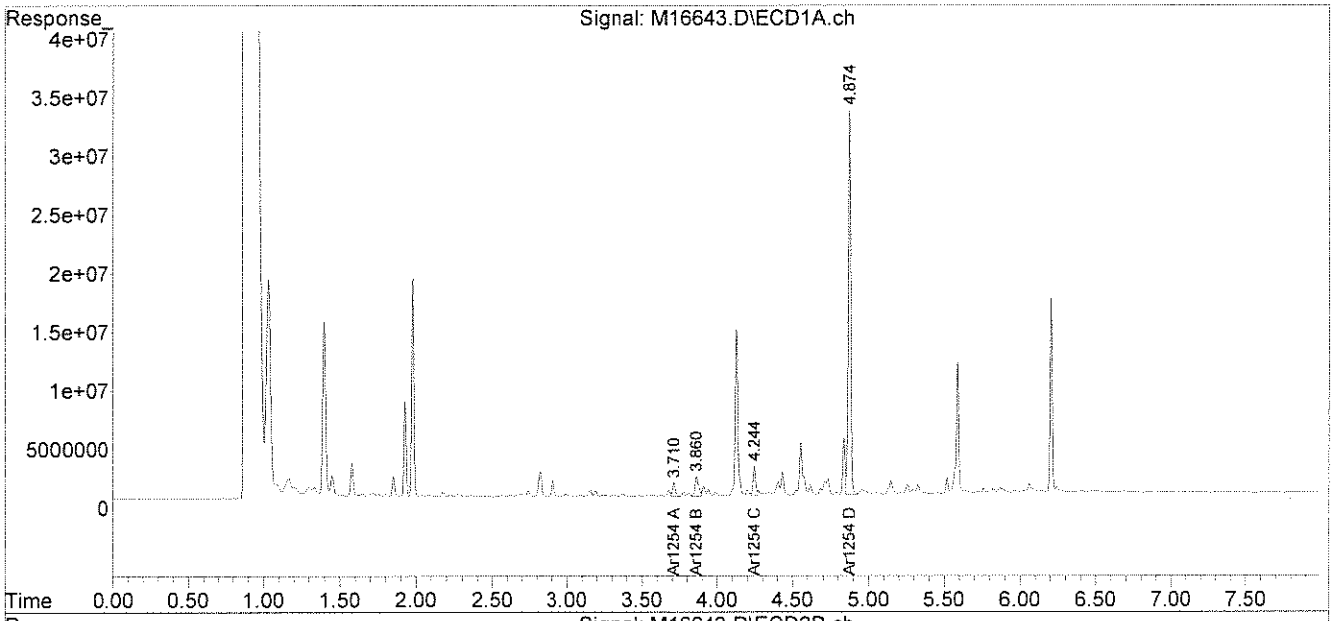
PCB FORM 10

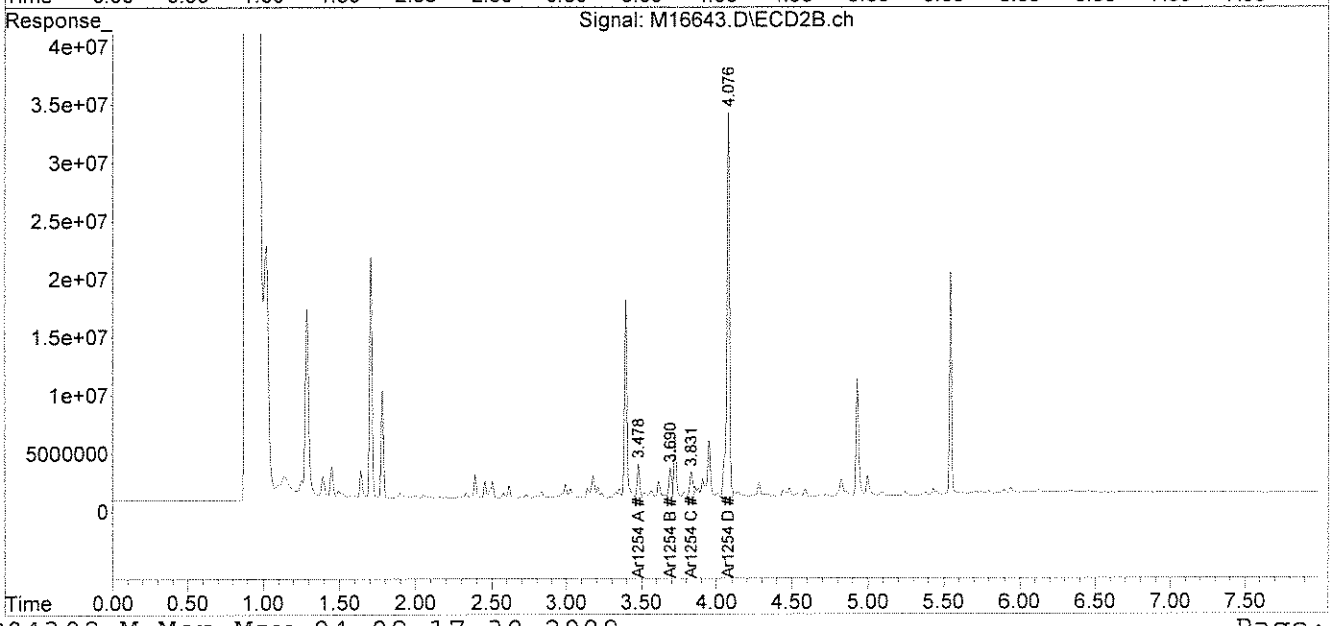
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050109-M\
Data File : M16643.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 1 May 2009 6:34 pm
Operator :
Sample : 63759-1,,A/C
Misc : SOIL
ALS Vial : 81 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 04 09:17:30 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 4, 2009

SAMPLE DATA

Lab Sample ID:	63759-2
Matrix:	Solid
Percent Solid:	97
Dilution Factor:	5
Collection Date:	04/29/09
Lab Receipt Date:	04/30/09
Extraction Date:	04/30/09
Analysis Date:	05/01/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-071

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	170	U
PCB-1221	170	U
PCB-1232	170	U
PCB-1242	170	U
PCB-1248	170	U
PCB-1254	170	**1760**
PCB-1260	170	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	89	%
Decachlorobiphenyl	119	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63759
Sample: 63759-2,1:5,,A/C
Data File: M16638.D
Dilution Factor: 5.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	1493	1757	16.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

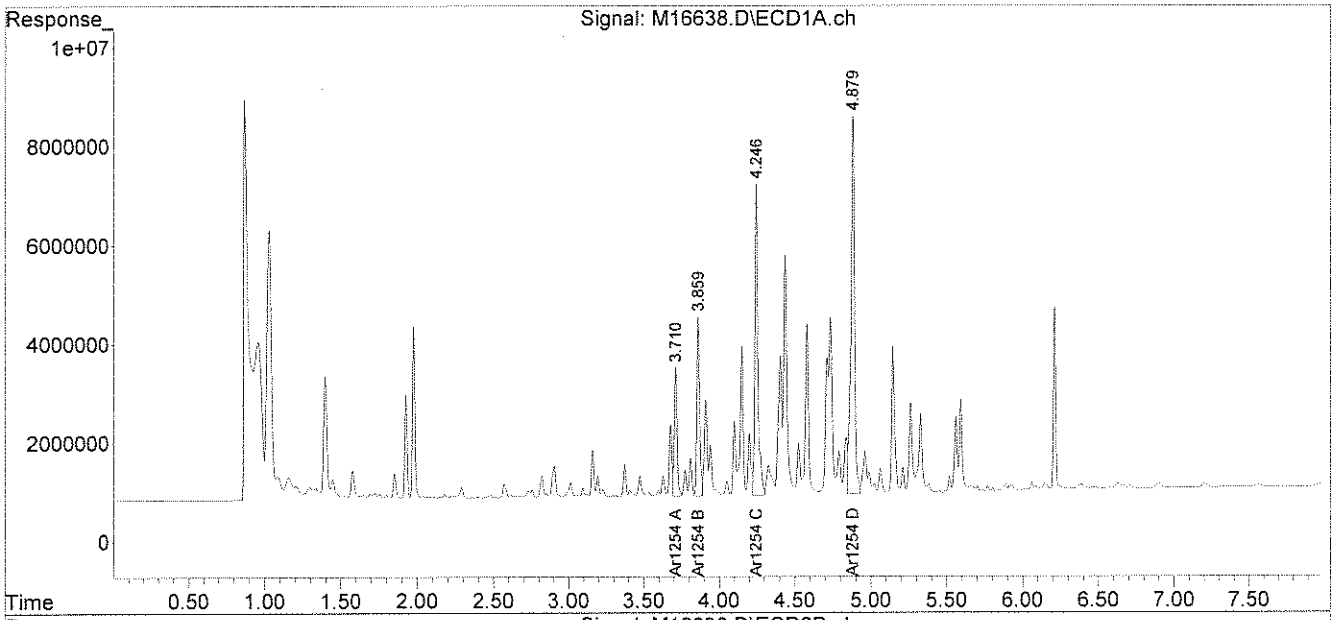
PCB FORM 10

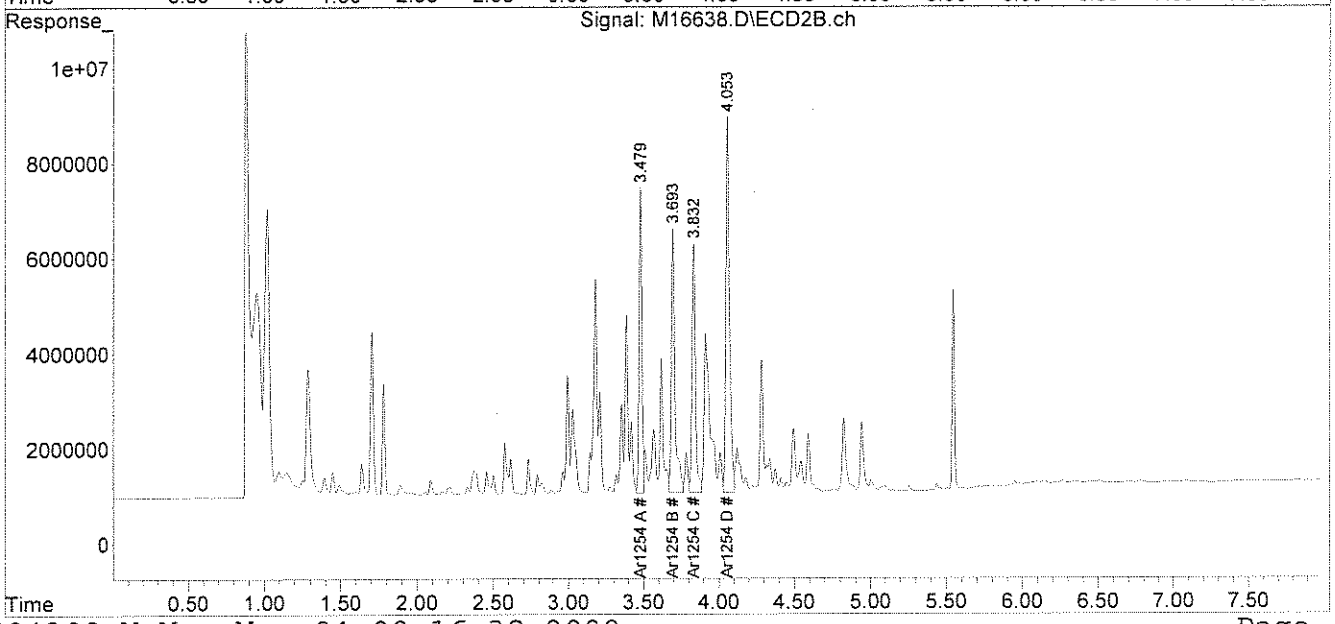
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050109-M\
Data File : M16638.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 1 May 2009 5:43 pm
Operator :
Sample : 63759-2,1:5,,A/C
Misc : SOIL
ALS Vial : 76 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 04 09:16:25 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 4, 2009

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: UMASS-LGRC

Project Number: 210918

Field Sample ID: LGRC-VSS-072

Lab Sample ID: 63759-3
Matrix: Solid
Percent Solid: 98
Dilution Factor: 1.0
Collection Date: 04/29/09
Lab Receipt Date: 04/30/09
Extraction Date: 04/30/09
Analysis Date: 05/01/09

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**25 J**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	87	%
Decachlorobiphenyl	111	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63759

Sample: 63759-3,,A/C

Data File: M16225.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	23 J	25 J	9.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

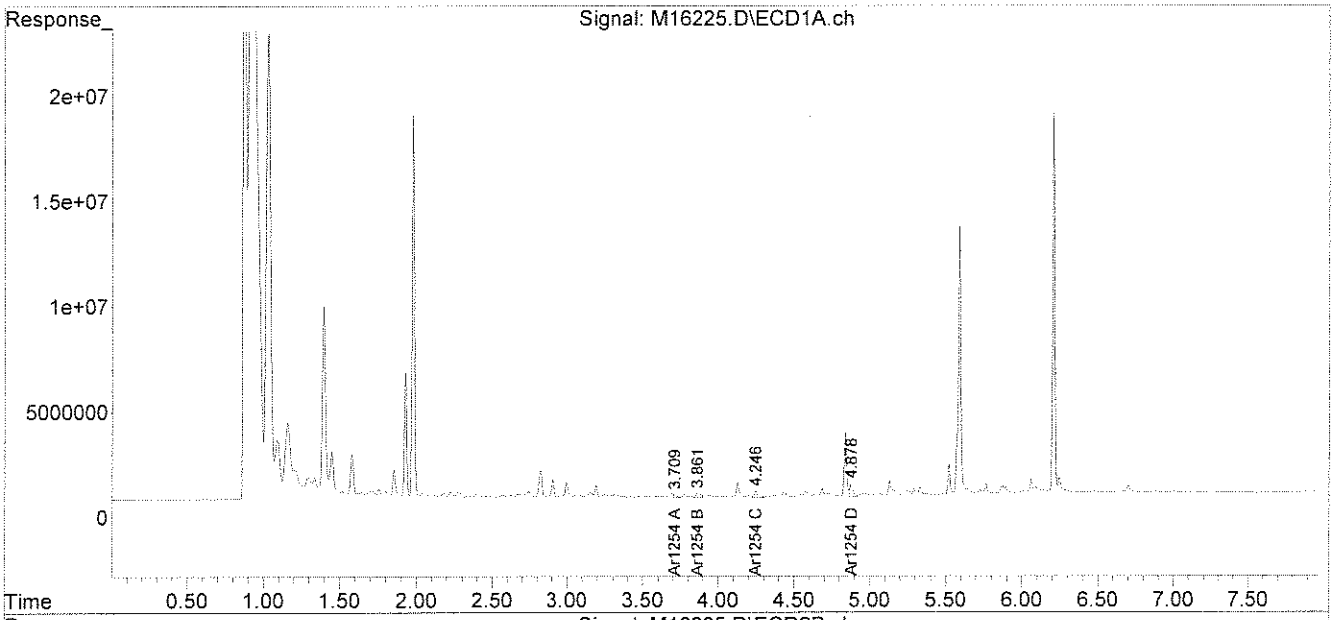
PCB FORM 10

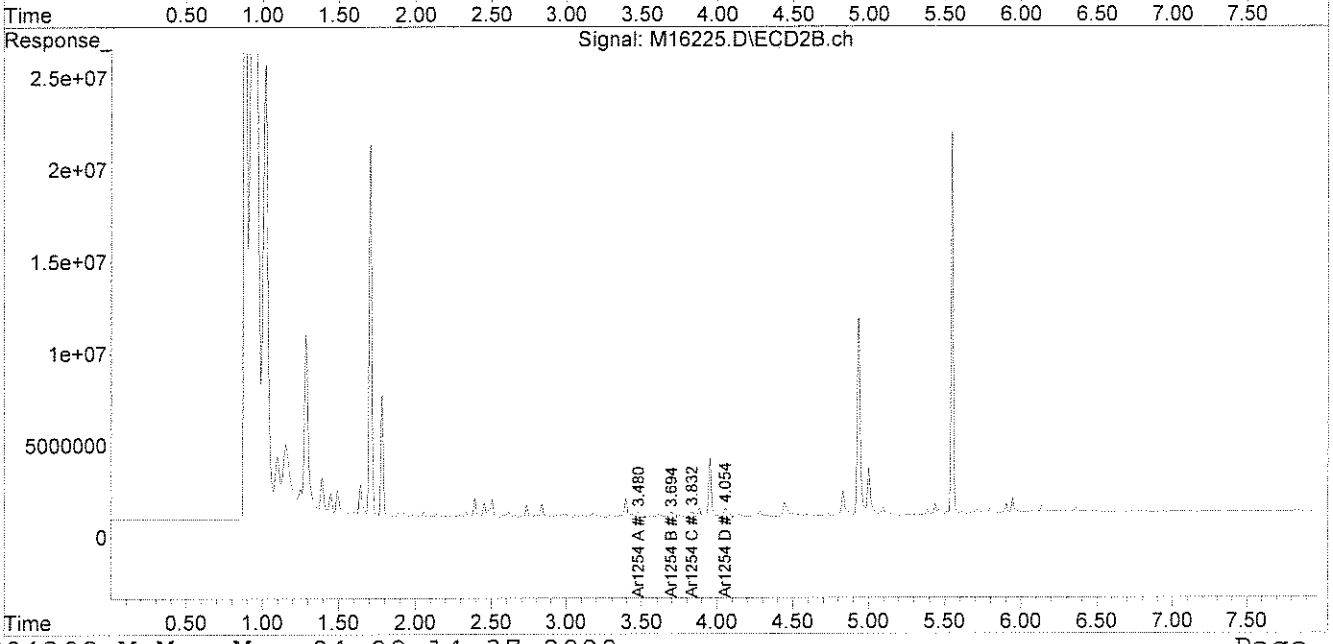
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050109-M\
Data File : M16225.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 1 May 2009 12:45 pm
Operator :
Sample : 63759-3,,A/C
Misc : SOIL
ALS Vial : 55 Sample Multiplier: 1

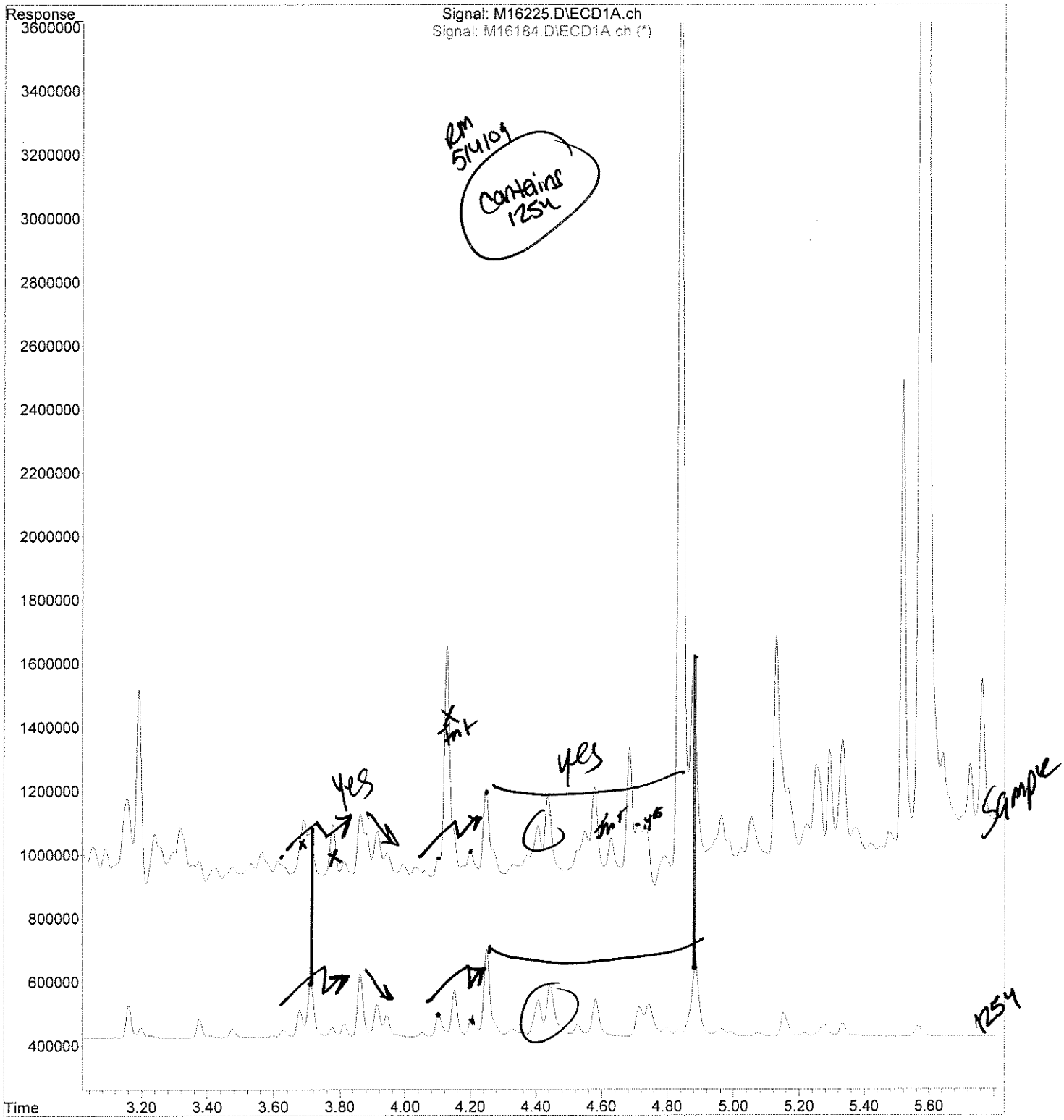
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 04 09:14:37 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\050109-M\M16225.D
Operator :
Acquired : 1 May 2009 12:45 pm using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63759-3,,A/C
Misc Info : SOIL
Vial Number: 55



analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 4, 2009

SAMPLE DATA

Lab Sample ID:	63759-4
Matrix:	Solid
Percent Solid:	96
Dilution Factor:	1.0
Collection Date:	04/29/09
Lab Receipt Date:	04/30/09
Extraction Date:	04/30/09
Analysis Date:	05/01/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-073

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**446**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	89	%
Decachlorobiphenyl	104	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63759

Sample: 63759-4,,A/C

Data File: M16644.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	446	301	38.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

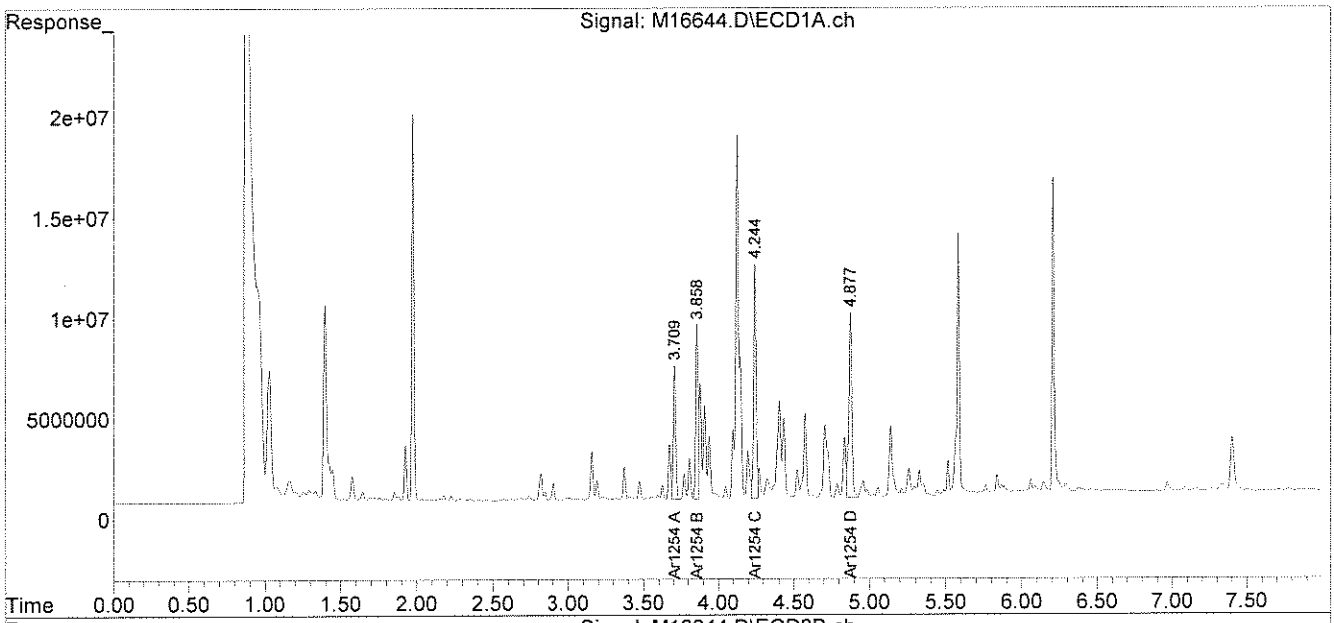
PCB FORM 10

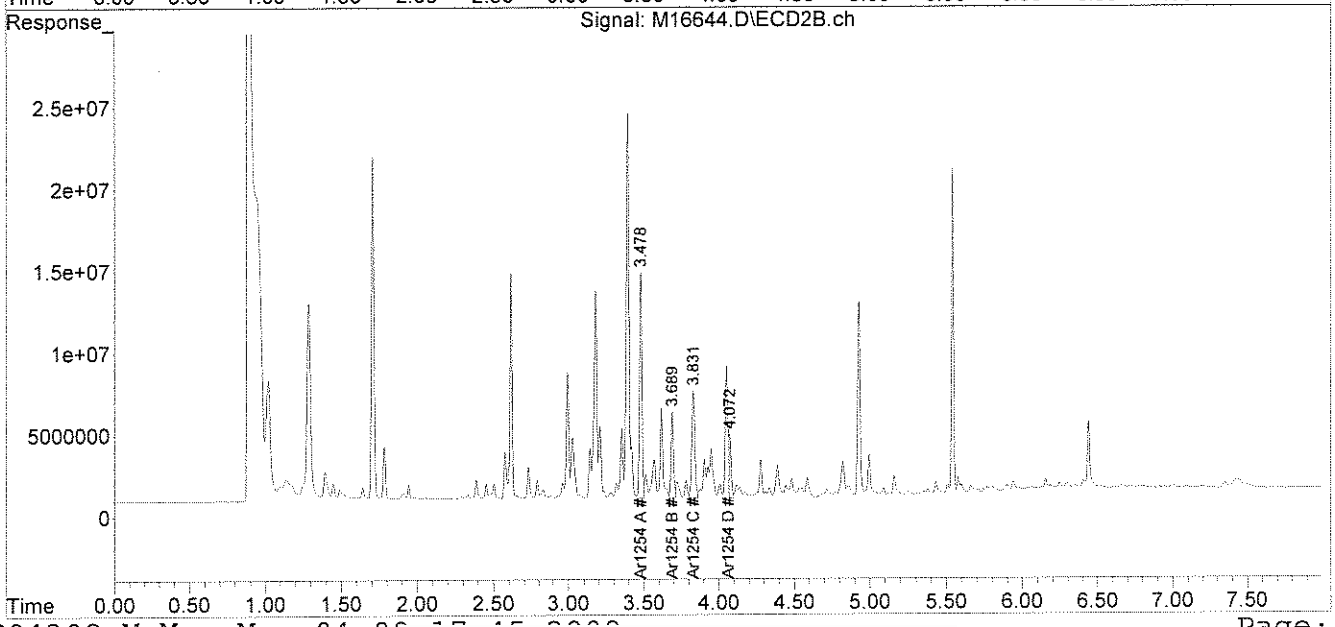
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050109-M\
Data File : M16644.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 1 May 2009 6:44 pm
Operator :
Sample : 63759-4,,A/C
Misc : SOIL
ALS Vial : 82 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 04 09:17:38 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 4, 2009

SAMPLE DATA

Lab Sample ID:	63759-5
Matrix:	Solid
Percent Solid:	96
Dilution Factor:	1.0
Collection Date:	04/29/09
Lab Receipt Date:	04/30/09
Extraction Date:	04/30/09
Analysis Date:	05/01/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-074

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**974**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	92	%
Decachlorobiphenyl	106	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63759
Sample: 63759-5,,A/C
Data File: M16641.D
Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	974	960	1.4	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

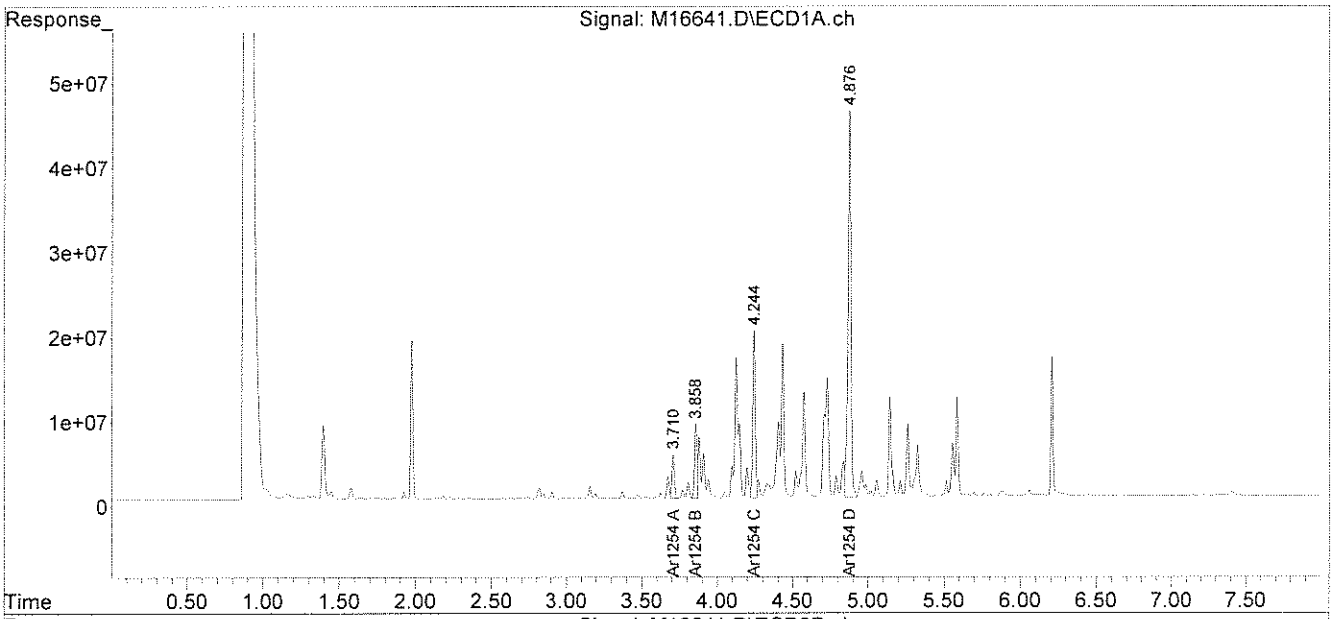
PCB FORM 10

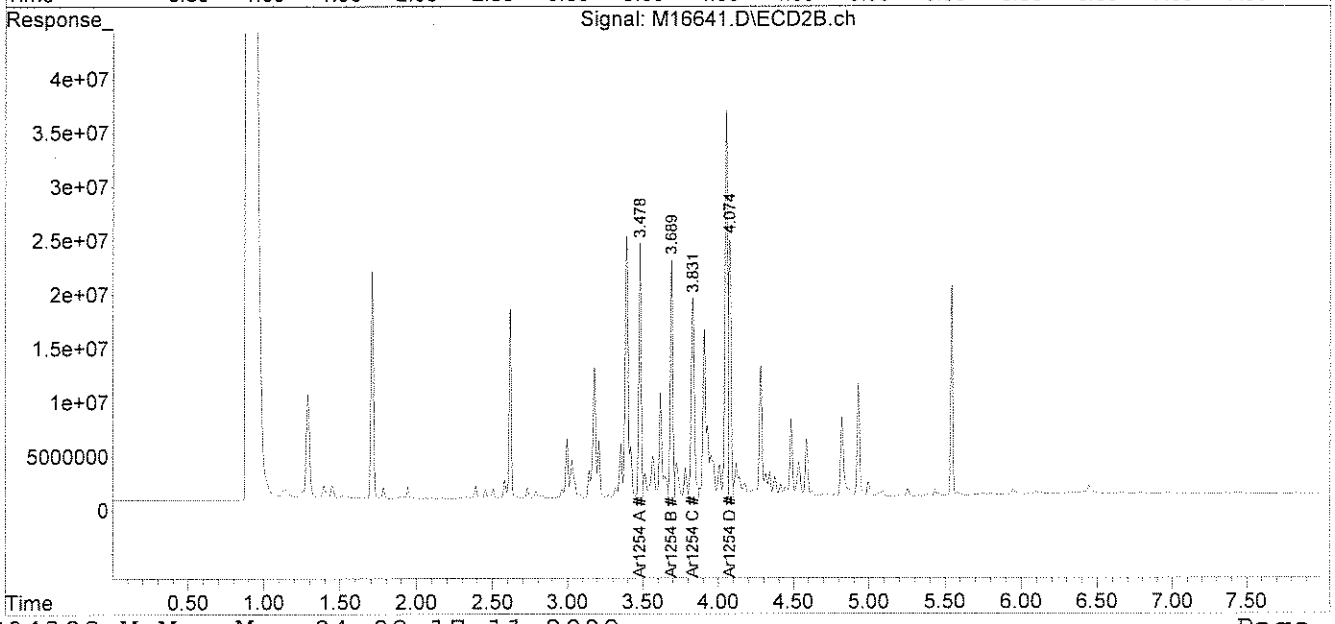
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050109-M\
Data File : M16641.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 1 May 2009 6:14 pm
Operator :
Sample : 63759-5,,A/C
Misc : SOIL
ALS Vial : 79 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 04 09:17:05 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 4, 2009

SAMPLE DATA

Lab Sample ID: 63759-6
Matrix: Solid
Percent Solid: 95
Dilution Factor: 1.0
Collection Date: 04/29/09
Lab Receipt Date: 04/30/09
Extraction Date: 04/30/09
Analysis Date: 05/01/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: LGRC-VSS-075

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**245**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	91	%
Decachlorobiphenyl	106	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63759

Sample: 63759-6,,A/C

Data File: M16642.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	182	245	29.7	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

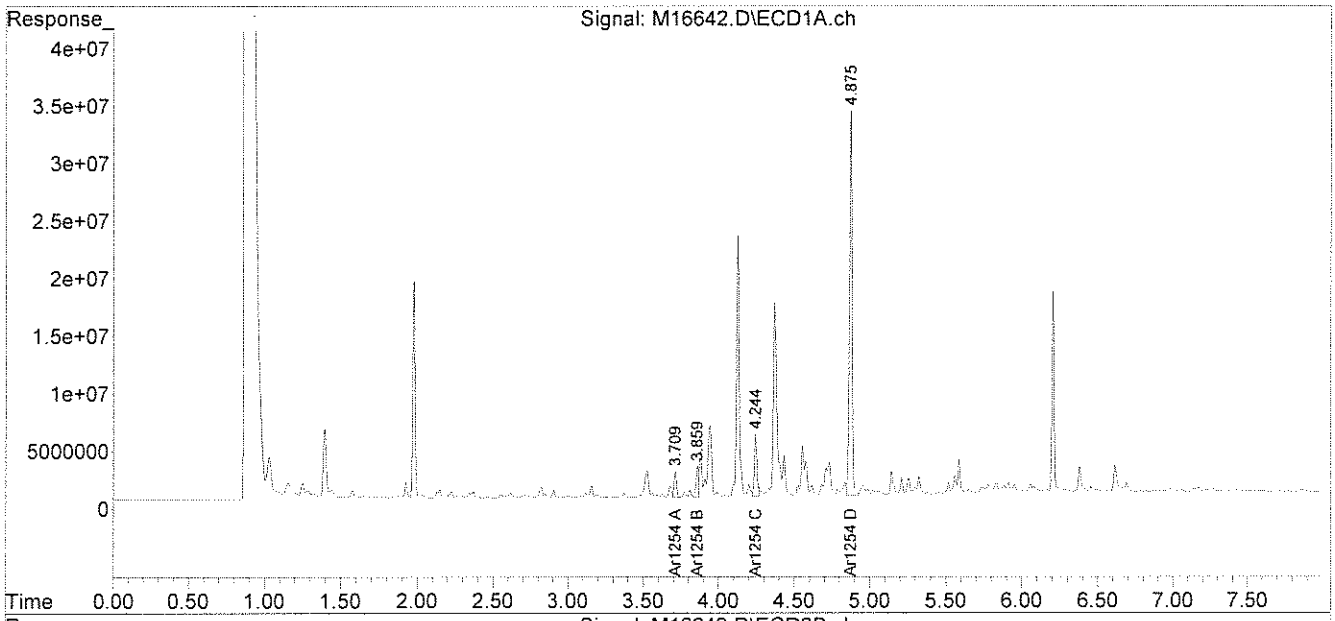
PCB FORM 10

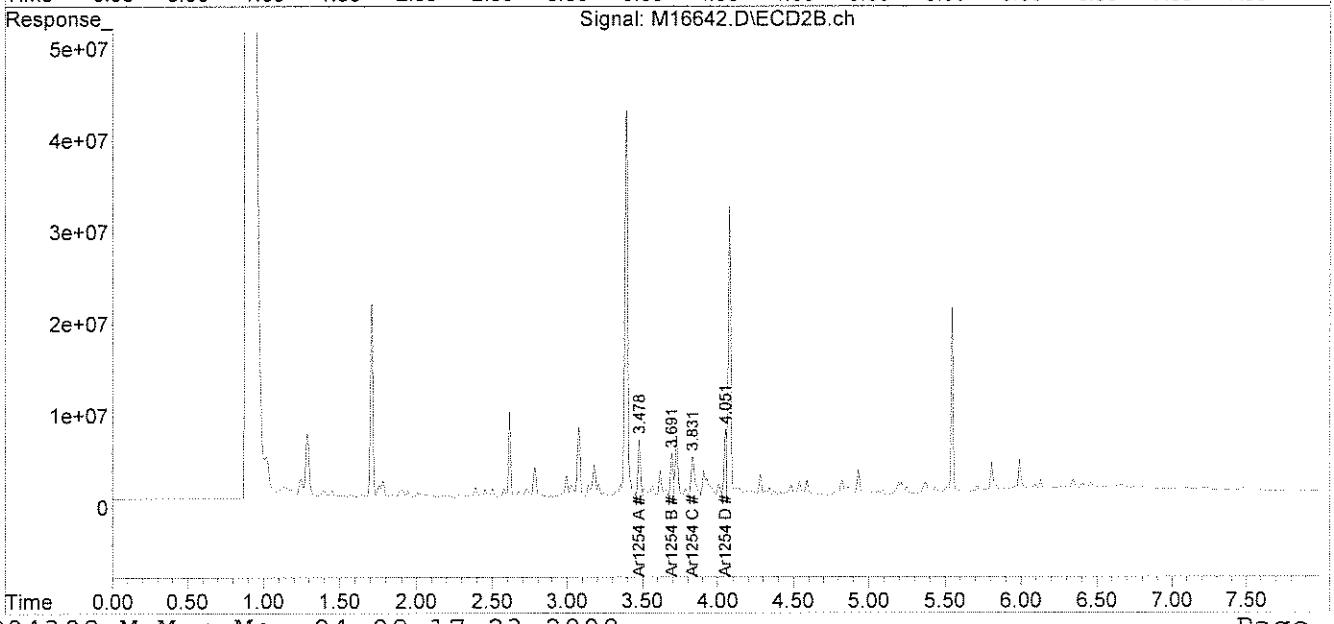
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050109-M\
Data File : M16642.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 1 May 2009 6:24 pm
Operator :
Sample : 63759-6,,A/C
Misc : SOIL
ALS Vial : 80 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 04 09:17:22 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 4, 2009

SAMPLE DATA

Lab Sample ID:	63759-7
Matrix:	Solid
Percent Solid:	99
Dilution Factor:	1.0
Collection Date:	04/29/09
Lab Receipt Date:	04/30/09
Extraction Date:	04/30/09
Analysis Date:	05/01/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-076

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**353**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	95	%
Decachlorobiphenyl	115	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63759

Sample: 63759-7,,A/C

Data File: M16640.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	283	353	22.0	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

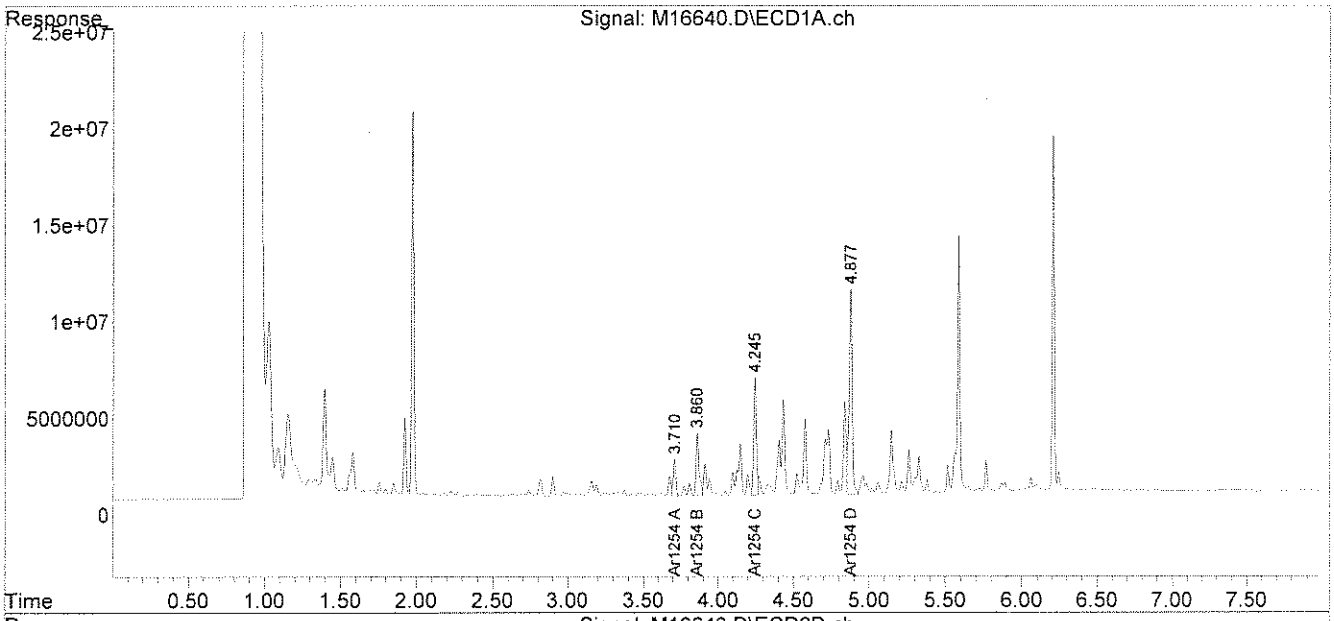
PCB FORM 10

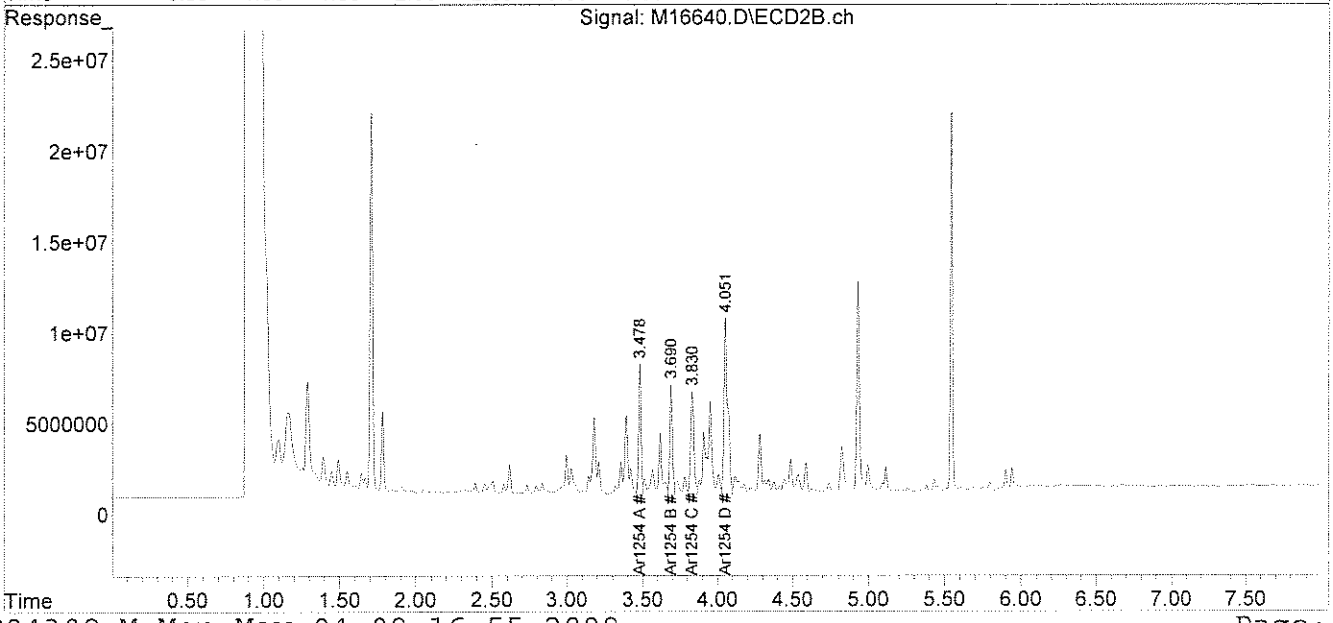
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050109-M\
Data File : M16640.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 1 May 2009 6:04 pm
Operator :
Sample : 63759-7,,A/C
Misc : SOIL
ALS Vial : 78 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 04 09:16:54 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 4, 2009

SAMPLE DATA

Lab Sample ID:	63759-8
Matrix:	Solid
Percent Solid:	97
Dilution Factor:	1.0
Collection Date:	04/30/09
Lab Receipt Date:	04/30/09
Extraction Date:	04/30/09
Analysis Date:	05/01/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-077

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**738**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	85	%
Decachlorobiphenyl	106	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63759

Sample: 63759-8,,A/C

Data File: M16226.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	628	738	16.2	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

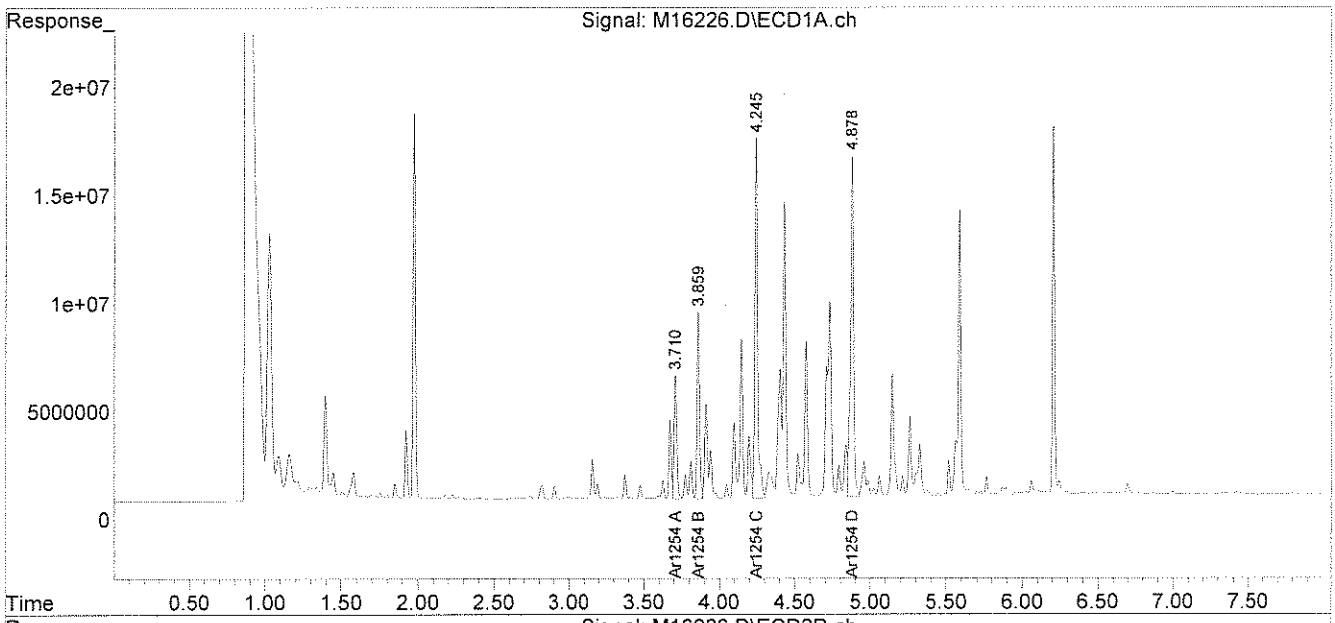
PCB FORM 10

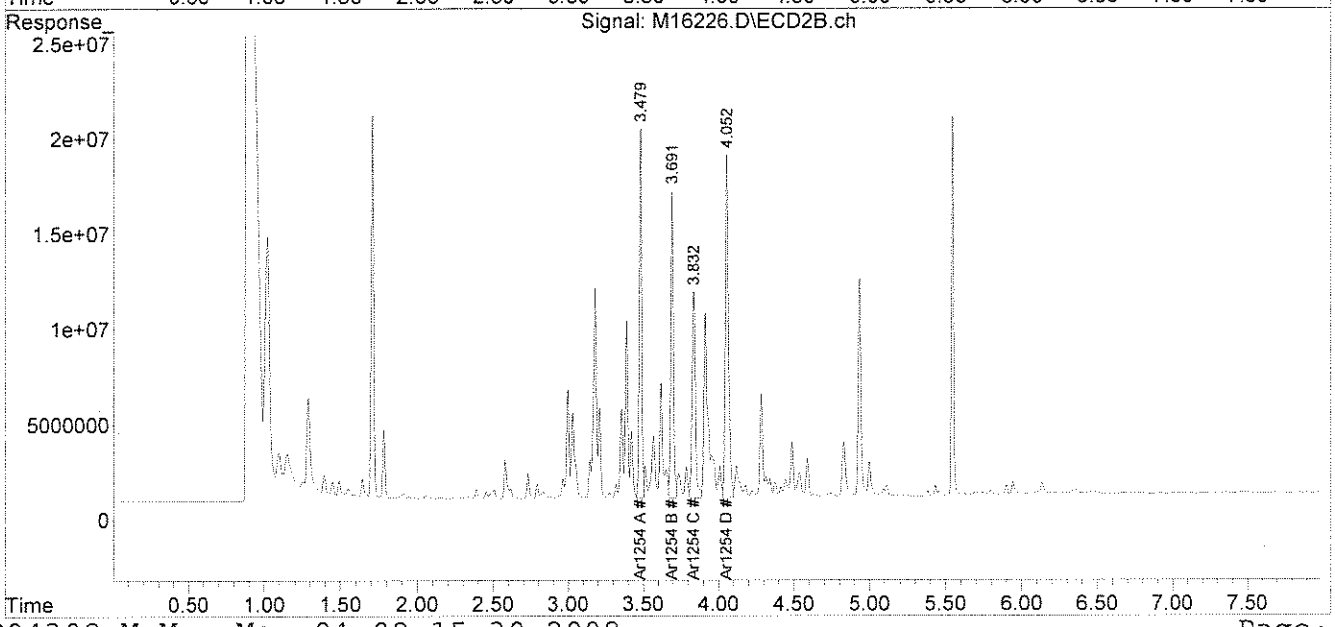
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050109-M\
Data File : M16226.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 1 May 2009 12:55 pm
Operator :
Sample : 63759-8,,A/C
Misc : SOIL
ALS Vial : 56 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 04 09:15:23 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 4, 2009

SAMPLE DATA

Lab Sample ID:	63759-9
Matrix:	Solid
Percent Solid:	96
Dilution Factor:	1.0
Collection Date:	04/30/09
Lab Receipt Date:	04/30/09
Extraction Date:	04/30/09
Analysis Date:	05/01/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-078

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**224**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	92	%
Decachlorobiphenyl	107	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63759

Sample: 63759-9,,A/C

Data File: M16647.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	212	224	5.6	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

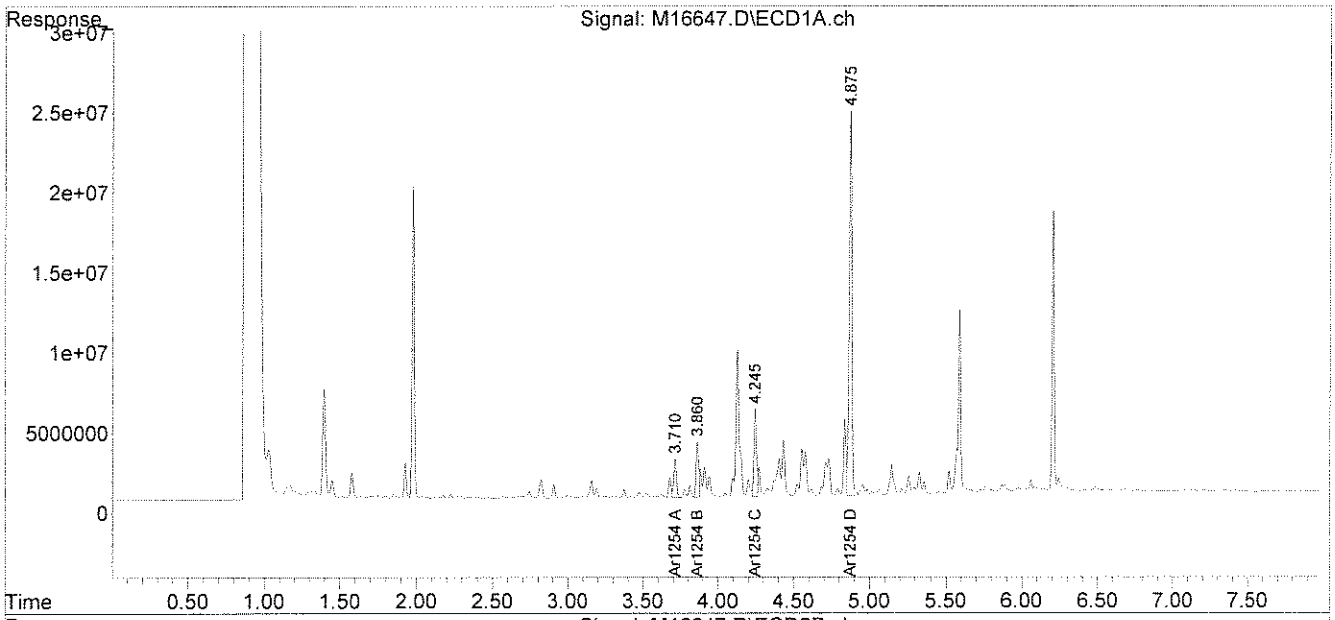
Comments: _____

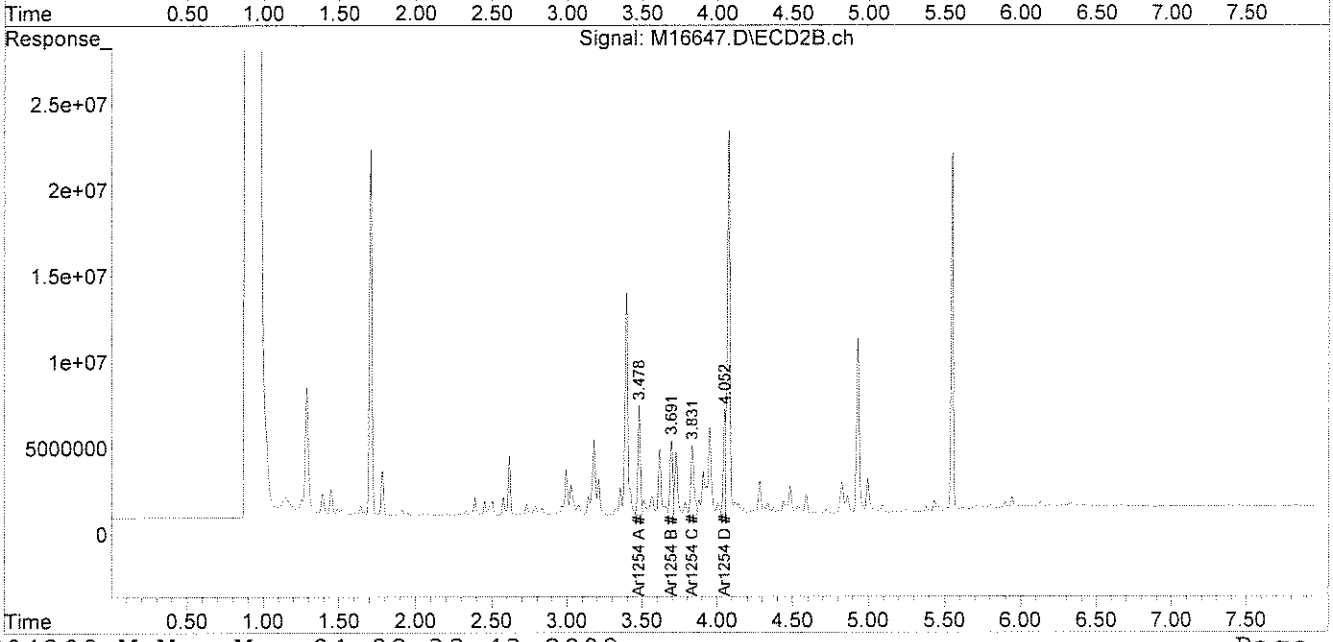
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050109-M\
Data File : M16647.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 1 May 2009 7:14 pm
Operator :
Sample : 63759-9,,A/C
Misc : SOIL
ALS Vial : 85 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 04 09:39:42 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 4, 2009

SAMPLE DATA

Lab Sample ID:	63759-10
Matrix:	Solid
Percent Solid:	79
Dilution Factor:	2.5
Collection Date:	04/30/09
Lab Receipt Date:	04/30/09
Extraction Date:	04/30/09
Analysis Date:	05/04/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-SS88-136

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	83	U
PCB-1221	83	U
PCB-1232	83	U
PCB-1242	83	U
PCB-1248	83	U
PCB-1254	83	**1360**
PCB-1260	83	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	98	%
Decachlorobiphenyl	121	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63759

Sample: 63759-10,1:2,,A/C

Data File: M16263.D

Dilution Factor: 2.5

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	1349	1363	1.0	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

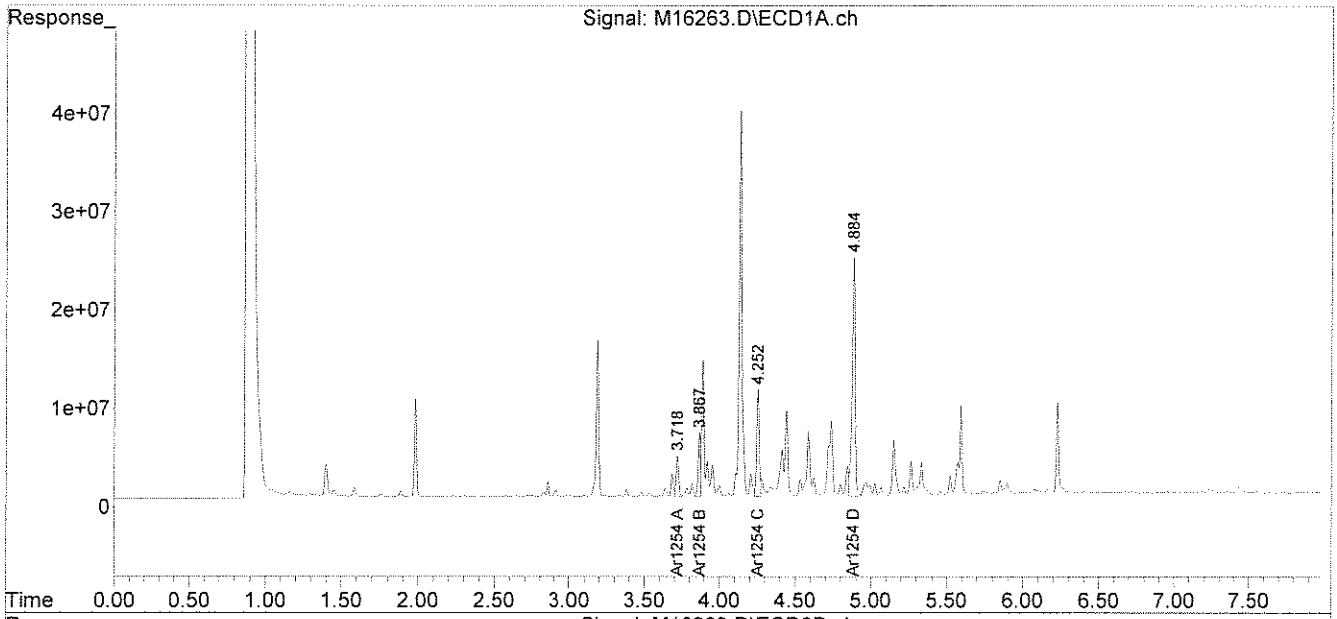
PCB FORM 10

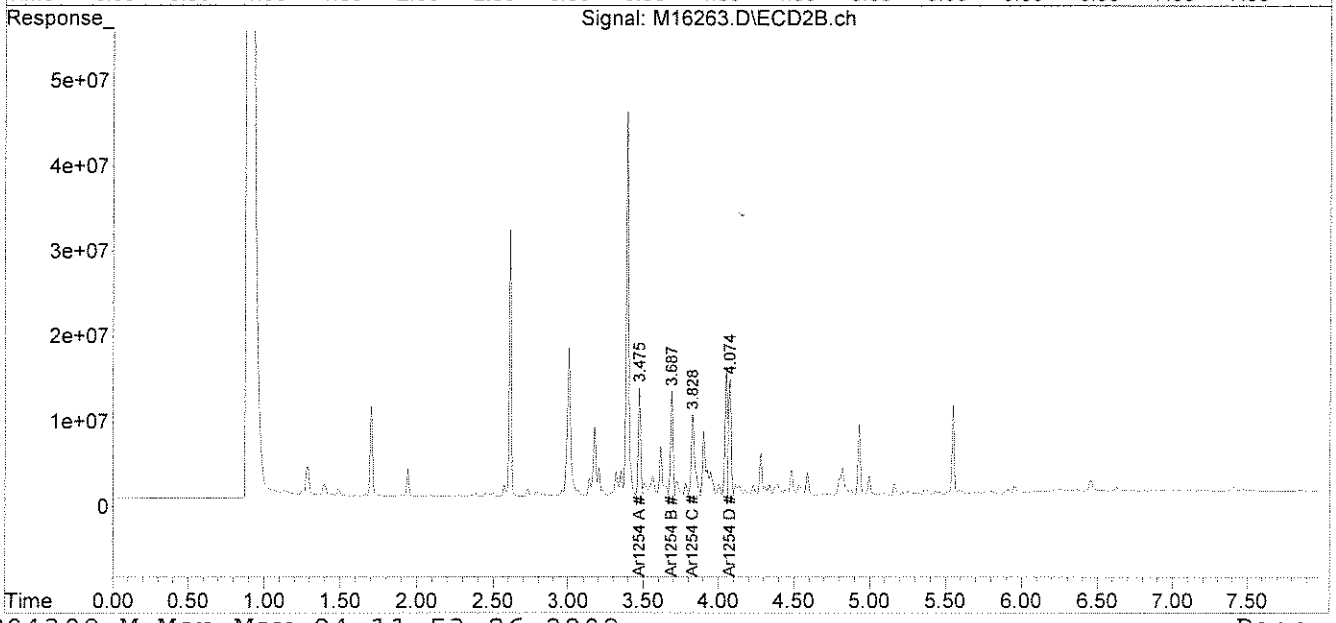
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050409-M\
Data File : M16263.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 4 May 2009 9:50 am
Operator :
Sample : 63759-10,1:2,,A/C
Misc : SOIL
ALS Vial : 95 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 04 11:53:25 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 5, 2009

SAMPLE DATA

Lab Sample ID:	63759-11 RX
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	1.1
Collection Date:	04/30/09
Lab Receipt Date:	04/30/09
Extraction Date:	05/04/09
Analysis Date:	05/05/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-079

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	U
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	104	%
Decachlorobiphenyl	81	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

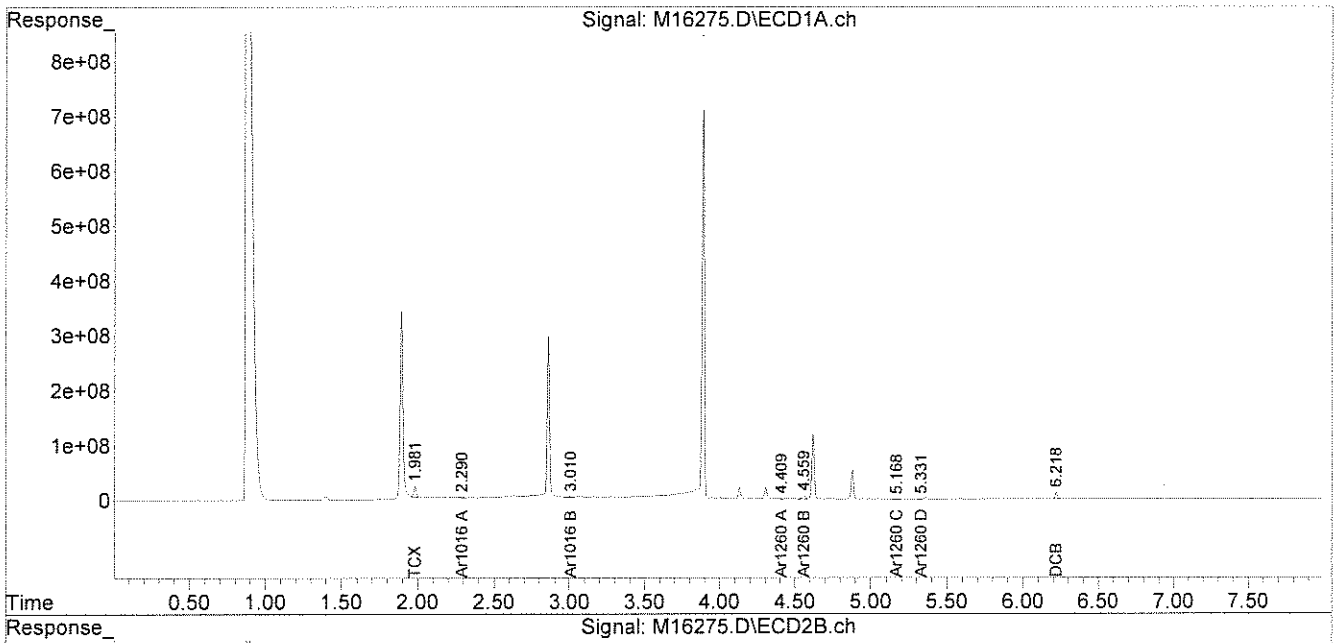
Authorized signature

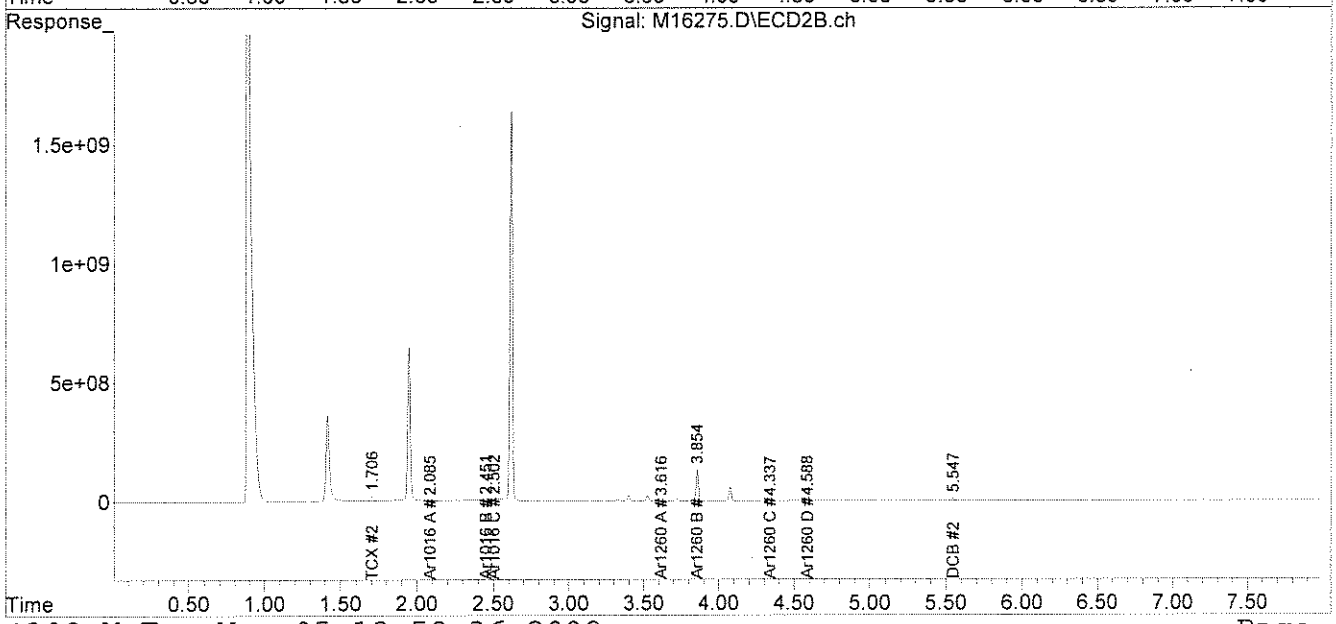
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\050409-M\
Data File : M16275.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 5 May 2009 12:40 pm
Operator :
Sample : 63759-11,RX,,A/C (Sig #1); ~~63659-11,RX,,A/C (Sig #2~~) UMS 5/09
Misc : SOIL
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 05 12:58:29 2009
Quant Method : C:\msdchem\1\METHODS\PCB04309.M
Quant Title : Aroclor 1016/1260
QLast Update : Fri May 01 08:55:37 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 4, 2009

SAMPLE DATA

Lab Sample ID:	63759-12
Matrix:	Solid
Percent Solid:	91
Dilution Factor:	1.1
Collection Date:	04/30/09
Lab Receipt Date:	04/30/09
Extraction Date:	04/30/09
Analysis Date:	05/01/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-080

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**405**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	95	%
Decachlorobiphenyl	111	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63759
Sample: 63759-12,,A/C
Data File: M16639.D
Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	288	405	33.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

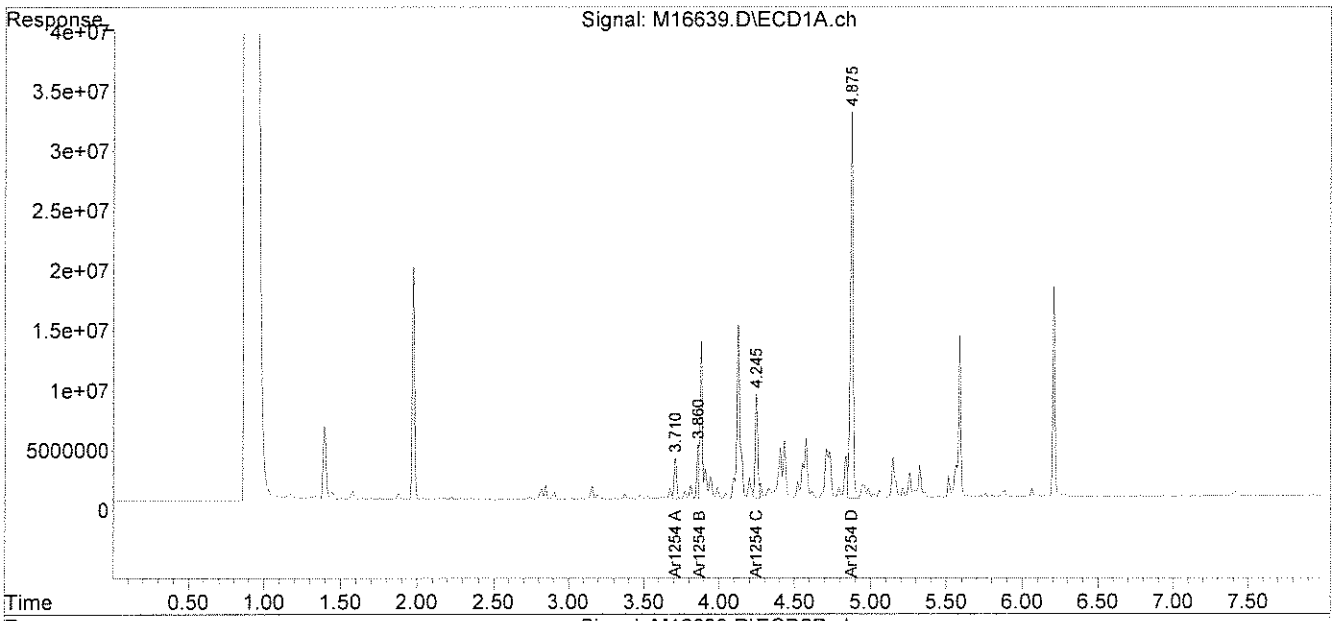
PCB FORM 10

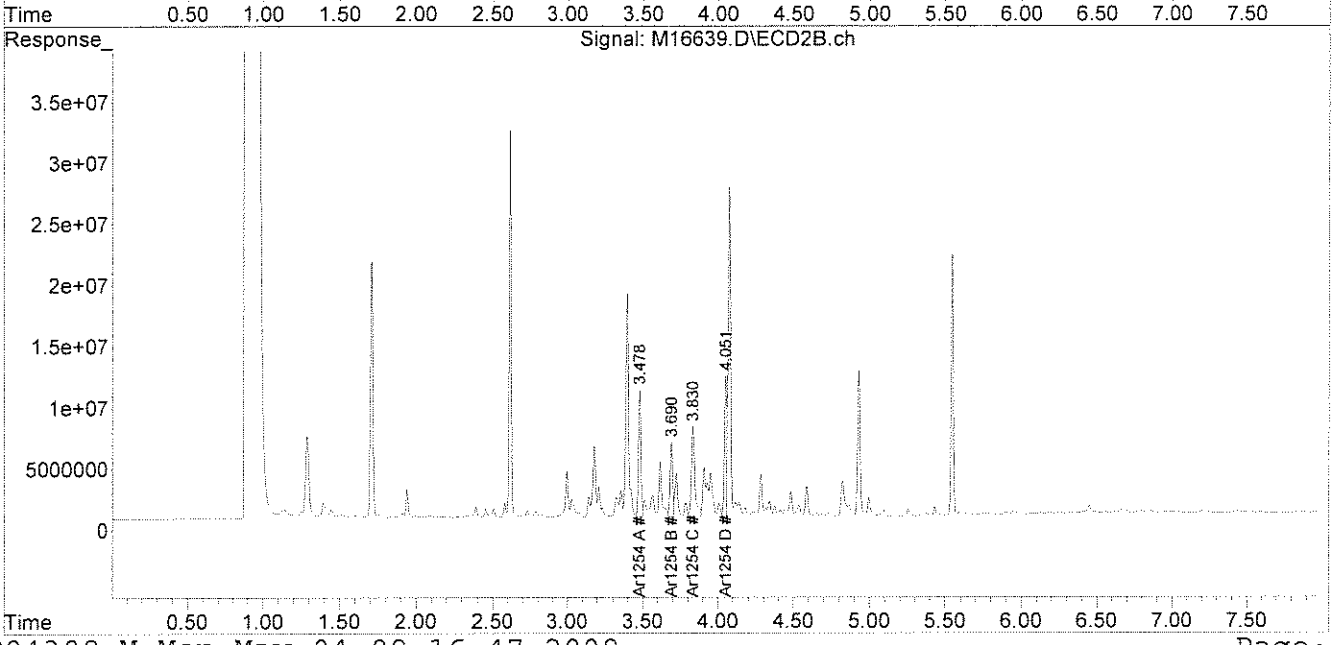
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050109-M\
Data File : M16639.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 1 May 2009 5:54 pm
Operator :
Sample : 63759-12,,A/C
Misc : SOIL
ALS Vial : 77 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 04 09:16:40 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





PCB
QC FORMS

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:PCBQC.doc

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63759

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04309PSOX,,A/C	93		105		82		106	
L04309PSOX,,A/C	86		104		82		104	
LD04309PSOX,,A/C	87		102		81		104	
63759-3,,A/C	87		111		89		110	
63759-8,,A/C	85		106		85		105	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63759

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04299PSOX,RR2,,A/C	97		112		97		115	
63759-2,1:5,,A/C	89		119		82		116	
63759-12,,A/C	95		111		93		109	
63759-7,,A/C	95		115		89		108	
63759-5,,A/C	92		106		91		102	
63759-6,,A/C	91		106		92		105	
63759-1,,A/C	85		100		88		100	
63759-4,,A/C	89		104		88		98	
63759-9,,A/C	92		107		90		106	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB FORM 2

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63759

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04299PSOX,RR3,,A/C	100		108		97		113	
63759-10,1:2,,A/C	98		121		90		107	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63759

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B05049PSOX,,A/C	112		92		116		95	
L05049PSOX,,A/C	102		90		100		97	
LD05049PSOX,,A/C	114		85		95		96	
63759-11,RX,,A/C	104		81		93		70	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63759

Non-spiked sample: B04309PSOX,,A/C

Spike: L04309PSOX,,A/C

Spike duplicate: LD04309PSOX,,A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	200	200	65	140	30	0	203	102		219	109		7.2	
PCB 1260	200	200	60	130	30	0	177	88		182	91		3.2	
PCB 1016 #2	200	200	65	140	30	0	243	121		261	130		7.0	
PCB 1260 #2	200	200	60	130	30	0	175	87		179	90		2.7	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63759

Non-spiked sample: B05049PSOX,,A/C

Spike: L05049PSOX,,A/C

Spike duplicate: LD05049PSOX,,A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	200	200	65	140	30	0	237	118		244	122		3.2	
PCB 1260	200	200	60	130	30	0	198	99		195	98		1.6	
PCB 1016 #2	200	200	65	140	30	0	276	138		269	135		2.6	
PCB 1260 #2	200	200	60	130	30	0	211	106		218	109		3.0	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

CHAIN OF CUSTODIES

Chain Of Custody Form

analytics environmental laboratory LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or ~~hand-delivered~~
2) Temp blank °C 2.0°
3) Received in good condition Y or N
4) pH checked by: N/A
5) Labels checked by: 5/4/3009

Project#: 210918 Proj. Name: UMASS - LGRC
Company: Woodard & Curran
Contact: GEORGE FRANKLIN/AMY WALLACE
Address: 35 New England Business Ctr.
Andover, MA 01810
Phone: (866)702-6371 PO# Quote # WCI 8091001
Sampler (Signature): Kevin B. Stevens

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

Preservation

Location Identification	Sample Date	Sample Time	Analysis	Unpres	4°C	HNO3	H2SO4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
LGRC-VSS-070	4/29/09	1512	PCBs-8082	X	X						SOIL	1	G		63759-1
LGRC-VSS-071		1516		X	X										2
LGRC-VSS-072		1519		X	X										3
LGRC-VSS-073		1543		X	X										4
LGRC-VSS-074		1551		X	X										5
LGRC-VSS-075		1600		X	X										6
LGRC-VSS-076		1615		X	X										7
LGRC-VSS-077	4/30/09	0610		X	X										8
LGRC-VSS-078		~~0649~~ CBJ 0918		X	X										9
LGRC-SS88-136		0715		X	X										10
LGRC-VSS-079		1346		X	X										11

Email Results to:
George Franklin
Jeff Hamel
Amy Wallace

Turnaround Time (TAT)
☐ 24hr* ☐ 48hr*
☐ 72hr* ☒ 5 Days* –
☐ 10 Days
lab approval required

Comments / Instructions:
PCBs by 8082
SOXHLET EXTRACTION

call George or Amy to confirm

Project Requirements:
*Fee may apply

Report Type:
☐ MCP* ☑ Level II*
☐ CTRCP* ☐ Level III*
☐ DOD* ☐ Level IV*
☐ Standard

State:
☐ NH
☐ MA
☐ ME
☐ CT
☐ RI
Other: TSCA

State Standard:
(eg. S-1 or GW-1)
EDD Required: Y* N
Type:

Received By: Casey Payne
Time: 14:40
Date: 4/30/09
Relinquished By Sampler: Kevin B. Stevens

Received By:
Time:
Date:
Relinquished By:

Received By:
Time:
Date:
Relinquished By:

Chain Of Custody Form

Analytics environmental laboratory LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or ~~hand-delivered~~
2) Temp blank °C 2.0°
3) Received in good condition (Y) or N
4) pH checked by: N/A
5) Labels checked by: 43009

Project#: 210918 Proj. Name: UMass - LGRC
Company: **Woodard &Curran**
Contact: George Franklin / Amy Wallace
Address: **35 New England Business Center Suite 180**
Andover, MA 01810
Phone: (978)557-8150 PO# Quote # WCI B091001
Sampler (Signature): Kim B. Stevens

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

Station Identification	Sample Date	Sample Time	Analysis	Preservation: Unpres	4°C	HNO_3	H_2SO_4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
LRC-VSS-080	4/30/09	1350	PCBs-8082	X	X						Soil	1	G		63759-12

Received By: Chrissy Kaplan Time: 1440 Date: 4/30/09
Received By: Time: Date:
Received By: Time: Date:
Relinquished By Sampler: Kim B. Stevens
Relinquished By: Relinquished By:

Email Results to:
Jeff Hamel
Amy Wallace
George Franklin

Turnaround Time (TAT)
☐ 24hr* ☐ 48hr*
☐ 72hr* ☒ 5 Days*
☐ 10 Days
*Fee may apply; lab approval required

Comments / Instructions:
PCBs by 8082
Soxhlet Extraction

Project Requirements:
*Fee may apply

Report Type:
☐ MCP* ☒ Level II*
☐ CTRCP* ☐ Level III*
☐ DOD* ☐ Level IV*
☐ Standard

State:
☐ NH
☐ MA
☐ ME
☐ CT
☐ RI
Other: TSCA

State Standard: _____ (eg. S-1 or GW-1)
EDD Required: Y* N
Type: _____

Analytics Report 63759 page 0060 of 61

analytics environmental laboratory LLC

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 63759 COOLER NUMBER: _____

CLIENT: Woodard + Curran NUMBER OF COOLERS: 1

PROJECT: UMASS- LGRC DATE RECEIVED: 4-30-09

A: PRELIMINARY EXAMINATION: DATE COOLER OPENED: 4-30-09

1. Cooler received by(initials) Date Received: CP 4-30-09

2. Circle one: Hand delivered (If so, skip 3) Shipped

3. Did cooler come with a shipping slip? Y N

3a. Enter carrier name and airbill number here: _____

4. Were custody seals on the outside of cooler? Y N
How many & where: _____ Seal Date: _____ Seal Name: _____

5. Did the custody seals arrive unbroken and intact upon arrival? Y N

6. COC#: _____

7. Were Custody papers filled out properly (ink,signed, etc)? Y N

8. Were custody papers sealed in a plastic bag? Y N

9. Did you sign the COC in the appropriate place? Y N

10. Was the project identifiable from the COC papers? Y N

11. Was enough ice used to chill the cooler? Y N Temp. of cooler: 2.0°

B. Log-In: Date samples were logged in: 4-30-09 By: CP

12. Type of packing in cooler(bubble wrap, popcorn) Y N

13. Were all bottles sealed in separate plastic bags? Y N

14. Did all bottles arrive unbroken and were labels in good condition? Y N

15. Were all bottle labels complete(ID,Date,time,etc.) Y N

16. Did all bottle labels agree with custody papers? Y N

17. Were the correct containers used for the tests indicated: Y N

18. Were samples received at the correct pH? Y N/A

19. Was sufficient amount of sample sent for the tests indicated? Y N

20. Were bubbles absent in VOA samples? Y N/A

If NO, List sample #'s: _____

21. Laboratory labeling verified by (initials): Date: 4-30-09

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

May 7, 2009

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

RE: Analytical Results Case Narrative
Analytics # 63774
UMASS LGRC Proj# 210918

Dear Mr. Franklin;

Enclosed please find the analytical results for samples submitted for the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed Polychlorinated Biphenyls (PCBs) by EPA Method 8082.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II data package has been assembled in the following order:

Case Narrative/Non-Conformance Summary
Sample Log Sheet - Cover Page
PCB Form 1 Data Sheet for Samples and Blanks
Chromatograms
PCB Form 10 Confirmation Results
PCB Form 3 MS/MSD (LCS) Recoveries
Chain of Custody (COC) Forms

QC NON CONFORMANCE SUMMARY

Sample Receipt:
No exceptions.

PCBs by EPA Method 8082:
Samples 63774-3, 63774-5, 63774-6, 63774-8 and 63774-10 required dilution due to high concentrations of PCB 1254 detected in the sample.

PCB 1016 had low recovery in the laboratory control samples (L05049PWB/LD05049PWB) on column #2. Column #1 was in control for all analytes. Results for the aqueous sample associated with this QC was reported without qualification.

The closing continuing calibration standard (file# M16308SC) had high Decachlorobiphenyl (DCB) recovery on column #2. Column #1 was in control for all analytes. Results were reported without qualification.

Sincerely,
ANALYTICS Environmental Laboratory, LLC

Stephen Knollmeyer
Laboratory Director

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63774

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 04 May 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63774-1	05/01/09	LGRC-VSS-006	EPA 8082 (PCBs only)	
63774-2	05/01/09	LGRC-VSS-007	EPA 8082 (PCBs only)	
63774-3	05/01/09	LGRC-VSS-082	EPA 8082 (PCBs only)	
63774-4	05/01/09	LGRC-VSS-083	EPA 8082 (PCBs only)	
63774-5	05/01/09	LGRC-VSS-084	EPA 8082 (PCBs only)	
63774-6	05/01/09	LGRC-VSS-085	EPA 8082 (PCBs only)	
63774-7	05/01/09	LGRC-VSS-086	EPA 8082 (PCBs only)	
63774-8	05/01/09	LGRC-VSS-087	EPA 8082 (PCBs only)	
63774-9	05/01/09	LGRC-VSS-088	EPA 8082 (PCBs only)	
63774-10	05/01/09	LGRC-VSS-089	EPA 8082 (PCBs only)	
63774-11	05/01/09	LGRC-VSS-505	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 5/6/2009

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63774

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 04 May 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63774-12	05/01/09	LGRC-VSS-090	EPA 8082 (PCBs only)	
63774-13	05/01/09	LGRC-VSS-091	EPA 8082 (PCBs only)	
63774-14	05/01/09	LGRC-VSS-905	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 5/6/2009

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-130	70-130	EPA 8260B
Toluene-d8	70-130	70-130	
Bromofluorobenzene	70-130	70-130	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	EPA 624/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA0	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH

PCB
DATA SUMMARIES

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:PCB.doc

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 6, 2009

SAMPLE DATA

Lab Sample ID: B05049PW
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 05/04/09
Analysis Date: 05/05/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/L	Results µg/L
PCB-1016	0.2	U
PCB-1221	0.2	U
PCB-1232	0.2	U
PCB-1242	0.2	U
PCB-1248	0.2	U
PCB-1254	0.2	U
PCB-1260	0.2	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	65	%
Decachlorobiphenyl	74	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS:

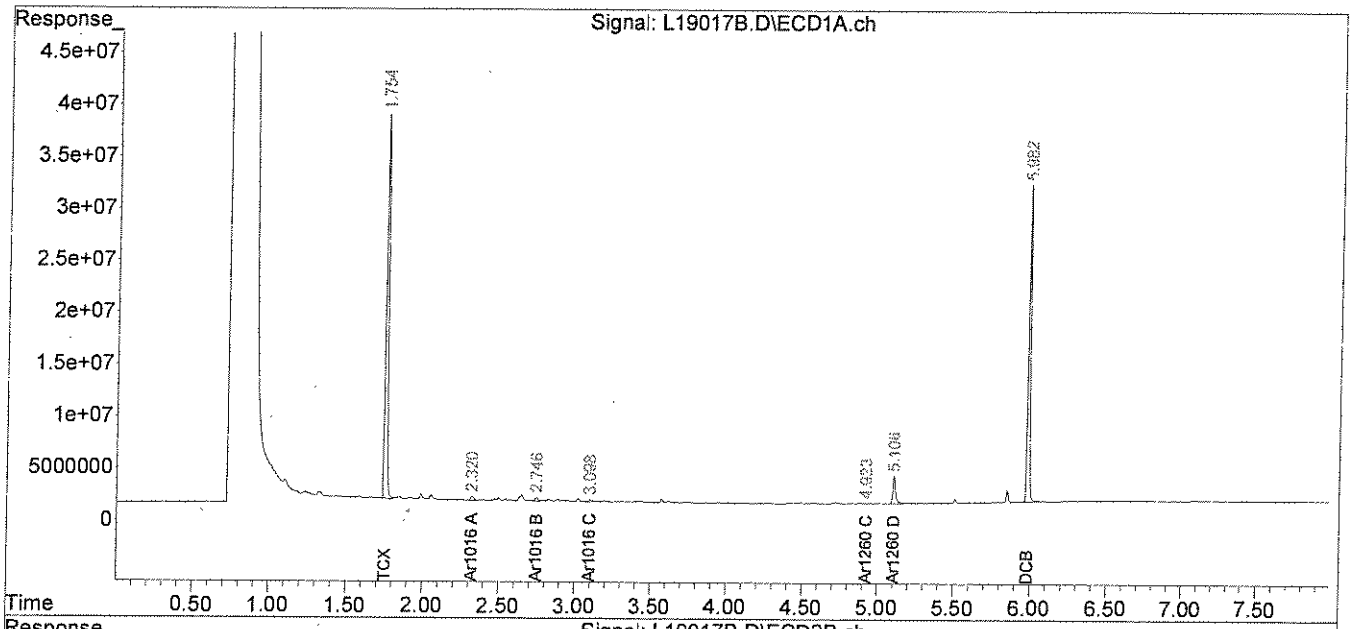
PCB Report

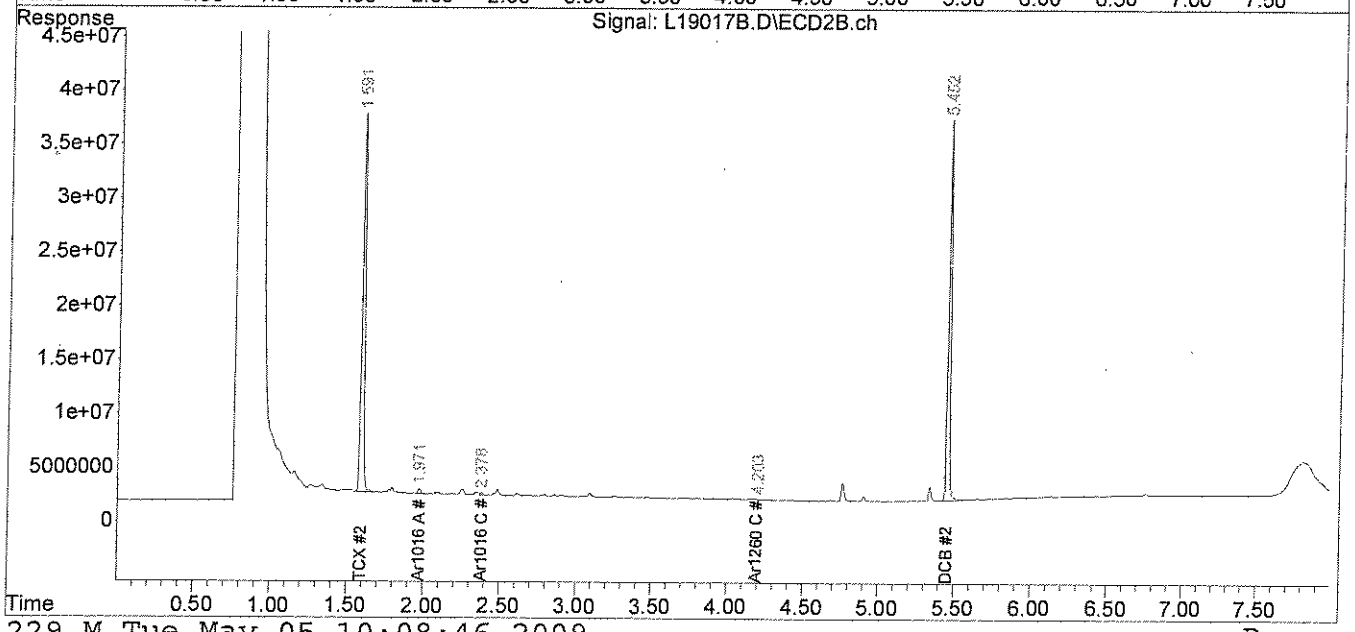
Authorized signature

Data Path : C:\MSDCHEM\1\DATA\050409-L\
Data File : L19017B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 5 May 09 9:19 am
Operator :
Sample : B05049PW
Misc :
ALS Vial : 51 Sample Multiplier: 1

Integration File signal 1: PCBINT.E
Integration File signal 2: PCBINT2.E
Quant Time: May 05 10:08:45 2009
Quant Method : C:\msdchem\1\METHODS\PB04229.M
Quant Title : Aroclor 1016/1260
QLast Update : Thu Apr 23 16:07:53 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 3 ul
Signal #1 Phase : DB-1701 Widebore Signal #2 Phase: DB-5 Widebore
Signal #1 Info : 0.53 mm , 1.0um f Signal #2 Info : 0.53 mm, 1.5um film





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 6, 2009

SAMPLE DATA

Lab Sample ID: B04209PW RR
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/20/09
Analysis Date: 05/05/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/L	Results µg/L
PCB-1016	0.2	U
PCB-1221	0.2	U
PCB-1232	0.2	U
PCB-1242	0.2	U
PCB-1248	0.2	U
PCB-1254	0.2	U
PCB-1260	0.2	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	77	%
Decachlorobiphenyl	99	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS:

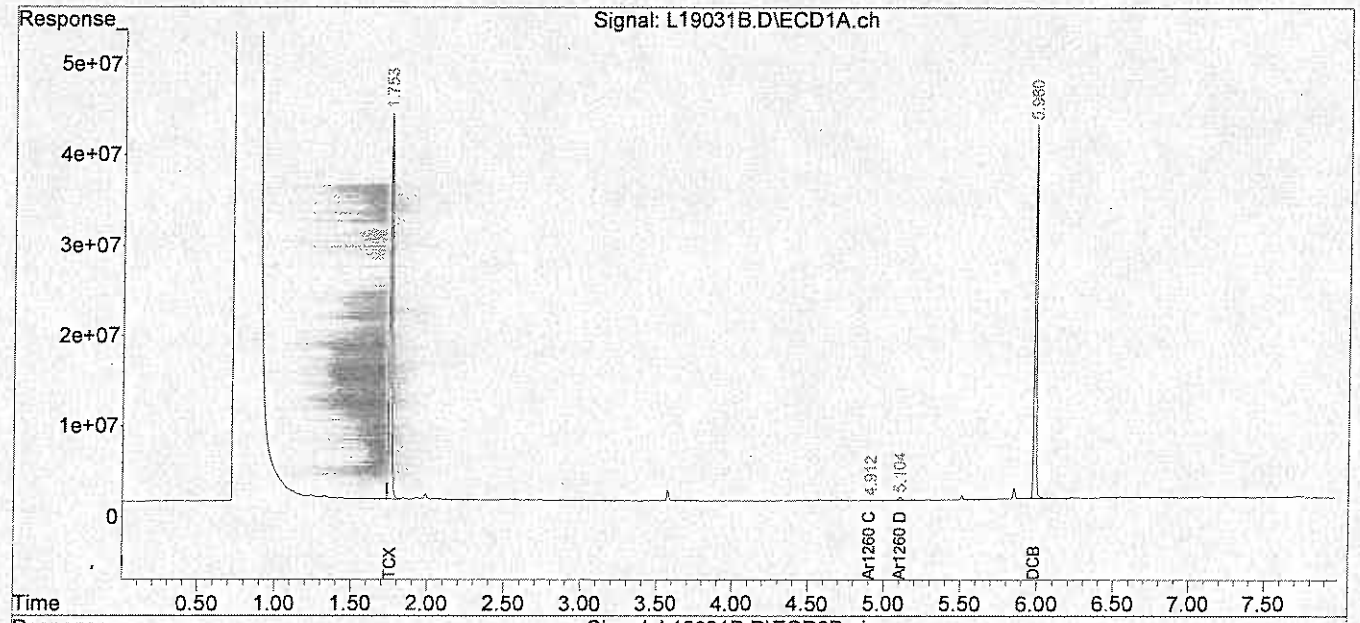
PCB Report

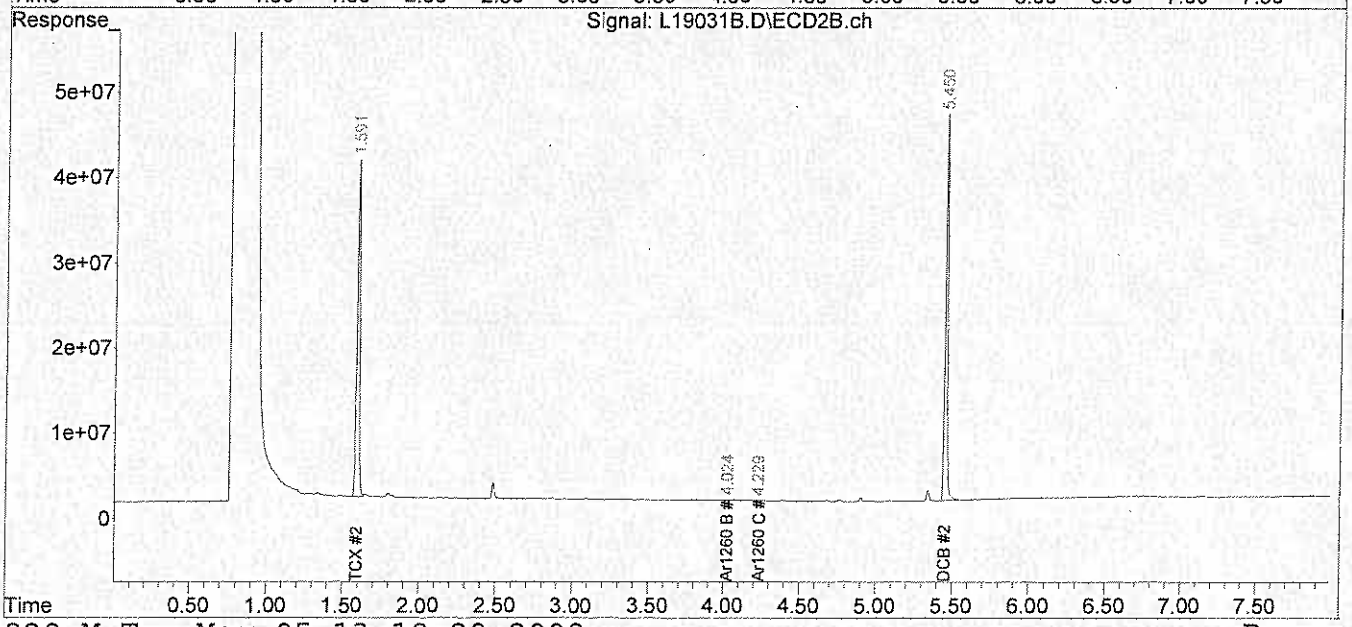
Authorized signature

Data Path : C:\MSDCHEM\1\DATA\050409-L\
Data File : L19031B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 5 May 09 12:01 pm
Operator :
Sample : B04209PW,RR
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: PCBINT.E
Integration File signal 2: PCBINT2.E
Quant Time: May 05 13:18:16 2009
Quant Method : C:\msdchem\1\METHODS\PB04229.M
Quant Title : Aroclor 1016/1260
QLast Update : Thu Apr 23 16:07:53 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 3 ul
Signal #1 Phase : DB-1701 Widebore Signal #2 Phase: DB-5 Widebore
Signal #1 Info : 0.53 mm , 1.0um f Signal #2 Info : 0.53 mm, 1.5um film





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 6, 2009

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: UMASS-LGRC

Project Number: 210918

Field Sample ID: Lab QC

Lab Sample ID: B05049PW RR
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 05/04/09
Analysis Date: 05/05/09

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/L	Results µg/L
PCB-1016	0.2	U
PCB-1221	0.2	U
PCB-1232	0.2	U
PCB-1242	0.2	U
PCB-1248	0.2	U
PCB-1254	0.2	U
PCB-1260	0.2	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	70	%
Decachlorobiphenyl	78	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS:

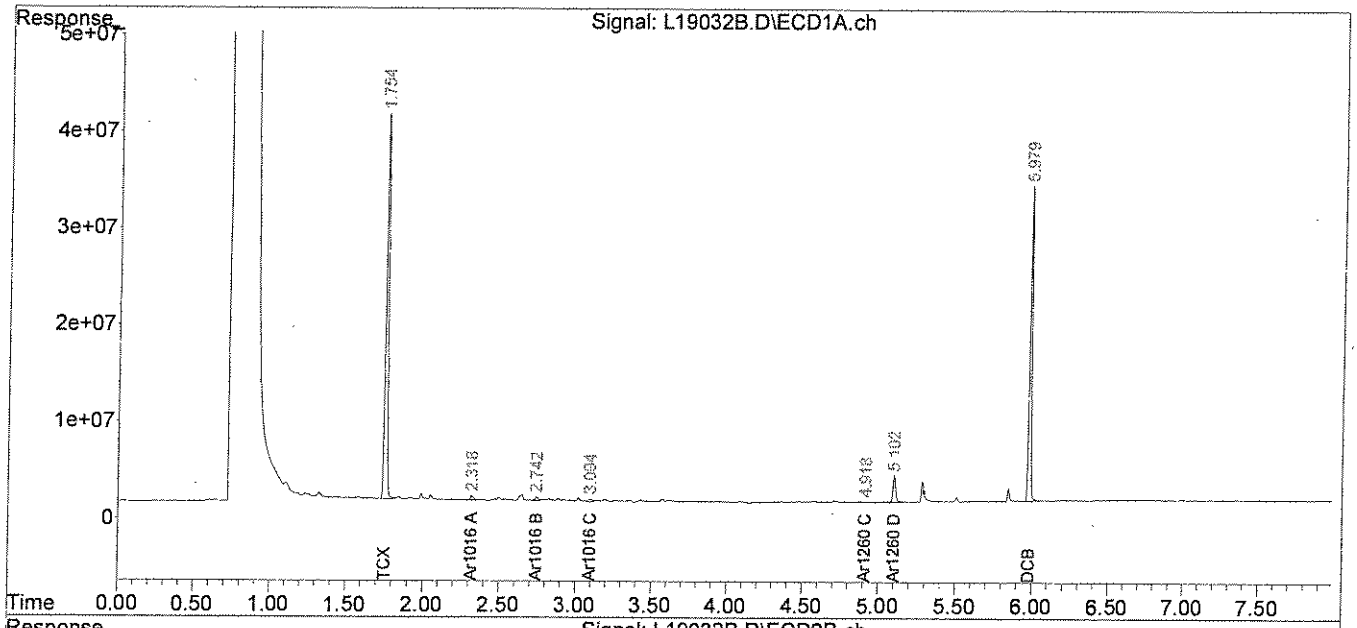
PCB Report

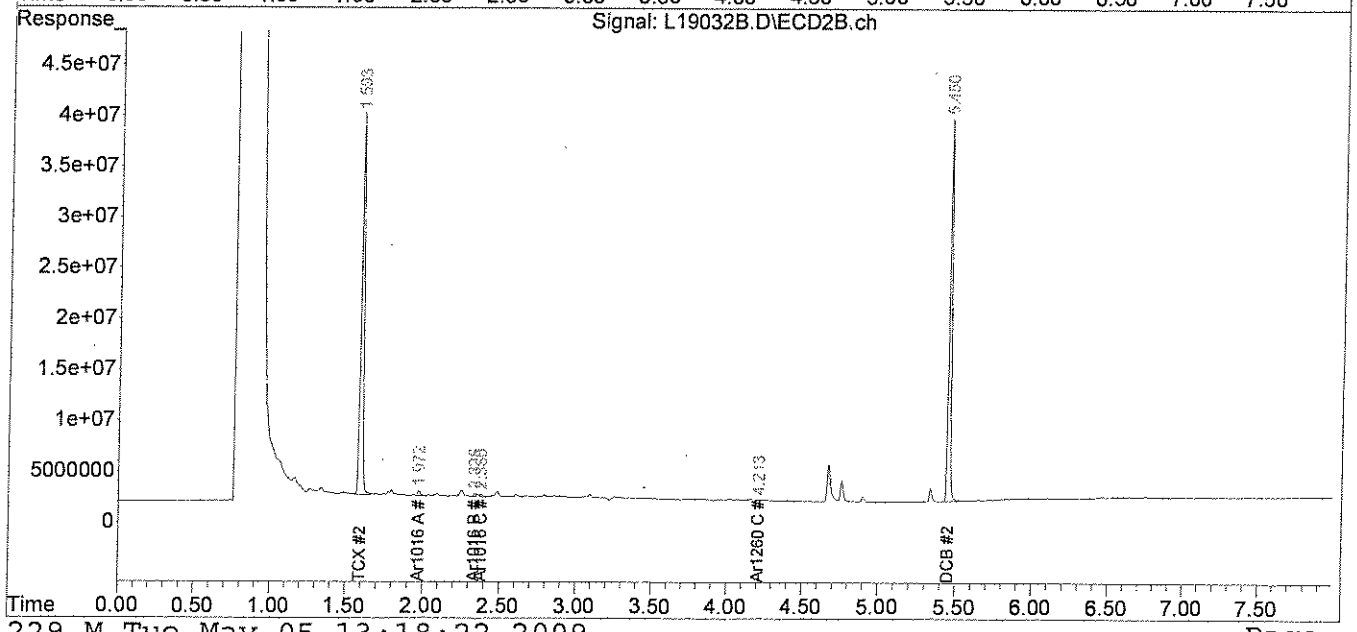
Authorized signature

Data Path : C:\MSDCHEM\1\DATA\050409-L\
Data File : L19032B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 5 May 09 12:11 pm
Operator :
Sample : B05049PW,RR
Misc :
ALS Vial : 51 Sample Multiplier: 1

Integration File signal 1: PCBINT.E
Integration File signal 2: PCBINT2.E
Quant Time: May 05 13:18:22 2009
Quant Method : C:\msdchem\1\METHODS\PB04229.M
Quant Title : Aroclor 1016/1260
QLast Update : Thu Apr 23 16:07:53 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 3 ul
Signal #1 Phase : DB-1701 Widebore Signal #2 Phase: DB-5 Widebore
Signal #1 Info : 0.53 mm , 1.0um f Signal #2 Info : 0.53 mm, 1.5um film





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 6, 2009

SAMPLE DATA

Lab Sample ID: B04209PW RR2
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/20/09
Analysis Date: 05/06/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	85	%
Decachlorobiphenyl	101	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

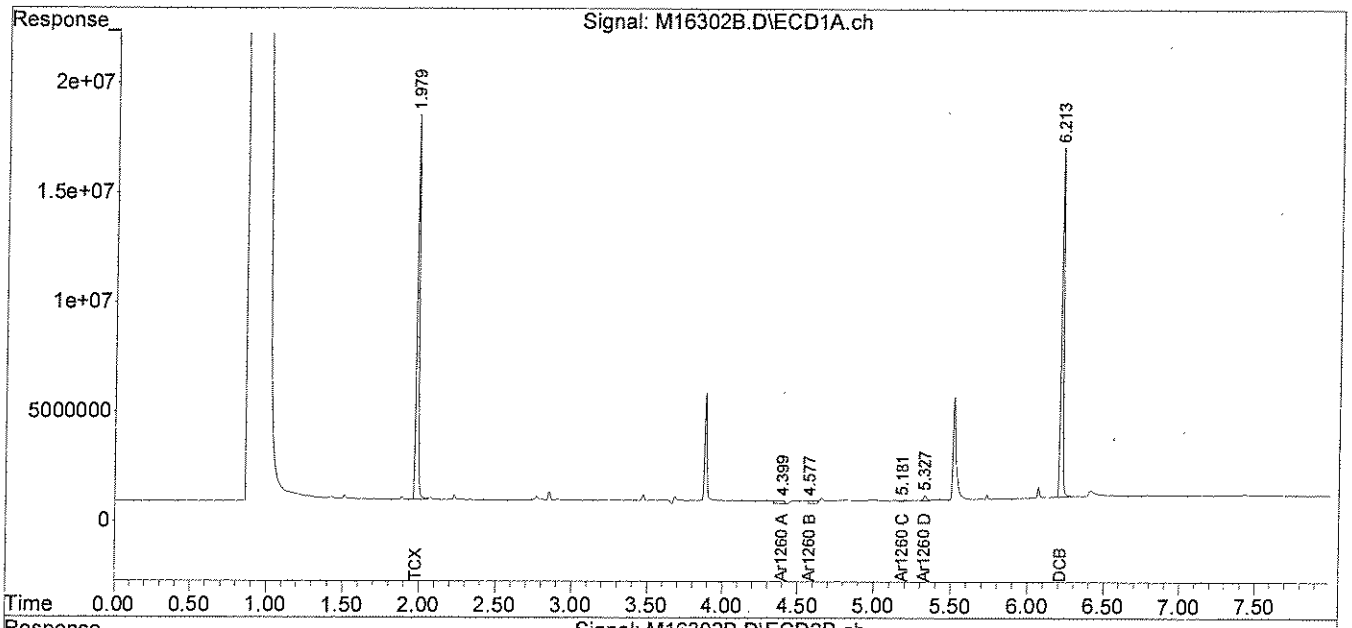
Authorized signature

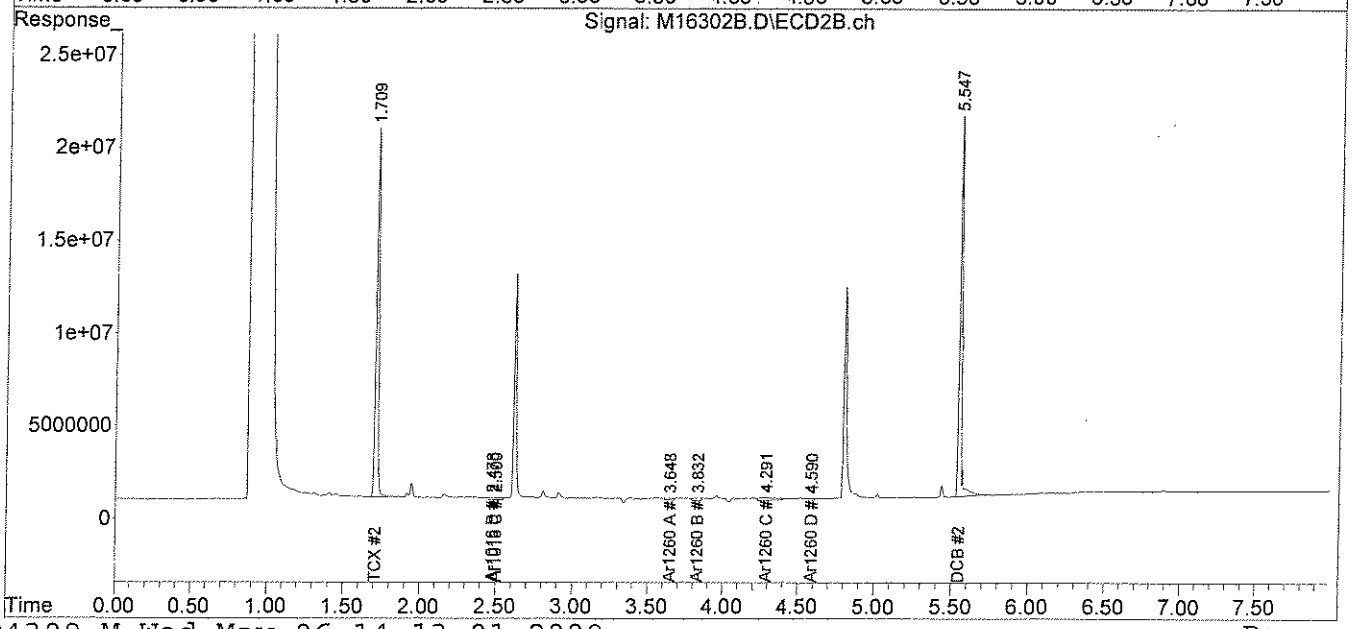
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050409-M\
Data File : M16302B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 10:29 am
Operator :
Sample : B04209PW,RR2
Misc :
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 06 14:13:01 2009
Quant Method : C:\msdchem\1\METHODS\PCB04309.M
Quant Title : Aroclor 1016/1260
QLast Update : Fri May 01 08:55:37 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 6, 2009

SAMPLE DATA

Lab Sample ID: B05049PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 05/04/09
Analysis Date: 05/05/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	112	%
Decachlorobiphenyl	92	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

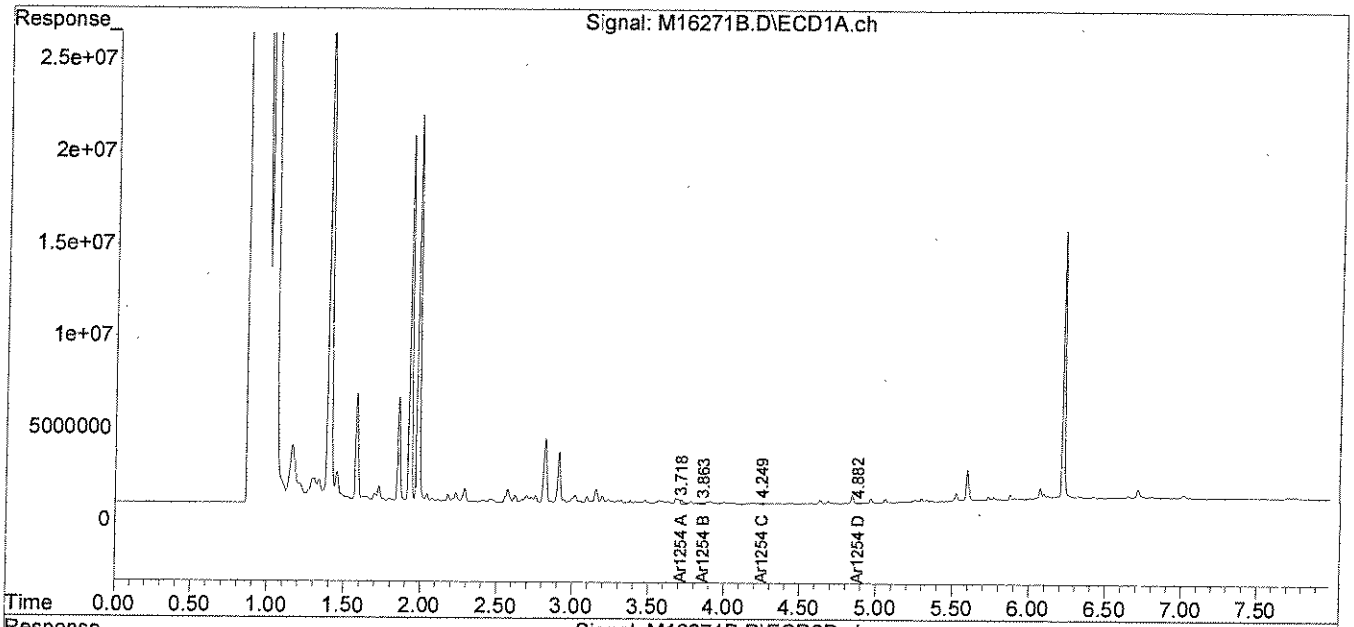
PCB Report

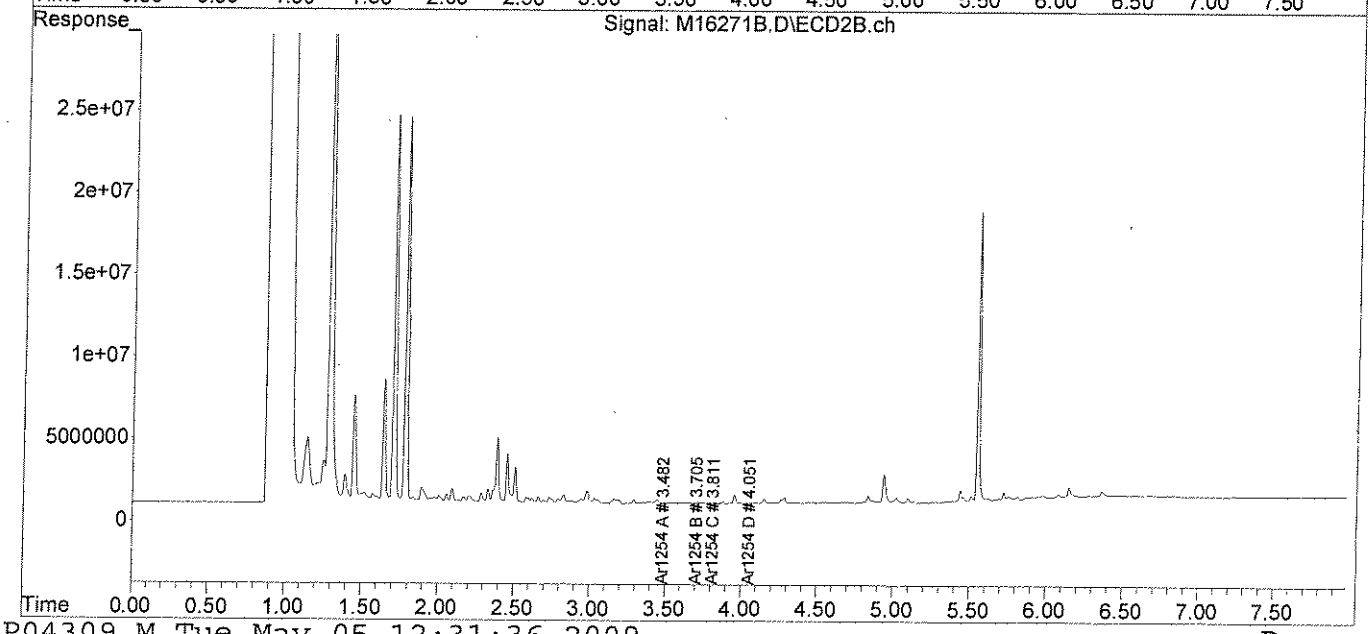
Authorized signature

Data Path : C:\msdchem\1\DATA\050409-M\
Data File : M16271B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 5 May 2009 11:56 am
Operator :
Sample : B05049PSOX,,A/C
Misc : SOIL
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 05 12:31:35 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009.
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 6, 2009

SAMPLE DATA

Lab Sample ID:	63774-1
Matrix:	Solid
Percent Solid:	97
Dilution Factor:	1.0
Collection Date:	05/01/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/04/09
Analysis Date:	05/05/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-006

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**103**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	87	%
Decachlorobiphenyl	77	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63774

Sample: 63774-1,,A/C

Data File: M16283.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	103	77	28.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

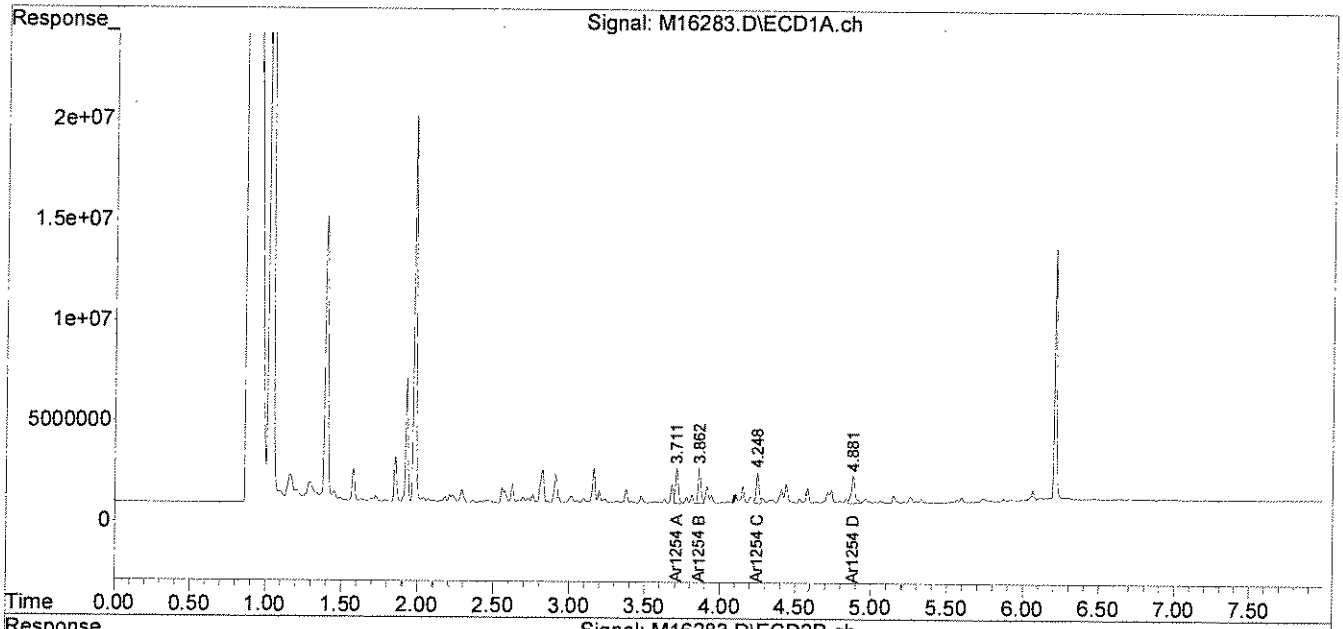
PCB FORM 10

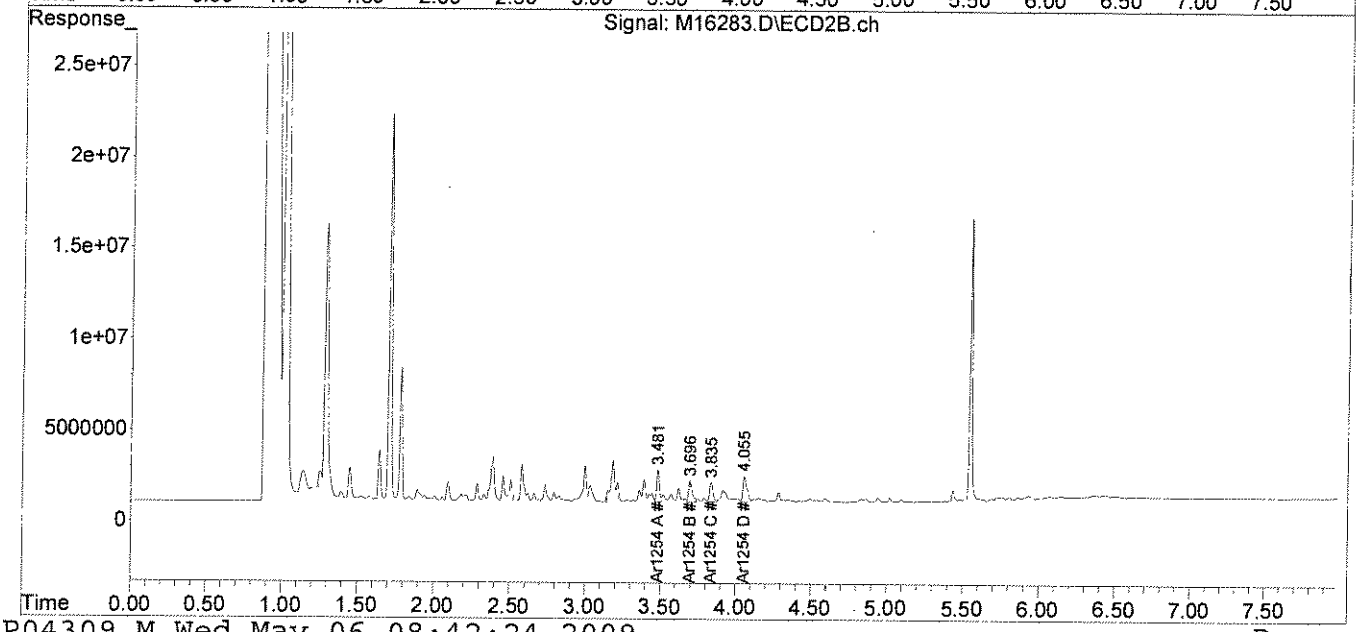
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050409-M\
Data File : M16283.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 5 May 2009 4:35 pm
Operator :
Sample : 63774-1,,A/C
Misc : SOIL
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 06 08:42:24 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 6, 2009

SAMPLE DATA

Lab Sample ID:	63774-2
Matrix:	Soil
Percent Solid:	96
Dilution Factor:	1.0
Collection Date:	05/01/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/04/09
Analysis Date:	05/05/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-007

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**935**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	94	%
Decachlorobiphenyl	78	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63774

Sample: 63774-2,,A/C

Data File: M16286.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	935	849	9.7	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

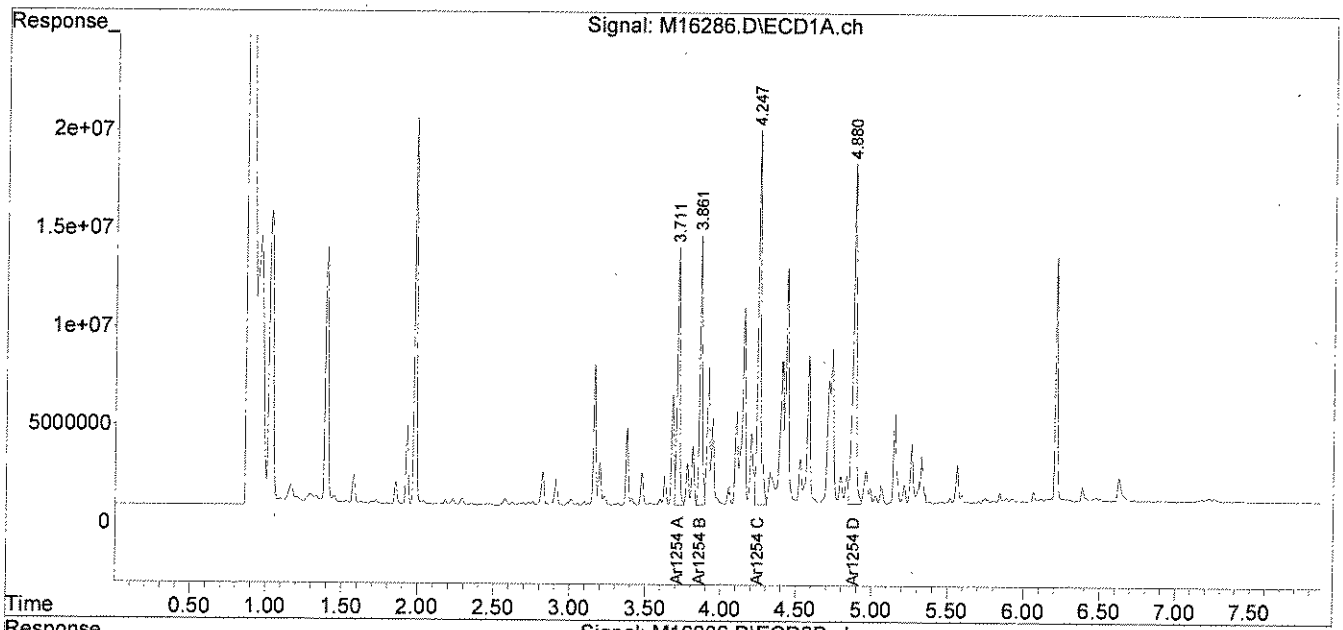
Comments: _____

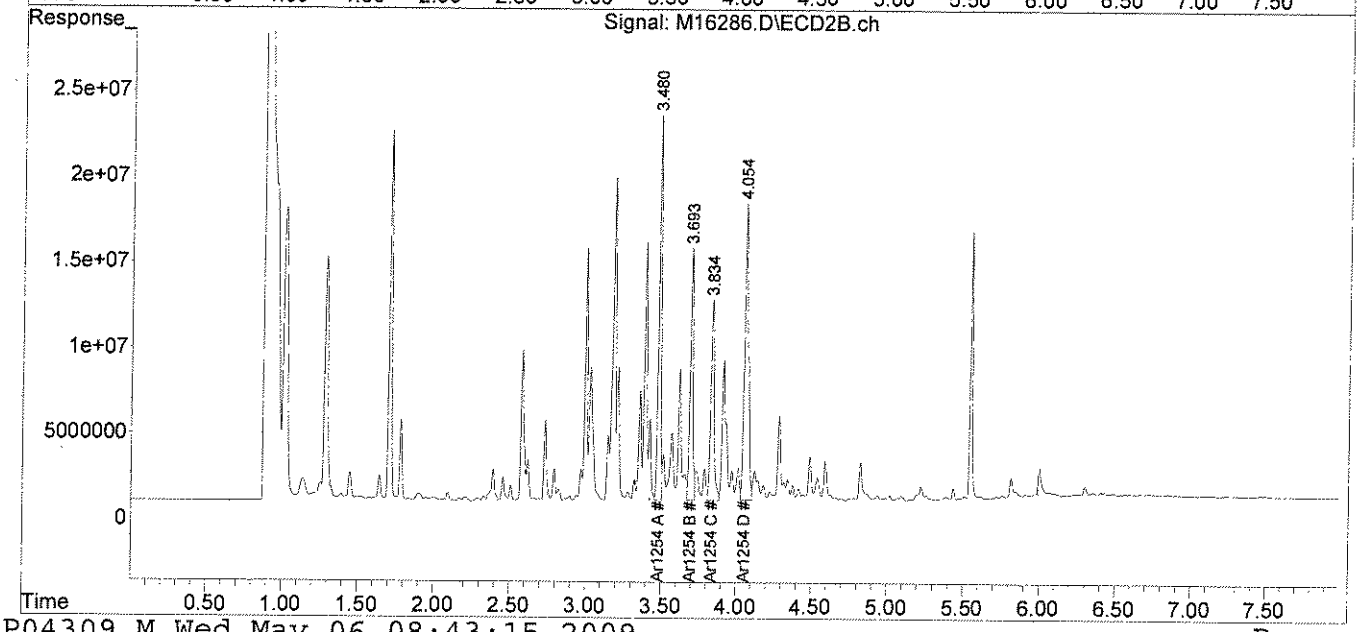
PCB FORM 10

Data Path : C:\msdchem\1\DATA\050409-M\
Data File : M16286.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 5 May 2009 5:05 pm
Operator :
Sample : 63774-2,,A/C
Misc : SOIL
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 06 08:43:09 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 6, 2009

SAMPLE DATA

Lab Sample ID:	63774-3
Matrix:	Soil
Percent Solid:	91
Dilution Factor:	55
Collection Date:	05/01/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/04/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-082

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	1820	U
PCB-1221	1820	U
PCB-1232	1820	U
PCB-1242	1820	U
PCB-1248	1820	U
PCB-1254	1820	**32340**
PCB-1260	1820	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	*	%
Decachlorobiphenyl	*	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.
* The surrogates were diluted out.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63774

Sample: 63774-3,1:50,,A/C

Data File: M16303.D

Dilution Factor: 54.8

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	22833	32340	34.5	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

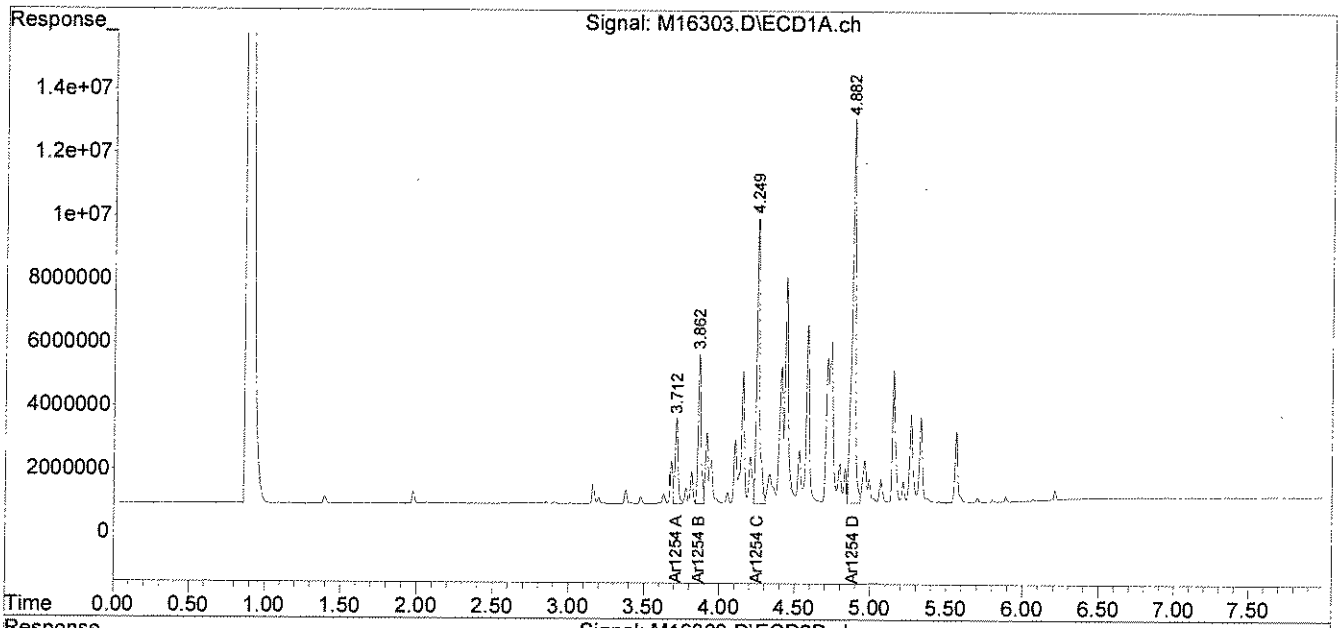
PCB FORM 10

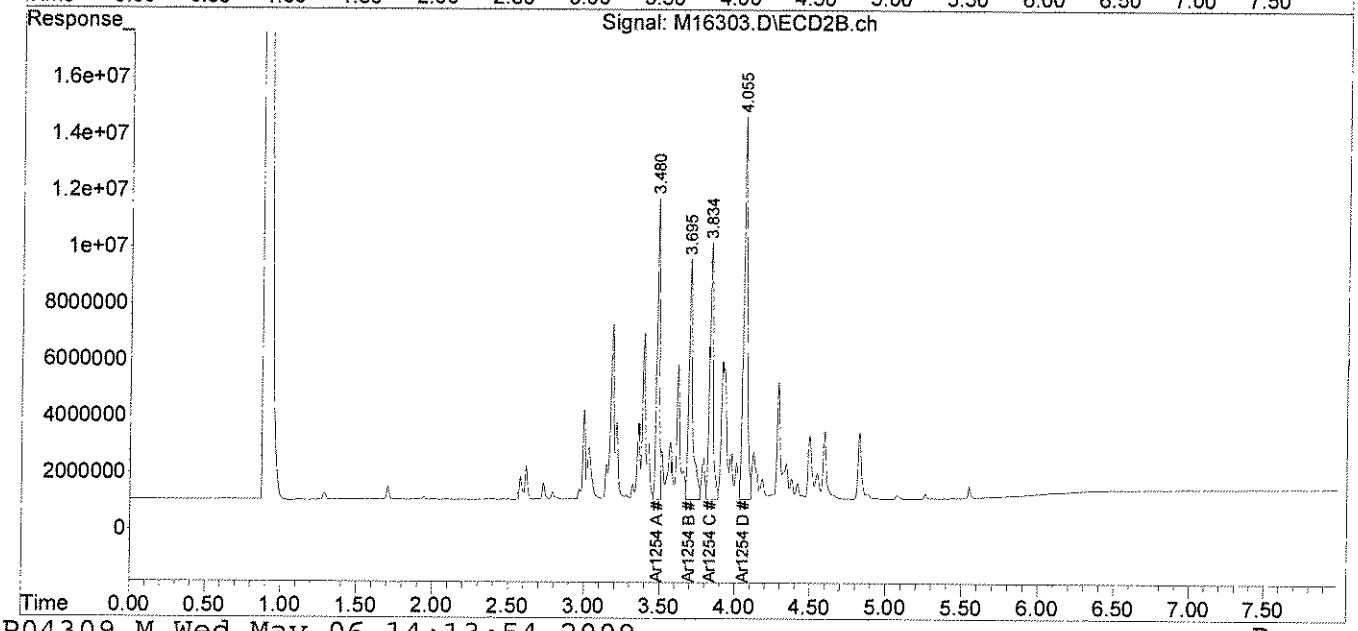
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050409-M\
Data File : M16303.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 10:39 am
Operator :
Sample : 63774-3,1:50,,A/C
Misc : SOIL
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 06 14:13:54 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 6, 2009

SAMPLE DATA

Lab Sample ID:	63774-4
Matrix:	Soil
Percent Solid:	96
Dilution Factor:	1.0
Collection Date:	05/01/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/04/09
Analysis Date:	05/05/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-083

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**81**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	93	%
Decachlorobiphenyl	79	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63774

Sample: 63774-4,,A/C

Data File: M16288.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	81	81	0.2	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

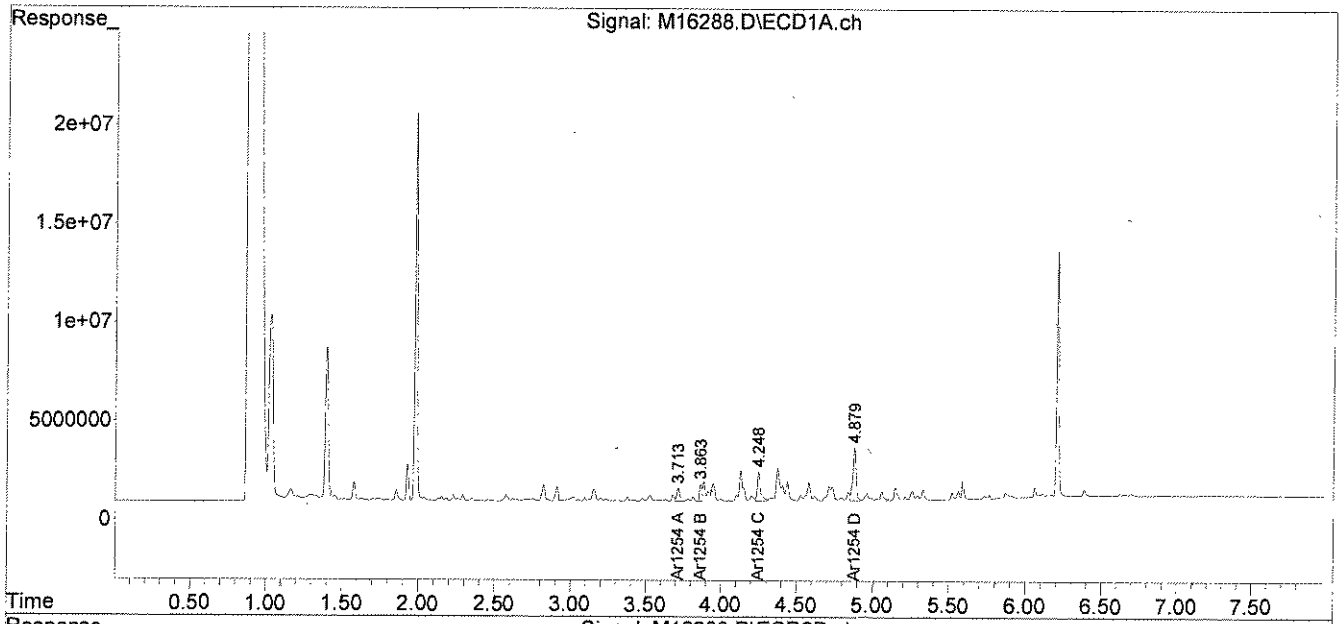
PCB FORM 10

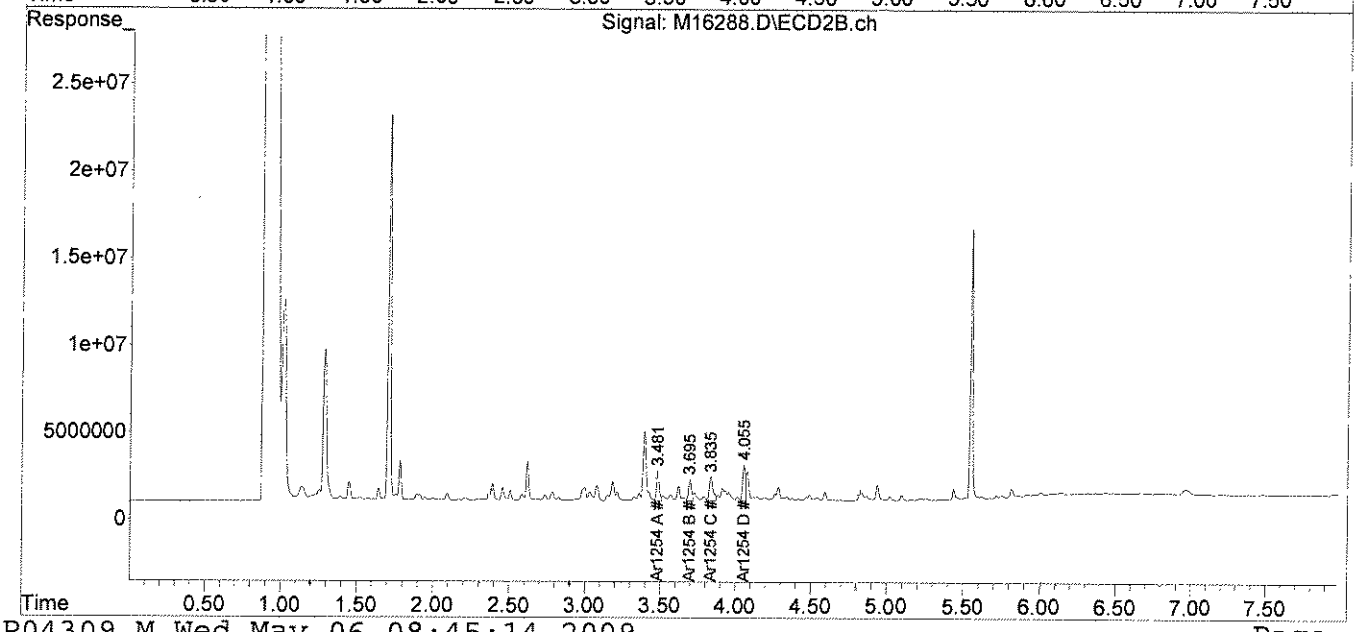
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050409-M\
Data File : M16288.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 5 May 2009 5:25 pm
Operator :
Sample : 63774-4,,A/C
Misc : SOIL
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 06 08:45:13 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 6, 2009

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: UMASS-LGRC

Project Number: 210918

Field Sample ID: LGRC-VSS-084

Lab Sample ID: 63774-5
Matrix: Soil
Percent Solid: 91
Dilution Factor: 6
Collection Date: 05/01/09
Lab Receipt Date: 05/04/09
Extraction Date: 05/04/09
Analysis Date: 05/06/09

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	200	U
PCB-1221	200	U
PCB-1232	200	U
PCB-1242	200	U
PCB-1248	200	U
PCB-1254	200	**2540**
PCB-1260	200	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	91	%
Decachlorobiphenyl	89	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63774

Sample: 63774-5,1:5,,A/C

Data File: M16306.D

Dilution Factor: 5.5

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	2038	2537	21.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

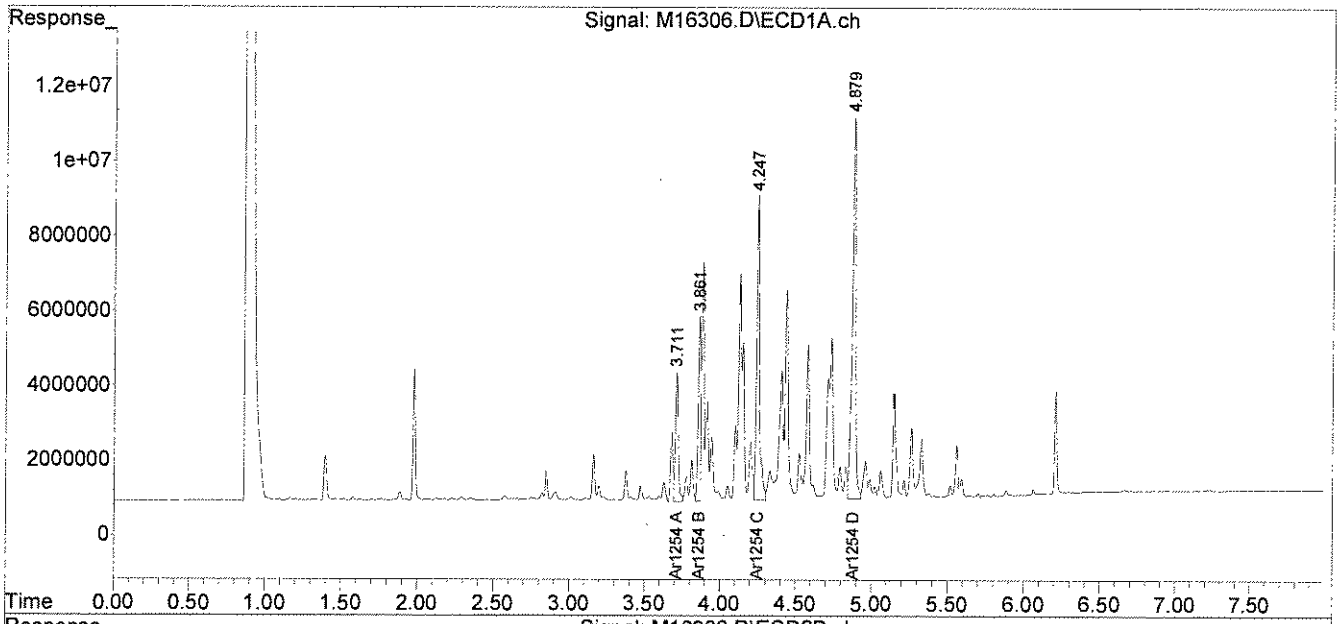
PCB FORM 10

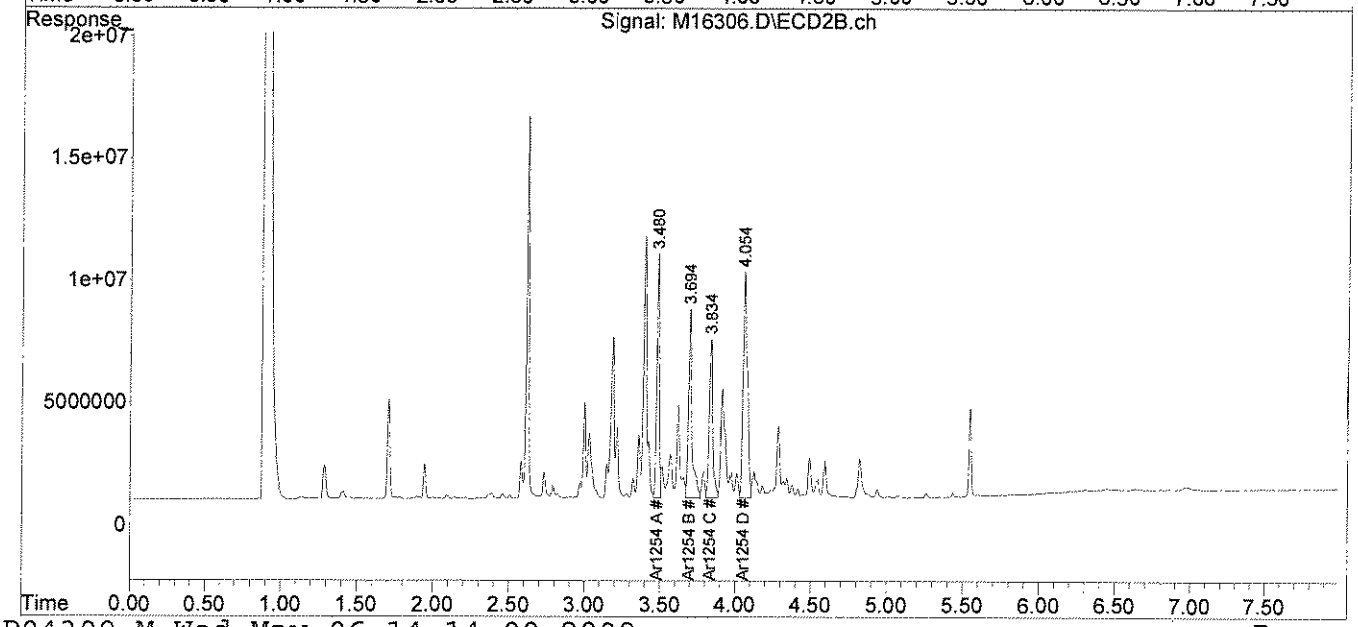
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050409-M\
Data File : M16306.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 11:10 am
Operator :
Sample : 63774-5,1:5,,A/C
Misc : SOIL
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 06 14:14:00 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 6, 2009

SAMPLE DATA

Lab Sample ID:	63774-6
Matrix:	Soil
Percent Solid:	93
Dilution Factor:	11
Collection Date:	05/01/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/04/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-085

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	360	U
PCB-1221	360	U
PCB-1232	360	U
PCB-1242	360	U
PCB-1248	360	U
PCB-1254	360	**4680**
PCB-1260	360	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	102	%
Decachlorobiphenyl	89	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63774

Sample: 63774-6,1:10,,A/C

Data File: M16305.D

Dilution Factor: 10.8

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	3651	4675	24.6	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

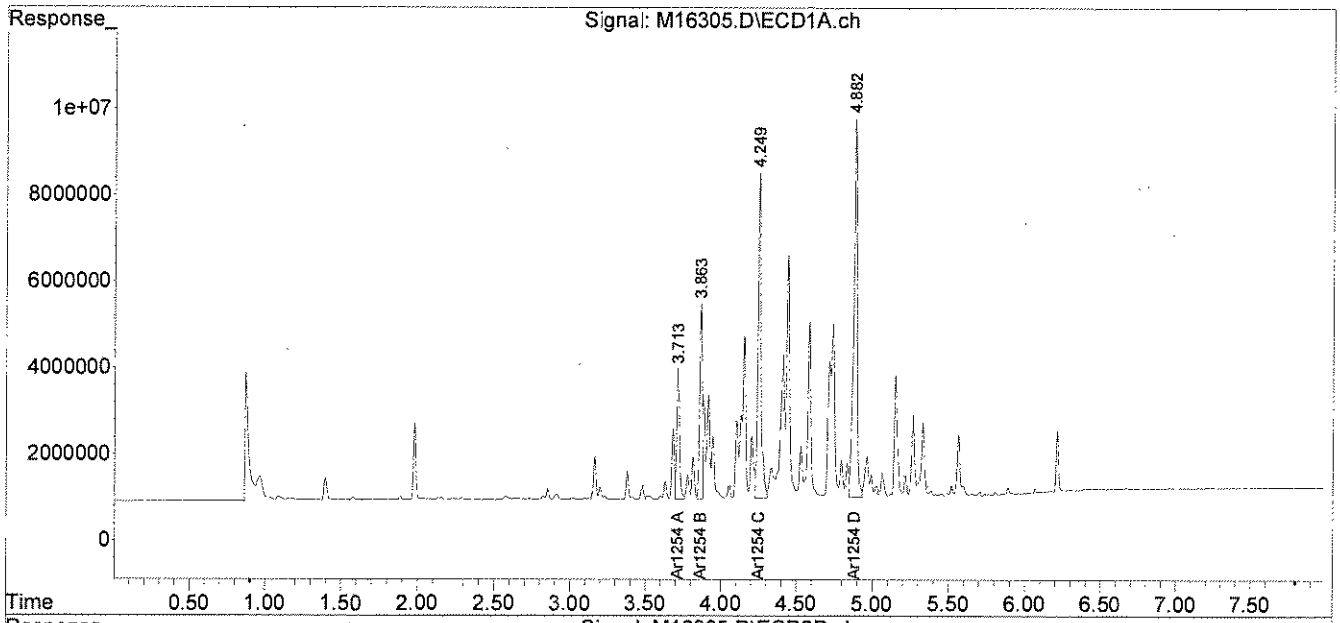
PCB FORM 10

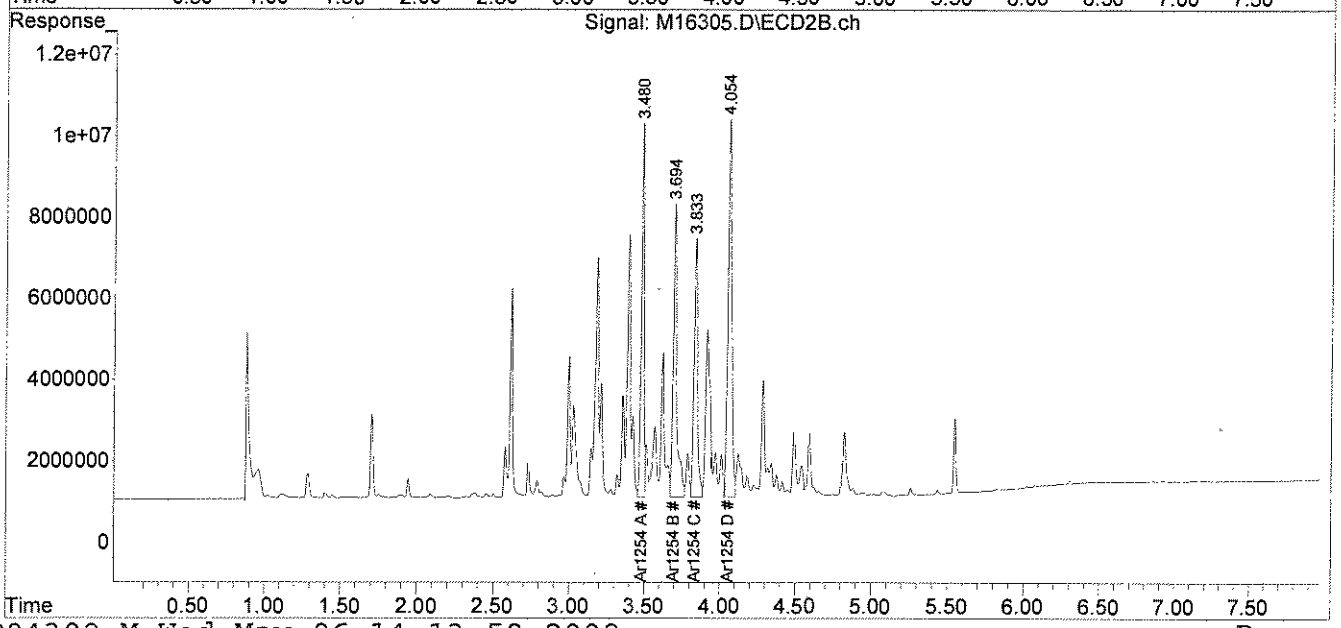
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050409-M\
Data File : M16305.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 11:00 am
Operator :
Sample : 63774-6,1:10,,A/C
Misc : SOIL
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 06 14:13:58 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 6, 2009

SAMPLE DATA

Lab Sample ID:	63774-7
Matrix:	Soil
Percent Solid:	93
Dilution Factor:	1.1
Collection Date:	05/01/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/04/09
Analysis Date:	05/05/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-086

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**844**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	94	%
Decachlorobiphenyl	82	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63774

Sample: 63774-7,,A/C

Data File: M16291.D

Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	706	844	17.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

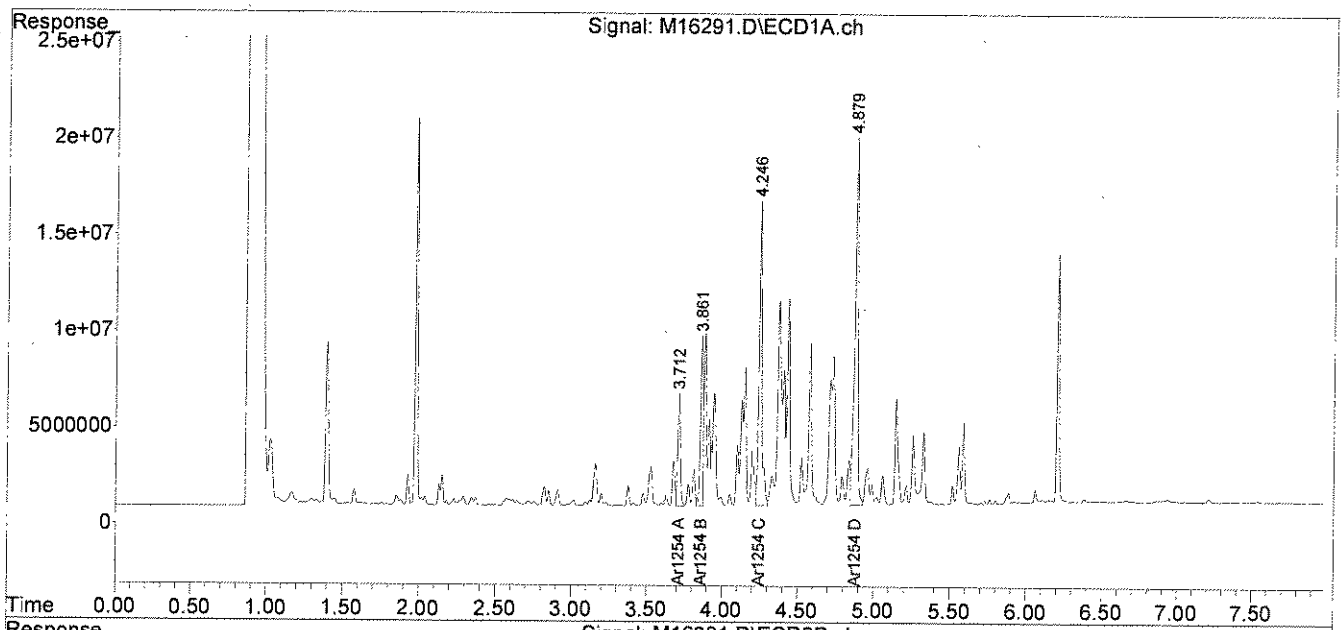
PCB FORM 10

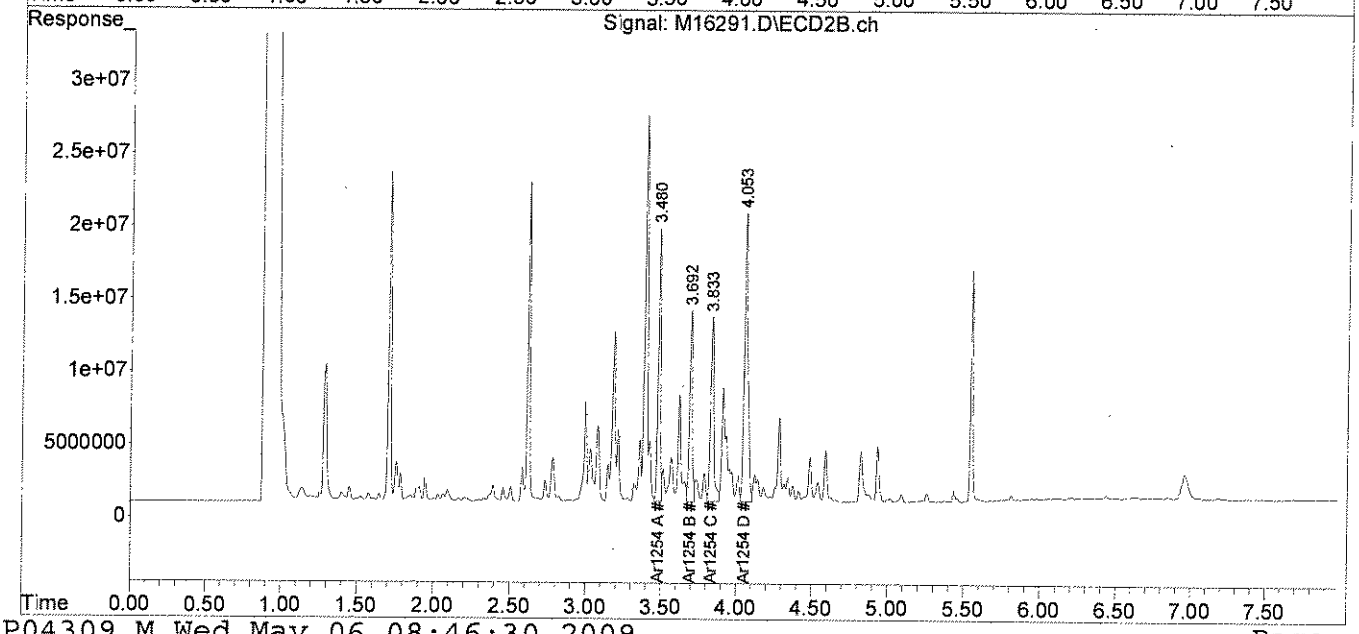
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050409-M\
Data File : M16291.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 5 May 2009 5:55 pm
Operator :
Sample : 63774-7,,A/C
Misc : SOIL
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 06 08:46:23 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 6, 2009

SAMPLE DATA

Lab Sample ID:	63774-8
Matrix:	Soil
Percent Solid:	93
Dilution Factor:	2.1
Collection Date:	05/01/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/04/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-087

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	69	U
PCB-1221	69	U
PCB-1232	69	U
PCB-1242	69	U
PCB-1248	69	U
PCB-1254	69	**1440**
PCB-1260	69	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	94	%
Decachlorobiphenyl	87	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63774

Sample: 63774-8,1:2,,A/C

Data File: M16307.D

Dilution Factor: 2.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	1268	1443	12.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

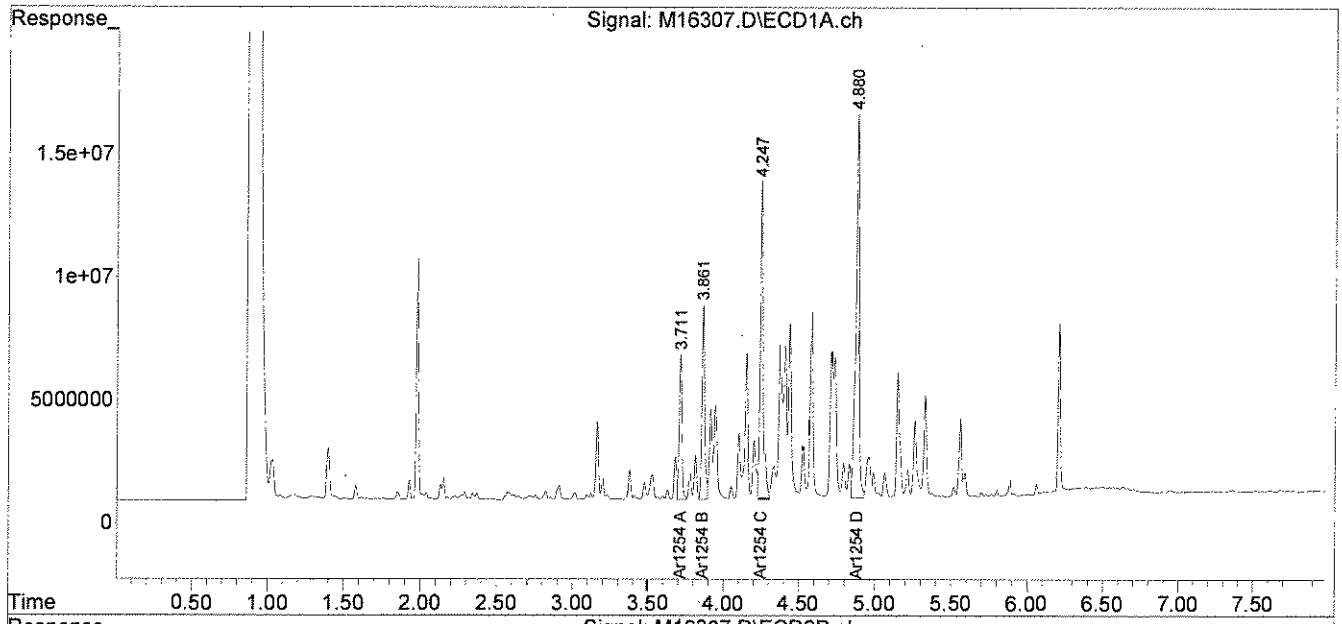
PCB FORM 10

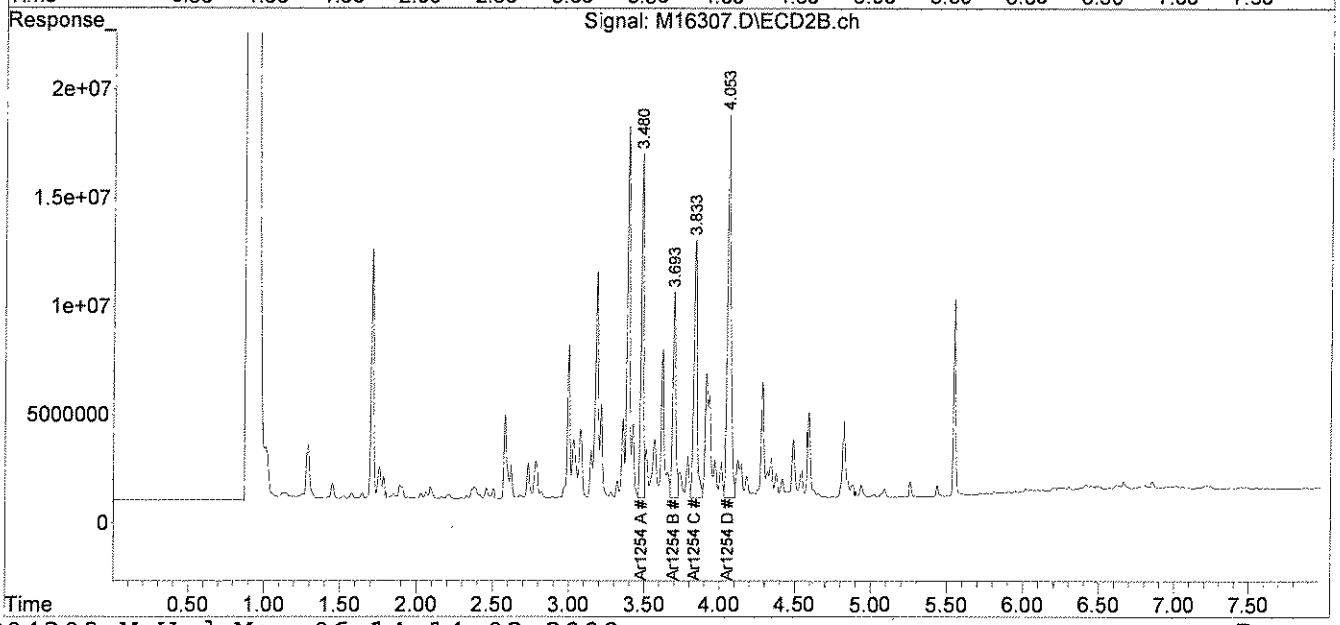
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050409-M\
Data File : M16307.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 11:20 am
Operator :
Sample : 63774-8,1:2,,A/C
Misc : SOIL
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 06 14:14:02 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 6, 2009

SAMPLE DATA

Lab Sample ID:	63774-9
Matrix:	Soil
Percent Solid:	93
Dilution Factor:	1.1
Collection Date:	05/01/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/04/09
Analysis Date:	05/05/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-088

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**478**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	94	%
Decachlorobiphenyl	81	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63774

Sample: 63774-9,,A/C

Data File: M16293.D

Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	333	478	35.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

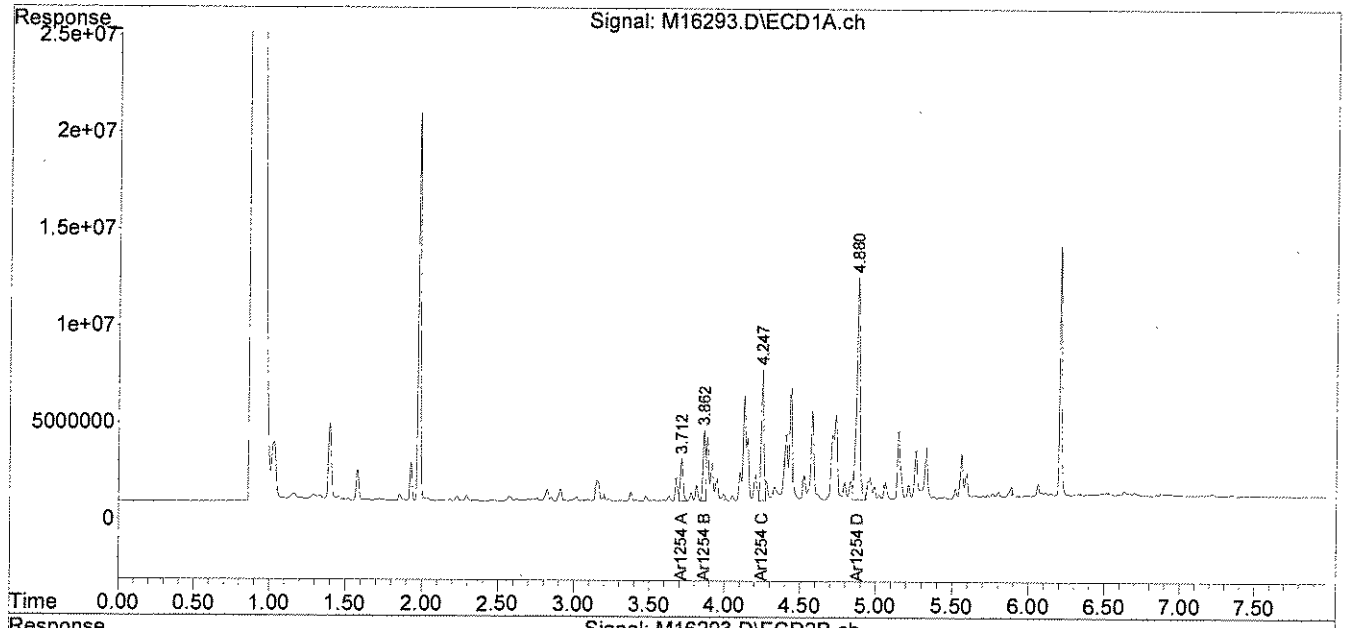
PCB FORM 10

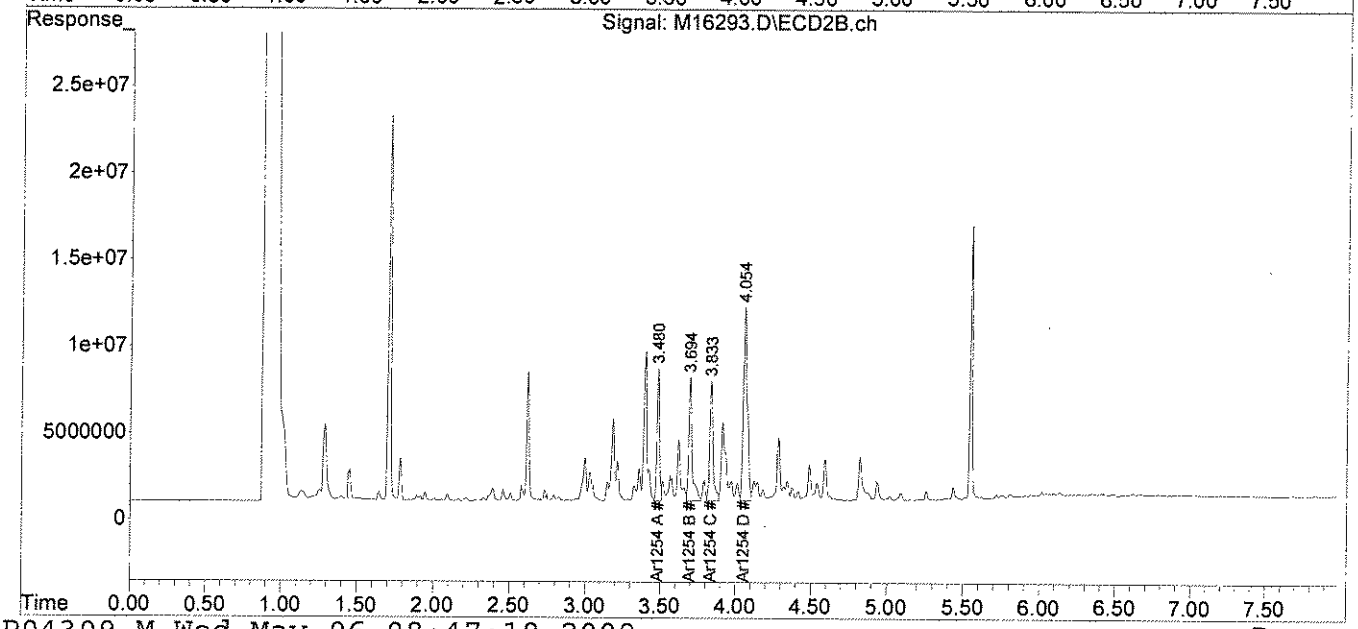
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050409-M\
Data File : M16293.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 5 May 2009 6:15 pm
Operator :
Sample : 63774-9,,A/C
Misc : SOIL
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 06 08:47:06 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 6, 2009

SAMPLE DATA

Lab Sample ID:	63774-10
Matrix:	Soil
Percent Solid:	91
Dilution Factor:	54
Collection Date:	05/01/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/04/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-089

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	1780	U
PCB-1221	1780	U
PCB-1232	1780	U
PCB-1242	1780	U
PCB-1248	1780	U
PCB-1254	1780	**19900**
PCB-1260	1780	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	*	%
Decachlorobiphenyl	*	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.
* The surrogates were diluted out.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63774

Sample: 63774-10,1:50,,A/C

Data File: M16304.D

Dilution Factor: 54.2

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	13526	19935	38.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

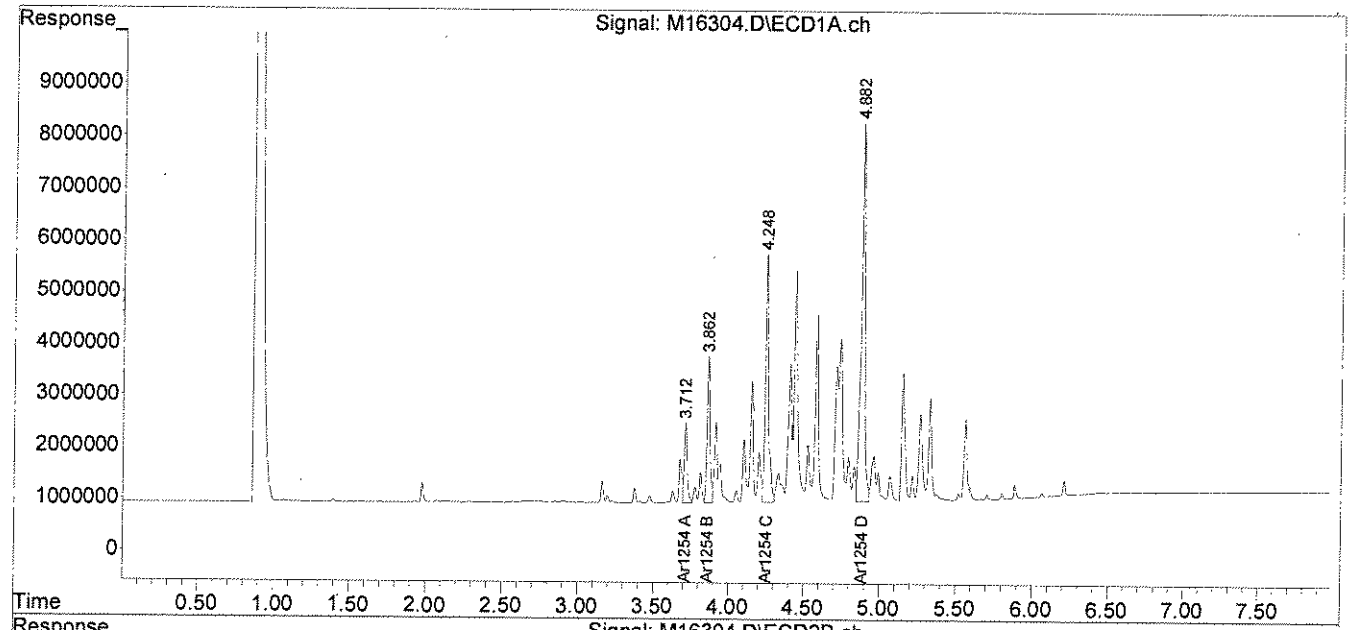
PCB FORM 10

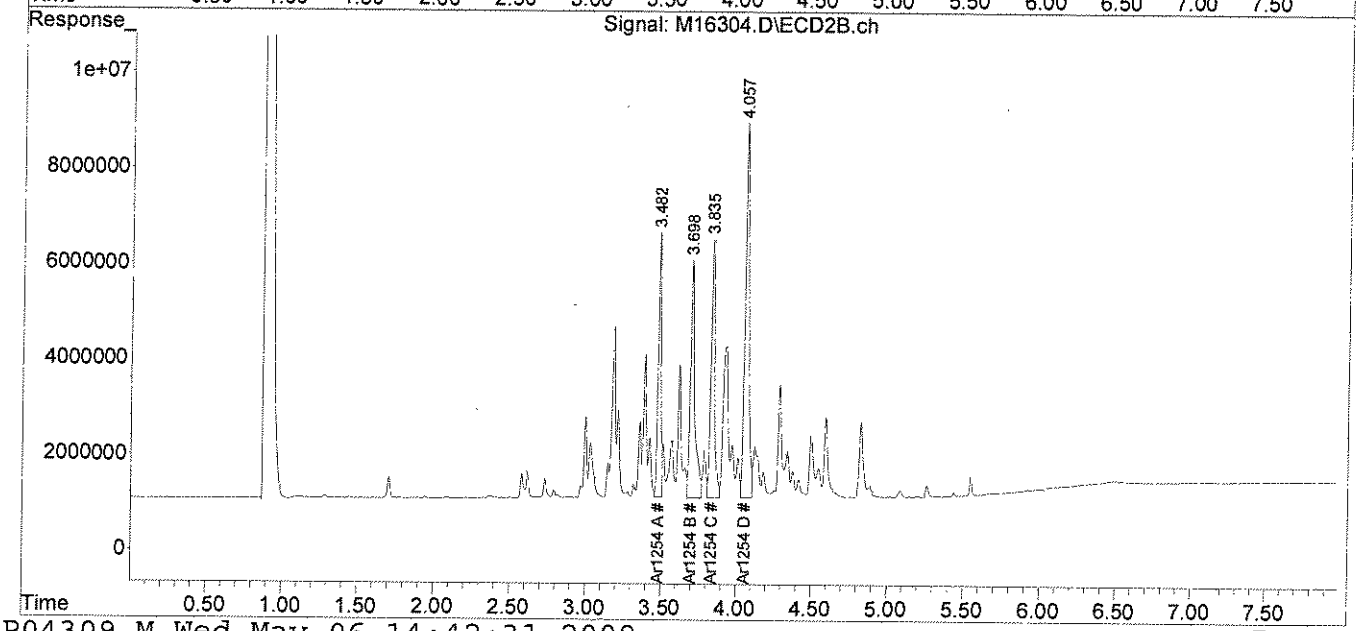
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\050409-M\
Data File : M16304.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 10:49 am
Operator :
Sample : 63774-10,1:50,,A/C
Misc : SOIL
ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 06 14:42:23 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 6, 2009

SAMPLE DATA

Lab Sample ID:	63774-11
Matrix:	Soil
Percent Solid:	92
Dilution Factor:	1.1
Collection Date:	05/01/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/04/09
Analysis Date:	05/05/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-505

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**480**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	95	%
Decachlorobiphenyl	82	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63774

Sample: 63774-11,,A/C

Data File: M16295.D

Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	346	480	32.4	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

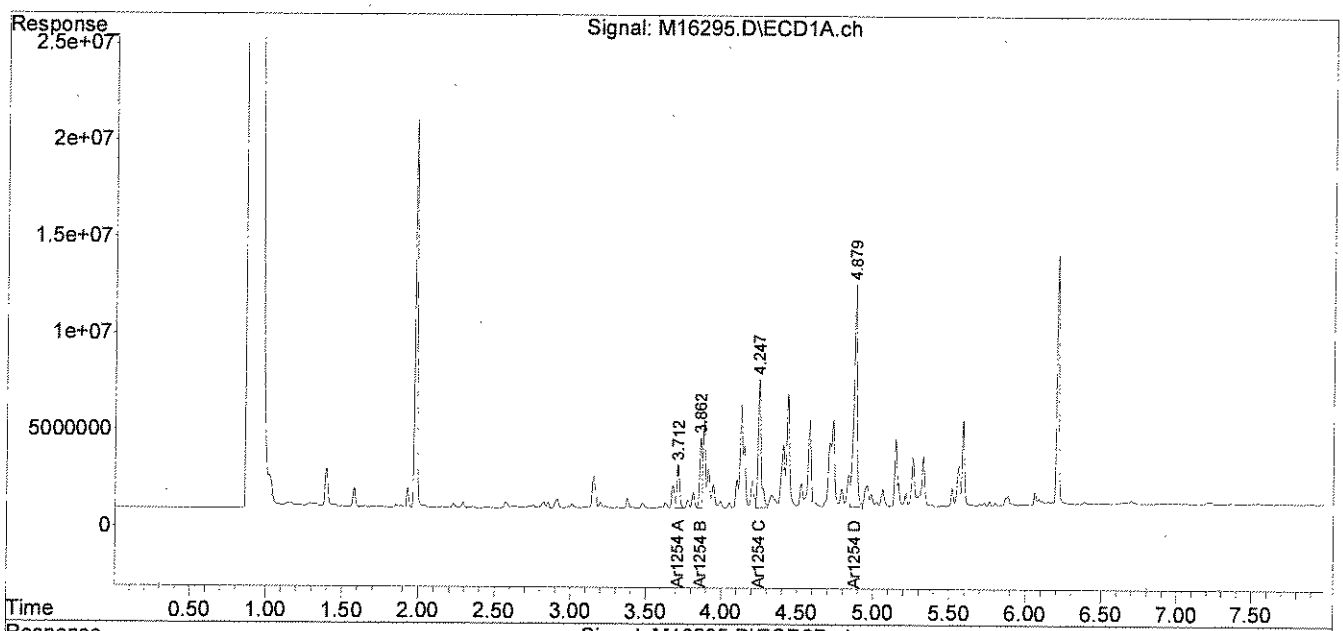
PCB FORM 10

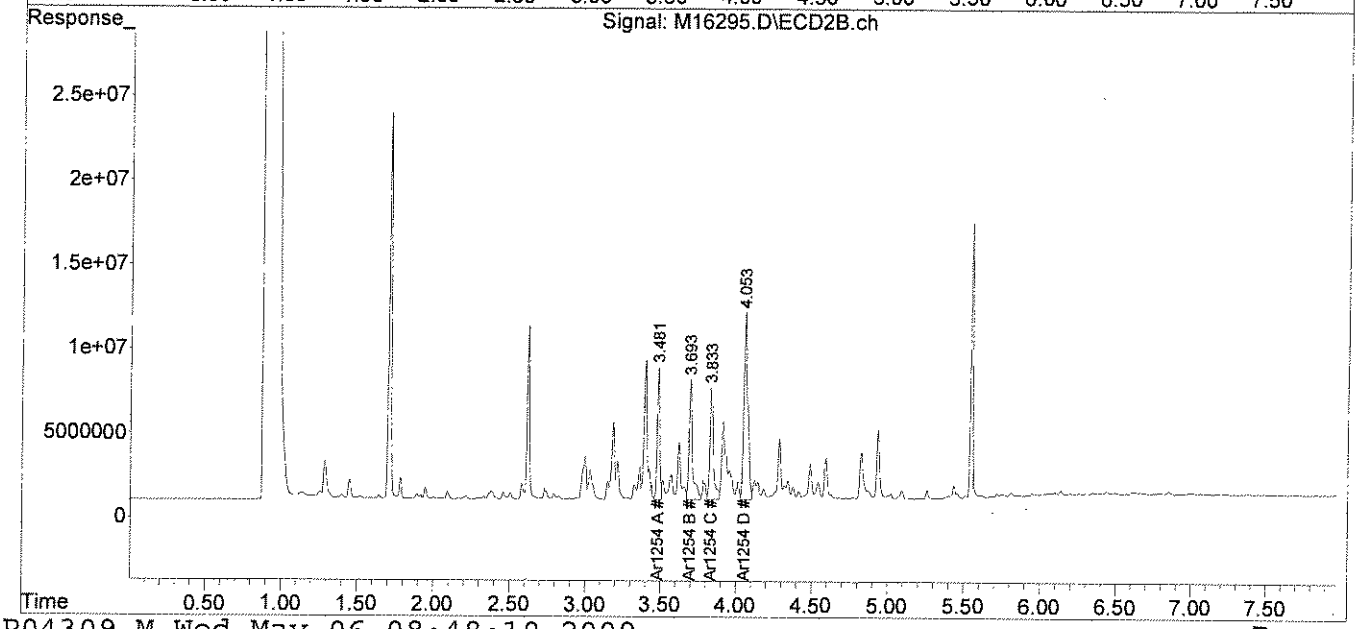
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050409-M\
Data File : M16295.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 5 May 2009 6:35 pm
Operator :
Sample : 63774-11,,A/C
Misc : SOIL
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 06 08:48:04 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 6, 2009

SAMPLE DATA

Lab Sample ID:	63774-12
Matrix:	Soil
Percent Solid:	94
Dilution Factor:	1.1
Collection Date:	05/01/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/04/09
Analysis Date:	05/05/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-090

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**734**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	93	%
Decachlorobiphenyl	81	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63774

Sample: 63774-12,,A/C

Data File: M16296.D

Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	528	734	32.7	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

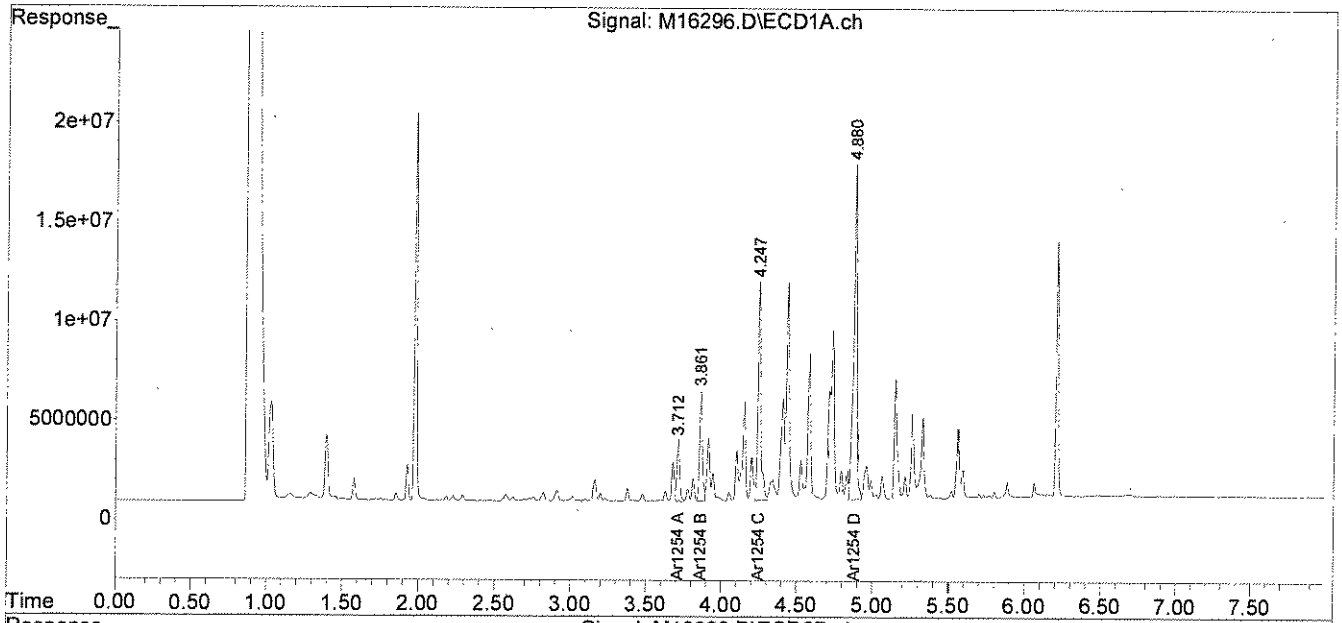
PCB FORM 10

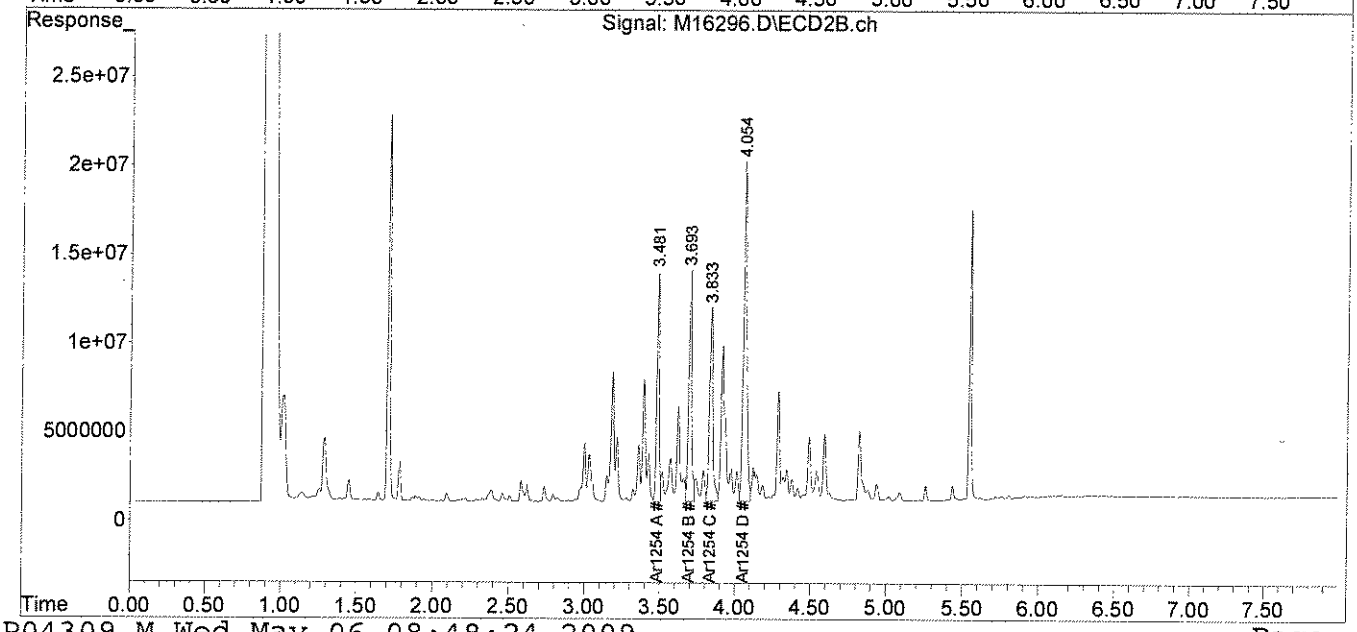
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050409-M\
Data File : M16296.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 5 May 2009 6:45 pm
Operator :
Sample : 63774-12,,A/C
Misc : SOIL
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 06 08:48:17 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 6, 2009

SAMPLE DATA

Lab Sample ID:	63774-13
Matrix:	Soil
Percent Solid:	95
Dilution Factor:	1.0
Collection Date:	05/01/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/04/09
Analysis Date:	05/05/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-091

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**173**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	83	%
Decachlorobiphenyl	90	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63774

Sample: 63774-13,,A/C

Data File: M16297.D

Dilution Factor: I.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	134	173	25.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

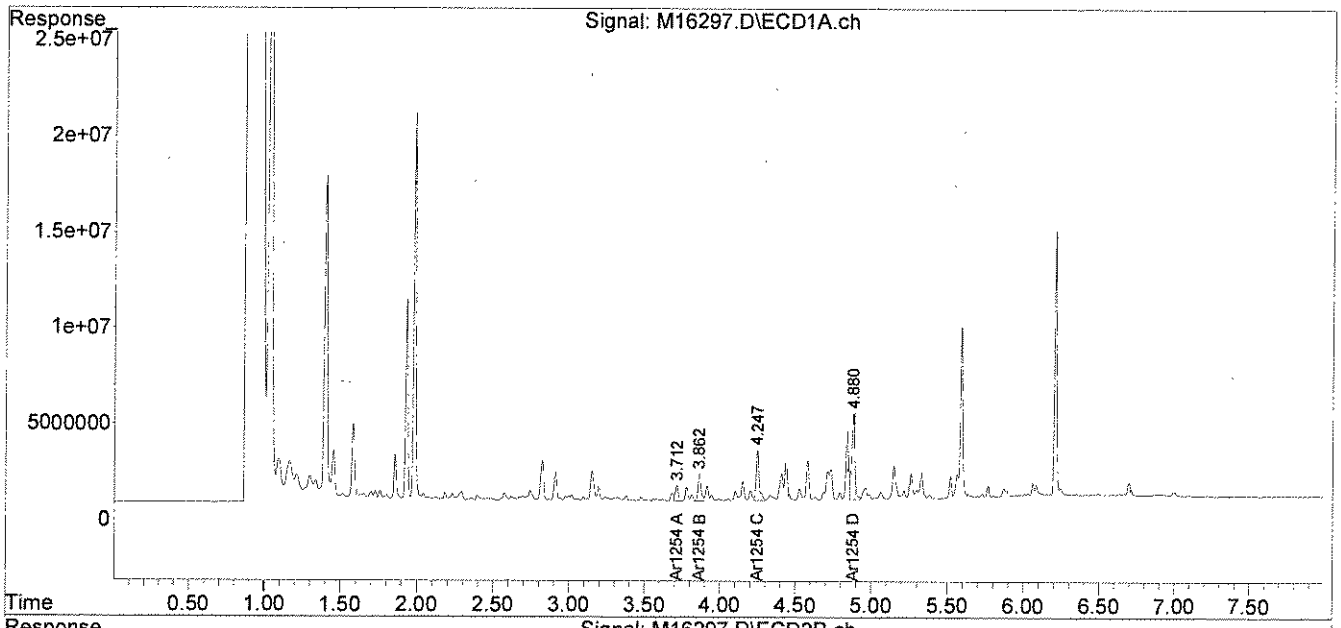
PCB FORM 10

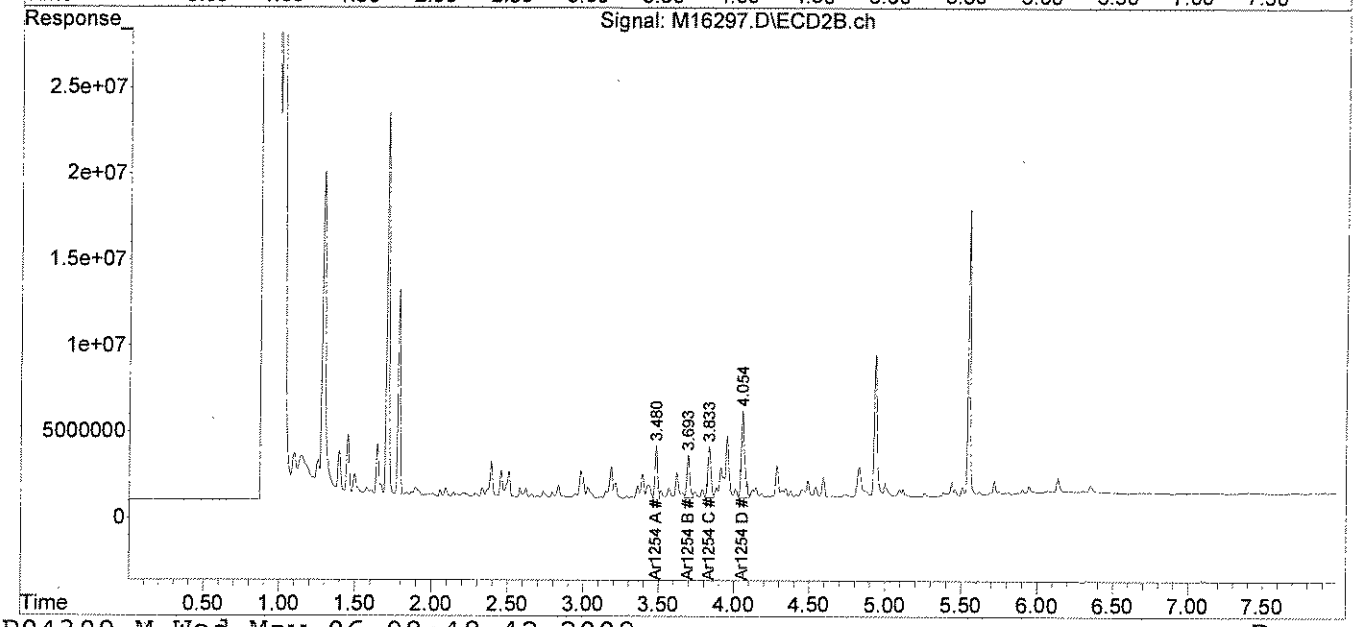
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050409-M\
Data File : M16297.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 5 May 2009 6:56 pm
Operator :
Sample : 63774-13,,A/C
Misc : SOIL
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 06 08:48:35 2009
Quant Method : C:\msdchem\1\METHODS\54SP04309.M
Quant Title :
QLast Update : Fri May 01 09:54:07 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 6, 2009

SAMPLE DATA

Lab Sample ID:	63774-14
Matrix:	Aqueous
Percent Solid:	N/A
Dilution Factor:	1.0
Collection Date:	05/01/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/04/09
Analysis Date:	05/05/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-905

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/L	Results µg/L
PCB-1016	0.2	U
PCB-1221	0.2	U
PCB-1232	0.2	U
PCB-1242	0.2	U
PCB-1248	0.2	U
PCB-1254	0.2	U
PCB-1260	0.2	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	76	%
Decachlorobiphenyl	59	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS:

PCB Report

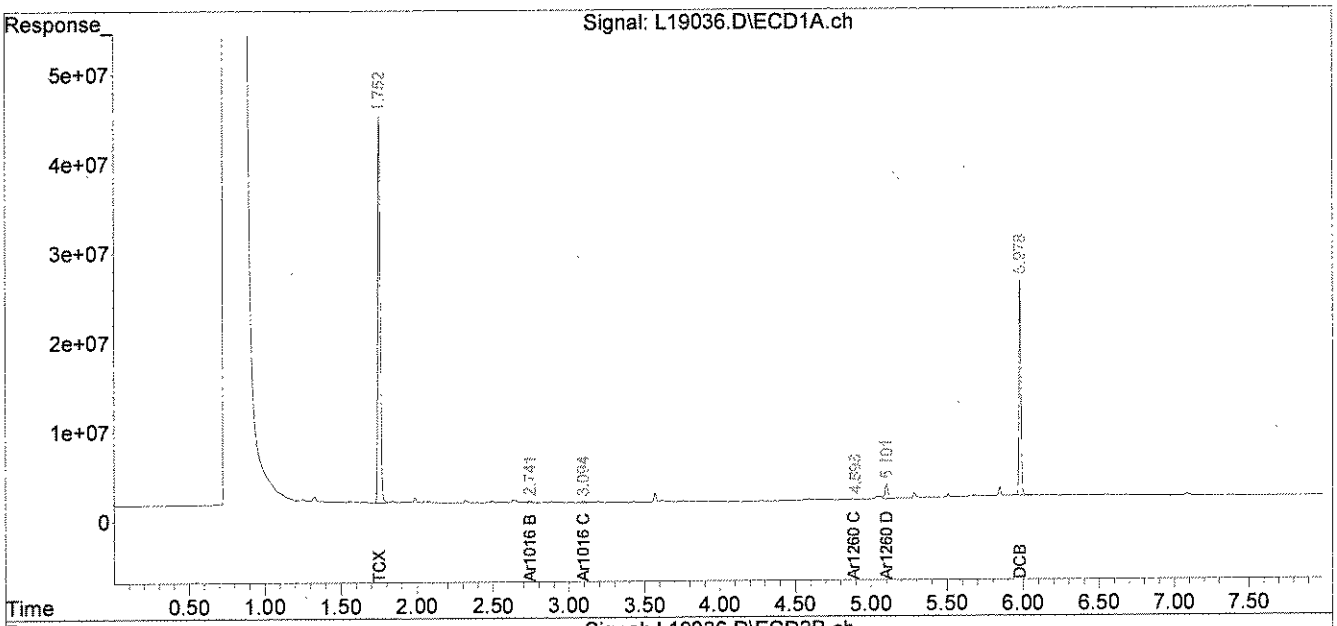
Authorized signature

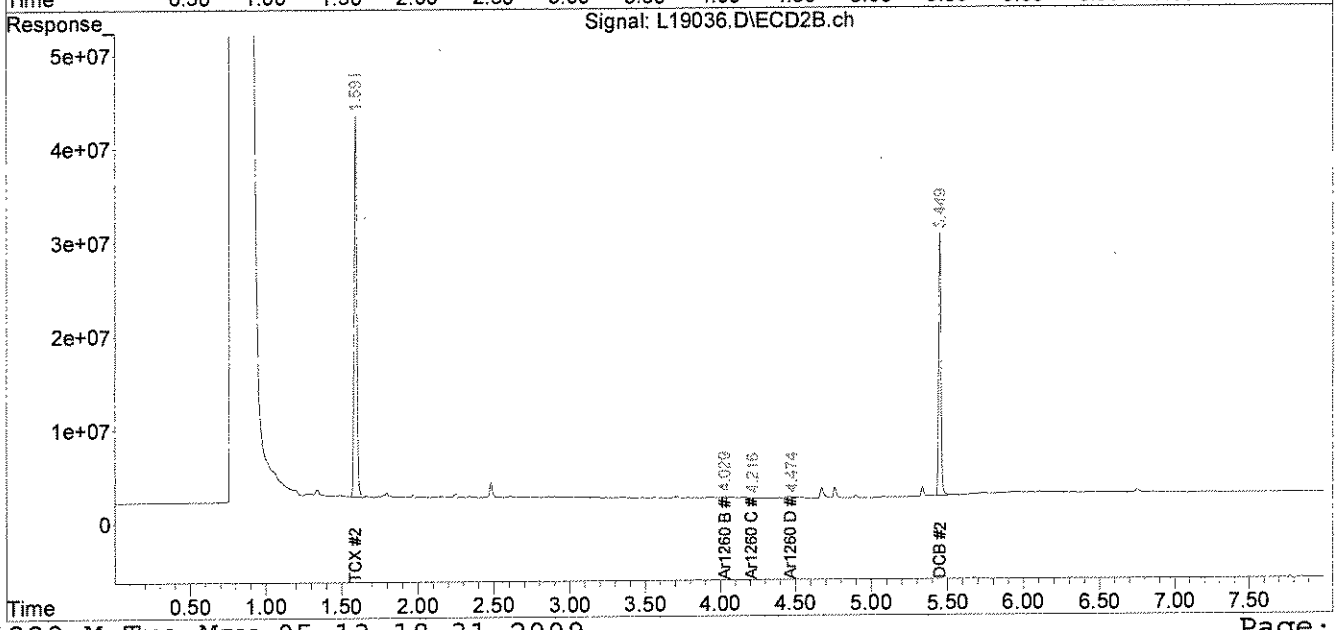
Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\050409-L\
Data File : L19036.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 5 May 09 12:52 pm
Operator :
Sample : 63774-14
Misc :
ALS Vial : 56 Sample Multiplier: 1

Integration File signal 1: PCBINT.E
Integration File signal 2: PCBINT2.E
Quant Time: May 05 13:18:31 2009
Quant Method : C:\msdchem\1\METHODS\PB04229.M
Quant Title : Aroclor 1016/1260
QLast Update : Thu Apr 23 16:07:53 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 3 ul
Signal #1 Phase : DB-1701 Widebore Signal #2 Phase: DB-5 Widebore
Signal #1 Info : 0.53 mm , 1.0um f Signal #2 Info : 0.53 mm, 1.5um film





analytics environmental laboratory LLC

PCB
QC FORMS

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:PCBQC.doc

PCB AQUEOUS
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: L
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63774

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B05049PW	65		74		61		65	
L05049PWB	69		71		64		62	
LD05049PWB	71		71		66		63	

		Lower Limit	Upper Limit
SMC #1 =	TCX	46	122
SMC #2 =	DCB	40	135

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB FORM 2

PCB AQUEOUS
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: L
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63774

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04209PW,RR	77		99		69		85	
B05049PW,RR	70		78		64		67	
L05049PWB,RR	73		74		66		64	
LD05049PWB,RR	77		75		70		65	
63774-14	76		59		68		49	

		Lower Limit	Upper Limit
SMC #1 =	TCX	46	122
SMC #2 =	DCB	40	135

\# Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB FORM 2

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63774

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B05049PSOX,,A/C	112		92		116		95	
L05049PSOX,,A/C	102		90		100		97	
LD05049PSOX,,A/C	114		85		95		96	
63774-1,,A/C	87		77		93		83	
63774-1,MS,,A/C	83		77		89		84	
63774-1,MSD,,A/C	89		78		92		83	
63774-2,,A/C	94		78		96		86	
63774-4,,A/C	93		79		95		85	
63774-7,,A/C	94		82		98		86	
63774-9,,A/C	94		81		97		86	
63774-11,,A/C	95		82		96		87	
63774-12,,A/C	93		81		95		87	
63774-13,,A/C	83		90		93		88	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

\# Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63774

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04209PW,RR2	85		101		89		121	
63774-3,1:50,,A/C	D		D		D		D	
63774-10,1:50,,A/C	D		D		D		D	
63774-6,1:10,,A/C	102		89		97		98	
63774-5,1:5,,A/C	91		89		91		98	
63774-8,1:2,,A/C	94		87		100		98	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB AQUEOUS
LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE
PERCENT RECOVERY

Instrument ID: L

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63774

Non-spiked sample: B05049PW

Spike: L05049PWB

Spike duplicate: LD05049PWB

COMPOUND	LCS SPIKE ADDED (ug/L)	LCSD SPIKE ADDED (ug/L)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
PCB 1016	2.0	2.0	79	113	25	0.00	1.61	81		1.61	80		0.5	
PCB 1260	2.0	2.0	58	115	25	0.00	1.70	85		1.71	85		0.3	
PCB 1016 #2	2.0	2.0	81	112	25	0.00	1.42	71	*	1.44	72	*	1.3	
PCB 1260 #2	2.0	2.0	54	123	25	0.00	1.59	80		1.59	80		0.1	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been volume adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

PCB FORM 3

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63774

Noo-spiked sample: B05049PSOX,,A/C

Spike: L05049PSOX,,A/C

Spike duplicate: LD05049PSOX,,A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	200	200	65	140	30	0	237	118		244	122		3.2	
PCB 1260	200	200	60	130	30	0	198	99		195	98		1.6	
PCB 1016 #2	200	200	65	140	30	0	276	138		269	135		2.6	
PCB 1260 #2	200	200	60	130	30	0	211	106		218	109		3.0	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

PCB SOIL
MATRIX SPIKE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63774

Non-spiked sample: 63774-1,,A/C

Spike: 63774-1,MS,,A/C

Spike duplicate: 63774-1,MSD,,A/C

COMPOUND	MS SPIKE ADDED (ug/kg)	MSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	205	204	65	140	30	0	232	113		247	121		6.0	
PCB 1260	205	204	60	130	30	0	208	101		227	111		9.0	
PCB 1016 #2	205	204	65	140	30	0	267	130		282	138		5.5	
PCB 1260 #2	205	204	60	130	30	0	219	107		226	111		3.5	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

MS/MSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

analytics environmental laboratory LLC

CHAIN OF CUSTODIES

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:COC.doc

Chain Of Custody Form

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

Project#: 210918 Proj. Name: UMass-LGRC
Company: Woodard &Curran
Contact: Amy Wallace/George Franklin
Address: 35 New England Business Center Suite 180
Andover, MA 01810
Phone: (978)557-8150 PO# Quote # WCE8091001
Sampler (Signature): KBS amy w

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 2.9°
3) Received in good condition Y or N
4) pH checked by: N/A
5) Labels checked by: JLL 5-4-09

Container Key
P=plastic G=glass

Station Identification	Sample Date	Sample Time	Analysis	Preservation: Unpres	4°C	HNO3	H2SO4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
GRC-VSS-006	5/01/09	0909	PCBs-8082	X	X						SOIL	1	G		63774-1
GRC-VSS-007	5/01/09	0912		X	X										2
GRC-VSS-082		1132		X	X										3
GRC-VSS-083		1136		X	X										4
GRC-VSS-084		1140		X	X										5
GRC-VSS-085		1156		X	X										6
GRC-VSS-086		1201		X	X										7
GRC-VSS-087		1209		X	X										8
GRC-VSS-088		1431		X	X										9
GRC-VSS-089		1445		X	X										10
LGRC-VSS-505		1431		X	X										11

Comments / Instructions:
PCBs by 8082
Soxhlet Extraction

Email Results to:
Jeff Haney
Amy Wallace
George Franklin

Turnaround Time (TAT)
☐ 24hr* ☐ 48hr*
☐ 72hr* ☐ 5 Days*
☐ 10 Days
*Fee may apply; lab approval required

Project Requirements:
*Fee may apply

Report Type:
☐ MCP* ☒ Level II*
☐ CTRCP* ☐ Level III*
☐ DOD* ☐ Level IV*
☐ Standard

State:
☐ NH
☐ MA
☐ ME
☐ CT
☐ RI
Other:

State Standard: _____ (eg. S-1 or GW-1)
EDD Required: Y* N
Type:

	Relinquished By Sampler:	Relinquished By:	Relinquished By:
Date:	5/1/09	5/4/09	
Time:	1800	0930	

	Received By:	Received By:	Received By:
Time:			

Analytics Report 63774 page 0067 of 69

Chain Of Custody Form

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 2.9°
3) Received in good condition Y or N
4) pH checked by: CP 5-4-09
5) Labels checked by: JCL 5-4-09

Project#: 210918 Proj. Name: UMass - Amherst
Company: Woodard &Curran
Contact: Amy Wallace / George Franklin
Address: 35 New England Business Center Suite 180
Andover, MA 01810
Phone: (978)557-8150 PO# Quote # WCI8091001
Sampler (Signature): KBS Amy Wallace

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

Station Identification	Sample Date	Sample Time	Analysis	Preservation: Unpres	4°C	HNO_3	H_2SO_4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
GRC-VSS-090	5/01/09	1456	PCBs-8082	X	X						SOIL	1	G		63774-12
GRC-VSS-091	↓	1246	↓	X	X										13
GRC-VSS-905	↓	1419	↓	X	X						Wat.*	1	G	6.0	14

Email Results to:
Jeff Hamel
George Franklin
Amy Wallace

Turnaround Time (TAT)
☐ 24hr* ☐ 48hr*
☐ 72hr* ☐ 5 Days*
☐ 10 Days
*Fee may apply; lab approval required

Comments / Instructions:
PCBs by 8082
Soxhlet Extraction
* Amber liter for 8082 is (-) for CL using KI paper - CP 5-4-09

Project Requirements:
*Fee may apply

Report Type:
☐ MCP* ☒ Level II*
☐ CTRCP* ☐ Level III*
☐ DOD* ☐ Level IV*
☐ Standard

State:
☐ NH
☐ MA
☐ ME
☐ CT
☐ RI
Other:

State Standard:
(eg. S-1 or GW-1)
EDD Required: Y* N
Type:

Received By: [signature] Time: 1800 Date: 5/1/09
Received By: [signature] Time: 0930 Date: 5/4/09
Received By: Time: Date:
Relinquished By Sampler: Amy Wallace
Relinquished By: [signature]
Relinquished By:

Analytics\AEL Documents\AEL COC

analytics environmental laboratory LLC

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 63774

CLIENT: W+C

PROJECT: UMASS - LGRC

COOLER NUMBER: _____

NUMBER OF COOLERS: 1

DATE RECEIVED: 5/4/09

A: PRELIMINARY EXAMINATION:

DATE COOLER OPENED: 5/4/09

1. Cooler received by(initials) JU Date Received: 5/4/09

2. Circle one: Hand delivered (If so, skip 3) Shipped

3. Did cooler come with a shipping slip? Y N

3a. Enter carrier name and airbill number here: _____

4. Were custody seals on the outside of cooler? Y N
How many & where: _____ Seal Date: _____ Seal Name: _____

5. Did the custody seals arrive unbroken and intact upon arrival? Y N/A

6. COC#: _____

7. Were Custody papers filled out properly (ink,signed, etc)? Y N

8. Were custody papers sealed in a plastic bag? Y N

9. Did you sign the COC in the appropriate place? Y N

10. Was the project identifiable from the COC papers? Y N

11. Was enough ice used to chill the cooler? Y N Temp. of cooler: 2.9°

B. Log-In: Date samples were logged in: 5/4/09 By: JU CP 5/4/09

12. Type of packing in cooler(bubble wrap, popcorn) Y N

13. Were all bottles sealed in separate plastic bags? Y N

14. Did all bottles arrive unbroken and were labels in good condition? Y N

15. Were all bottle labels complete(ID,Date,time,etc.) Y N

16. Did all bottle labels agree with custody papers? Y N

17. Were the correct containers used for the tests indicated: Y N

18. Were samples received at the correct pH? Y N

19. Was sufficient amount of sample sent for the tests indicated? Y N

20. Were bubbles absent in VOA samples? Y N/A

If NO, List sample #'s: _____

21. Laboratory labeling verified by (initials): JU Date: 5.4.09

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

May 7, 2009

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

RE: Analytical Results Case Narrative
Analytics # 63787
UMASS LGRC Proj# 210918

Dear Mr. Franklin;

Enclosed please find the analytical results for samples submitted for the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed Polychlorinated Biphenyls (PCBs) by EPA Method 8082.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II data package has been assembled in the following order:

Case Narrative/Non-Conformance Summary
Sample Log Sheet - Cover Page
PCB Form 1 Data Sheet for Samples and Blanks
Chromatograms
PCB Form 10 Confirmation Results
PCB Form 3 MS/MSD (LCS) Recoveries
Chain of Custody (COC) Forms

QC NON CONFORMANCE SUMMARY

Sample Receipt:
No exceptions.

PCBs by EPA Method 8082:
No QC deviations.

Sincerely,
ANALYTICS Environmental Laboratory, LLC

Stephen Knollmeyer
Laboratory Director

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63787

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 04 May 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63787-1	05/04/09	LGRC-VSS-093	EPA 8082 (PCBs only)	
63787-2	05/04/09	LGRC-VSS-094	EPA 8082 (PCBs only)	
63787-3	05/04/09	LGRC-VSS-095	EPA 8082 (PCBs only)	
63787-4	05/04/09	LGRC-VSS-096	EPA 8082 (PCBs only)	
63787-5	05/04/09	LGRC-VSS-097	EPA 8082 (PCBs only)	
63787-6	05/04/09	LGRC-VSS-098	EPA 8082 (PCBs only)	
63787-7	05/04/09	LGRC-VSS-099	EPA 8082 (PCBs only)	
63787-8	05/04/09	LGRC-VSS-100	EPA 8082 (PCBs only)	
63787-9	05/04/09	LGRC-VSS-101	EPA 8082 (PCBs only)	
63787-10	05/04/09	LGRC-VSS-102	EPA 8082 (PCBs only)	
63787-11	05/04/09	LGRC-VSS-103	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 5/7/2009

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63787

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 04 May 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63787-12	05/04/09	LGRC-VSS-104	EPA 8082 (PCBs only)	
63787-13	05/04/09	LGRC-VSS-105	EPA 8082 (PCBs only)	
63787-14	05/04/09	LGRC-VSS-106	EPA 8082 (PCBs only)	
63787-15	05/04/09	LGRC-VSS-107	EPA 8082 (PCBs only)	
63787-16	05/04/09	LGRC-VSS-108	EPA 8082 (PCBs only)	
63787-17	05/04/09	LGRC-VSS-109	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 5/7/2009

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-130	70-130	EPA 8260B
Toluene-d8	70-130	70-130	
Bromofluorobenzene	70-130	70-130	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	EPA 624/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA0	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH

PCB
DATA SUMMARIES

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:PCB.doc

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 7, 2009

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: UMASS-LGRC

Project Number: 210918

Field Sample ID: Lab QC

Lab Sample ID: B05059PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 05/05/09
Analysis Date: 05/06/09

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	92	%
Decachlorobiphenyl	90	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

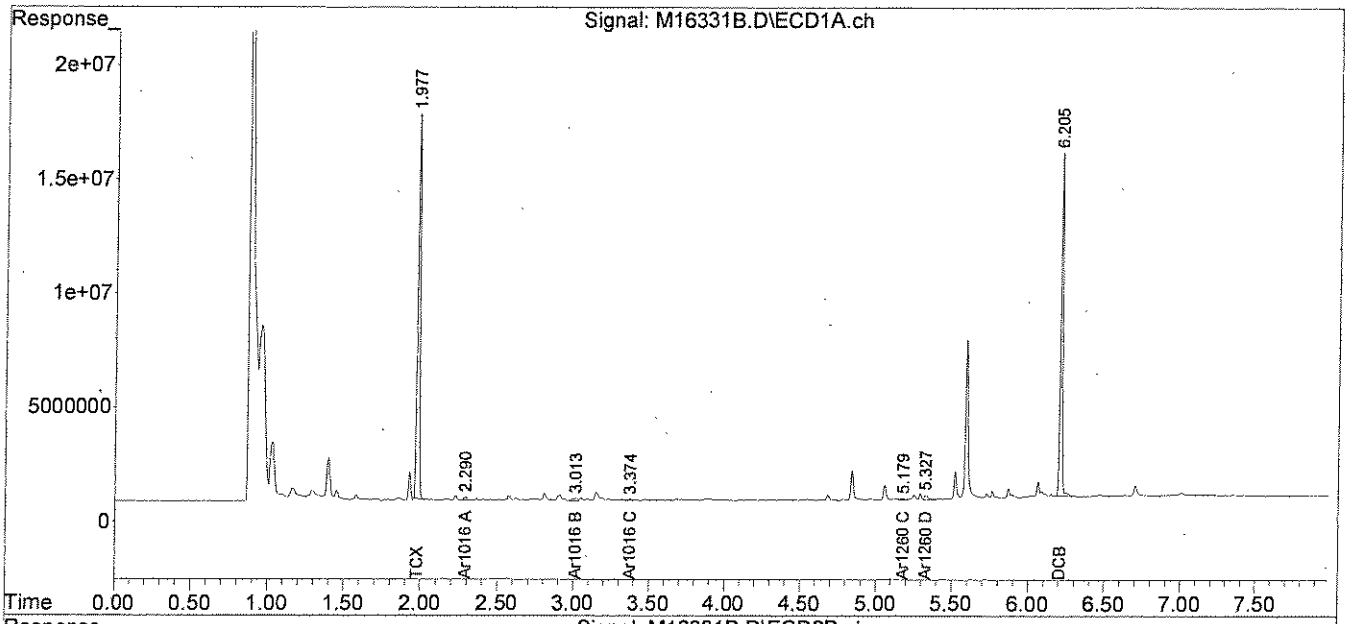
Authorized signature

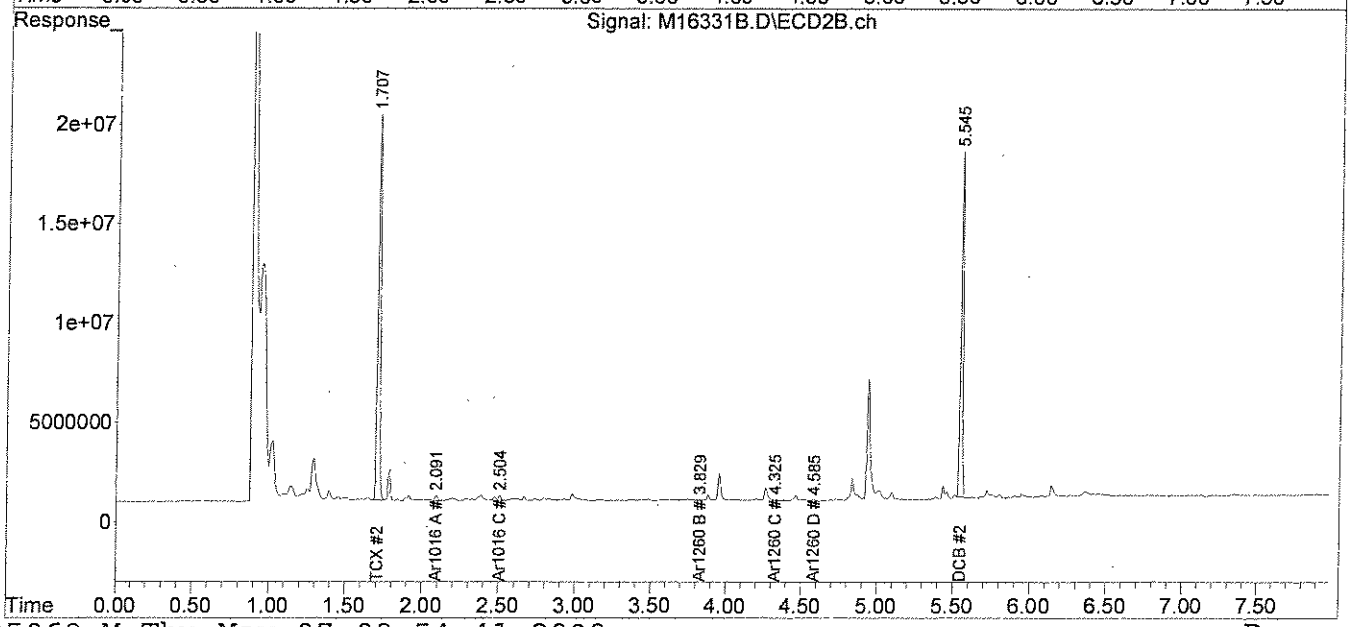
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16331B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 8:28 pm
Operator :
Sample : B05059PSOX,,A/C
Misc : SOIL
ALS Vial : 43 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 07 09:54:41 2009
Quant Method : C:\msdchem\1\METHODS\PCB05069.M
Quant Title : Aroclor 1016/1260
QLast Update : Thu May 07 09:09:28 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 7, 2009

SAMPLE DATA

Lab Sample ID:	63787-1
Matrix:	Soil
Percent Solid:	95
Dilution Factor:	1.0
Collection Date:	05/04/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/05/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-093

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**869**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	92	%
Decachlorobiphenyl	84	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63787

Sample: 63787-1,,A/C

Data File: M16334.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	869	791	9.4	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

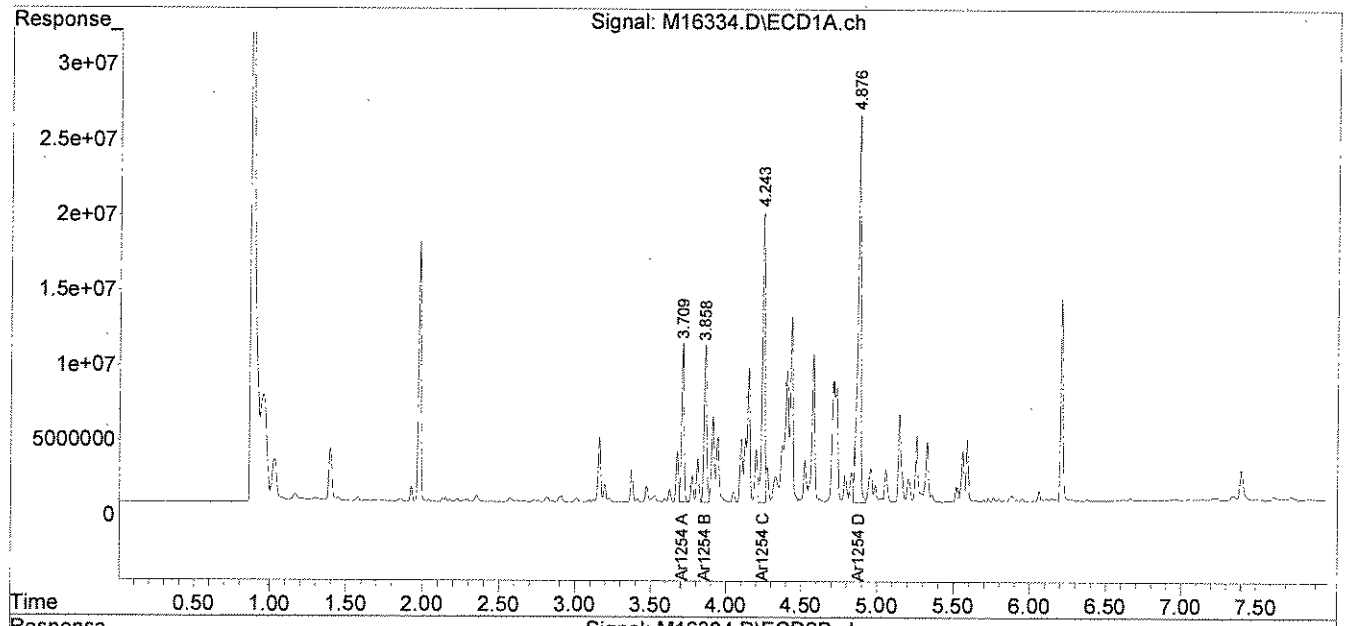
PCB FORM 10

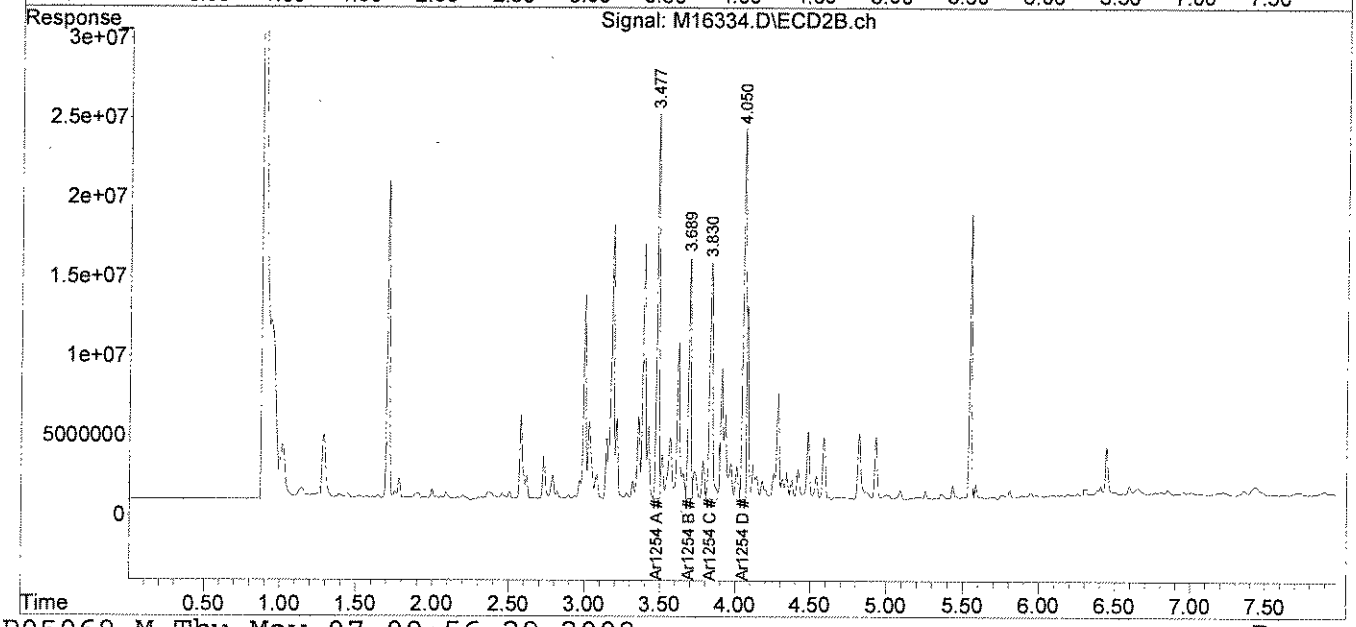
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16334.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 8:58 pm
Operator :
Sample : 63787-1,,A/C
Misc : SOIL
ALS Vial : 46 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 07 09:56:29 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 7, 2009

SAMPLE DATA

Lab Sample ID:	63787-2
Matrix:	Solid
Percent Solid:	94
Dilution Factor:	1.1
Collection Date:	05/04/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/05/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-094

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**727**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	86	%
Decachlorobiphenyl	83	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63787

Sample: 63787-2,,A/C

Data File: M16335.D

Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	727	549	27.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

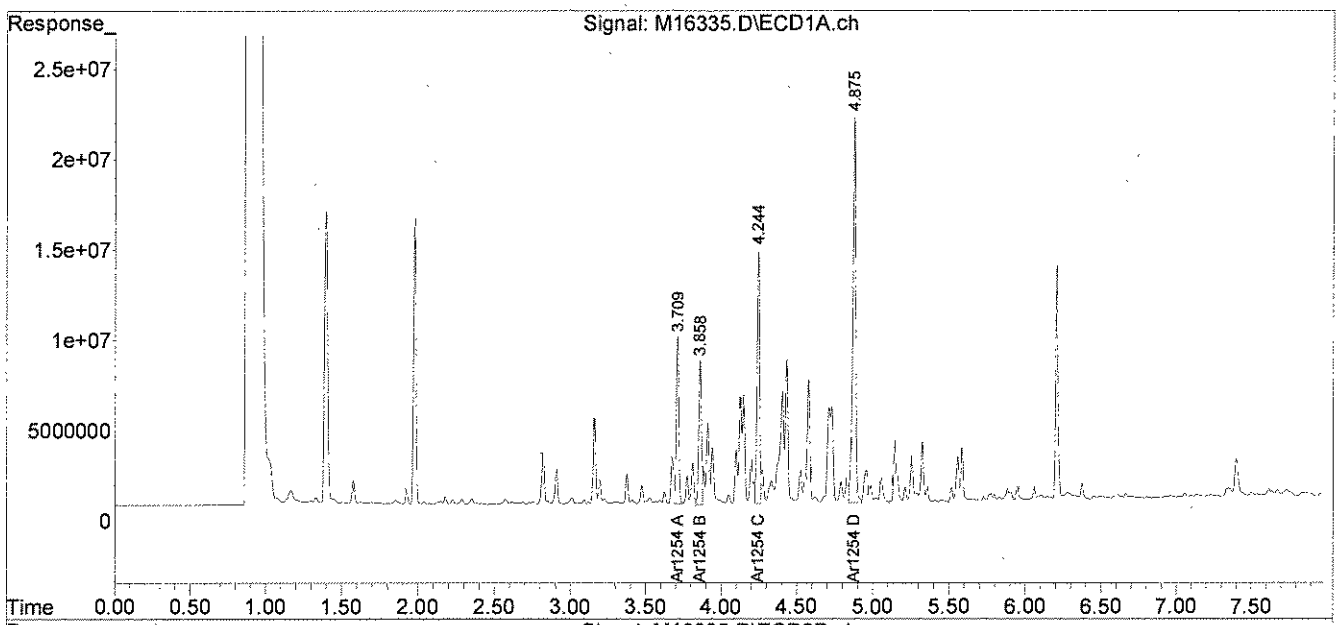
PCB FORM 10

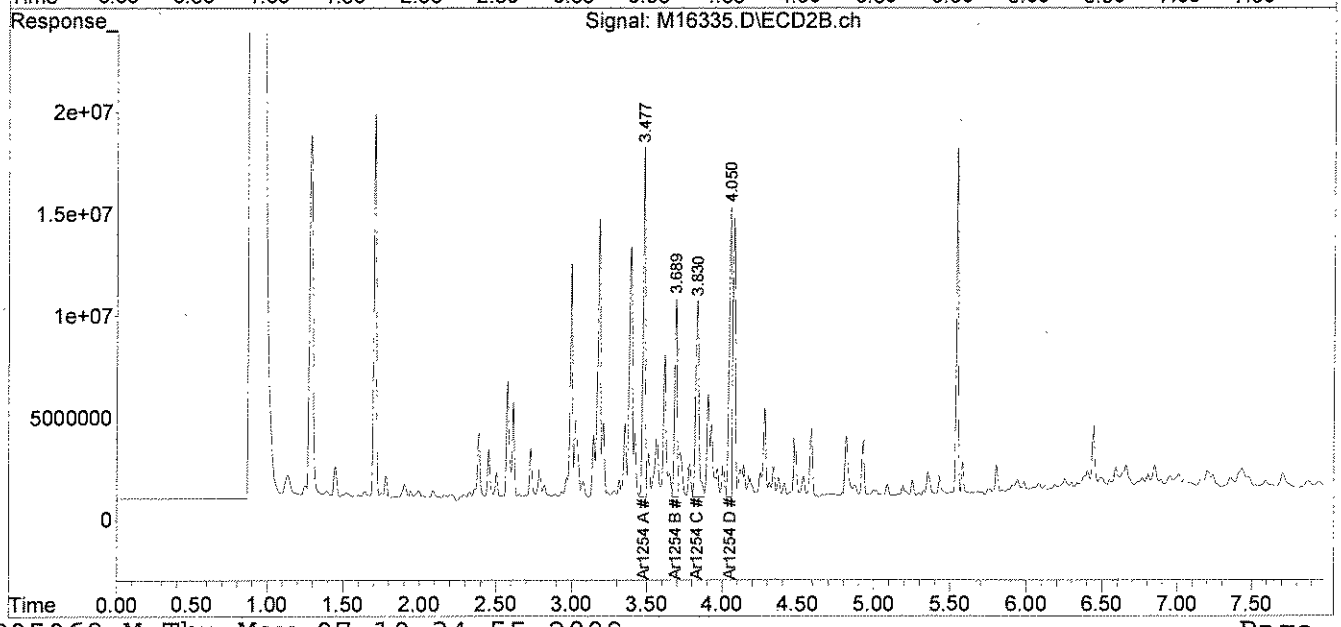
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16335.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 9:08 pm
Operator :
Sample : 63787-2,,A/C
Misc : SOIL
ALS Vial : 47 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 07 10:34:37 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 7, 2009

SAMPLE DATA

Lab Sample ID:	63787-3
Matrix:	Soil
Percent Solid:	96
Dilution Factor:	1.0
Collection Date:	05/04/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/05/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-095

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**90**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	85	%
Decachlorobiphenyl	82	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63787

Sample: 63787-3,,A/C

Data File: M16336.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	88	90	1.6	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

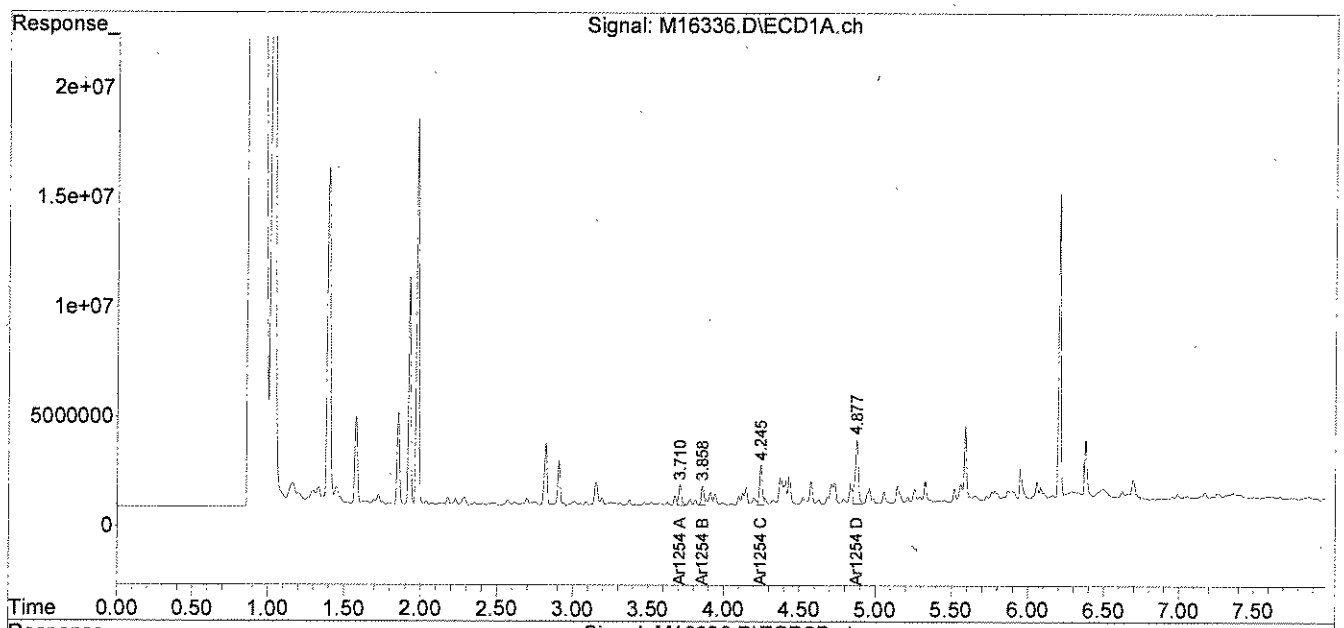
PCB FORM 10

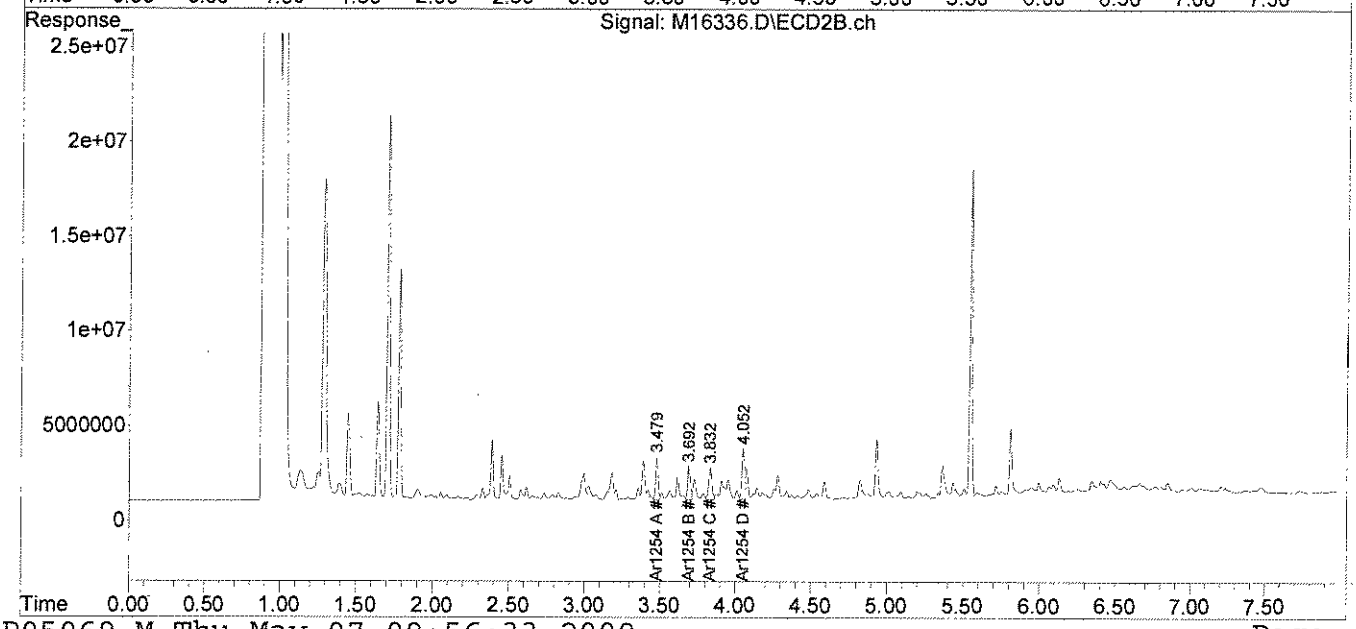
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16336.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 9:18 pm
Operator :
Sample : 63787-3,,A/C
Misc : SOIL
ALS Vial : 48 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 07 09:56:33 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 7, 2009

SAMPLE DATA

Lab Sample ID:	63787-4
Matrix:	Soil
Percent Solid:	94
Dilution Factor:	1.0
Collection Date:	05/04/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/05/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-096

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**780**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	83	%
Decachlorobiphenyl	81	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63787

Sample: 63787-4,,A/C

Data File: M16337.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	772	780	1.0	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

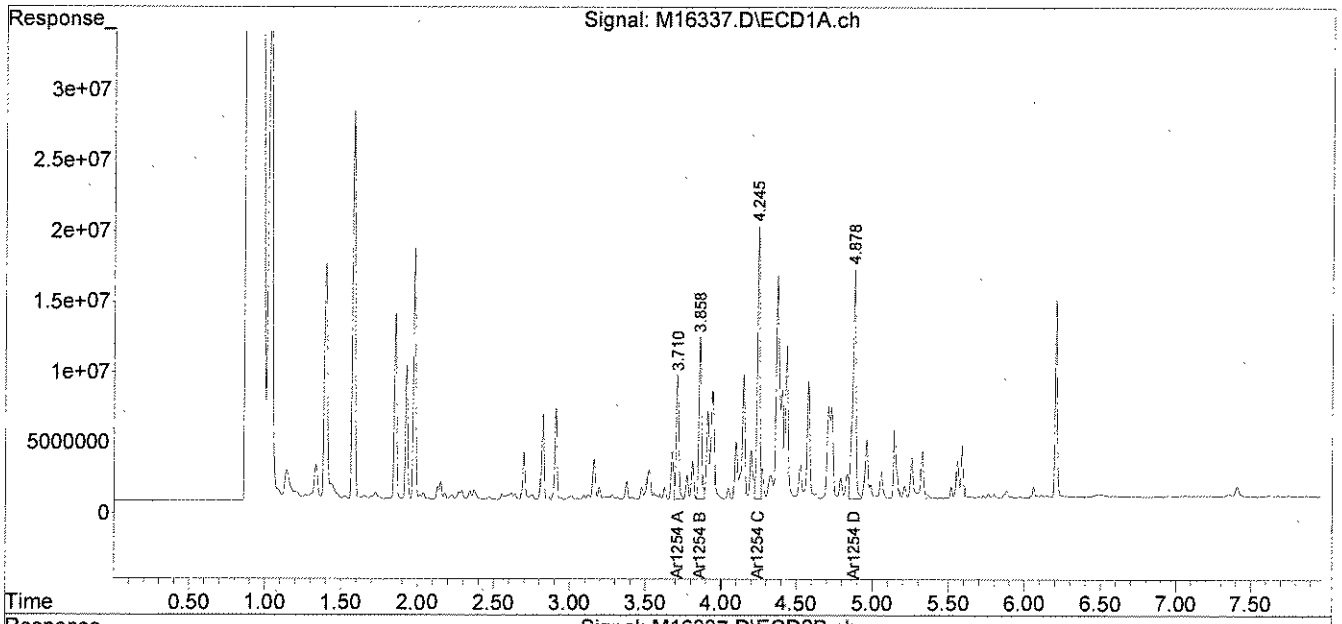
PCB FORM 10

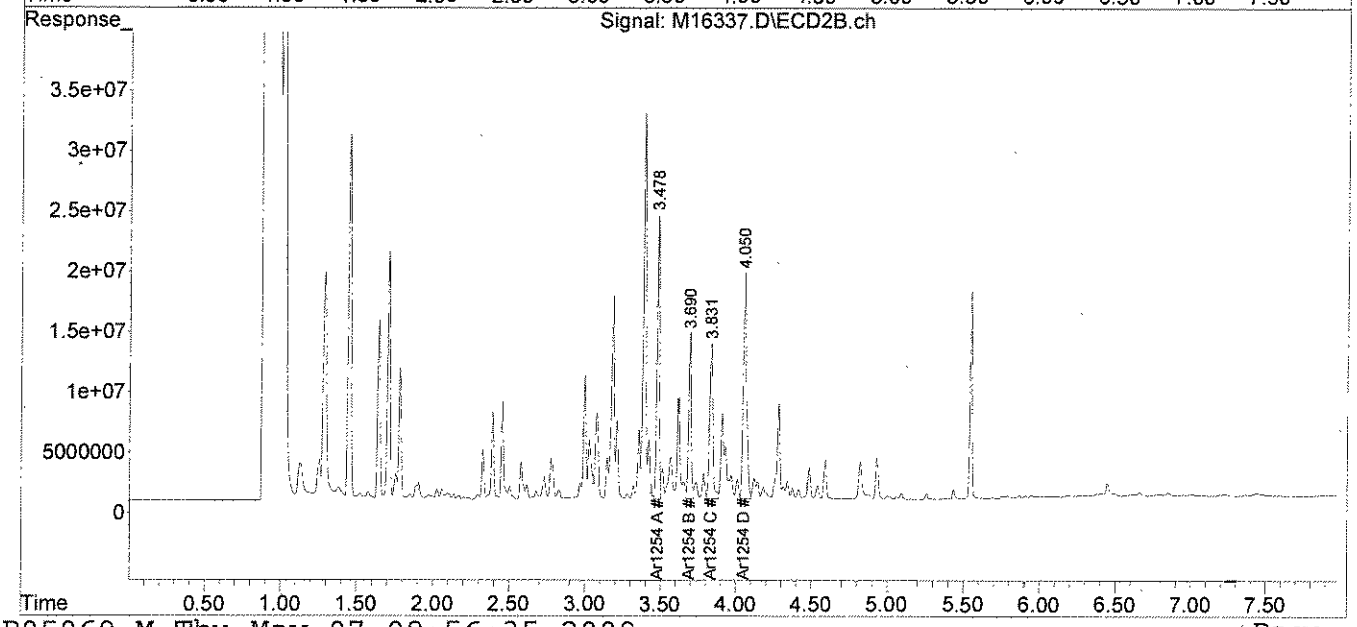
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16337.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 9:28 pm
Operator :
Sample : 63787-4,,A/C
Misc : SOIL
ALS Vial : 49 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 07 09:56:35 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 7, 2009

SAMPLE DATA

Lab Sample ID:	63787-5
Matrix:	Soil
Percent Solid:	97
Dilution Factor:	1.0
Collection Date:	05/04/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/05/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-097

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	74	%
Decachlorobiphenyl	86	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

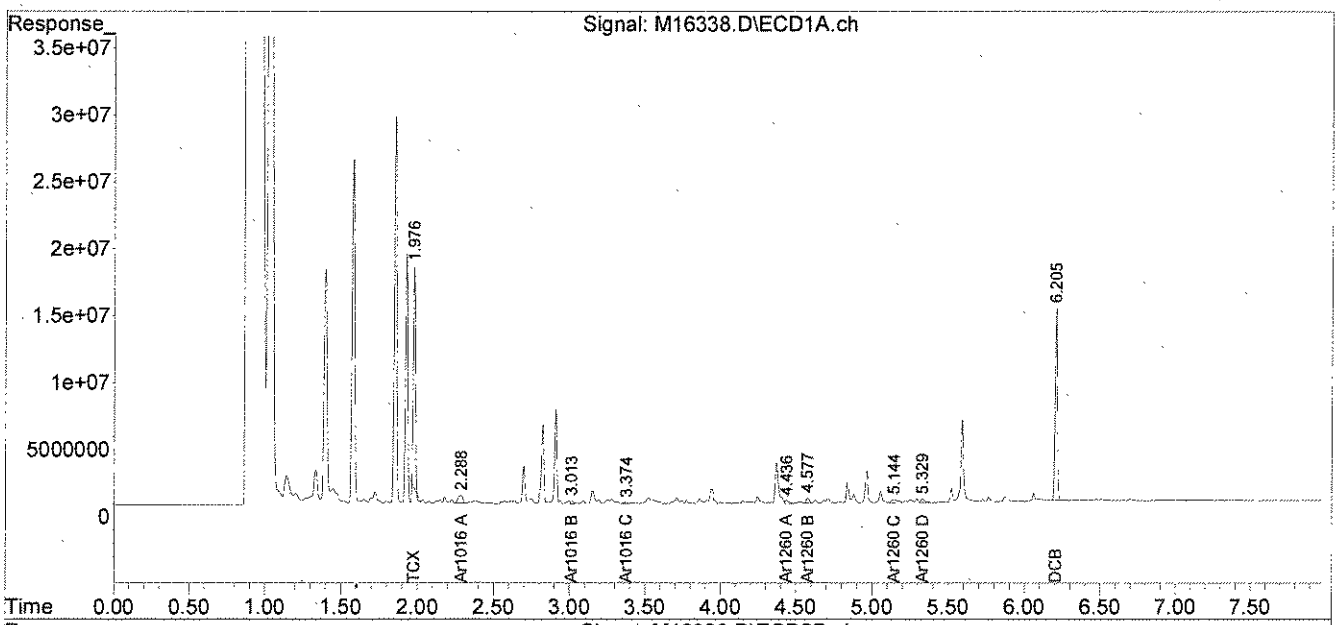
Authorized signature

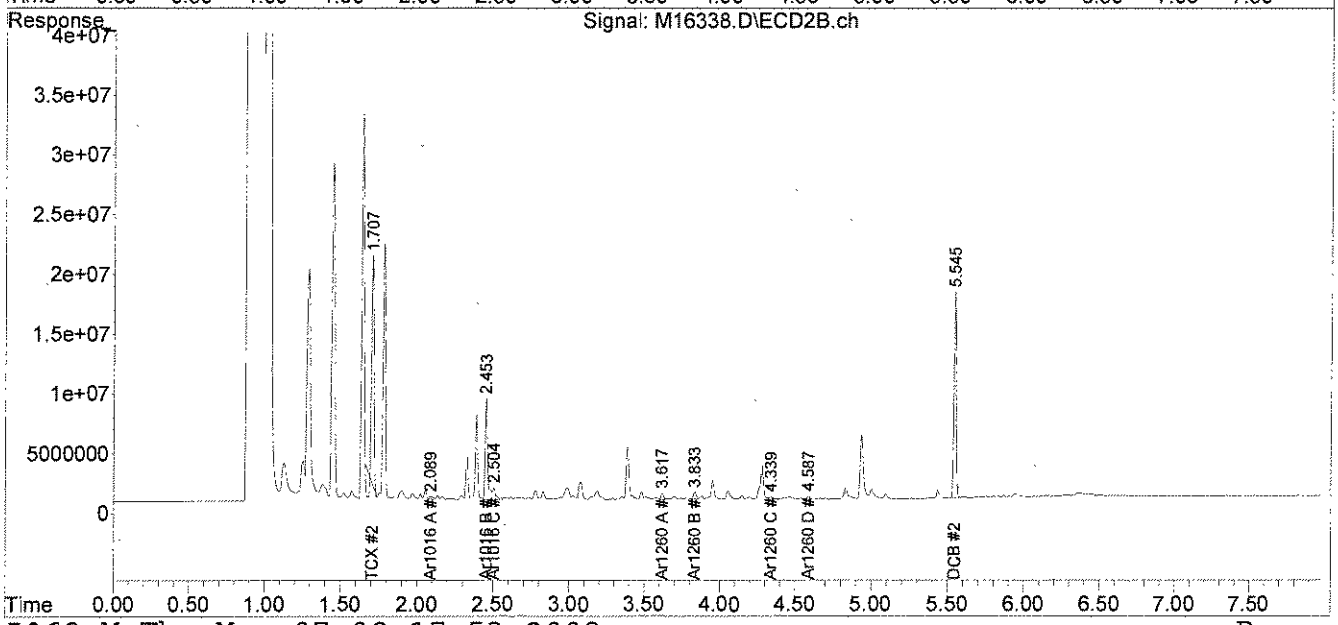
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16338.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 9:38 pm
Operator :
Sample : 63787-5,,A/C
Misc : SOIL
ALS Vial : 50 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 07 09:17:53 2009
Quant Method : C:\msdchem\1\METHODS\PCB05069.M
Quant Title : Aroclor 1016/1260
QLast Update : Thu May 07 09:09:28 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 7, 2009

SAMPLE DATA

Lab Sample ID:	63787-6
Matrix:	Soil
Percent Solid:	95
Dilution Factor:	1.0
Collection Date:	05/04/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/05/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-098

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**58**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	92	%
Decachlorobiphenyl	85	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature [signature]

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63787

Sample: 63787-6,,A/C

Data File: M16339.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	58	50	13.4	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

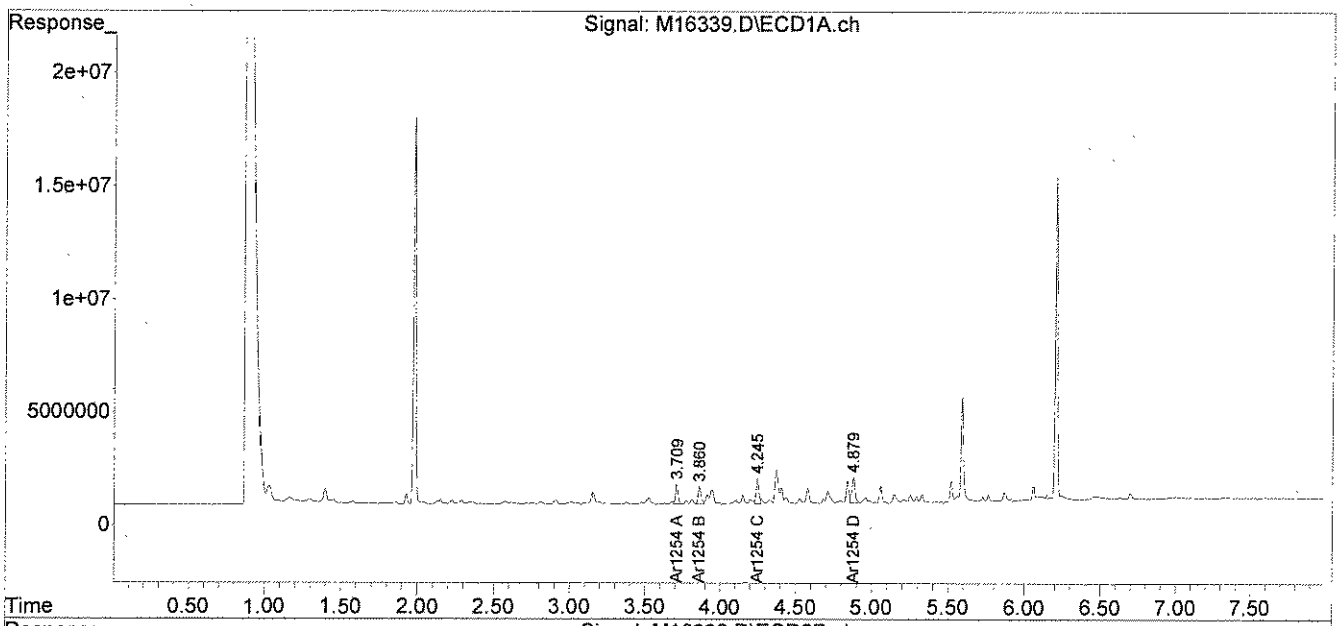
PCB FORM 10

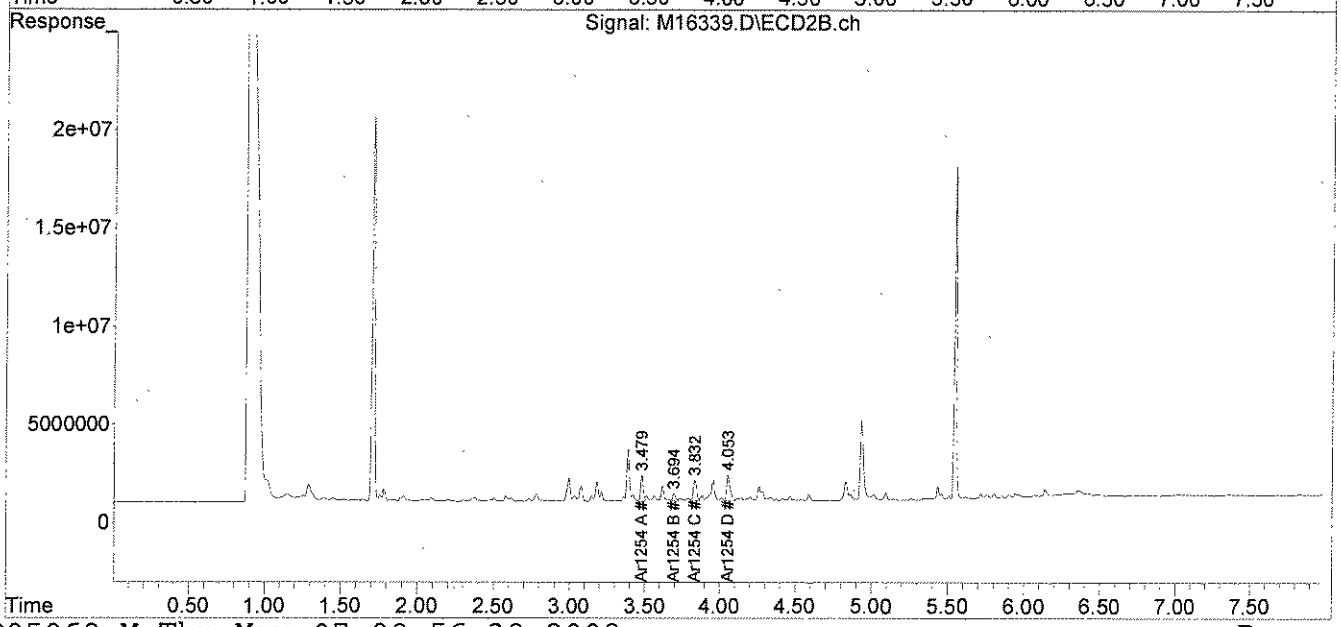
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16339.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 9:48 pm
Operator :
Sample : 63787-6,,A/C
Misc : SOIL
ALS Vial : 51 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 07 09:56:39 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 7, 2009

SAMPLE DATA

Lab Sample ID:	63787-7
Matrix:	Soil
Percent Solid:	97
Dilution Factor:	1.0
Collection Date:	05/04/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/05/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-099

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**61**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	96	%
Decachlorobiphenyl	86	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63787

Sample: 63787-7,,A/C

Data File: M16340.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	61	60	2.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

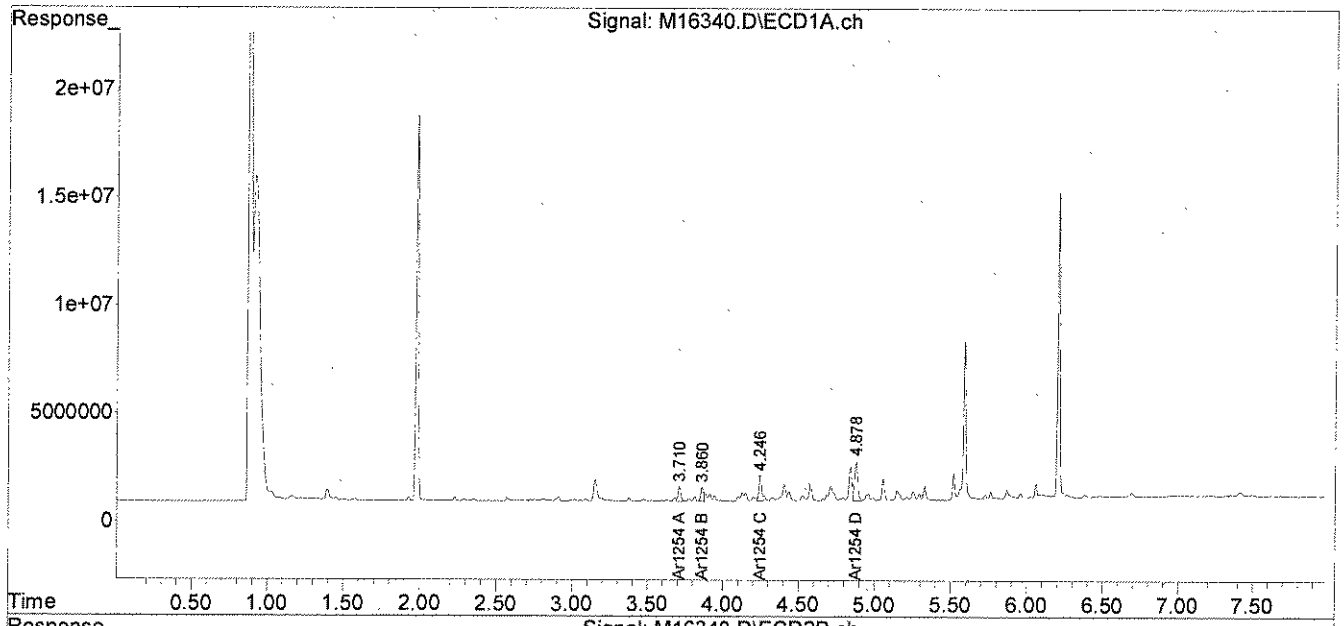
PCB FORM 10

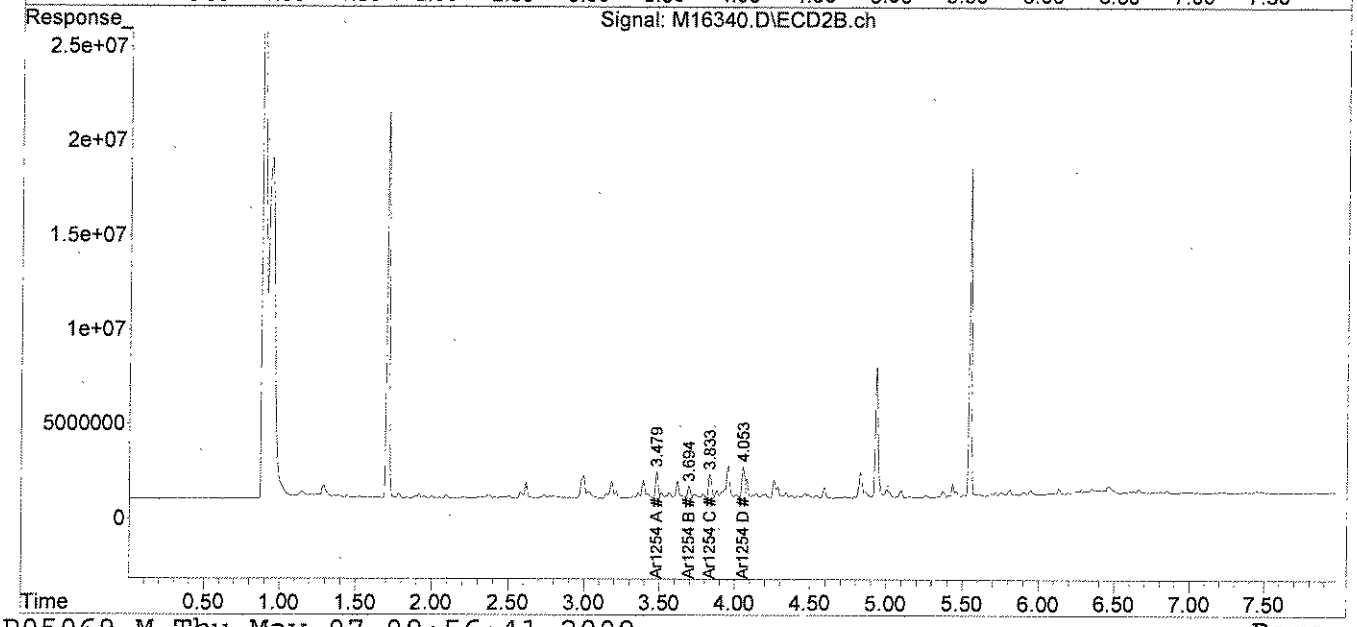
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16340.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 9:58 pm
Operator :
Sample : 63787-7,,A/C
Misc : SOIL
ALS Vial : 52 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 07 09:56:41 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-8111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 7, 2009

SAMPLE DATA

Lab Sample ID:	63787-8
Matrix:	Soil
Percent Solid:	98
Dilution Factor:	1.0
Collection Date:	05/04/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/05/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-100

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	91	%
Decachlorobiphenyl	83	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

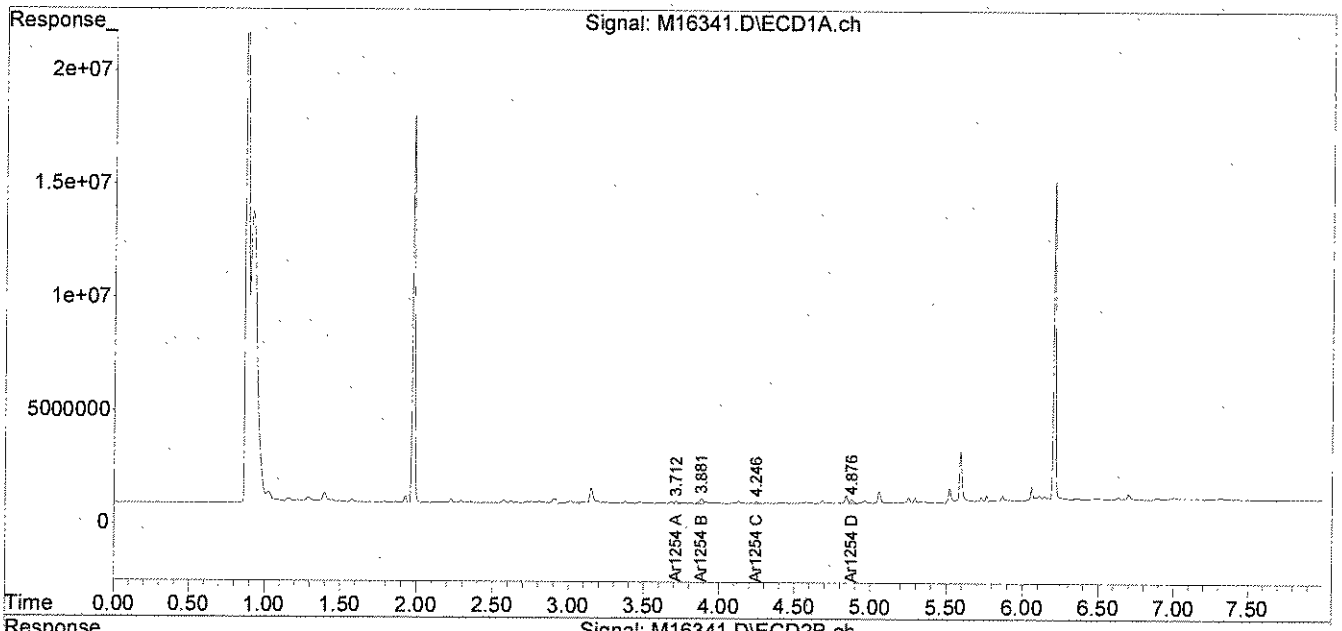
Authorized signature Melin Bull

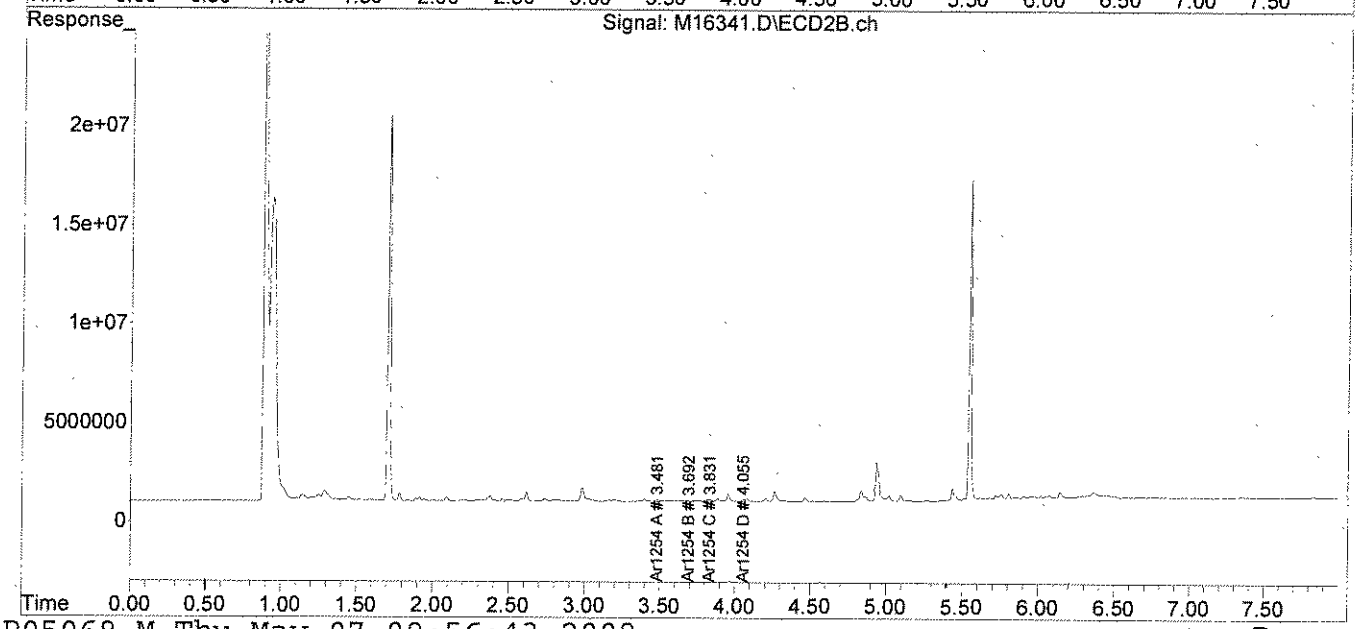
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16341.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 10:08 pm
Operator :
Sample : 63787-8,,A/C
Misc : SOIL
ALS Vial : 53 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 07 09:56:43 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9904

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 7, 2009

SAMPLE DATA

Lab Sample ID:	63787-9
Matrix:	Soil
Percent Solid:	90
Dilution Factor:	1.1
Collection Date:	05/04/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/05/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-101

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**42**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	96	%
Decachlorobiphenyl	84	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63787
Sample: 63787-9,,A/C
Data File: M16342.D
Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	41	42	2.4	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

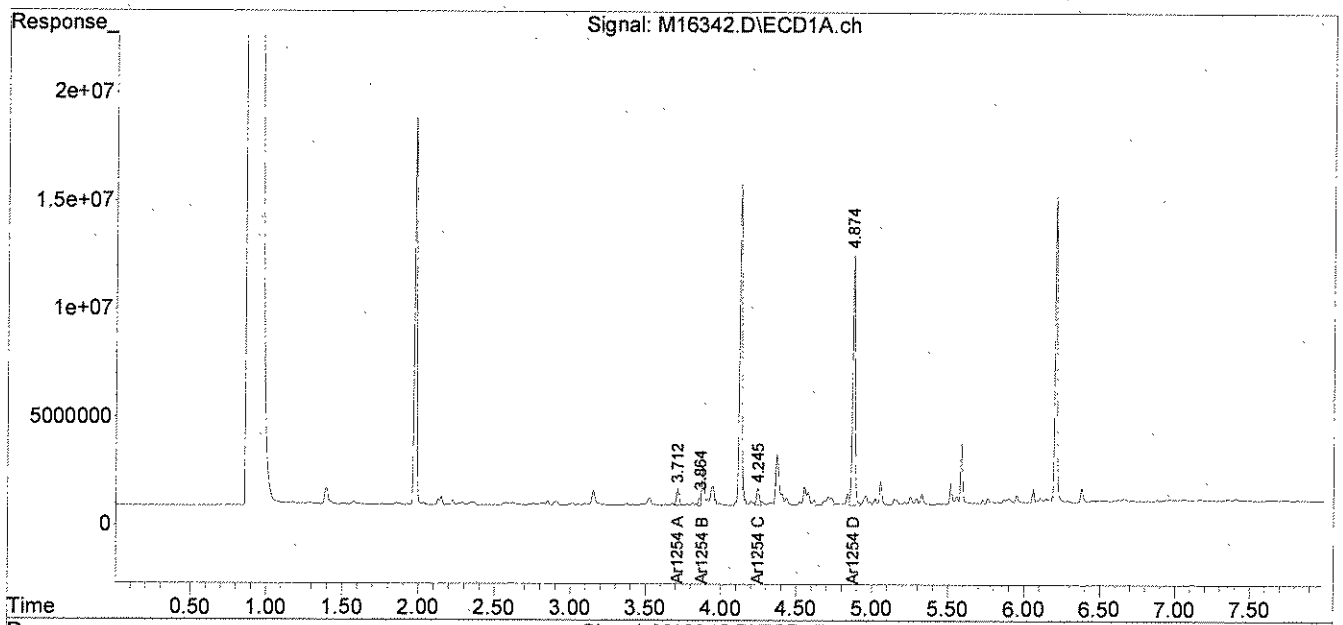
PCB FORM 10

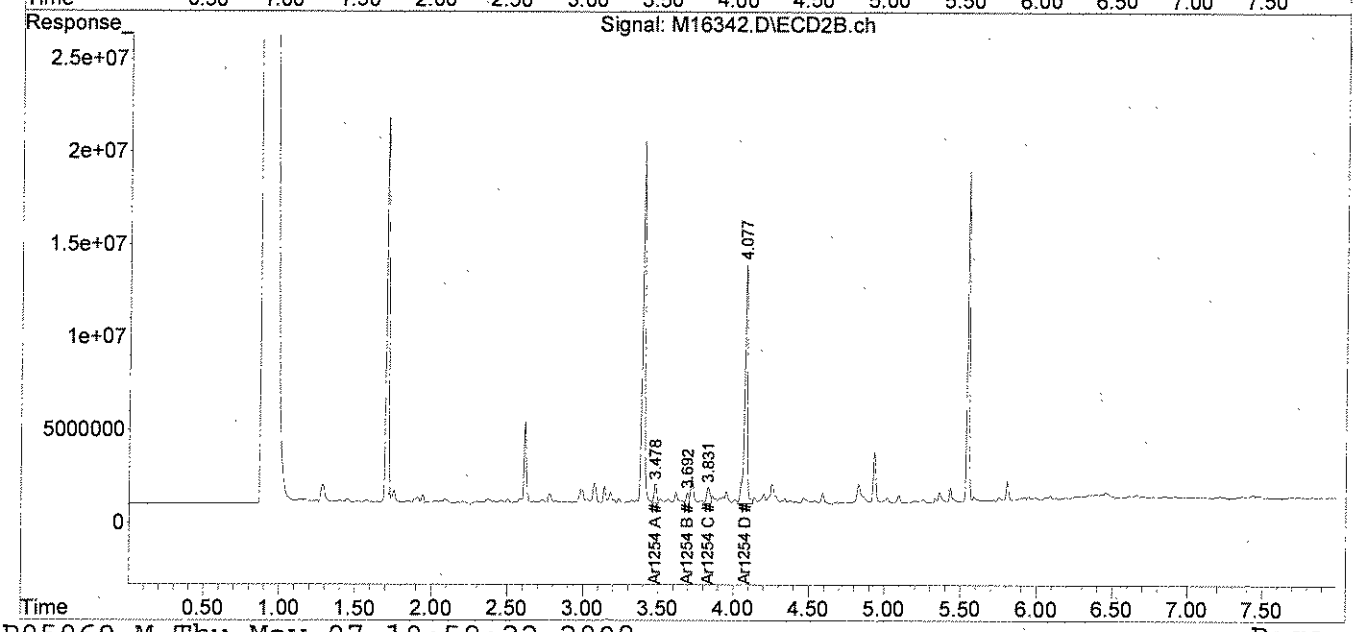
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16342.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 10:18 pm
Operator :
Sample : 63787-9,,A/C
Misc : SOIL
ALS Vial : 54 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 07 10:59:14 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-927-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 7, 2009

SAMPLE DATA

Lab Sample ID:	63787-10
Matrix:	Soil
Percent Solid:	86
Dilution Factor:	1.2
Collection Date:	05/04/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/05/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-102

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	40	U
PCB-1221	40	U
PCB-1232	40	U
PCB-1242	40	U
PCB-1248	40	U
PCB-1254	40	**58**
PCB-1260	40	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	94	%
Decachlorobiphenyl	85	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63787

Sample: 63787-10,,A/C

Data File: M16343.D

Dilution Factor: 1.2

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	58	53	7.7	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

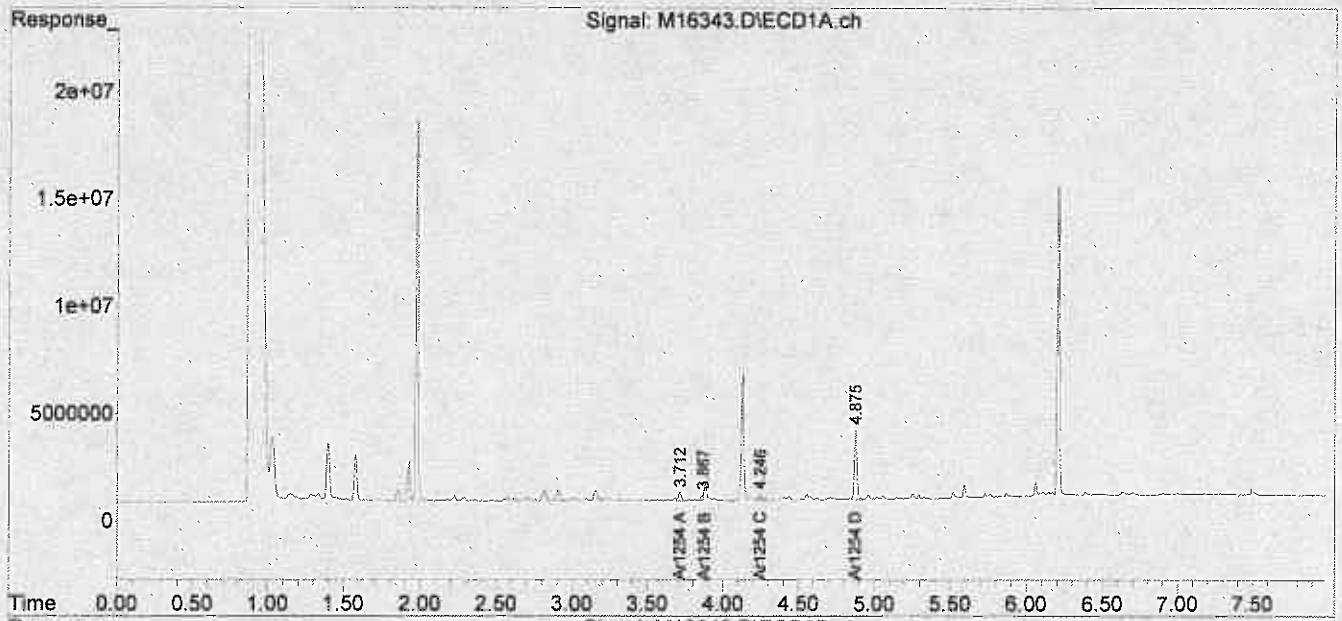
PCB FORM 10

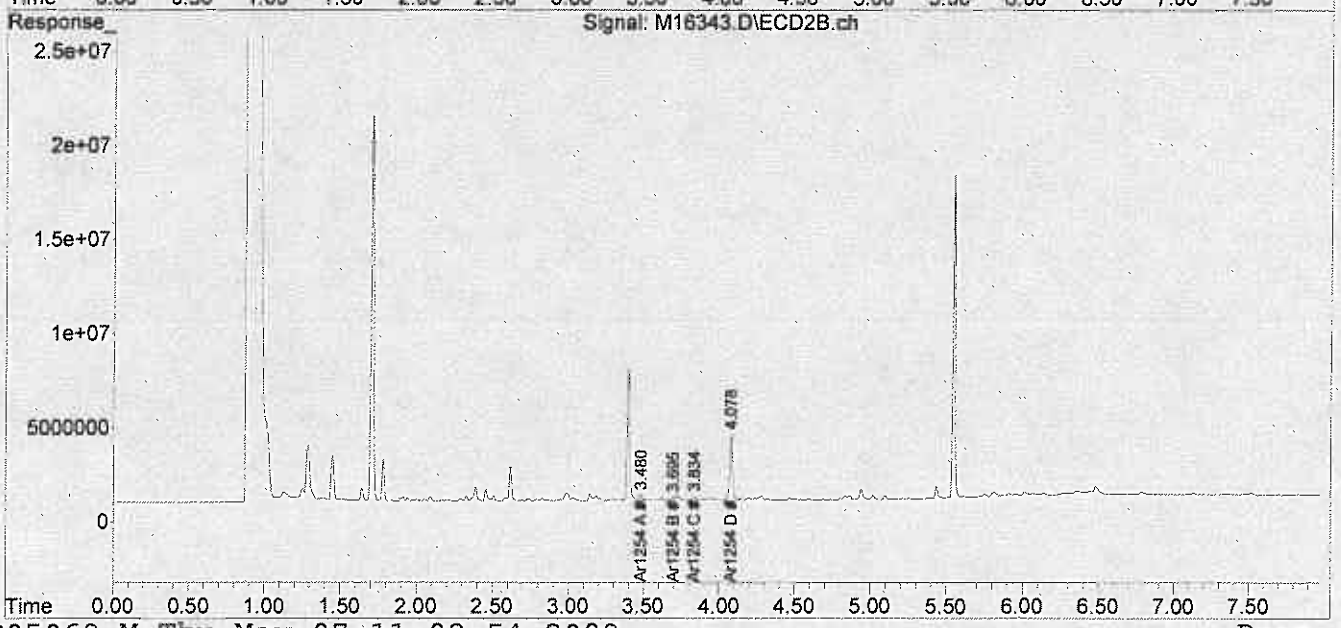
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16343.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 10:28 pm
Operator :
Sample : 63787-10,,A/C
Misc : SOIL
ALS Vial : 55 Sample Multiplier: 1

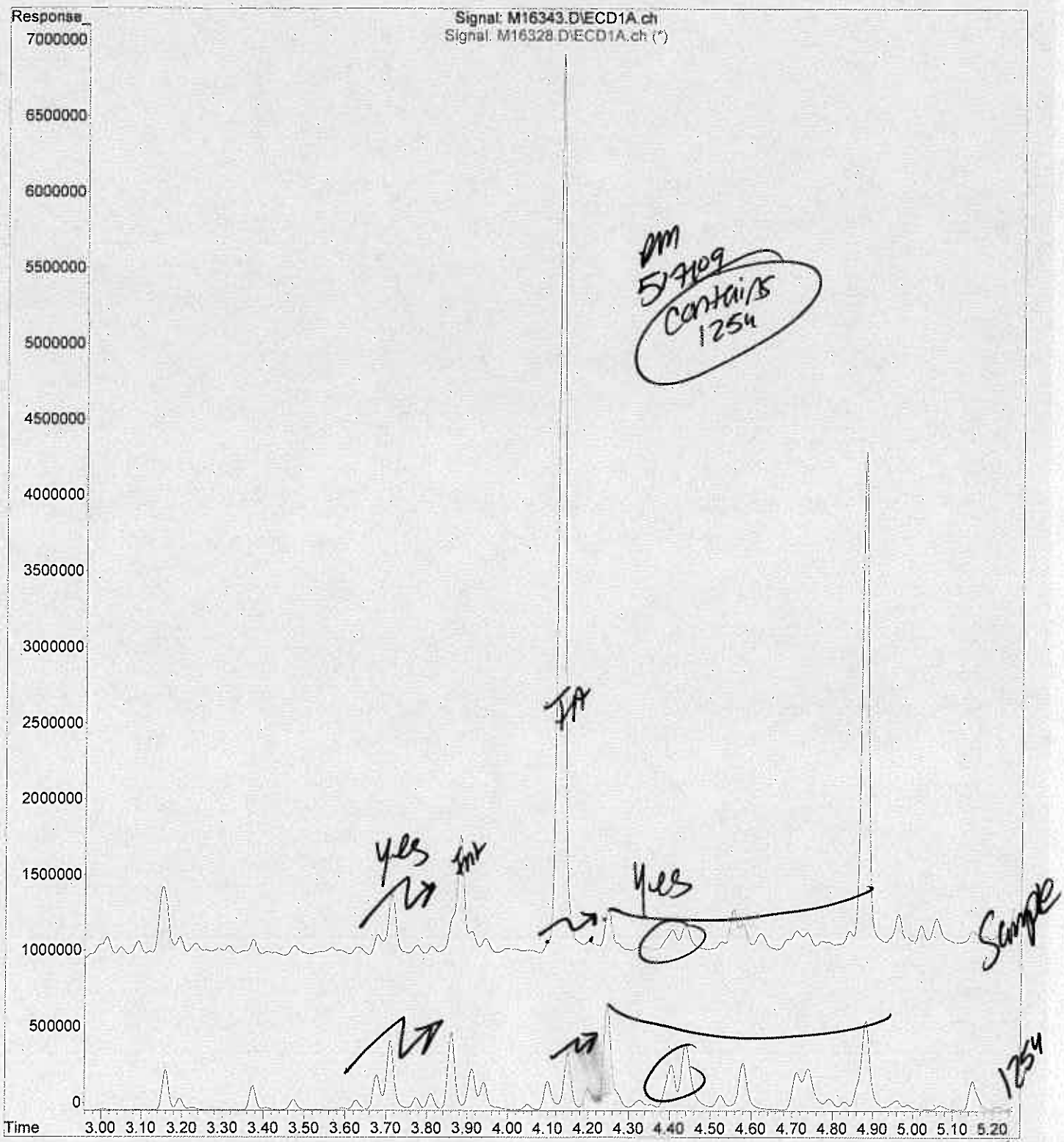
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 07 11:02:46 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\050609-M\M16343.D
Operator :
Acquired : 6 May 2009 10:28 pm using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63787-10,,A/C
Misc Info : SOIL
Vial Number: 55



55705

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-6111 Fax 603-436-2181
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 7, 2009

SAMPLE DATA

Lab Sample ID:	63787-11
Matrix:	Soil
Percent Solid:	85
Dilution Factor:	1.1
Collection Date:	05/04/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/05/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-103

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**30 J**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	91	%
Decachlorobiphenyl	81	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63787

Sample: 63787-11,,A/C

Data File: M16344.D

Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	22 J	30 J	30.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

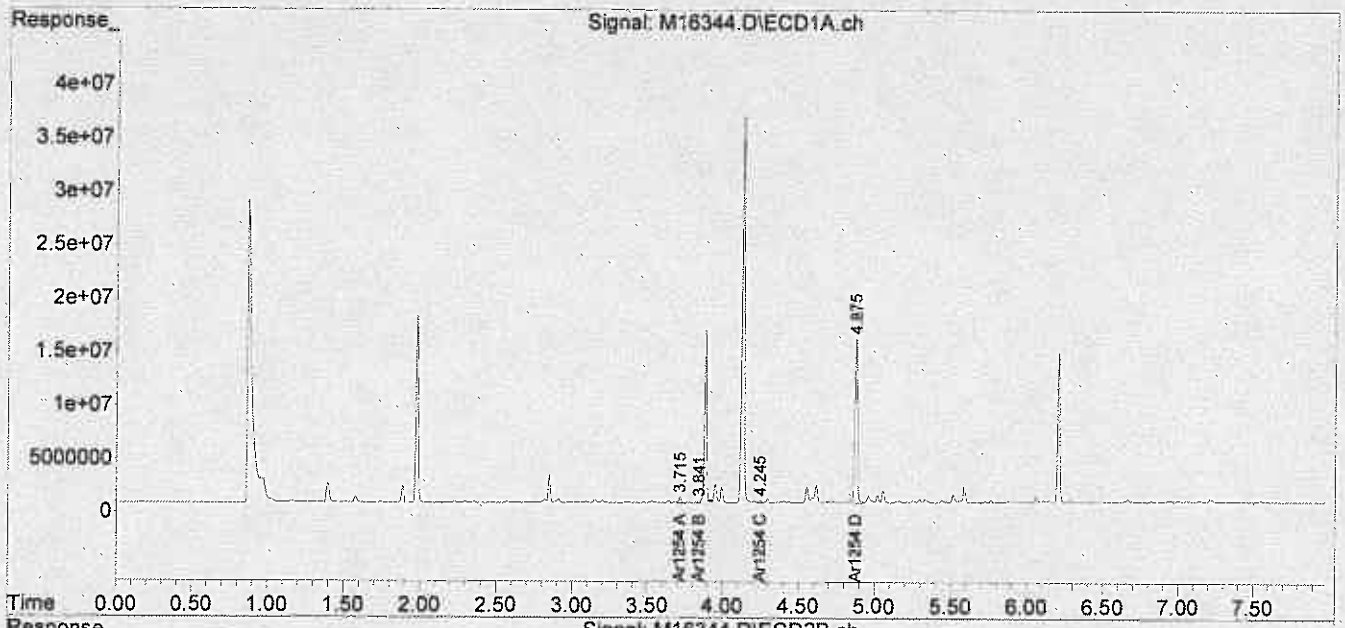
PCB FORM 10

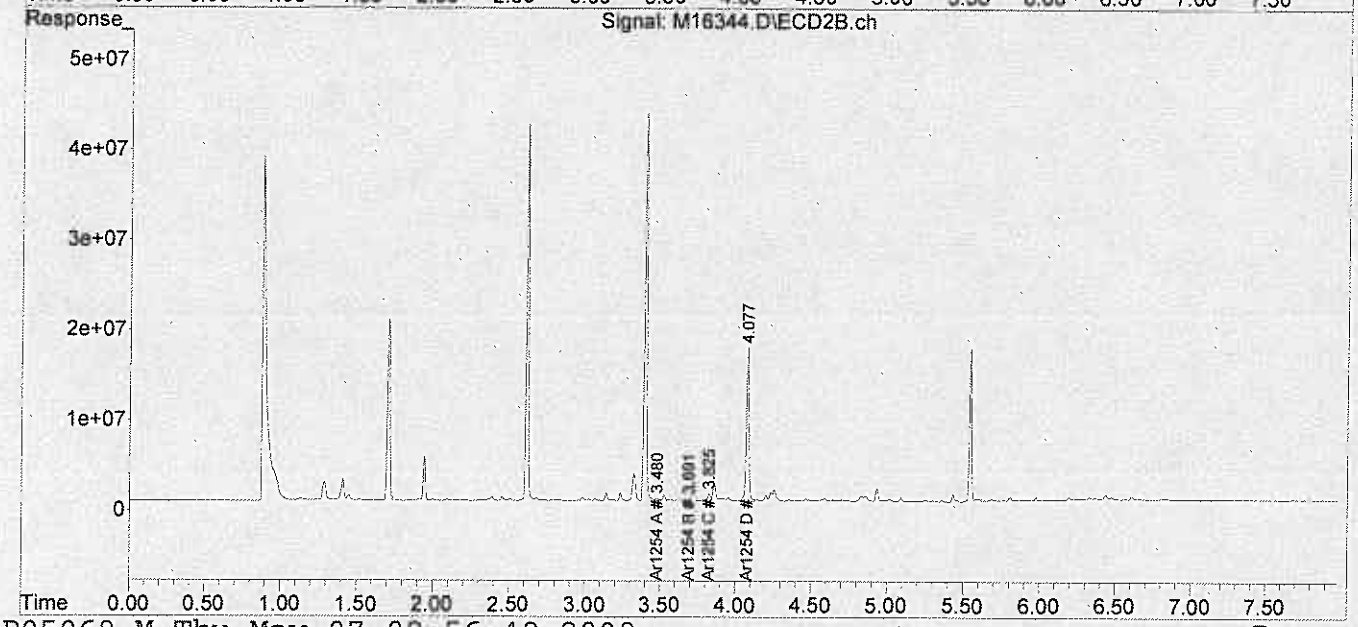
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16344.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 10:39 pm
Operator :
Sample : 63787-11,,A/C
Misc : SOIL
ALS Vial : 56 Sample Multiplier: 1

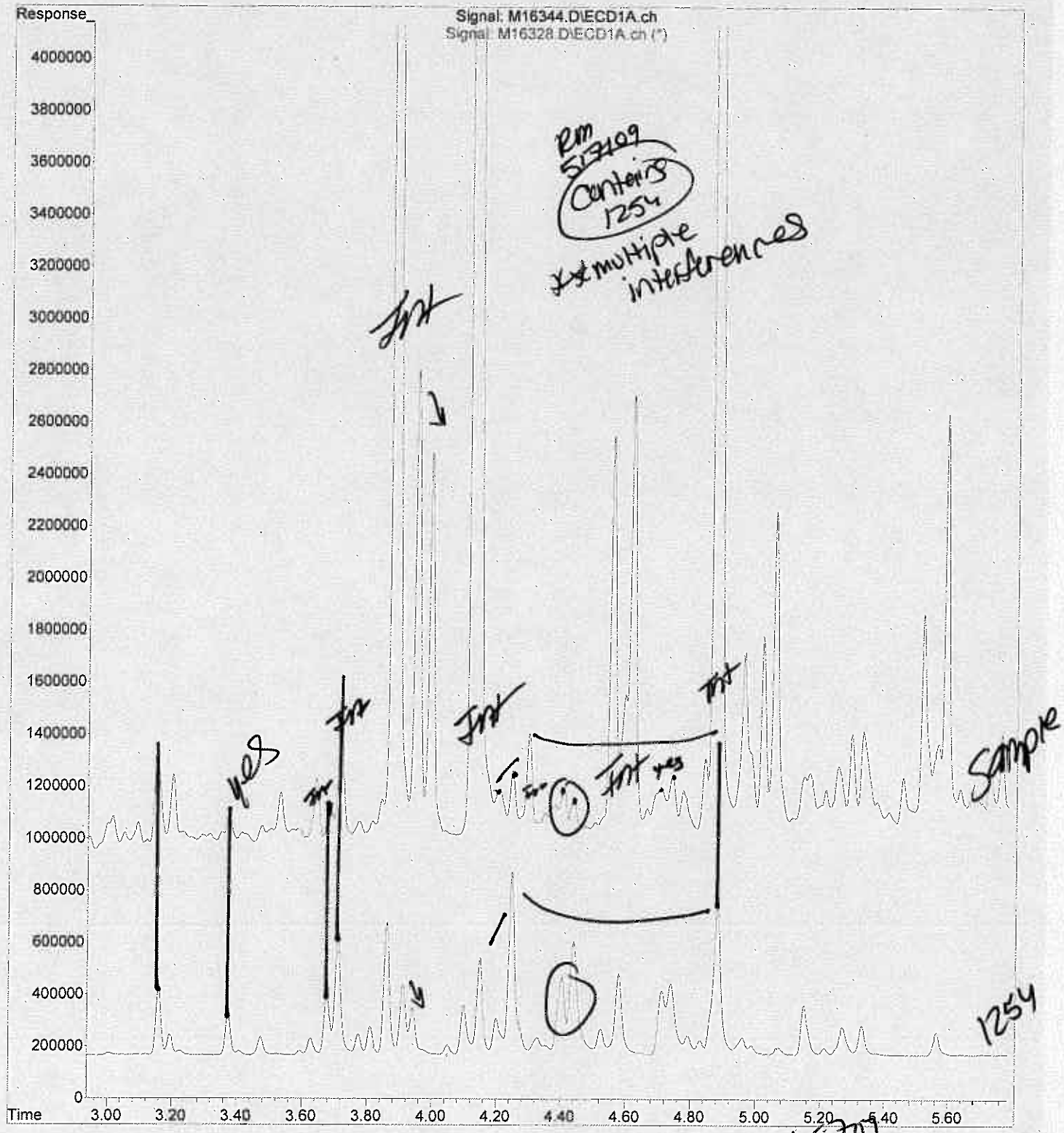
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 07 09:56:49 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\050609-M\M16344.D
Operator :
Acquired : 6 May 2009 10:39 pm using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63787-11,,A/C
Misc Info : SOIL
Vial Number: 56



analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-8111 Fax 603-430-2181
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 7, 2009

SAMPLE DATA

Lab Sample ID:	63787-12
Matrix:	Soil
Percent Solid:	88
Dilution Factor:	1.1
Collection Date:	05/04/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/05/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-104

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**24 J**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	95	%
Decachlorobiphenyl	81	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63787

Sample: 63787-12,,A/C

Data File: M16345.D

Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	23 J	24 J	4.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

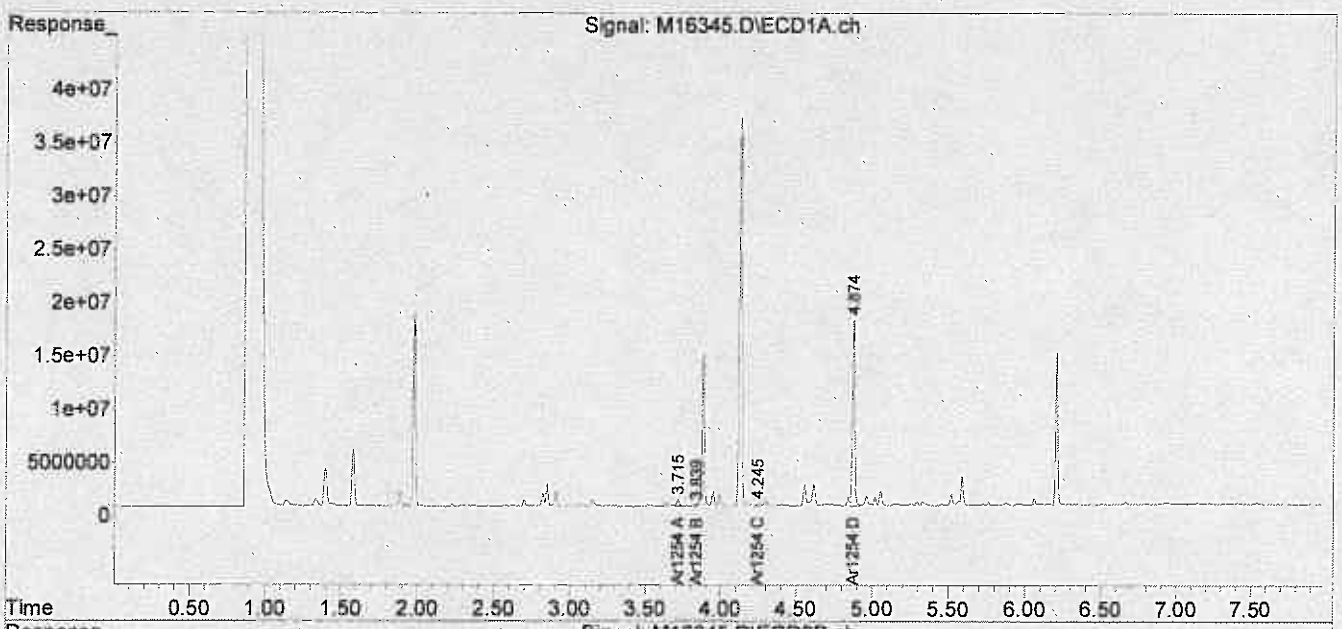
PCB FORM 10

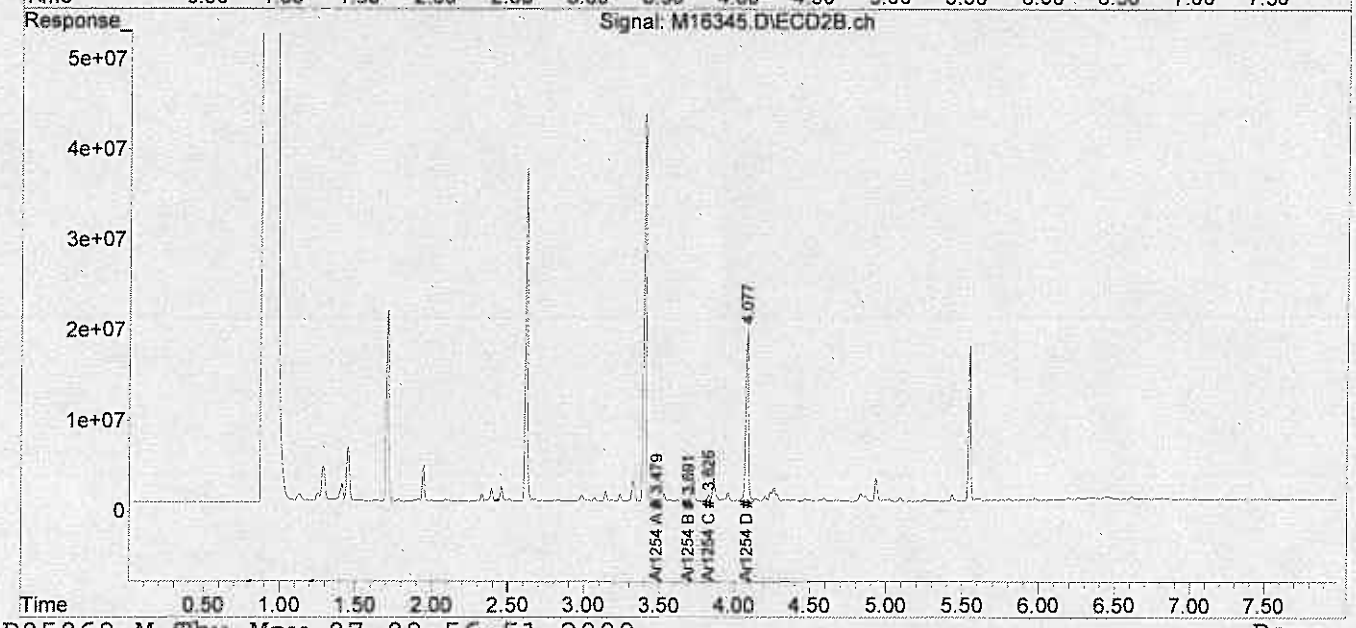
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16345.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 10:49 pm
Operator :
Sample : 63787-12,,A/C
Misc : SOIL
ALS Vial : 57 Sample Multiplier: 1

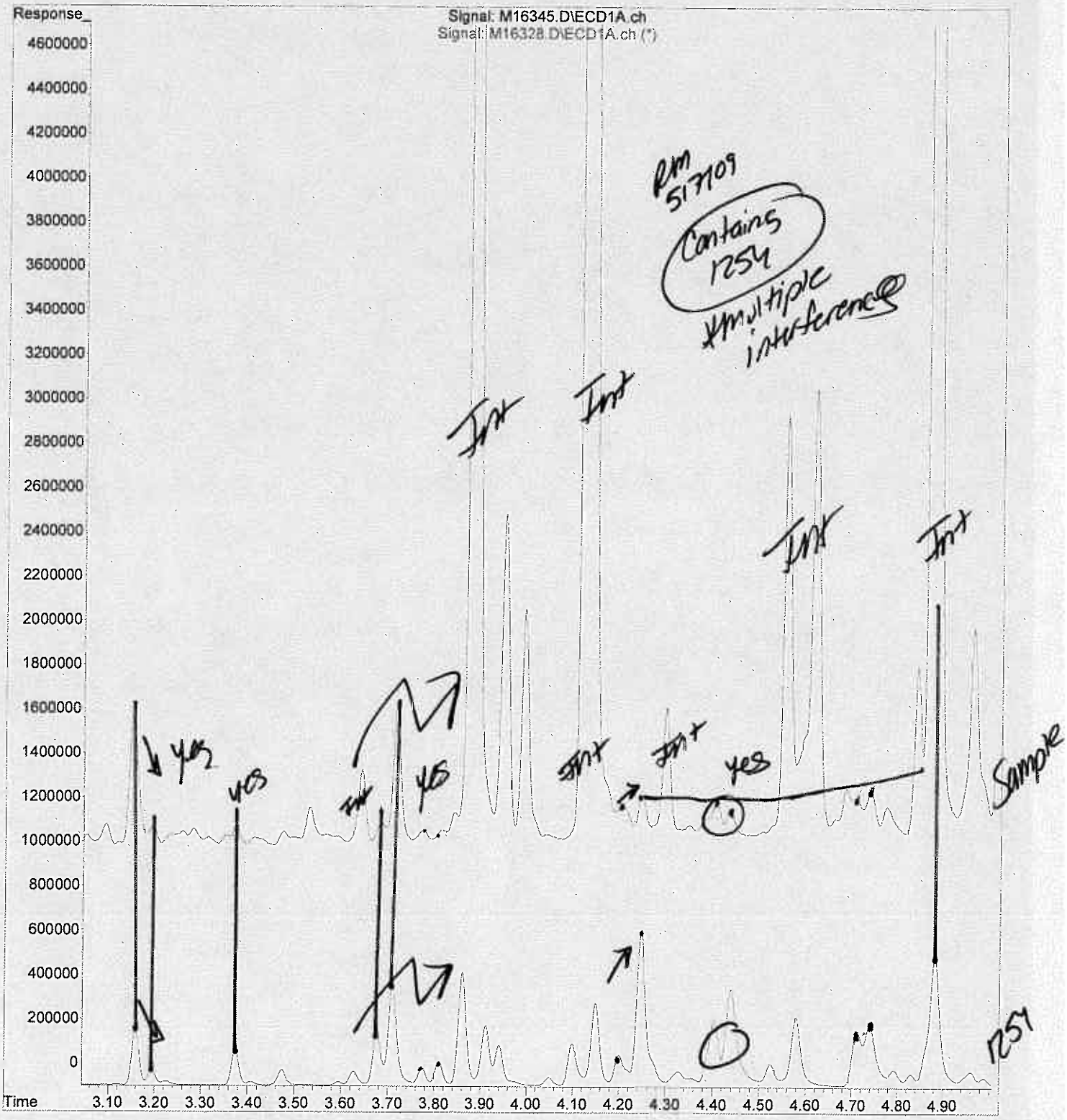
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 07 09:56:51 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\050609-M\M16345.D
Operator :
Acquired : 6 May 2009 10:49 pm using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63787-12,,A/C
Misc Info : SOIL
Vial Number: 57



analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 7, 2009

SAMPLE DATA

Lab Sample ID:	63787-13
Matrix:	Soil
Percent Solid:	97
Dilution Factor:	1.0
Collection Date:	05/04/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/05/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-105

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**116**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	81	%
Decachlorobiphenyl	81	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63787

Sample: 63787-13,,A/C

Data File: M16346.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	116	96	18.5	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

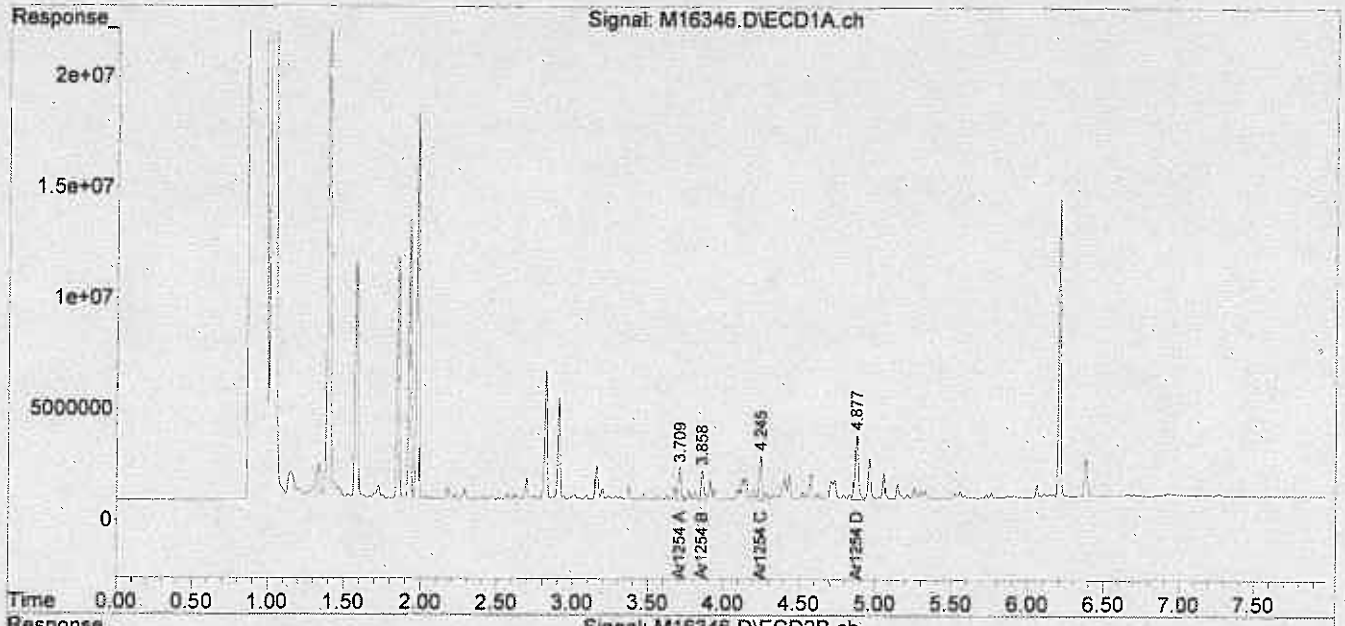
PCB FORM 10

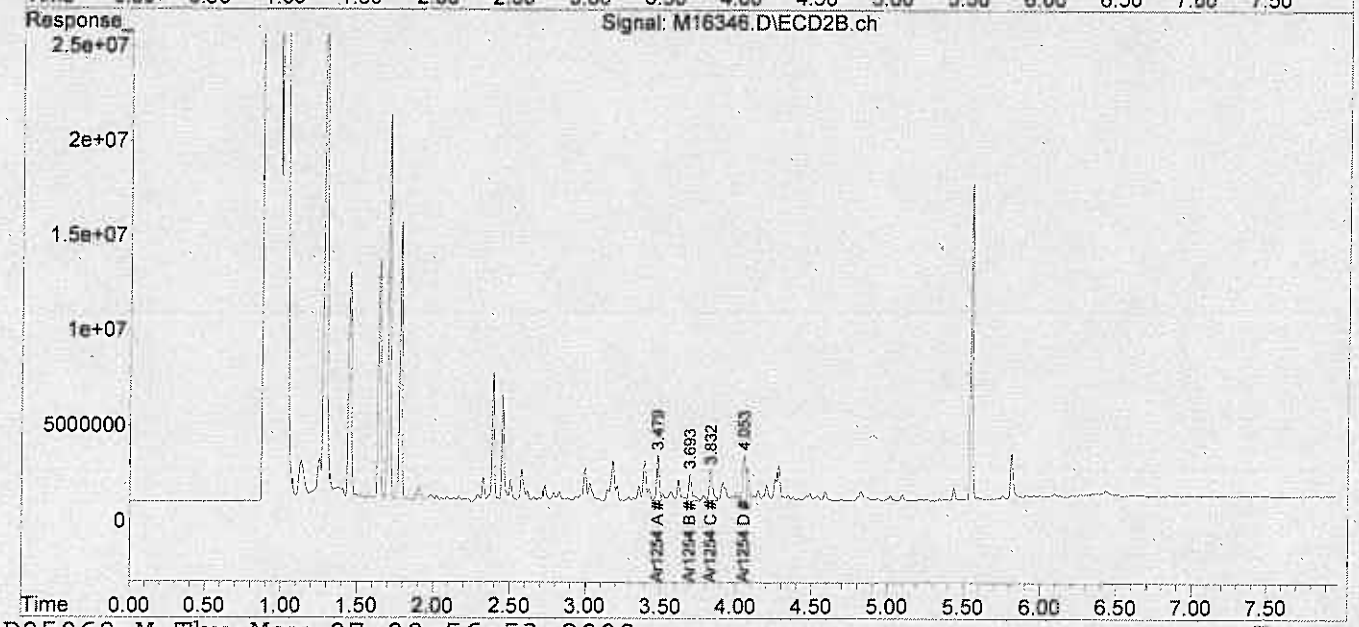
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16346.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 10:59 pm
Operator :
Sample : 63787-13,,A/C
Misc : SOIL
ALS Vial : 58 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 07 09:56:53 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-8111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 7, 2009

SAMPLE DATA

Lab Sample ID:	63787-14
Matrix:	Soil
Percent Solid:	97
Dilution Factor:	1.0
Collection Date:	05/04/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/05/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-106

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	95	%
Decachlorobiphenyl	86	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

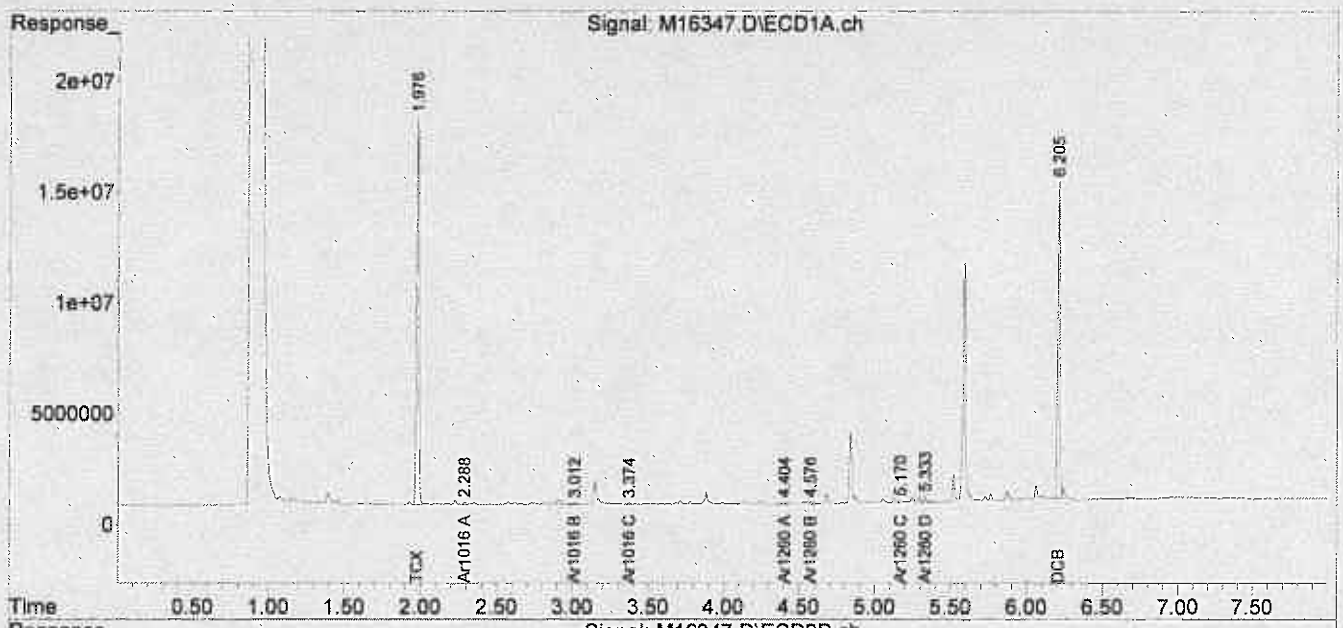
Authorized signature

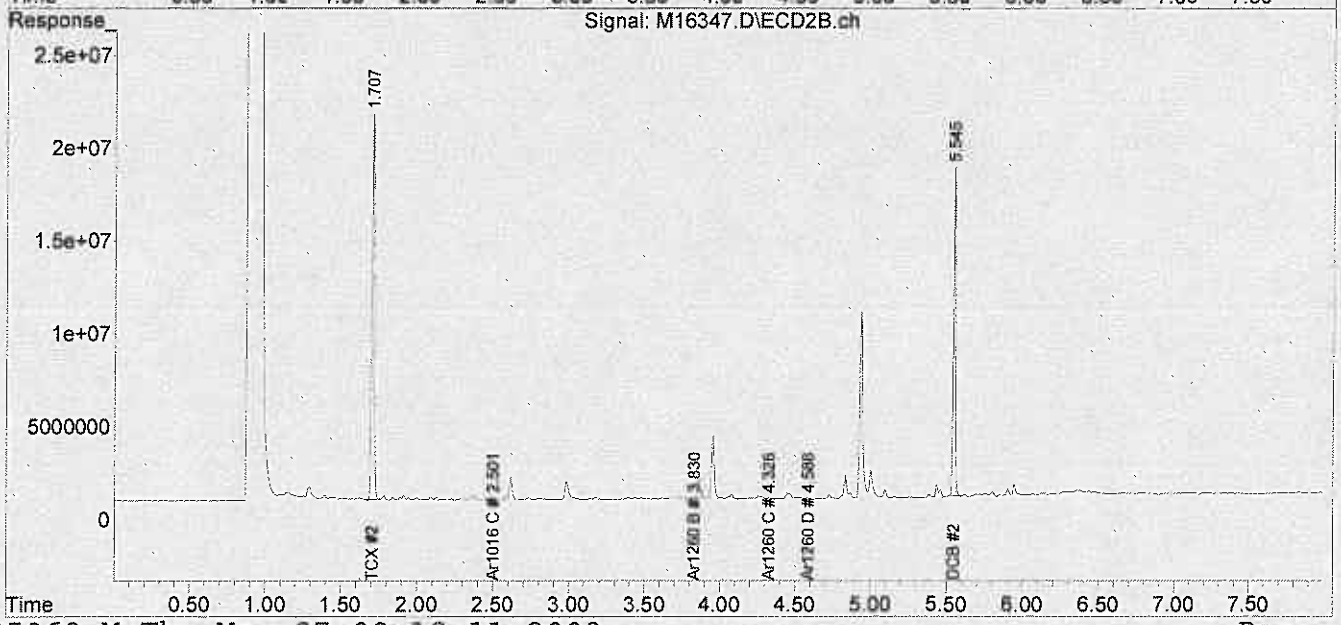
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16347.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 11:09 pm
Operator :
Sample : 63787-14,,A/C
Misc : SOIL
ALS Vial : 59 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 07 09:18:11 2009
Quant Method : C:\msdchem\1\METHODS\PCB05069.M
Quant Title : Aroclor 1016/1260
QLast Update : Thu May 07 09:09:28 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 7, 2009

SAMPLE DATA

Lab Sample ID:	63787-15
Matrix:	Soil
Percent Solid:	95
Dilution Factor:	1.0
Collection Date:	05/04/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/05/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-107

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**173**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	93	%
Decachlorobiphenyl	83	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63787

Sample: 63787-15,,A/C

Data File: M16348.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	173	171	0.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

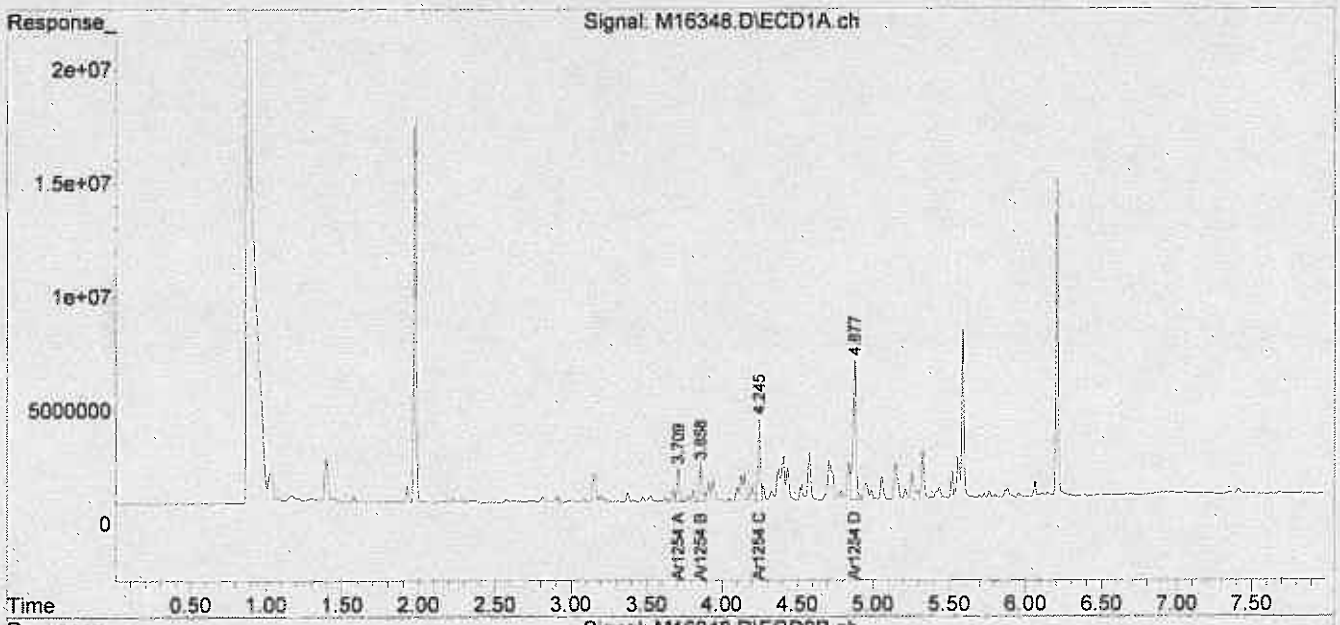
PCB FORM 10

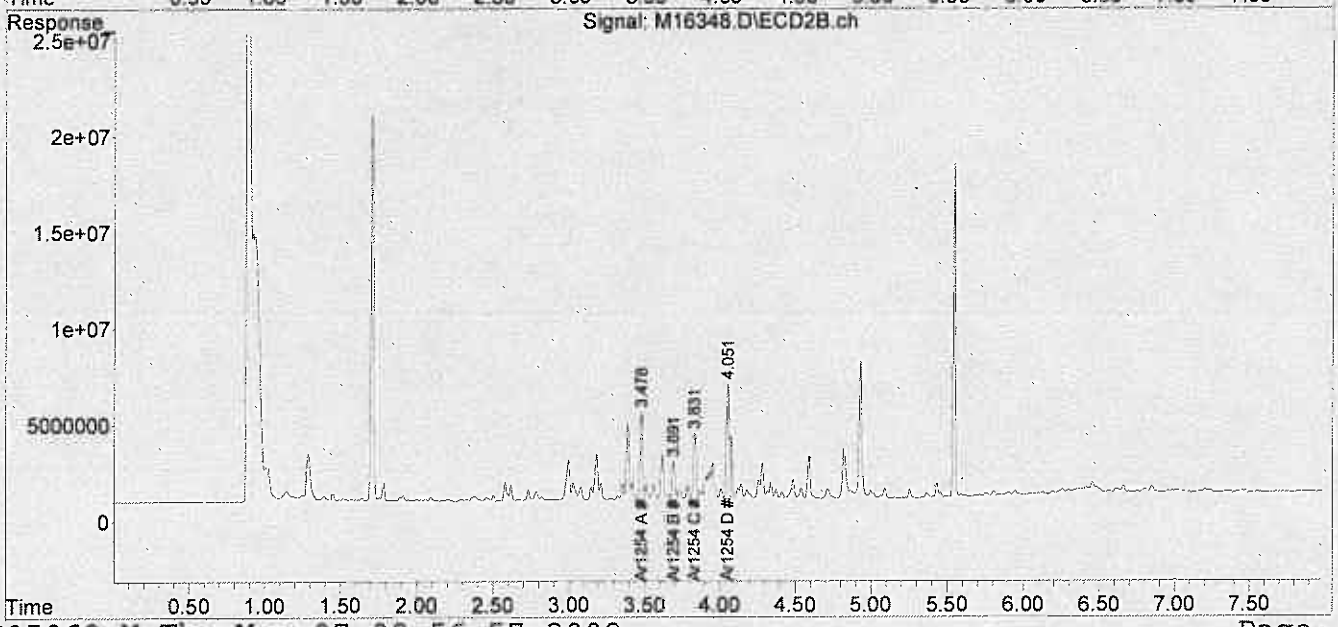
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16348.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 11:19 pm
Operator :
Sample : 63787-15,,A/C
Misc : SOIL
ALS Vial : 60 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 07 09:56:57 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

199 Commerce Way
Portsmouth, New Hampshire 03801
603-436-8111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 7, 2009

SAMPLE DATA

Lab Sample ID:	63787-16
Matrix:	Soil
Percent Solid:	96
Dilution Factor:	1.0
Collection Date:	05/04/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/05/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-108

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**145**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	93	%
Decachlorobiphenyl	84	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63787

Sample: 63787-16,,A/C

Data File: M16349.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	145	137	5.7	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

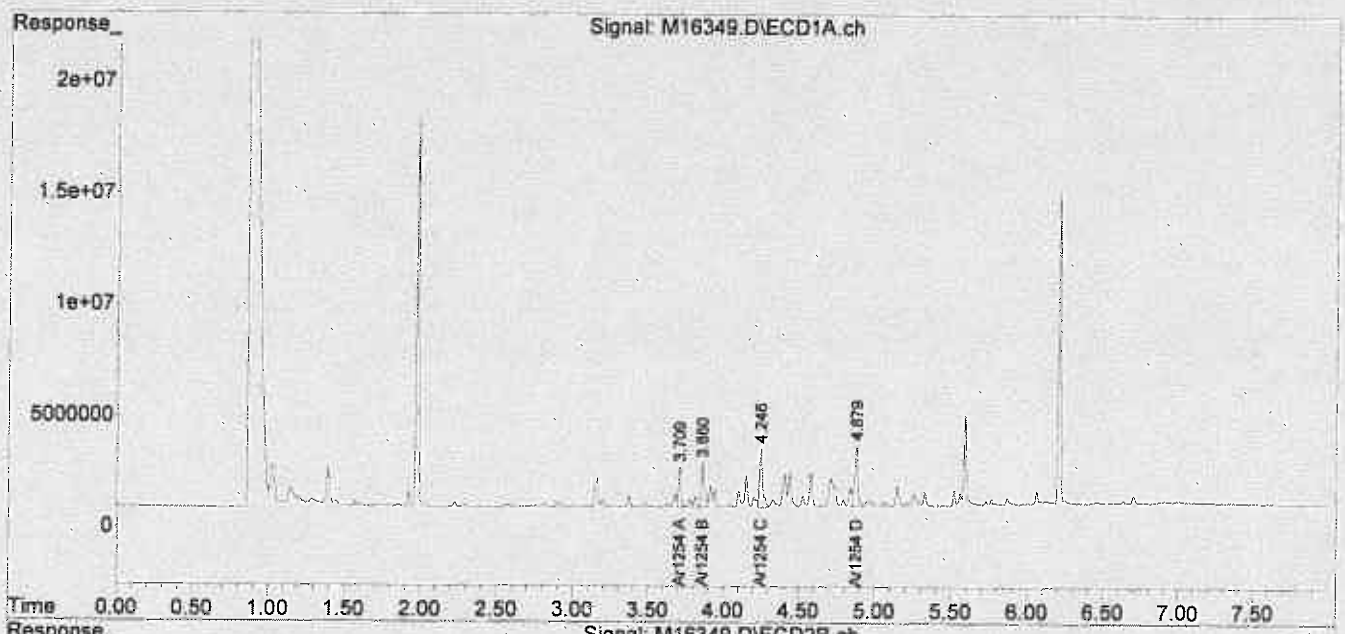
Comments: _____

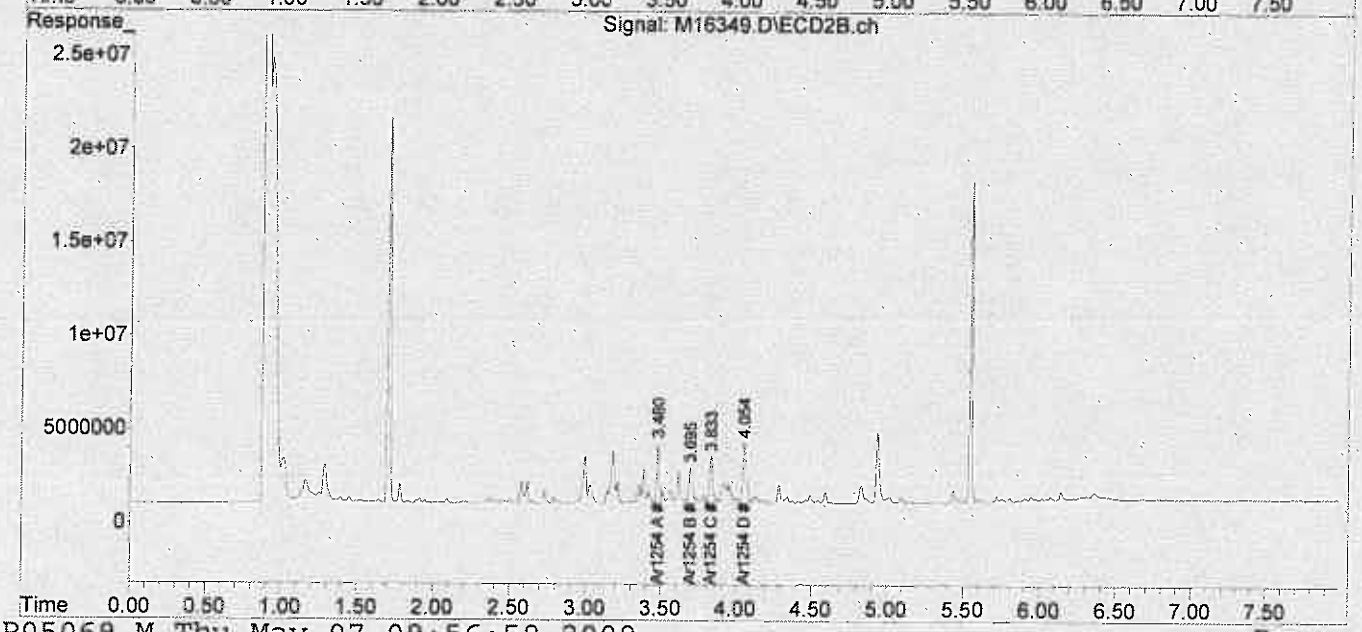
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16349.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 11:29 pm
Operator :
Sample : 63787-16,,A/C
Misc : SOIL
ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 07 09:56:59 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2181
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 7, 2009

SAMPLE DATA

Lab Sample ID:	63787-17
Matrix:	Soil
Percent Solid:	97
Dilution Factor:	1.0
Collection Date:	05/04/09
Lab Receipt Date:	05/04/09
Extraction Date:	05/05/09
Analysis Date:	05/06/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-109

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**22 J**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	86	%
Decachlorobiphenyl	79	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63787

Sample: 63787-17,,A/C

Data File: M16350.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	22 J	19 J	12.2	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

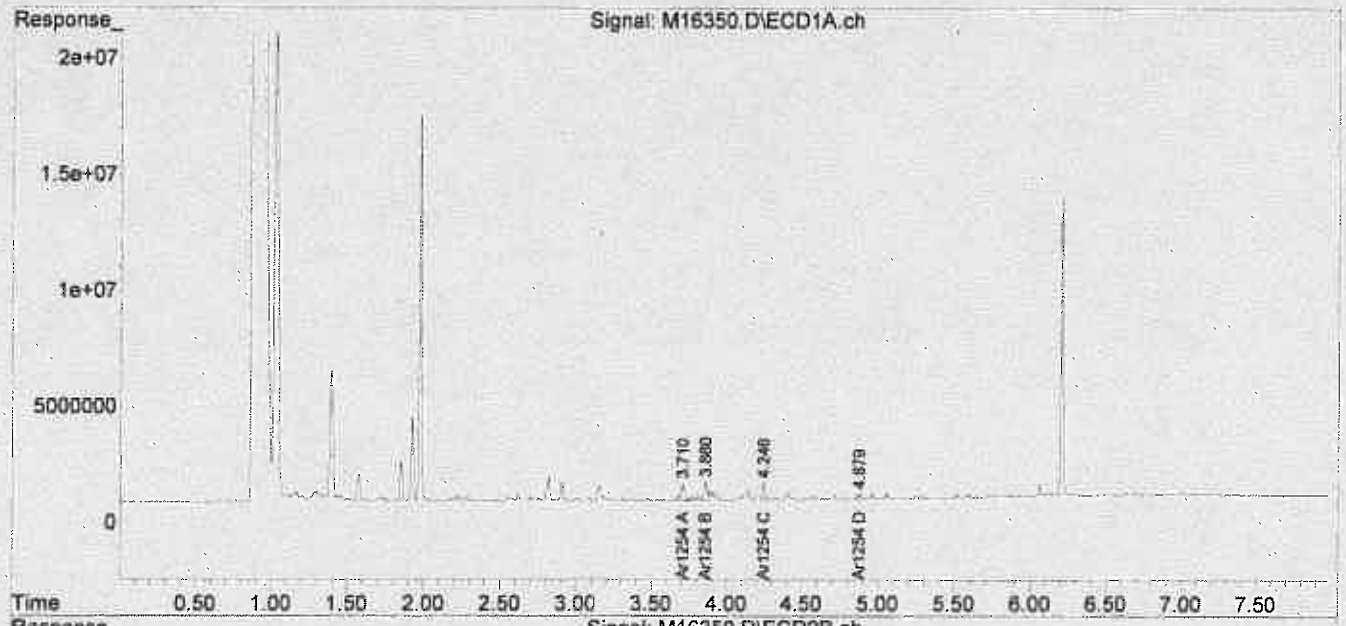
PCB FORM 10

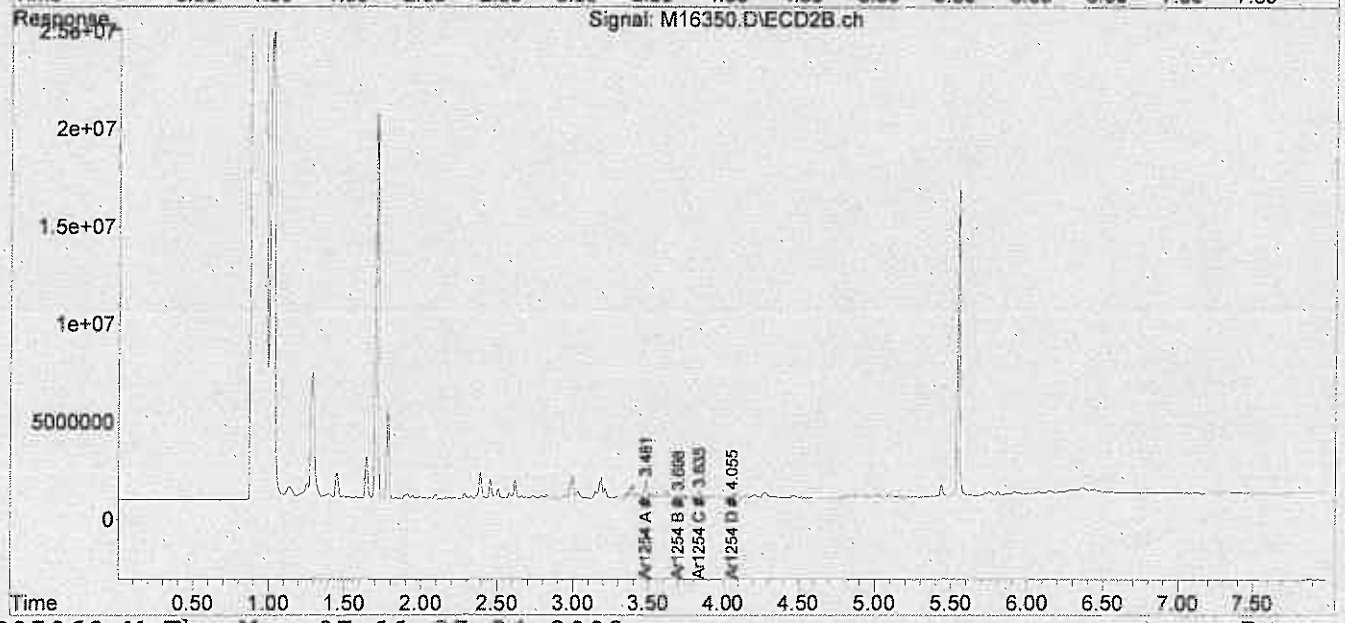
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16350.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 May 2009 11:39 pm
Operator :
Sample : 63787-17,,A/C
Misc : SOIL
ALS Vial : 62 Sample Multiplier: 1

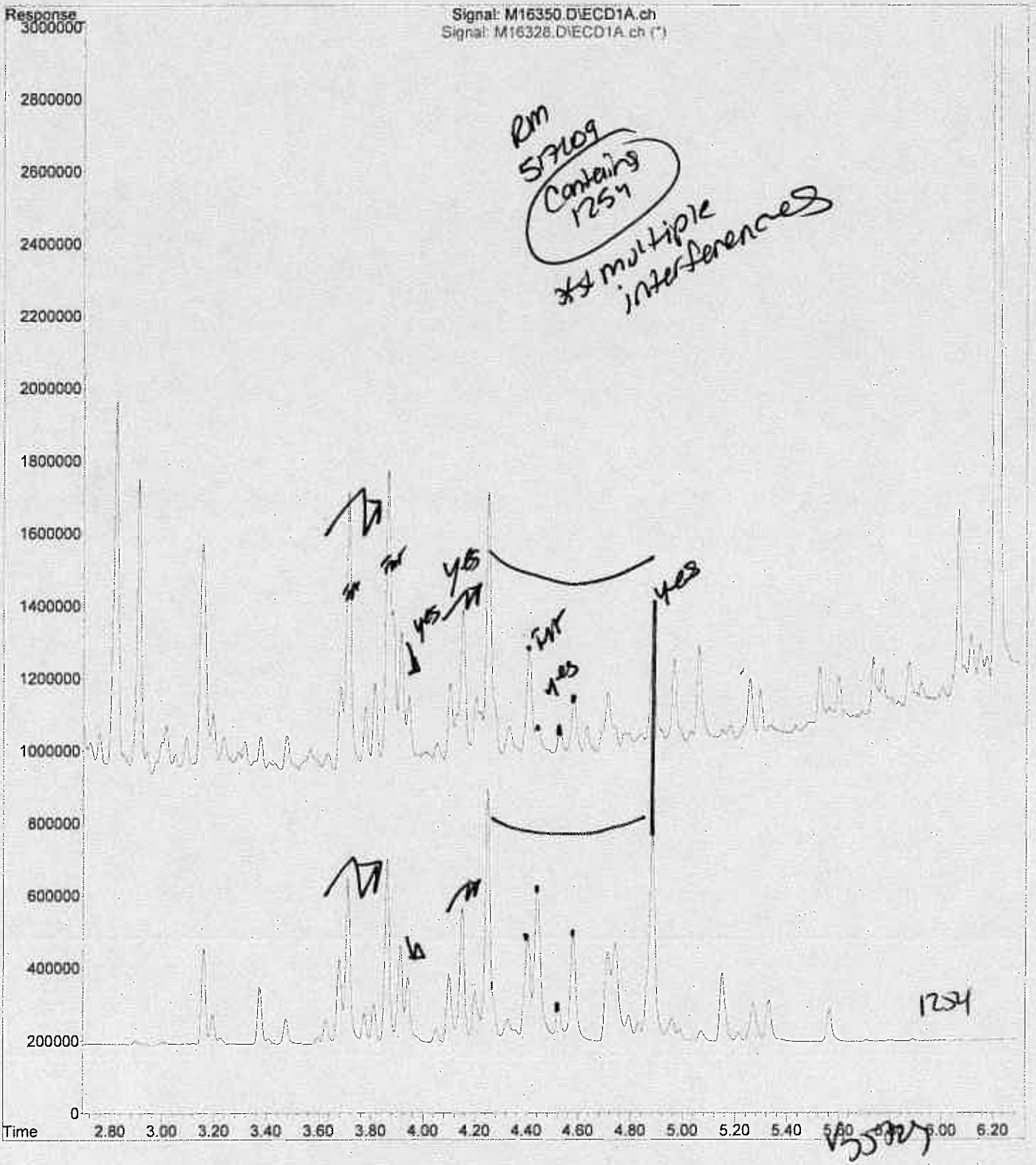
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 07 11:35:21 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\050609-M\M16350.D
Operator :
Acquired : 6 May 2009 11:39 pm using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63787-17,,A/C
Misc Info : SOIL
Vial Number: 62



analytics environmental laboratory LLC

PCB
QC FORMS

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:PCBQC.doc

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63787

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B05059PSOX,,A/C	92		90		91		86	
L05059PSOX,,A/C	95		92		94		88	
LD05059PSOX,,A/C	89		83		89		82	
63787-1,,A/C	92		84		90		82	
63787-2,,A/C	86		83		84		78	
63787-3,,A/C	85		82		91		83	
63787-4,,A/C	85		82		83		81	
63787-5,,A/C	74		86		69		84	
63787-6,,A/C	92		85		90		81	
63787-7,,A/C	96		86		93		83	
63787-8,,A/C	91		83		89		81	
63787-9,,A/C	99		84		96		84	
63787-10,,A/C	94		85		92		84	
63787-11,,A/C	94		84		91		81	
63787-12,,A/C	98		83		95		81	
63787-13,,A/C	81		81		85		81	
63787-14,,A/C	95		86		95		84	
63787-15,,A/C	93		83		93		82	
63787-16,,A/C	93		84		96		83	
63787-17,,A/C	86		79		88		79	
63787-13,MS,,A/C	89		82		91		83	
63787-13,MSD,,A/C	77		96		76		77	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63787

Non-spiked sample: B05059PSOX_A/C

Spike: L05059PSOX_A/C

Spike duplicate: LD05059PSOX_A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	*	RPD	#
PCB 1016	200	200	65	140	30	0	200	100		181	90		10.3	
PCB 1260	200	200	60	130	30	0	194	97		189	95		2.4	
PCB 1016 #2	200	200	65	140	30	0	201	100		207	104		3.2	
PCB 1260 #2	200	200	60	130	30	0	191	96		186	93		2.6	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

PCB FORM 3

PCB SOIL
MATRIX SPIKE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63787

Non-spiked sample: 63787-13,,A/C

Spike: 63787-13,MS,,A/C

Spike duplicate: 63787-13,MSD,,A/C

COMPOUND	MS SPIKE ADDED (ug/kg)	MSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	202	202	65	140	30	0	216	107		212	105		1.7	
PCB 1260	202	202	60	130	30	0	219	108		219	109		0.3	
PCB 1016 #2	202	202	65	140	30	0	237	118		265	131		11.3	
PCB 1260 #2	202	202	60	130	30	0	222	110		201	100		10.0	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

MS/MSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

PCB FORM 3

analytics environmental laboratory LLC

CHAIN OF CUSTODIES

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:COC.doc

Chain Of Custody Form

analytics environmental laboratory LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 4.5°C
3) Received in good condition Y or N
4) pH checked by: N/A
5) Labels checked by: CR 5-5-09

Project#: 210918 Proj. Name: UMASS - LGRC
Company: Woodard & Curran
Contact: GEORGE FRANKLIN/AMY WALLACE
Address: 35 New England Business Ctr.
Andover, MA 01810
Phone: (866)702-6371 PO# Quote # WCI 8091001
Sampler (Signature): Amy Wa

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

Station Identification	Sample Date	Sample Time	Analysis	Preservation: Unpres	4°C	HNO3	H2SO4	HCl	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
LGRC-VSS-093	5/4/09	11:00	PCB 8082		X						S	1	G		63787-1
LGRC-VSS-094		11:05			X						S	1	G		2
LGRC-VSS-095		11:08			X						S	1	G		3
LGRC-VSS-096		11:11			X						S	1	G		4
LGRC-VSS-097		11:14			X						S	1	G		5
LGRC-VSS-098		11:17			X						S	1	G		6
LGRC-VSS-099		12:45			X						S	1	G		7
LGRC-VSS-100		12:48			X						S	1	G		8
LGRC-VSS-101		12:51			X						S	1	G		9
LGRC-VSS-102		12:54			X						S	1	G		10
LGRC-VSS-103		14:42			X						S	1	G		11

Comments / Instructions:
PCBs by 8082
SOXHLET EXTRACTION

Email Results to:
George Franklin
Jeff Hamel
Amy Wallace

Turnaround Time (TAT)
☐ 24hr* ☐ 48hr*
☒ 72hr* ☐ 5 Days*
☐ 10 Days
*Fee may apply; lab approval required

Project Requirements:
*Fee may apply

Report Type:
☐ MCP* ☑ Level II*
☐ CTRCP* ☐ Level III*
☐ DOD* ☐ Level IV*
☐ Standard

State:
☐ NH
☐ MA
☐ ME
☐ CT
☐ RI
Other: TSCA

State Standard: _____ (eg. S-1 or GW-1)

EDD Required: Y* N
Type: pdf

Received By: Time: 17:30 Date: 5/4/09
Received By: Time: Date:
Received By: Time: Date:
Relinquished By Sampler: Amy Wa
Relinquished By:
Relinquished By:

Chain Of Custody Form

analytics environmental laboratory LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 4.5°C
3) Received in good condition Y or N
4) pH checked by: N/A
5) Labels checked by: 5-5-09

Project#: 210918 Proj. Name: UMASS - LGRC
Company: Woodard & Curran
Contact: GEORGE FRANKLIN/AMY WALLACE
Address: 35 New England Business Ctr.
Andover, MA 01810
Phone: (866)702-6371 PO# Quote # WCI 8091001
Sampler (Signature): Amy Wa

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

Station Identification	Sample Date	Sample Time	Analysis	Preservation: Unpres	4°C	HNO3	H2SO4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
LGRC-VSS-104	5/4/09	14:45	PCB 8082		X						S	1	G		63787-12
LGRC-VSS-105		15:00			X						S	1	G		13
LGRC-VSS-106		15:03			X						S	1	G		14
LGRC-VSS-107		15:06			X						S	1	G		15
LGRC-VSS-108		15:09			X						S	1	G		16
LGRC-VSS-109		15:12			X						S	1	G		17

Received By: Time: 17:30 Date: 5/4/09
Relinquished By Sampler: Amy Wa
Received By: Time: Date:
Relinquished By: Time: Date:
Received By: Time: Date:
Relinquished By: Time: Date:

Email Results to:
George Franklin
Jeff Hamel
Amy Wallace

Comments / Instructions:
PCBs by 8082
SOXHLET EXTRACTION

Turnaround Time (TAT)
☐ 24hr* ☐ 48hr*
☑ 72hr* ☐ 5 Days*
☐ 10 Days
Fees may apply; lab approval required

Project Requirements:
*Fee may apply

Report Type:
☐ MCP* ☑ Level II*
☐ CTRCP* ☐ Level III*
☐ DOD* ☐ Level IV*
☐ Standard

State:
☐ NH
☐ MA
☐ ME
☐ CT
☐ RI
Other: TSCA

State Standard: _____ (eg. S-1 or GW-1)

EDD Required: Y* N
Type: pdf

analytics\AEL Documents\AEL COC

analytics environmental laboratory LLC

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 63787

CLIENT: WOODARD

PROJECT: UMASS

COOLER NUMBER: ——

NUMBER OF COOLERS: 1

DATE RECEIVED: 5·4·09

A: PRELIMINARY EXAMINATION:

DATE COOLER OPENED: 5-4-09 stored to Fridge #28

1. Cooler received by(initials) — Date Received: JF 5-4-09

2. Circle one: Hand delivered (If so, skip 3) — Shipped

3. Did cooler come with a shipping slip? Y NA

3a. Enter carrier name and airbill number here: _____

4. Were custody seals on the outside of cooler? Y NA
How many & where: _____ Seal Date: _____ Seal Name: _____

5. Did the custody seals arrive unbroken and intact upon arrival? Y NA

6. COC#: _____

7. Were Custody papers filled out properly (ink,signed, etc)? Y N

8. Were custody papers sealed in a plastic bag? Y N

9. Did you sign the COC in the appropriate place? Y N

10. Was the project identifiable from the COC papers? Y N

11. Was enough ice used to chill the cooler? Y N — Temp. of cooler: 4.5°C

B. Log-In: Date samples were logged in: 5-5-09 By: MJ

12. Type of packing in cooler (bubble wrap, popcorn) Y N

13. Were all bottles sealed in separate plastic bags? Y N

14. Did all bottles arrive unbroken and were labels in good condition? Y N

15. Were all bottle labels complete(ID,Date,time,etc.) Y N

16. Did all bottle labels agree with custody papers? Y N

17. Were the correct containers used for the tests indicated: Y N

18. Were samples received at the correct pH? Y NA

19. Was sufficient amount of sample sent for the tests indicated? Y N

20. Were bubbles absent in VOA samples? Y NA

If NO, List sample #'s: _____

21. Laboratory labeling verified by (initials): Date: CP 5-5-09

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

May 8, 2009

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

RE: Analytical Results Case Narrative
Analytics # 63805
UMass LGRC Proj# 210918

Dear Mr. Franklin;

Enclosed please find the analytical results for samples submitted for the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed Polychlorinated Biphenyls (PCBs) by EPA Method 8082.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II data package has been assembled in the following order:

Case Narrative/Non-Conformance Summary
Sample Log Sheet - Cover Page
PCB Form 1 Data Sheet for Samples and Blanks
Chromatograms
PCB Form 10 Confirmation Results
PCB Form 3 MS/MSD (LCS) Recoveries
Chain of Custody (COC) Forms

QC NON CONFORMANCE SUMMARY

Sample Receipt:
No exceptions.

PCBs by EPA Method 8082:
Sample 63805-8 required dilution due to the concentrations of PCBs detected in the samples.

The MS/MSD analyzed on sample 63805-1(LGRC-VSS-110) did not meet acceptance criteria for PCB1016 on column #2 and PCB 1260 on both columns due to presence of PCB 1254 in the parent sample. The laboratory control samples (L05069PSOX/LD05069PSOX) were in control for all analytes. Results were reported without qualification.

Sincerely,
ANALYTICS Environmental Laboratory, LLC

Stephen Knollmeyer
Laboratory Director

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63805

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 06 May 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63805-1	05/05/09	LGRC-VSS-110	EPA 8082 (PCBs only)	
63805-2	05/05/09	LGRC-VSS-506	EPA 8082 (PCBs only)	
63805-3	05/05/09	LGRC-VSS-111	EPA 8082 (PCBs only)	
63805-4	05/05/09	LGRC-VSS-112	EPA 8082 (PCBs only)	
63805-5	05/05/09	LGRC-VSS-906	EPA 8082 (PCBs only)	
63805-6	05/05/09	LGRC-VSS-113	EPA 8082 (PCBs only)	
63805-7	05/05/09	LGRC-VSS-114	EPA 8082 (PCBs only)	
63805-8	05/05/09	LGRC-VSS-115	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 5/8/2009

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-130	70-130	EPA 8260B
Toluene-d8	70-130	70-130	
Bromofluorobenzene	70-130	70-130	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	EPA 624/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA0	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH

PCB
DATA SUMMARIES

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 8, 2009

SAMPLE DATA

Lab Sample ID: B05069PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 05/06/09
Analysis Date: 05/07/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	113	%
Decachlorobiphenyl	97	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

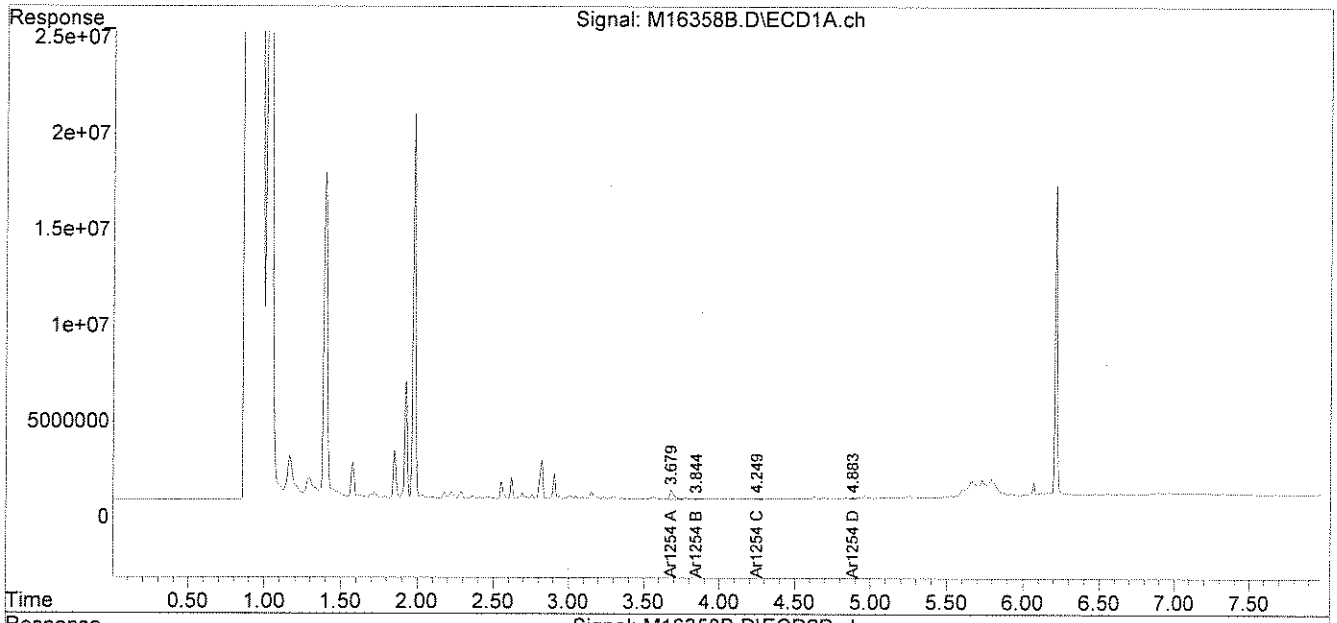
Authorized signature

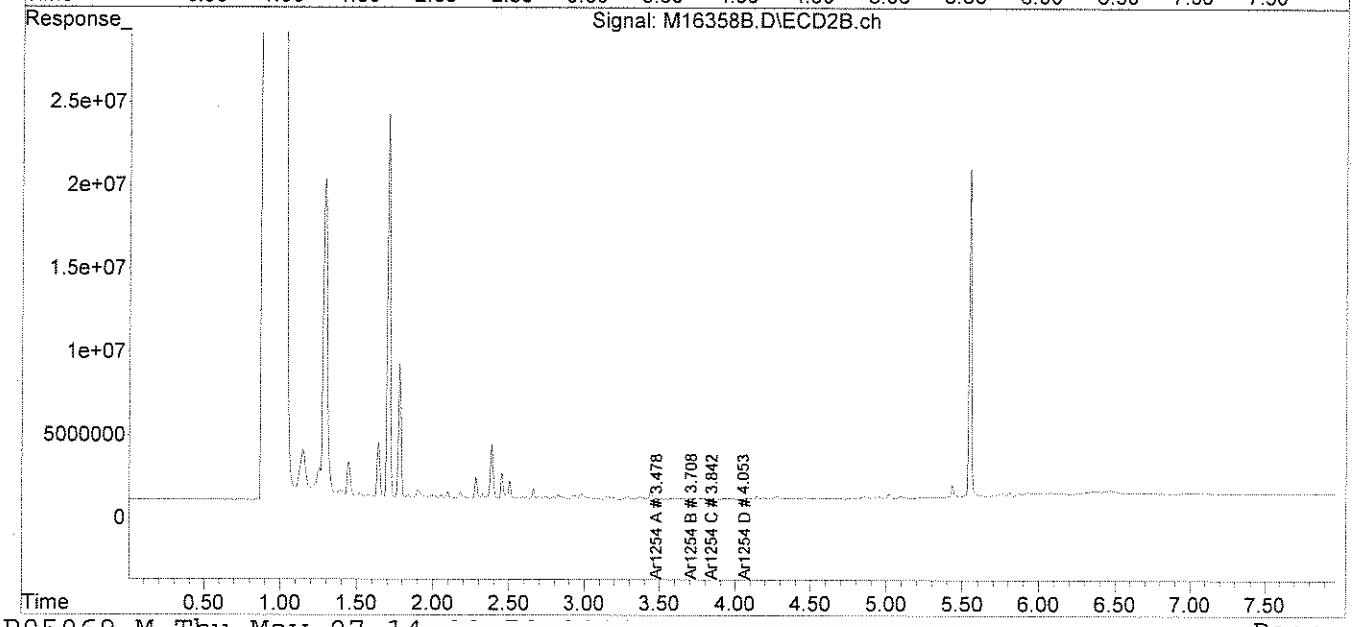
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16358B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 7 May 2009 12:18 pm
Operator :
Sample : B05069PSOX,,A/C
Misc : SOIL
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 07 14:00:58 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 8, 2009

SAMPLE DATA

Lab Sample ID: B04299PAS RR
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 04/29/09
Analysis Date: 05/08/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	80	%
Decachlorobiphenyl	89	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

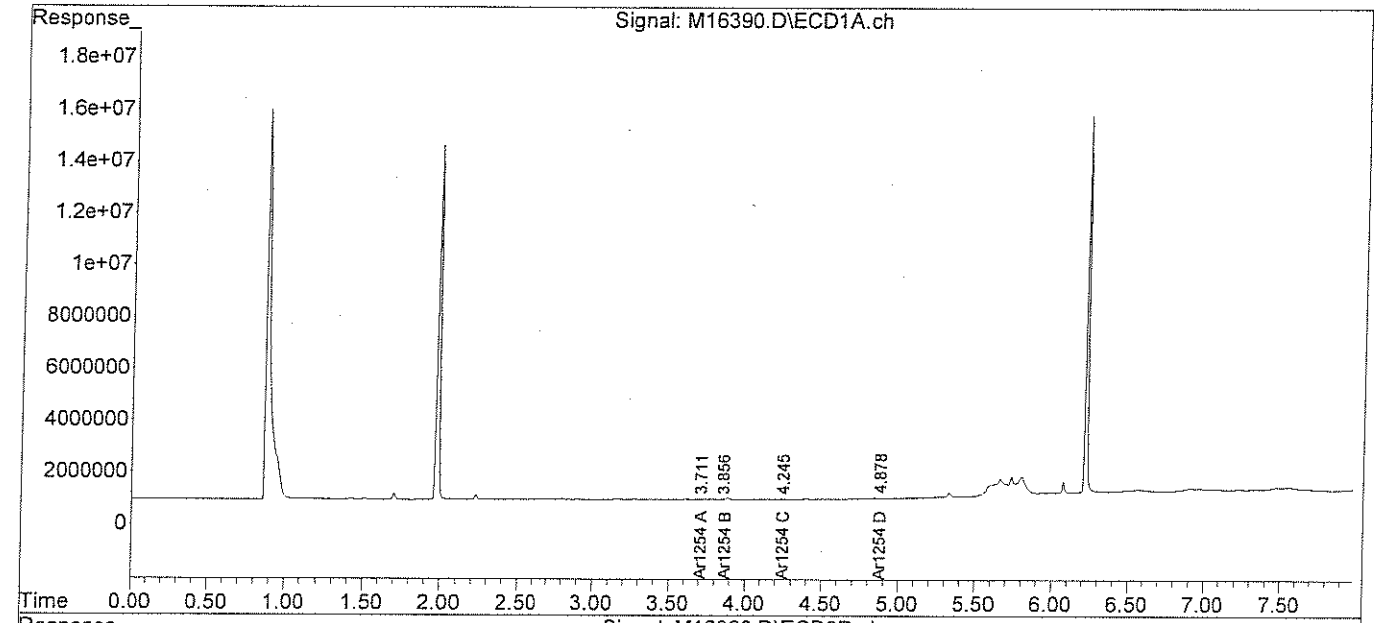
Authorized signature

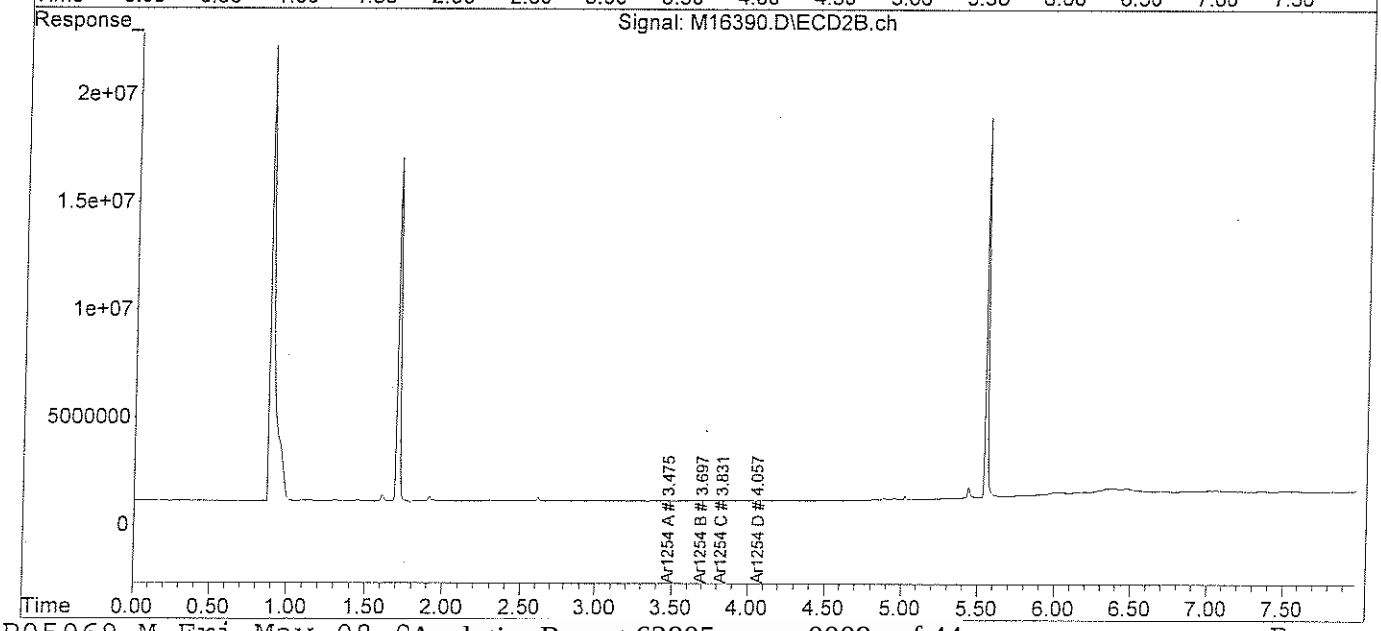
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16390.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 8 May 2009 7:57 am
Operator :
Sample : B04299PAS,RR,,A/C
Misc : SOIL
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 08 08:39:01 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 8, 2009

SAMPLE DATA

Lab Sample ID: B05089PW
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 05/08/09
Analysis Date: 05/08/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/L	Results µg/L
PCB-1016	0.2	U
PCB-1221	0.2	U
PCB-1232	0.2	U
PCB-1242	0.2	U
PCB-1248	0.2	U
PCB-1254	0.2	U
PCB-1260	0.2	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	101	%
Decachlorobiphenyl	85	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS:

PCB Report

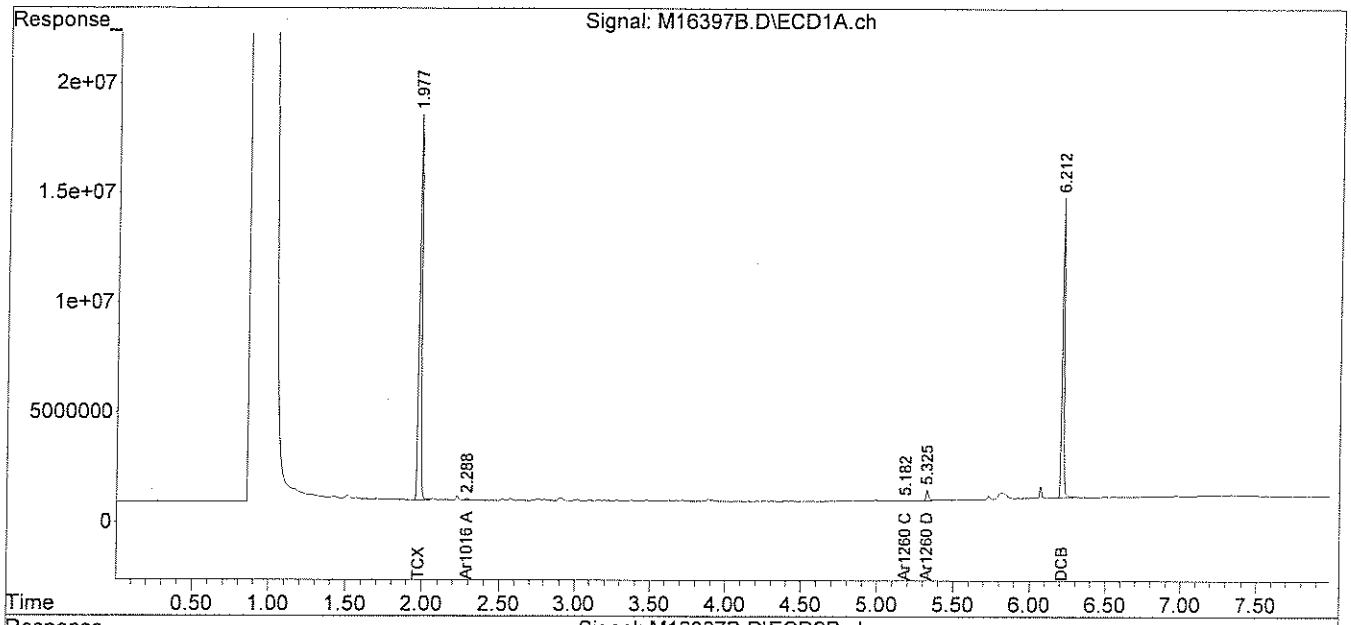
Authorized signature

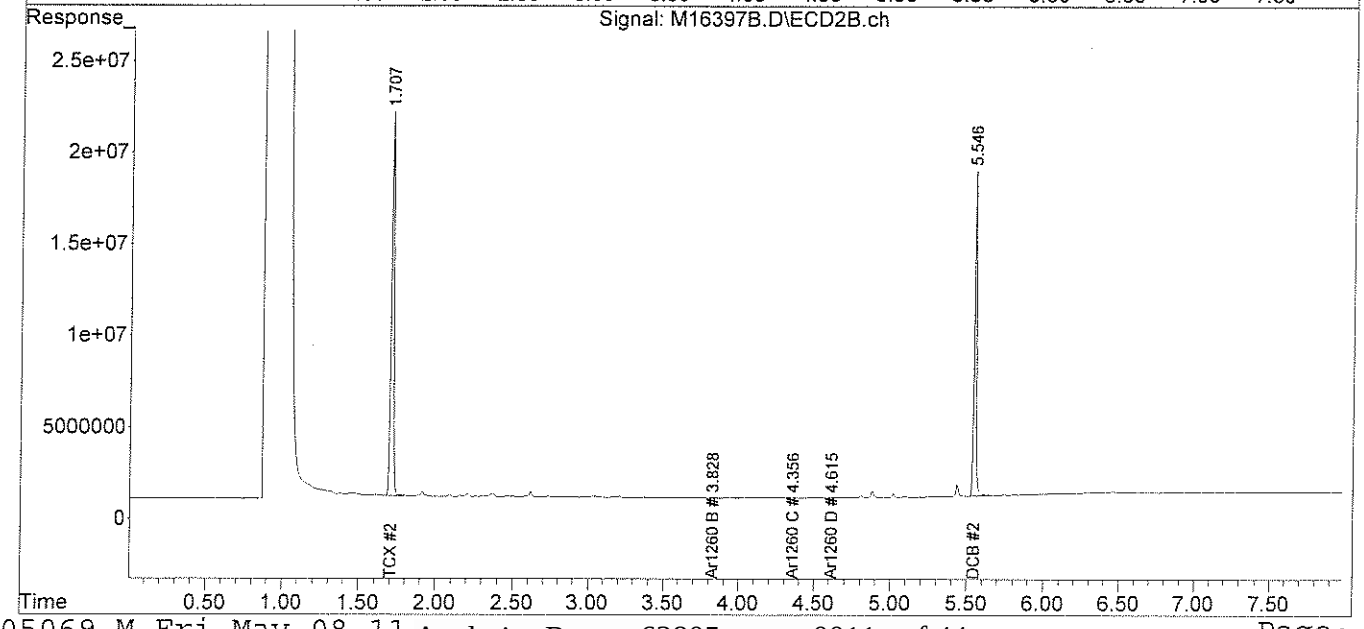
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16397B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 8 May 2009 10:59 am
Operator :
Sample : B05089PW
Misc :
ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 08 11:29:37 2009
Quant Method : C:\msdchem\1\METHODS\PCB05069.M
Quant Title : Aroclor 1016/1260
QLast Update : Thu May 07 09:09:28 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 8, 2009

SAMPLE DATA

Lab Sample ID:	63805-1
Matrix:	Soil
Percent Solid:	92
Dilution Factor:	1.0
Collection Date:	05/05/09
Lab Receipt Date:	05/06/09
Extraction Date:	05/06/09
Analysis Date:	05/07/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-110

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**350**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	103	%
Decachlorobiphenyl	88	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63805
Sample: 63805-1,,A/C
Data File: M16373.D
Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	301	350	14.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

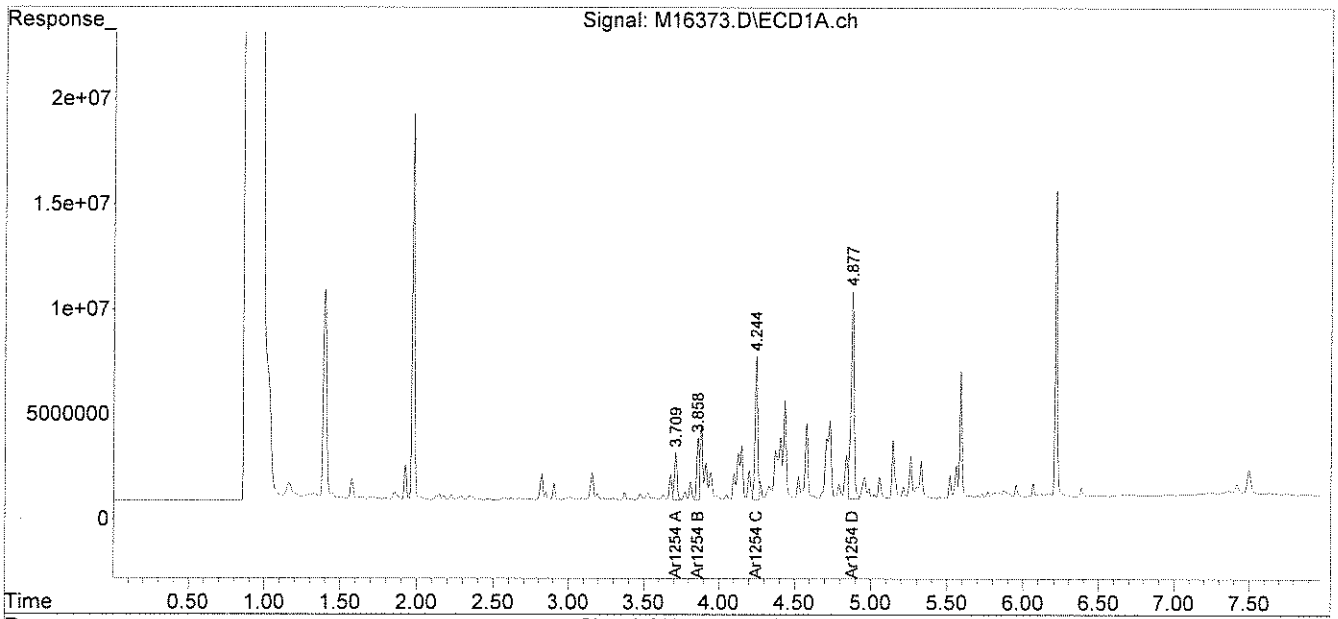
PCB FORM 10

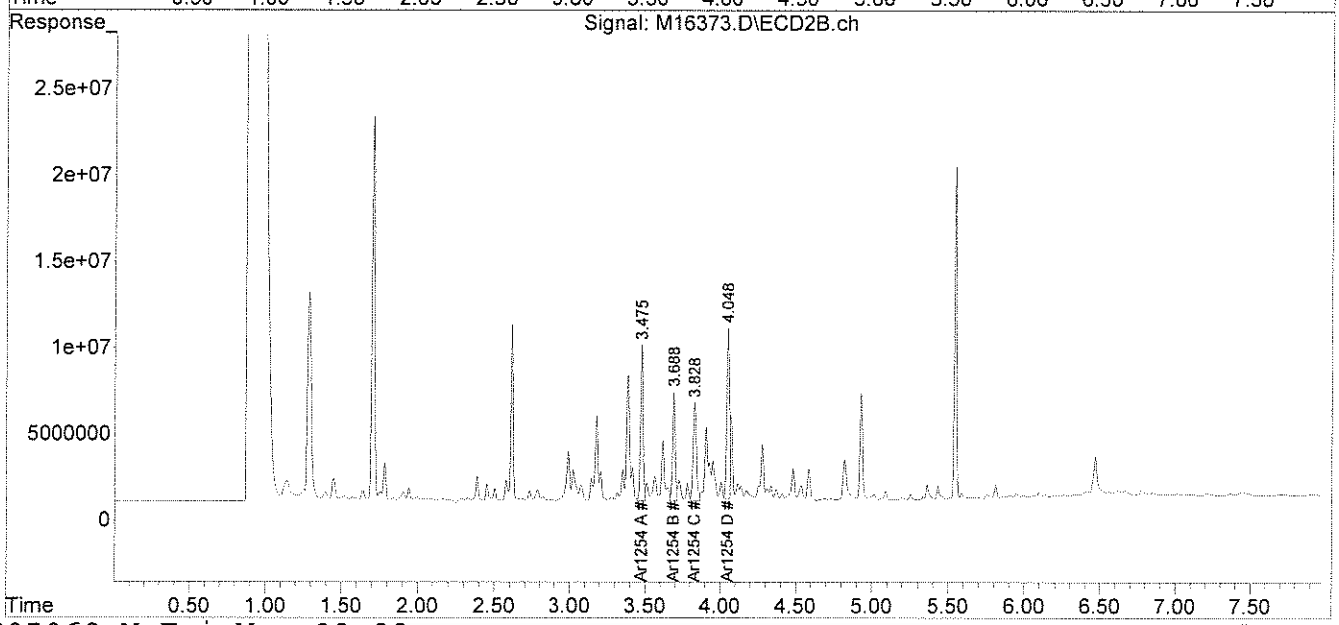
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16373.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 7 May 2009 4:23 pm
Operator :
Sample : 63805-1,,A/C
Misc : SOIL
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 08 08:23:01 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 8, 2009

SAMPLE DATA

Lab Sample ID: 63805-2
Matrix: Solid
Percent Solid: 91
Dilution Factor: 1.1
Collection Date: 05/05/09
Lab Receipt Date: 05/06/09
Extraction Date: 05/06/09
Analysis Date: 05/07/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: LGRC-VSS-506

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**370**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	93	%
Decachlorobiphenyl	77	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63805
Sample: 63805-2,,A/C
Data File: M16376.D
Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	318	370	15.1	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

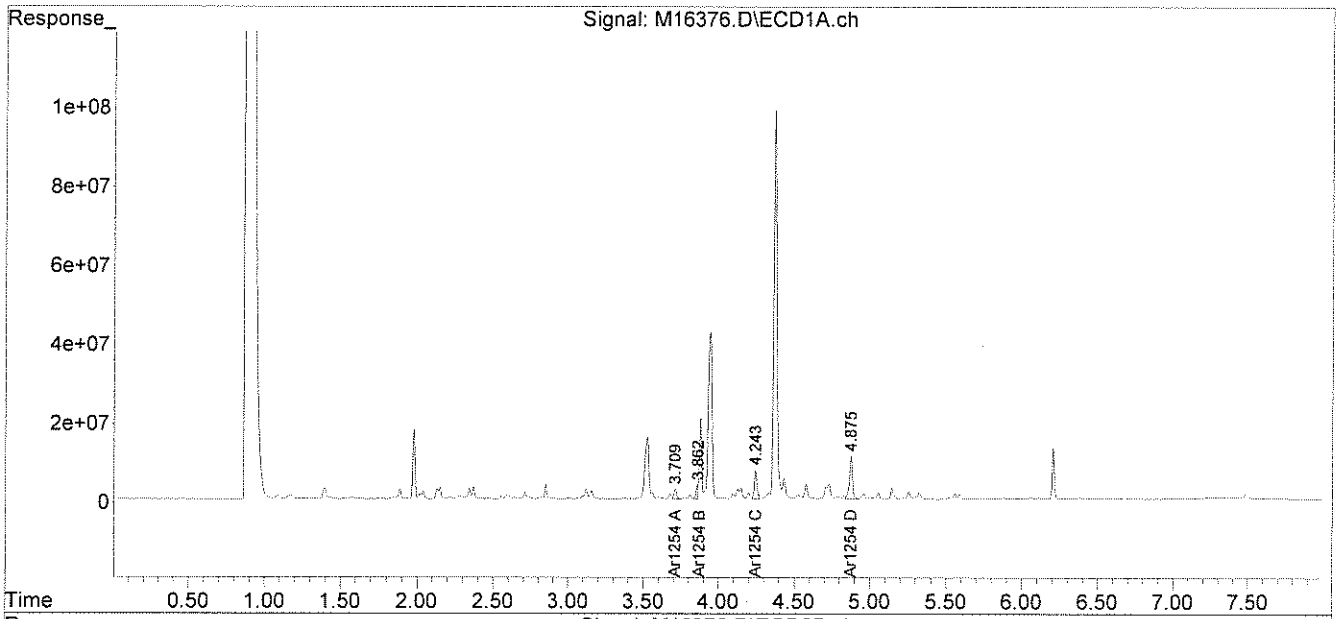
PCB FORM 10

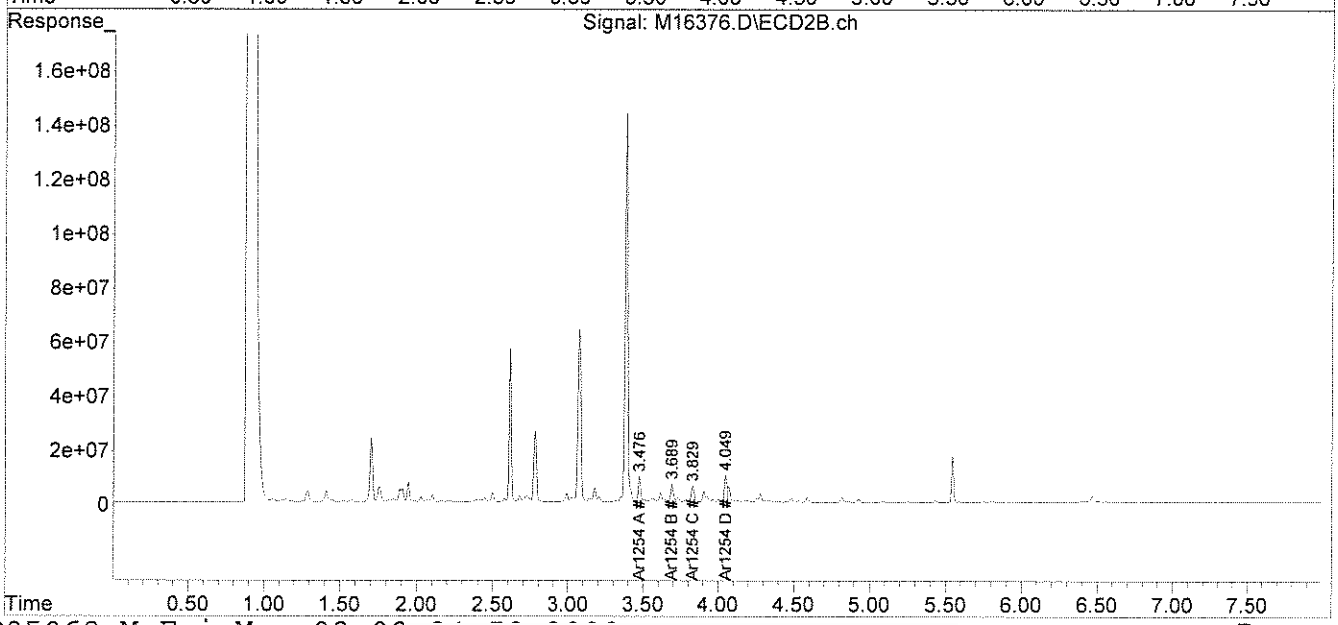
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16376.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 7 May 2009 4:53 pm
Operator :
Sample : 63805-2,,A/C
Misc : SOIL
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 08 08:24:40 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 8, 2009

SAMPLE DATA

Lab Sample ID: 63805-3
Matrix: Solid
Percent Solid: 96
Dilution Factor: 1.0
Collection Date: 05/05/09
Lab Receipt Date: 05/06/09
Extraction Date: 05/06/09
Analysis Date: 05/07/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: LGRC-VSS-111

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**353**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	75	%
Decachlorobiphenyl	64	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature:

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63805

Sample: 63805-3,,A/C

Data File: M16385.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	353	276	24.6	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

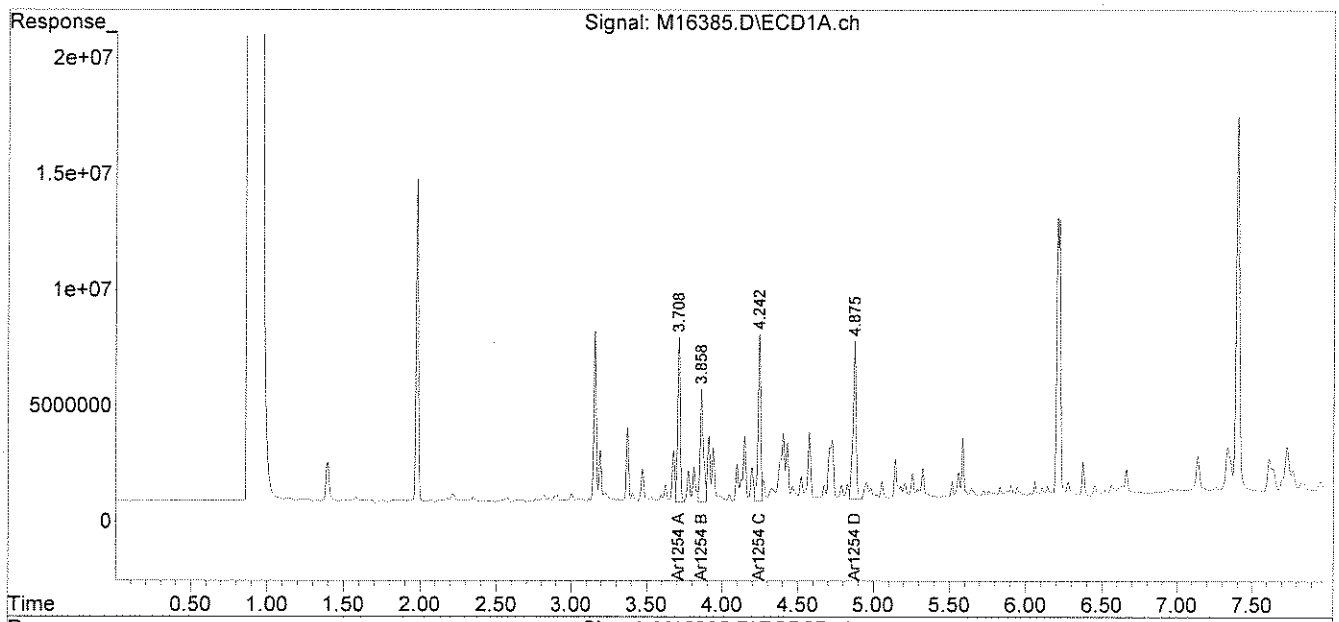
PCB FORM 10

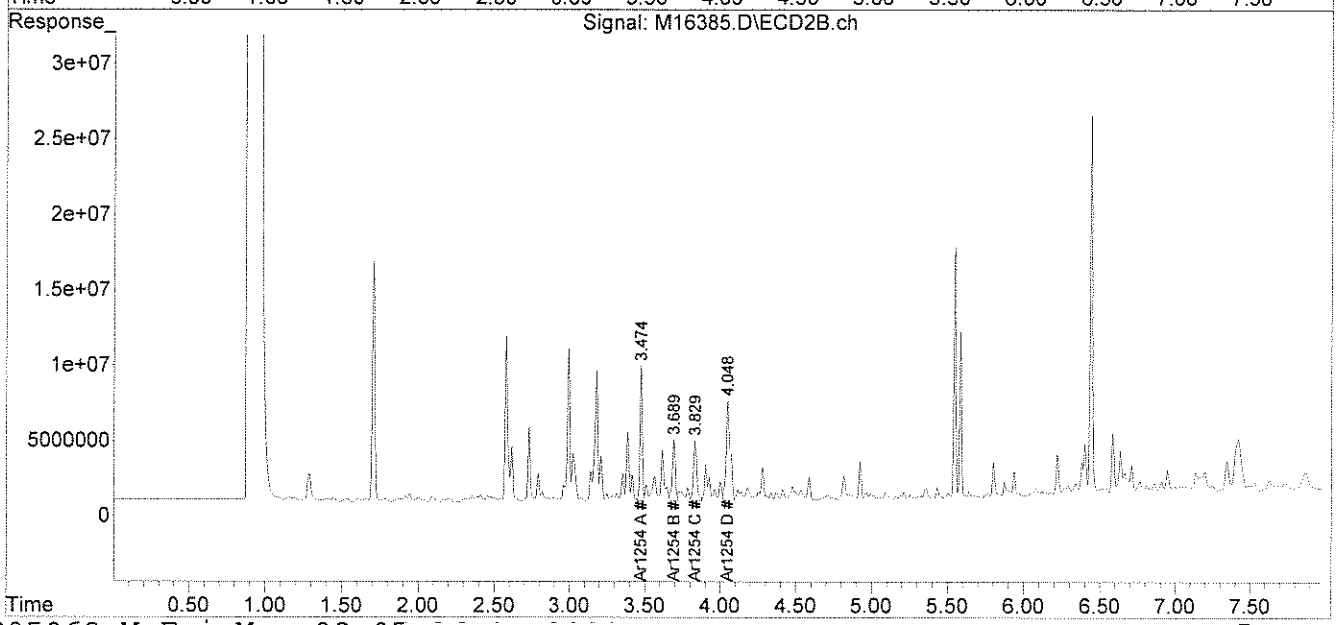
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16385.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 7 May 2009 6:24 pm
Operator :
Sample : 63805-3,,A/C
Misc : SOIL
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 08 07:36:14 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 8, 2009

SAMPLE DATA

Lab Sample ID: 63805-4
Matrix: Solid
Percent Solid: 92
Dilution Factor: 1.0
Collection Date: 05/05/09
Lab Receipt Date: 05/06/09
Extraction Date: 05/06/09
Analysis Date: 05/07/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: LGRC-VSS-112

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**380**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	80	%
Decachlorobiphenyl	93	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63805
Sample: 63805-4,,A/C
Data File: M16386.D
Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	380	316	18.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

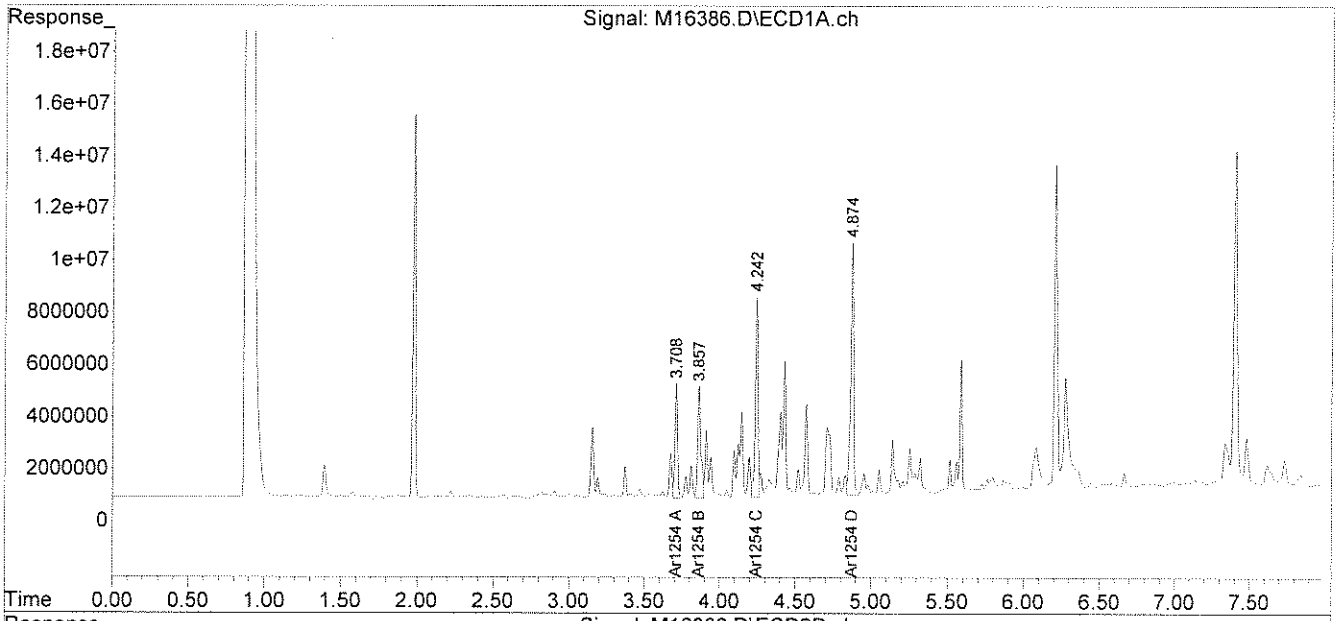
PCB FORM 10

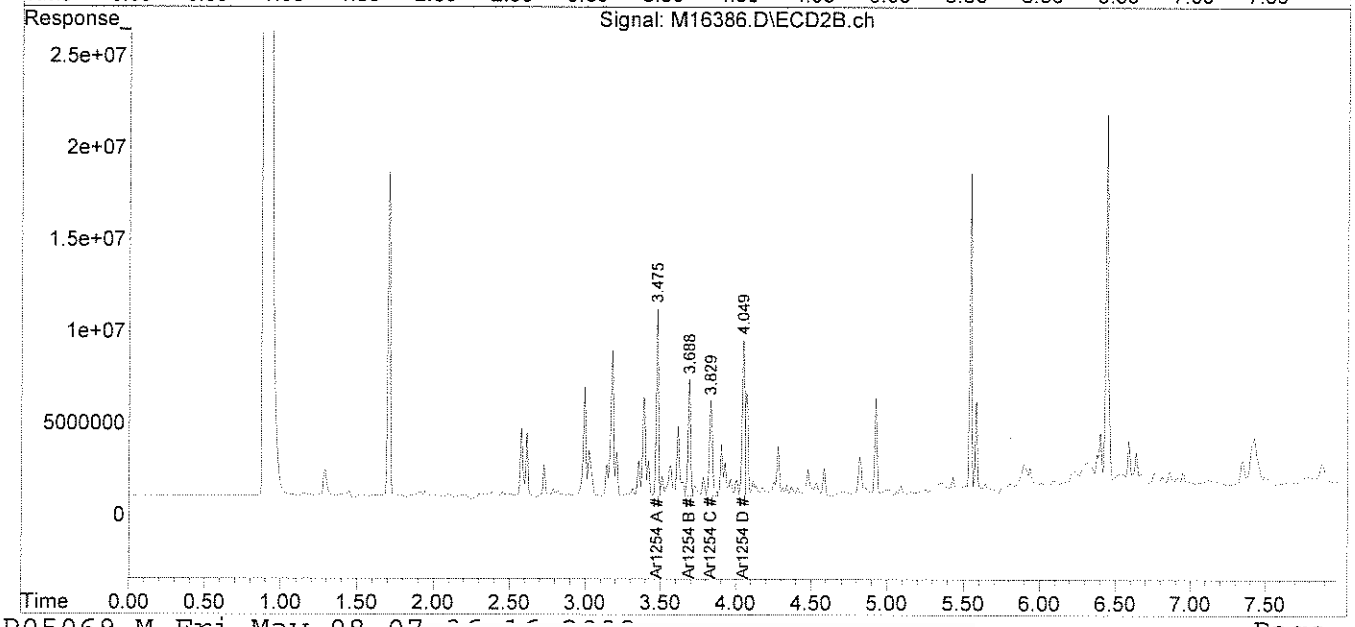
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16386.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 7 May 2009 6:34 pm
Operator :
Sample : 63805-4,,A/C
Misc : SOIL
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 08 07:36:16 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 8, 2009

SAMPLE DATA

Lab Sample ID: 63805-5
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date: 05/05/09
Lab Receipt Date: 05/06/09
Extraction Date: 05/08/09
Analysis Date: 05/08/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: LGRC-VSS-906

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/L	Results µg/L
PCB-1016	0.2	U
PCB-1221	0.2	U
PCB-1232	0.2	U
PCB-1242	0.2	U
PCB-1248	0.2	U
PCB-1254	0.2	U
PCB-1260	0.2	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	92	%
Decachlorobiphenyl	64	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS:

PCB Report

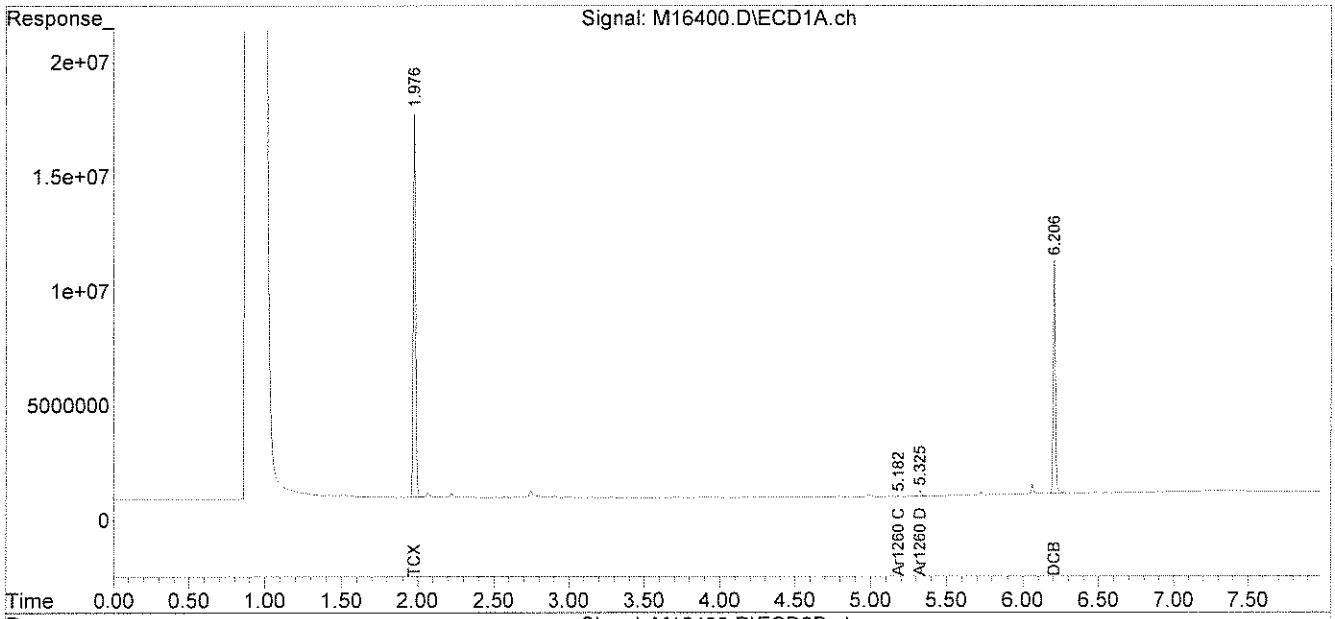
Authorized signature

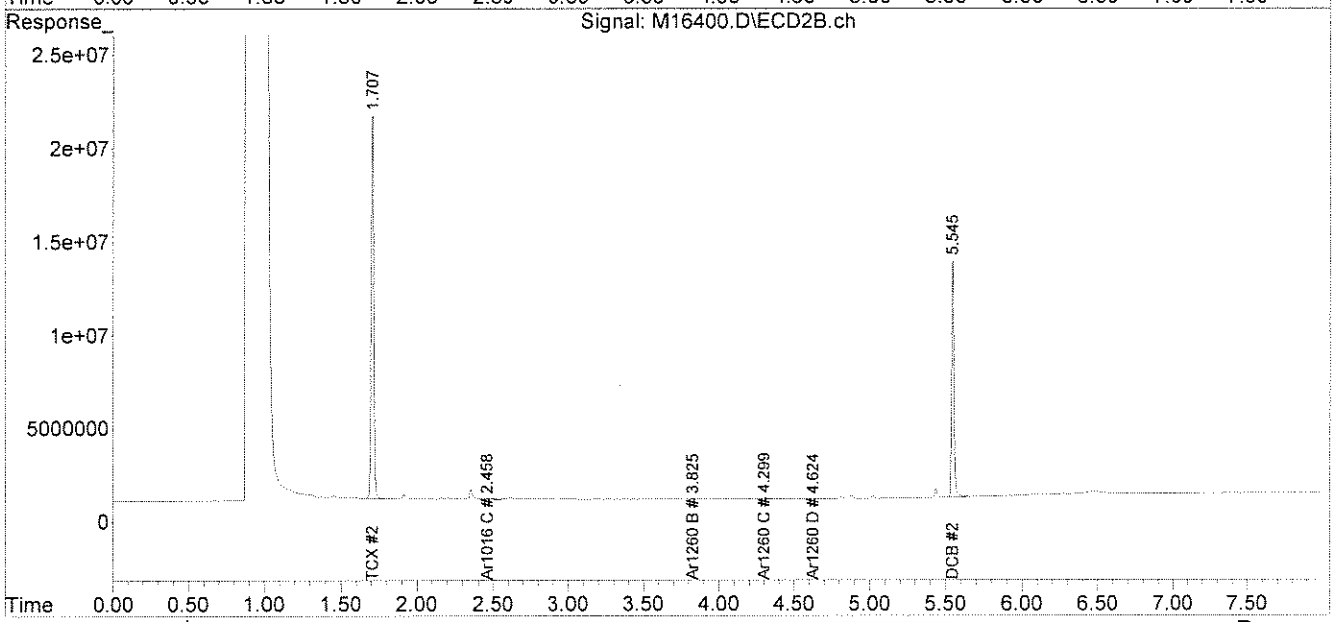
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16400.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 8 May 2009 11:29 am
Operator :
Sample : 63805-5
Misc :
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 08 11:44:21 2009
Quant Method : C:\msdchem\1\METHODS\PCB05069.M
Quant Title : Aroclor 1016/1260
QLast Update : Thu May 07 09:09:28 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 8, 2009

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: UMASS-LGRC

Project Number: 210918

Field Sample ID: LGRC-VSS-113

Lab Sample ID: 63805-6
Matrix: Solid
Percent Solid: 96
Dilution Factor: 1.0
Collection Date: 05/05/09
Lab Receipt Date: 05/06/09
Extraction Date: 05/06/09
Analysis Date: 05/07/09

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**70**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	99	%
Decachlorobiphenyl	82	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63805
Sample: 63805-6,,A/C
Data File: M16377.D
Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	69	70	1.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

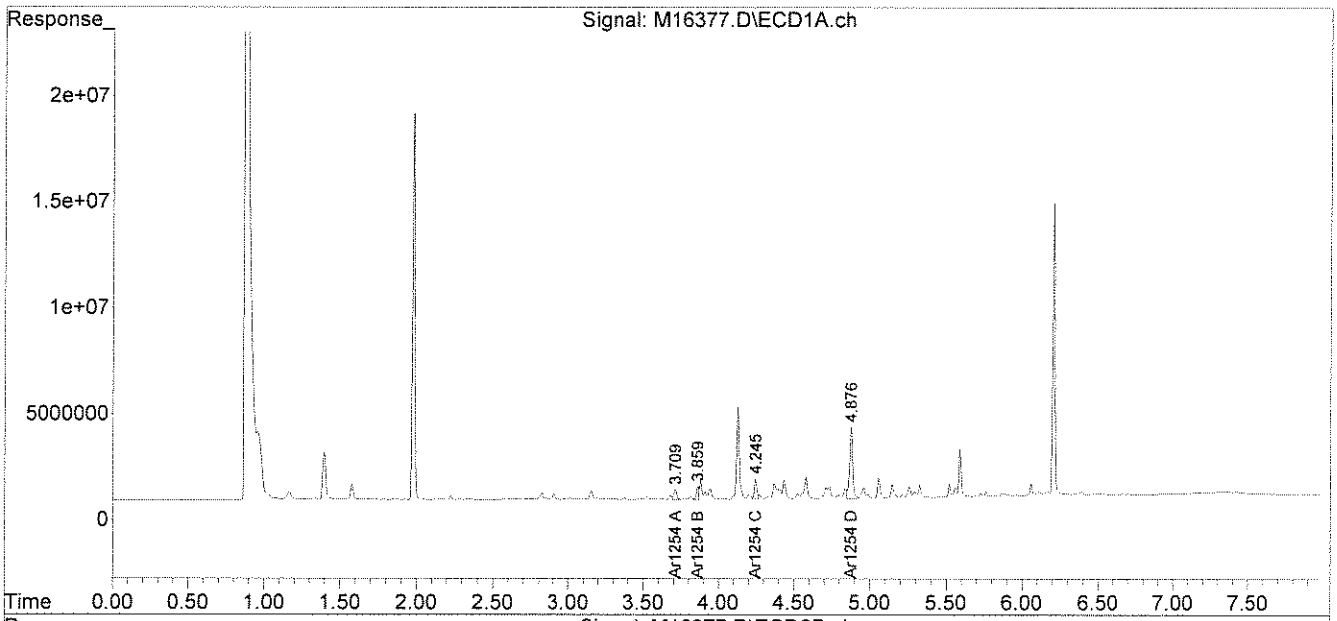
Comments: _____

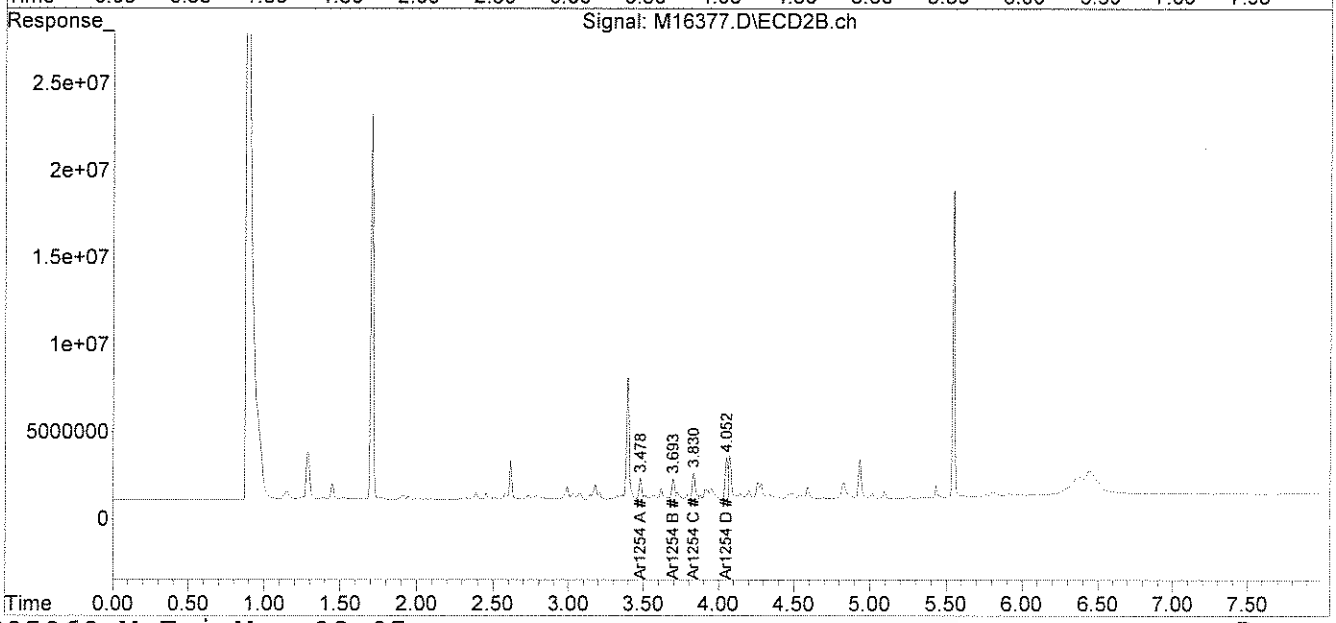
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16377.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 7 May 2009 5:03 pm
Operator :
Sample : 63805-6,,A/C
Misc : SOIL
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 08 07:36:02 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 8, 2009

SAMPLE DATA

Lab Sample ID:	63805-7
Matrix:	Solid
Percent Solid:	94
Dilution Factor:	1.0
Collection Date:	05/05/09
Lab Receipt Date:	05/06/09
Extraction Date:	05/06/09
Analysis Date:	05/07/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-114

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**817**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	89	%
Decachlorobiphenyl	78	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63805
Sample: 63805-7,,A/C
Data File: M16378.D
Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	655	817	22.0	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

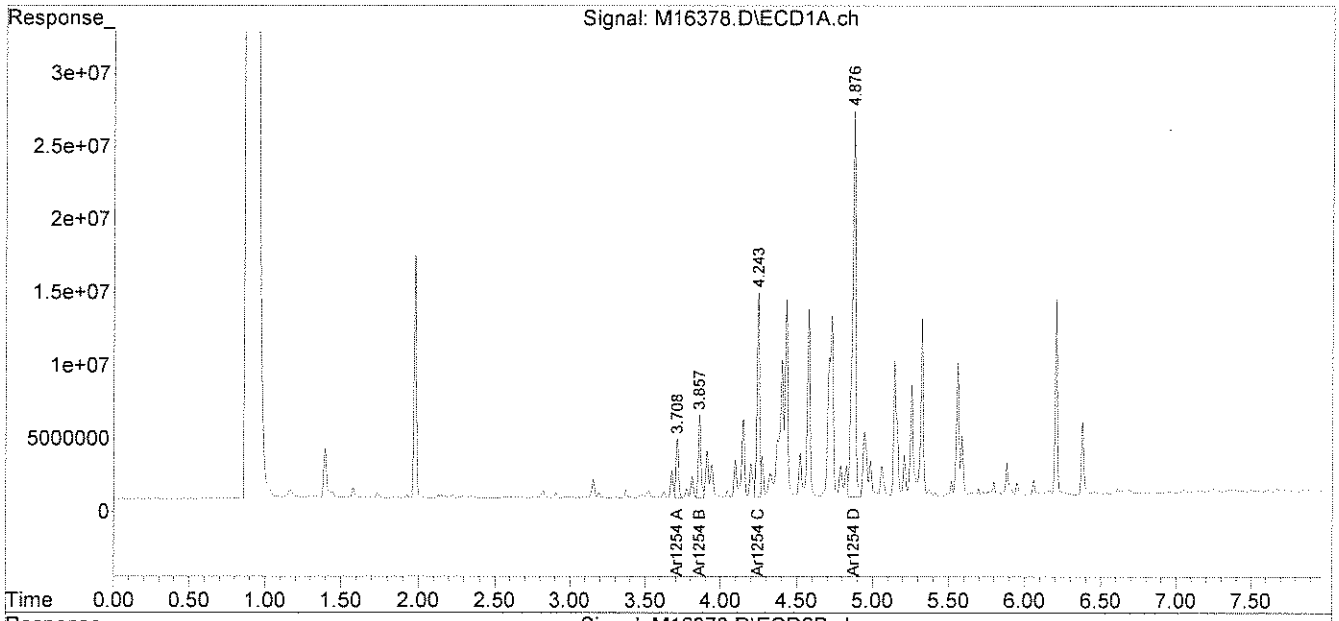
Comments: _____

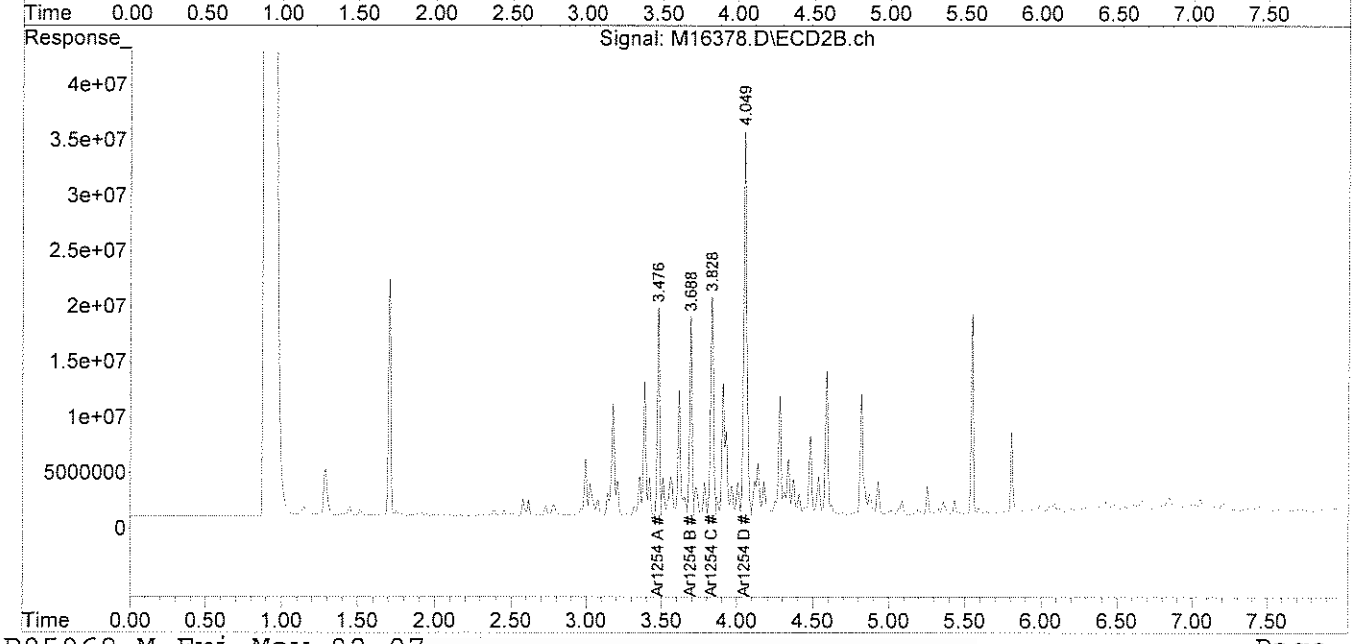
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16378.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 7 May 2009 5:13 pm
Operator :
Sample : 63805-7,,A/C
Misc : SOIL
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 08 07:36:04 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 8, 2009

SAMPLE DATA

Lab Sample ID:	63805-8
Matrix:	Solid
Percent Solid:	96
Dilution Factor:	19
Collection Date:	05/05/09
Lab Receipt Date:	05/06/09
Extraction Date:	05/06/09
Analysis Date:	05/08/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-115

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	630	U
PCB-1221	630	U
PCB-1232	630	U
PCB-1242	630	U
PCB-1248	630	U
PCB-1254	630	**11500**
PCB-1260	630	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	*	%
Decachlorobiphenyl	*	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.
* The surrogates were diluted out.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63805

Sample: 63805-8,1:20,,A/C

Data File: M16392.D

Dilution Factor: 19.4

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	10427	11489	9.7	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

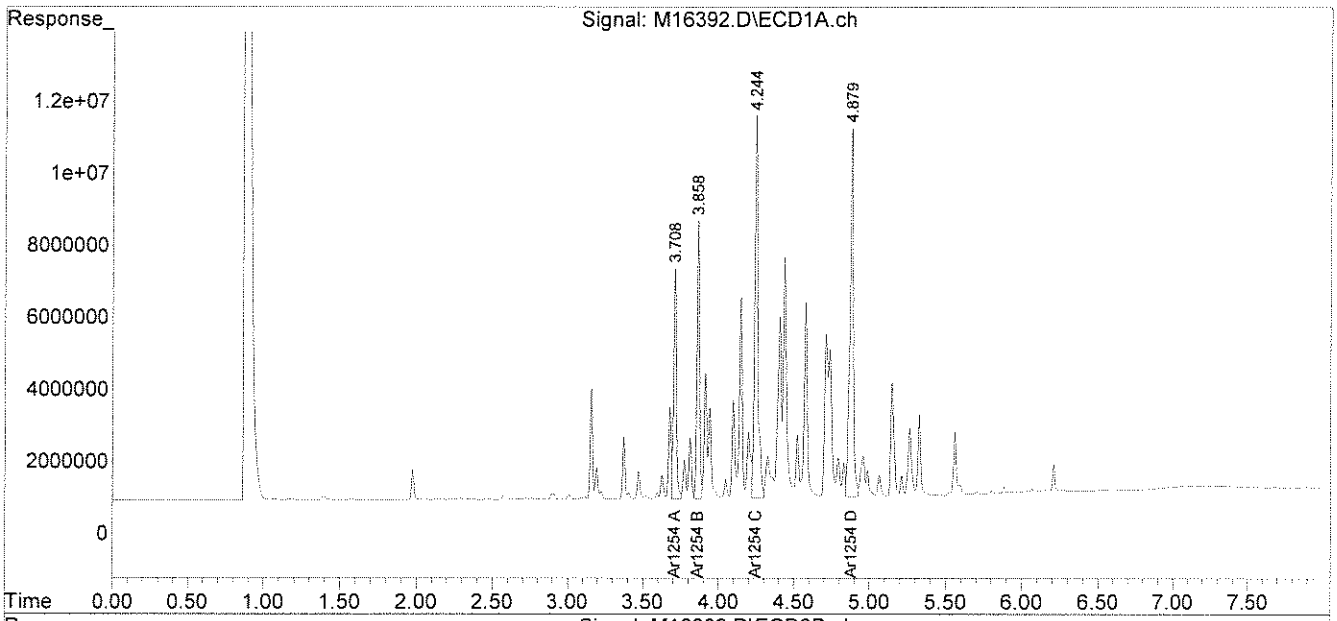
PCB FORM 10

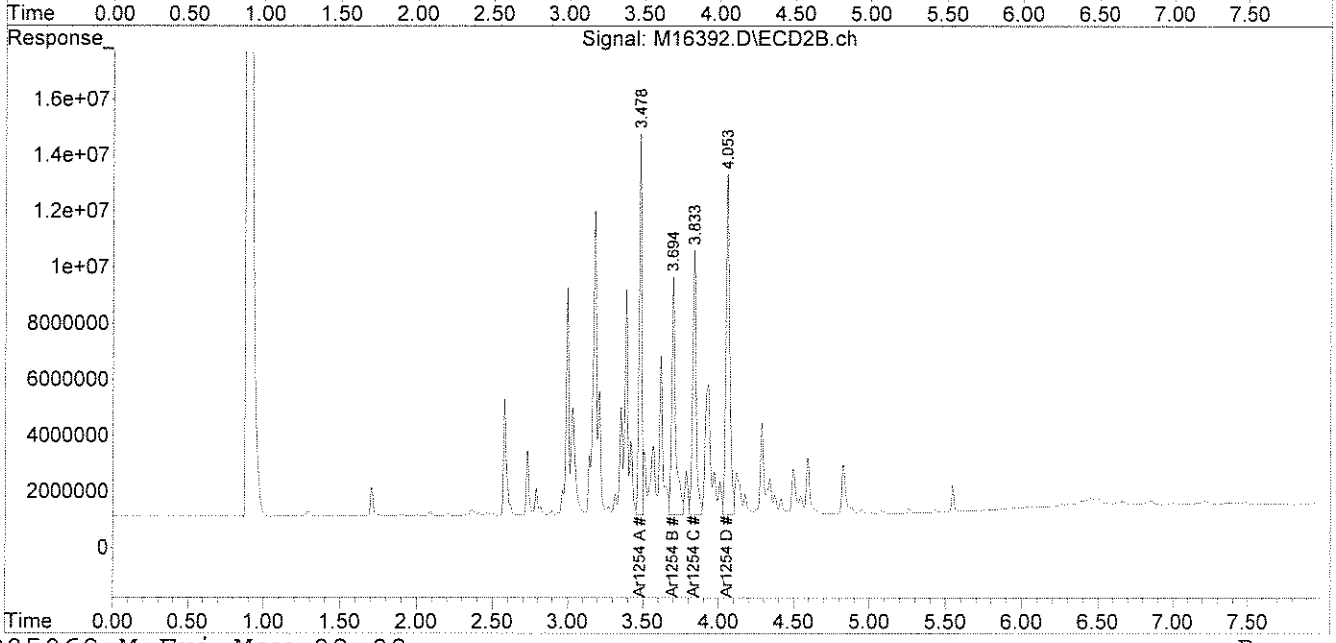
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\050609-M\
Data File : M16392.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 8 May 2009 8:17 am
Operator :
Sample : 63805-8,1:20,,A/C
Misc : SOIL
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 08 08:39:06 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





PCB
QC FORMS

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:PCBQC.doc

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63805

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B05069PSOX,,A/C	113		97		116		98	
L05069PSOX,,A/C	96		82		98		86	
LD05069PSOX,,A/C	95		85		101		90	
63805-1,,A/C	103		88		108		93	
63805-1,MS,,A/C	107		92		111		98	
63805-1,MSD,,A/C	95		86		101		88	
63805-2,,A/C	93		77		114		81	
63805-6,,A/C	99		82		102		86	
63805-7,,A/C	89		78		94		84	
63805-3,,A/C	75		64		72		73	
63805-4,,A/C	80		93		79		77	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

\# Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63805

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B04299PAS,RR,,A/C	80		89		82		92	
63805-8,1:20,,A/C	D		D		D		D	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB AQUEOUS
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63805

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B05089PW	101		85		104		89	
L05089PWB	93		79		97		83	
LD05089PWB	93		75		97		80	
63805-5	92		64		97		68	

		Lower Limit	Upper Limit
SMC #1 =	TCX	46	122
SMC #2 =	DCB	40	135

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63805

Non-spiked sample: B05069PSOX,,A/C

Spike: L05069PSOX,,A/C

Spike duplicate: LD05069PSOX,,A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	200	200	65	140	30	0	202	101		250	125		21.3	
PCB 1260	200	200	60	130	30	0	182	91		194	97		6.3	
PCB 1016 #2	200	200	65	140	30	0	265	132		278	139		4.7	
PCB 1260 #2	200	200	60	130	30	0	203	101		210	105		3.5	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

PCB SOIL
MATRIX SPIKE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63805

Non-spiked sample: 63805-1,,A/C

Spike: 63805-1,MS,,A/C

Spike duplicate: 63805-1,MSD,,A/C

COMPOUND	MS SPIKE ADDED (ug/kg)	MSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	213	203	65	140	30	0	227	106		208	103		8.7	
PCB 1260	213	203	60	130	30	0	373	175	*	338	167	*	10.0	
PCB 1016 #2	213	203	65	140	30	0	307	144	*	278	137		9.8	
PCB 1260 #2	213	203	60	130	30	0	363	170	*	324	160	*	11.3	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

MS/MSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

PCB FORM 3

PCB AQUEOUS
LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63805

Non-spiked sample: B05089PW

Spike: L05089PWB

Spike duplicate: LD05089PWB

COMPOUND	LCS SPIKE ADDED (ug/L)	LCSD SPIKE ADDED (ug/L)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
PCB 1016	2.0	2.0	79	113	25	0.00	1.95	97		1.98	99		1.8	
PCB 1260	2.0	2.0	58	115	25	0.00	1.93	96		1.92	96		0.2	
PCB 1016 #2	2.0	2.0	81	112	25	0.00	2.10	105		2.12	106		1.4	
PCB 1260 #2	2.0	2.0	54	123	25	0.00	2.11	105		2.23	111		5.7	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been volume adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

PCB FORM 3

CHAIN OF CUSTODIES

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:COC.doc

Chain Of Custody Form

analytics environmental laboratory LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 3.2
3) Received in good condition Y or N
4) pH checked by: JF 5-6-09
5) Labels checked by: RM 5/6/09

oject#: 210918 Proj. Name: UMASS - LGRC
ompany: Woodard & Curran
ontact: GEORGE FRANKLIN/AMY WALLACE
ldress: 35 New England Business Ctr.
Andover, MA 01810
hone: (866)702-6371 PO# Quote # WCI 8091001
amp (Signature): [signature]

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

St n Identification	Sample Date	Sample Time	Analysis	Preservation: Unpres	4°C	HNO3	H2SO4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
LG -VSS-110	5/5/09	1314	PCBs		X						S	1	G		63805-1
LG -VSS-~~505~~ 506	5/5/09	1314	PCBs		X						S	1	G		-2
LG -VSS-111	5/5/09	1323	PCBs		X						S	1	G		-3
LG -VSS-112	5/5/09	1326	PCBs		X						S	1	G		-4
LG -VSS-~~905~~ 906	5/5/09	1340	PCBs		X						W	1	G	5.5	-5
LG -VSS-113	5/5/09	1415	PCBs		X						~~WS~~	1	G		-6
LG -VSS-114	5/5/09	1505	PCBs		X						S	1	G		-7
LG -VSS-115	5/5/09	1509	PCBs		X						S	1	G		-8

Received By: [signature] Time: 11:50 Date: 5/6/09 1150
Received By: Time: Date:
Received By: Time: Date:

nail Results to:
George Franklin
Jeff Hamel
Amy Wallace

Turnaround Time (TAT)
☐ 24hr* ☐ 48hr*
☑ 72hr* ☐ 5 Days*
☐ 10 Days
ee may apply; lab approval required

Comments / Instructions:
PCBs by 8082
SOXHLET EXTRACTION

RESULTS BY END OF DAY
FRIDAY MAY 8TH
Ph checked on AmberLiters JF 5-6-09 5.5
AmberLiters checked neg. for residual
Chlorine using KI paper JF 5-6-09

Project Requirements:
*Fee may apply

Report Type:
☐ MCP* ☑ Level II*
☐ CTRCP* ☐ Level III*
☐ DOD* ☐ Level IV*
☐ Standard

State:
☐ NH
☐ MA
☐ ME
☐ CT
☐ RI
Other: TSCA

State Standard: _____ (eg. S-1 or GW-1)
EDD Required: Y* N
Type: _____

Relinquished By Sampler: [signature]
Relinquished By:
Relinquished By:

alytics\AEL Documents\AEL COC
Page 1 of 1
Analytics Report 63805 page 0043 of 44

analytics environmental laboratory LLC

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 63805

CLIENT: Woodard

PROJECT: UMASS-LCORC

COOLER NUMBER: _____

NUMBER OF COOLERS: 1

DATE RECEIVED: 5-6-09

A: PRELIMINARY EXAMINATION:

DATE COOLER OPENED: 5-6-09

1. Cooler received by(initials) JF

Date Received: 5-6-09

2. Circle one: Hand delivered (If so, skip 3) Shipped

3. Did cooler come with a shipping slip? Y N

3a. Enter carrier name and airbill number here: _____

4. Were custody seals on the outside of cooler? Y N
How many & where: _____ Seal Date: _____ Seal Name: _____

5. Did the custody seals arrive unbroken and intact upon arrival? Y N

6. COC#: _____

7. Were Custody papers filled out properly (ink,signed, etc)? Y N

8. Were custody papers sealed in a plastic bag? Y N

9. Did you sign the COC in the appropriate place? Y N

10. Was the project identifiable from the COC papers? Y N

11. Was enough ice used to chill the cooler? Y N Temp. of cooler: 3.2°C

B. Log-In: Date samples were logged in: 5-6-09 By: [signature]

12. Type of packing in cooler(bubble wrap, popcorn) Y N

13. Were all bottles sealed in separate plastic bags? Y N

14. Did all bottles arrive unbroken and were labels in good condition? Y N

15. Were all bottle labels complete(ID,Date,time,etc.) Y N

16. Did all bottle labels agree with custody papers? Y N

17. Were the correct containers used for the tests indicated: Y N

18. Were samples received at the correct pH? Y N

19. Was sufficient amount of sample sent for the tests indicated? Y N

20. Were bubbles absent in VOA samples? Y N/A

If NO, List sample #'s: _____

21. Laboratory labeling verified by (initials): Date: RM 5/6/09 RM 5/6/09

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

May 12, 2009

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

RE: Analytical Results Case Narrative
Analytics # 63835
UMass LGRC Proj# 210918

Dear Mr. Franklin;

Enclosed please find the analytical results for samples submitted for the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed Polychlorinated Biphenyls (PCBs) by EPA Method 8082.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II data package has been assembled in the following order:

Case Narrative/Non-Conformance Summary
Sample Log Sheet - Cover Page
PCB Form 1 Data Sheet for Samples and Blanks
Chromatograms
PCB Form 10 Confirmation Results
PCB Form 3 MS/MSD (LCS) Recoveries
Chain of Custody (COC) Forms

QC NON CONFORMANCE SUMMARY

Sample Receipt:
No exceptions.

PCBs by EPA Method 8082:
Samples 63835-2 and 63835-16 required dilution due to the concentrations of PCBs detected in the samples.

The laboratory control sample duplicate (LD05089PSOX) had high recovery for PCB 1016 on column #2. The laboratory control sample (L805089PSOX) and MS/MSD analyzed on sample 63835-1 (LGRC-VSS-116) were in control for all analytes on both columns. Results were reported without qualification.

Sincerely,
ANALYTICS Environmental Laboratory, LLC

Stephen Knollmeyer
Laboratory Director

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63835

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 08 May 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63835-1	05/08/09	LGRC-VSS-116	EPA 8082 (PCBs only)	
63835-2	05/08/09	LGRC-VSS-117	EPA 8082 (PCBs only)	
63835-3	05/08/09	LGRC-VSS-118	EPA 8082 (PCBs only)	
63835-4	05/08/09	LGRC-VSS-119	EPA 8082 (PCBs only)	
63835-5	05/08/09	LGRC-VSS-120	EPA 8082 (PCBs only)	
63835-6	05/08/09	LGRC-VSS-121	EPA 8082 (PCBs only)	
63835-7	05/08/09	LGRC-VSS-122	EPA 8082 (PCBs only)	
63835-8	05/08/09	LGRC-VSS-123	EPA 8082 (PCBs only)	
63835-9	05/08/09	LGRC-VSS-124	EPA 8082 (PCBs only)	
63835-10	05/08/09	LGRC-VSS-125	EPA 8082 (PCBs only)	
63835-11	05/08/09	LGRC-VSS-126	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 5/12/2009

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63835

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 08 May 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63835-12	05/08/09	LGRC-VSS-127	EPA 8082 (PCBs only)	
63835-13	05/08/09	LGRC-VSS-128	EPA 8082 (PCBs only)	
63835-14	05/08/09	LGRC-VSS-129	EPA 8082 (PCBs only)	
63835-15	05/08/09	LGRC-VSS-130	EPA 8082 (PCBs only)	
63835-16	05/08/09	LGRC-VSS-131	EPA 8082 (PCBs only)	
63835-17	05/08/09	LGRC-VSS-132	EPA 8082 (PCBs only)	
63835-18	05/08/09	LGRC-VSS-133	EPA 8082 (PCBs only)	
63835-19	05/08/09	LGRC-VSS-134	EPA 8082 (PCBs only)	
63835-20	05/08/09	LGRC-VSS-135	EPA 8082 (PCBs only)	
63835-21	05/08/09	LGRC-VSS-136	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 5/12/2009

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-130	70-130	EPA 8260B
Toluene-d8	70-130	70-130	
Bromofluorobenzene	70-130	70-130	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	EPA 624/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA0	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH

PCB
DATA SUMMARIES

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID: B05089PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 05/08/09
Analysis Date: 05/11/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	95	%
Decachlorobiphenyl	89	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

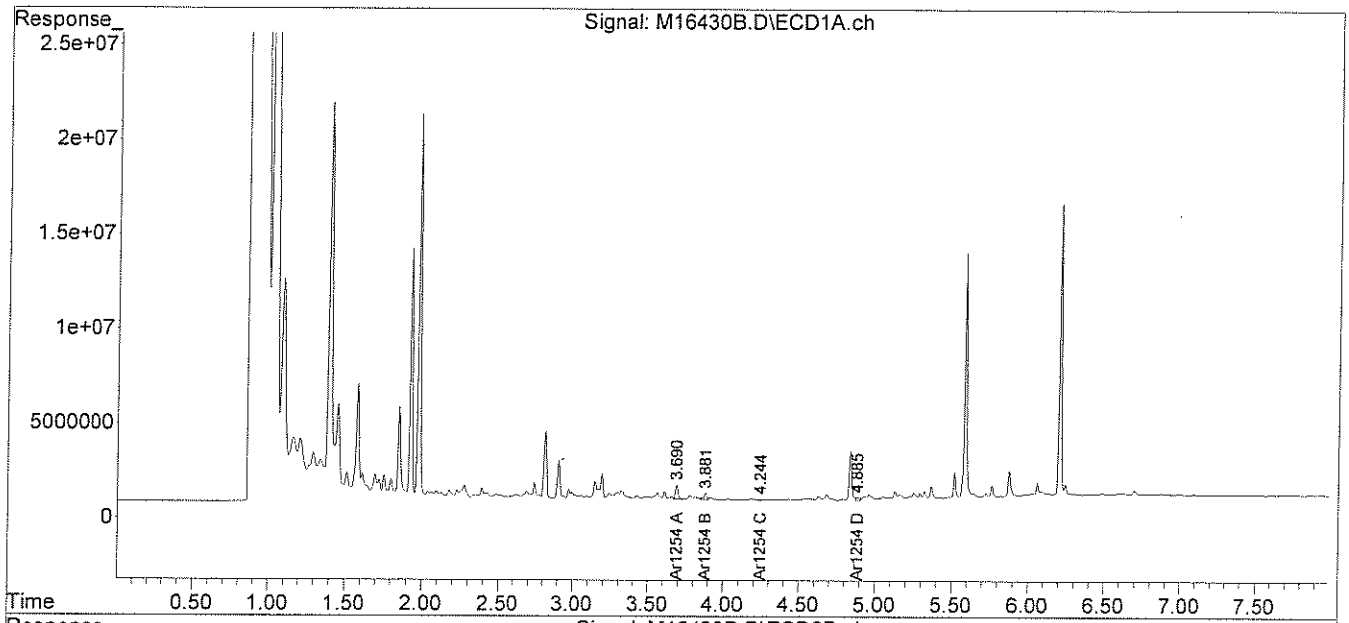
Authorized signature

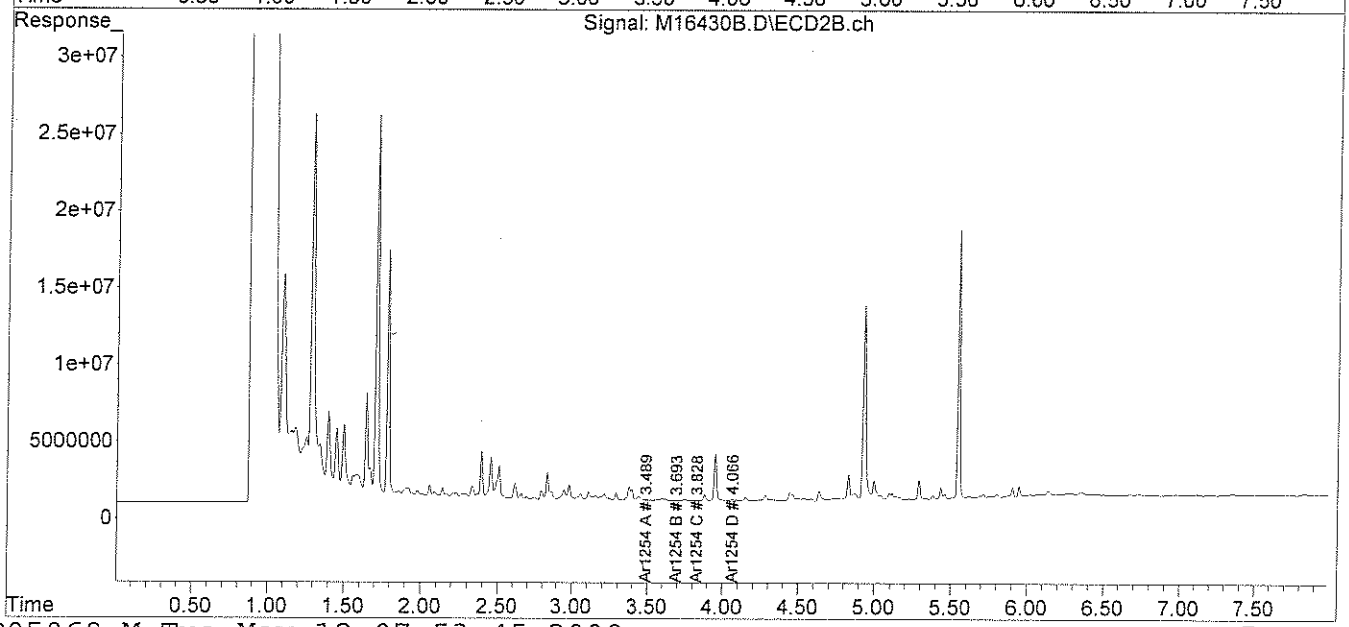
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16430B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 11 May 2009 4:44 pm
Operator :
Sample : B05089PSOX,,A/C
Misc : SOIL
ALS Vial : 65 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 07:53:45 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID: B05079PAS RR
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 05/07/09
Analysis Date: 05/12/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	99	%
Decachlorobiphenyl	78	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

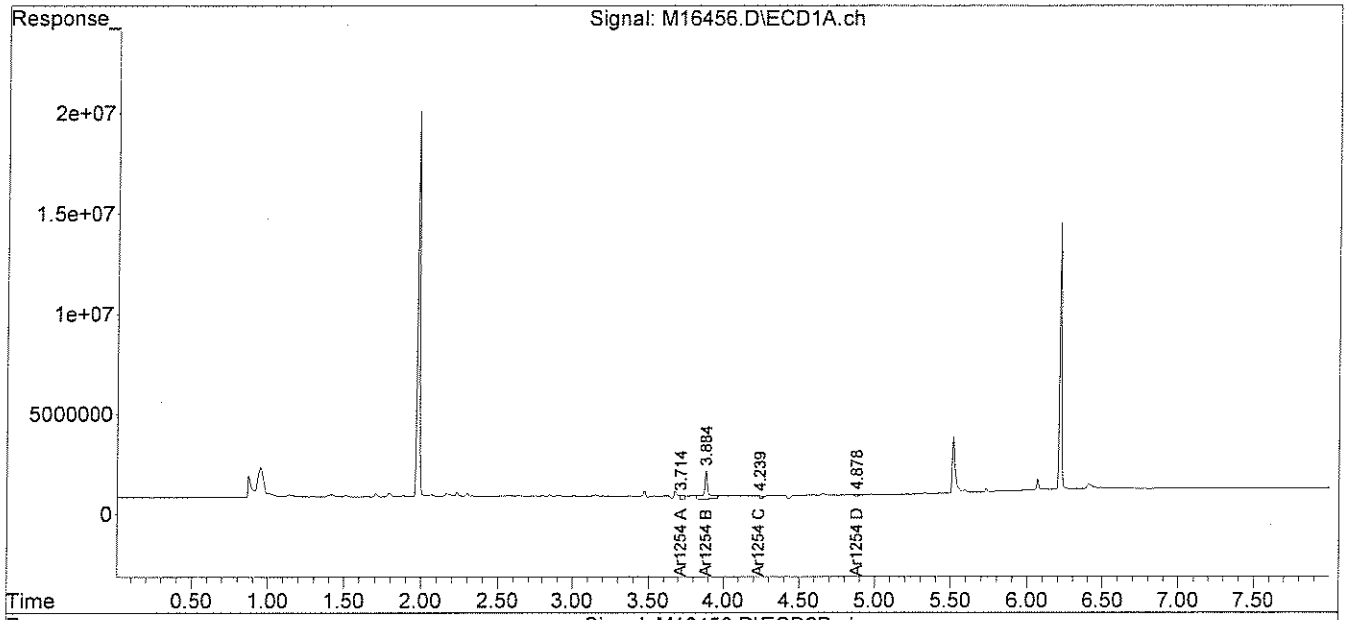
Authorized signature

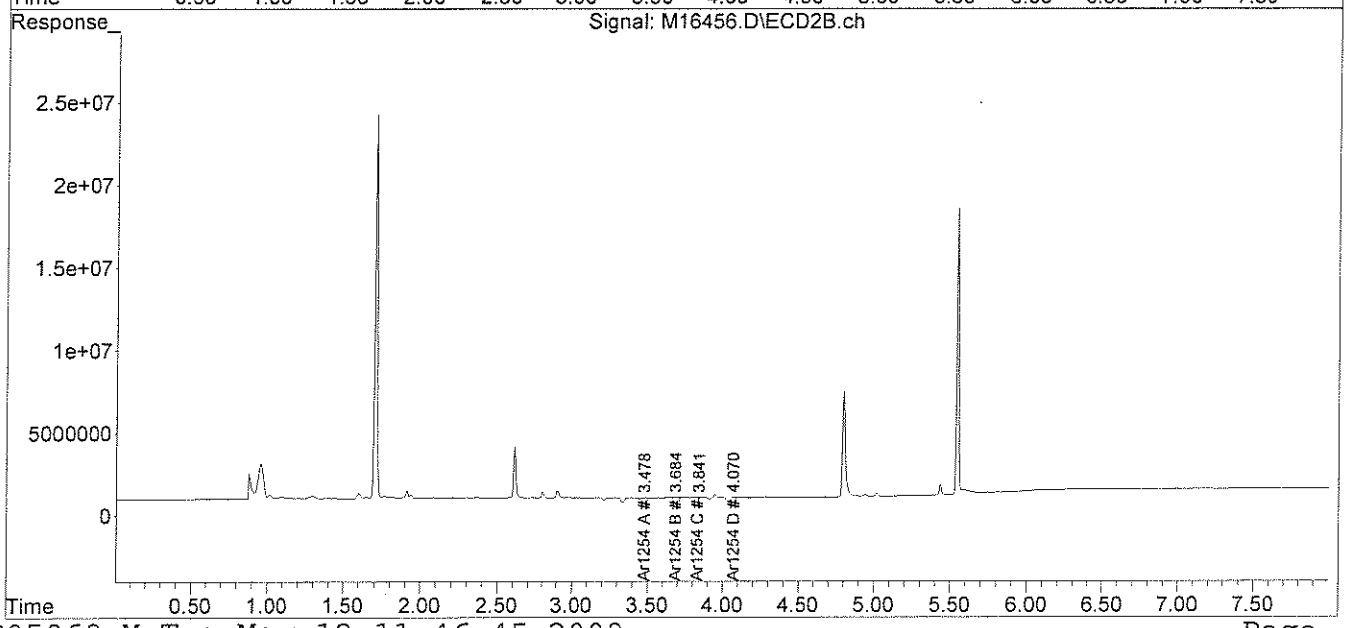
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16456.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 12 May 2009 9:41 am
Operator :
Sample : B05079PAS,RR2,,A/C
Misc : SOIL
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 11:46:44 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID: B05119PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 05/11/09
Analysis Date: 05/12/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	86	%
Decachlorobiphenyl	80	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

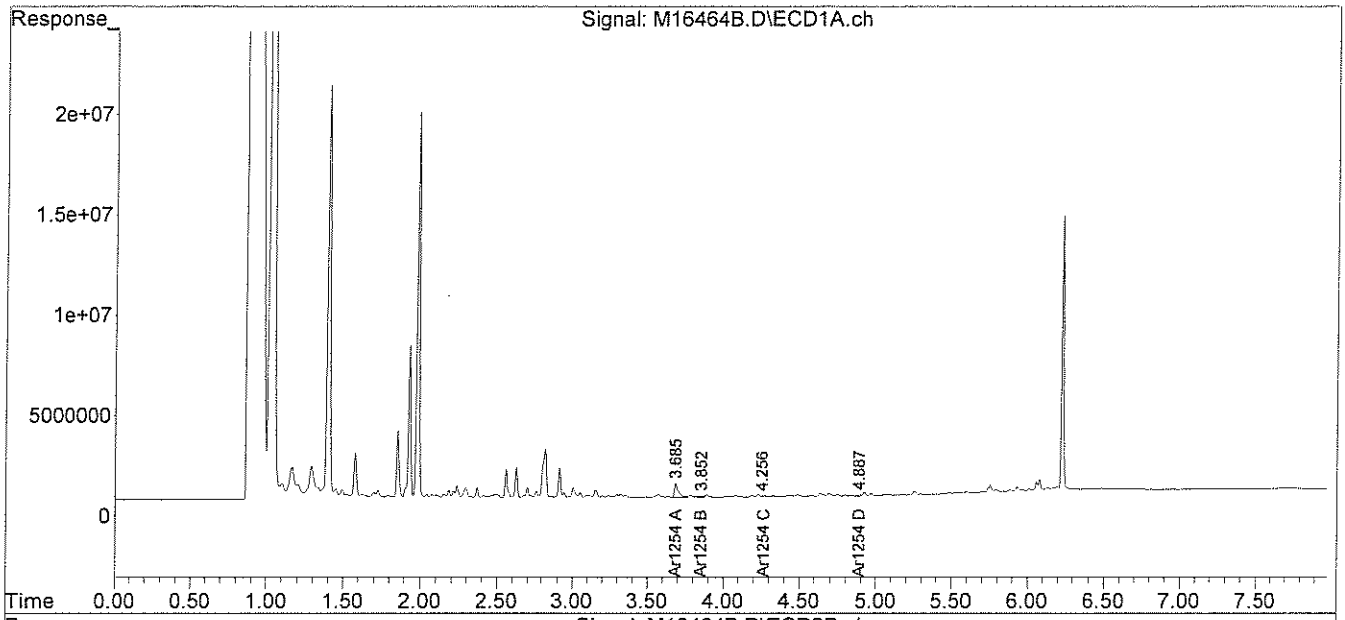
Authorized signature

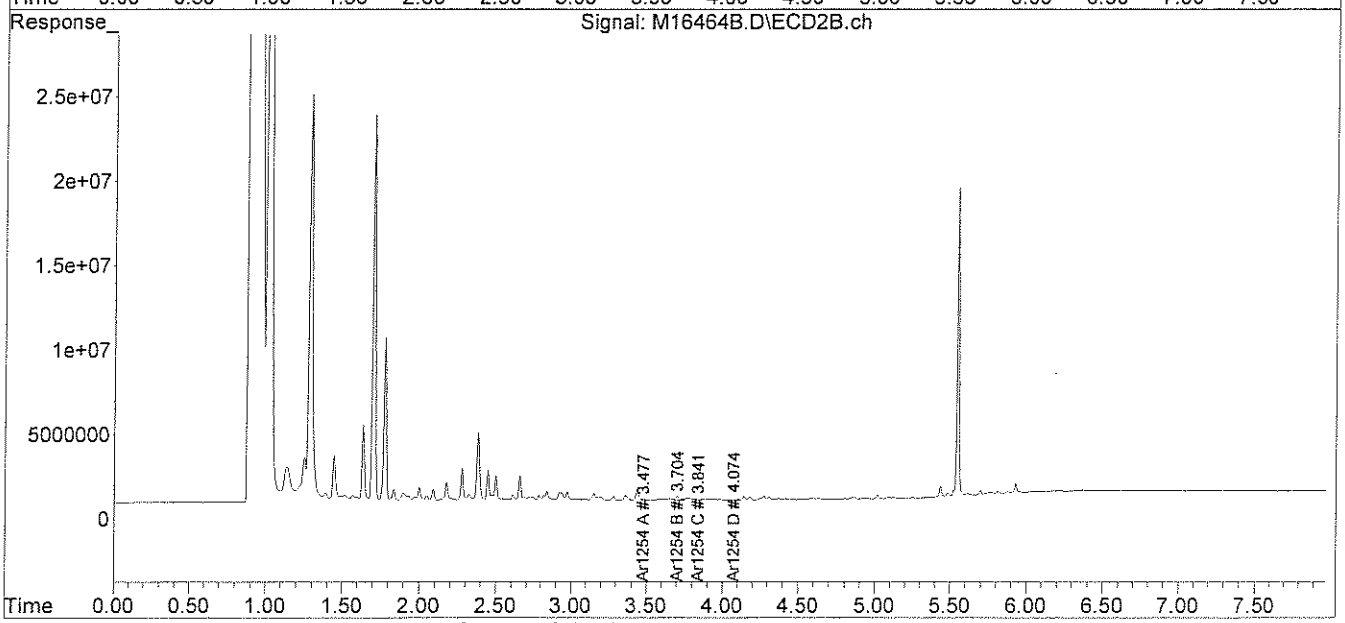
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16464B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 12 May 2009 11:22 am
Operator :
Sample : B05119PSOX,,A/C
Misc : SOIL
ALS Vial : 90 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 12:46:44 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-1
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	1.0
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/08/09
Analysis Date:	05/11/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-116

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**82**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	82	%
Decachlorobiphenyl	69	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63835

Sample: 63835-1,,A/C

Data File: M16433.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	64	82	24.4	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

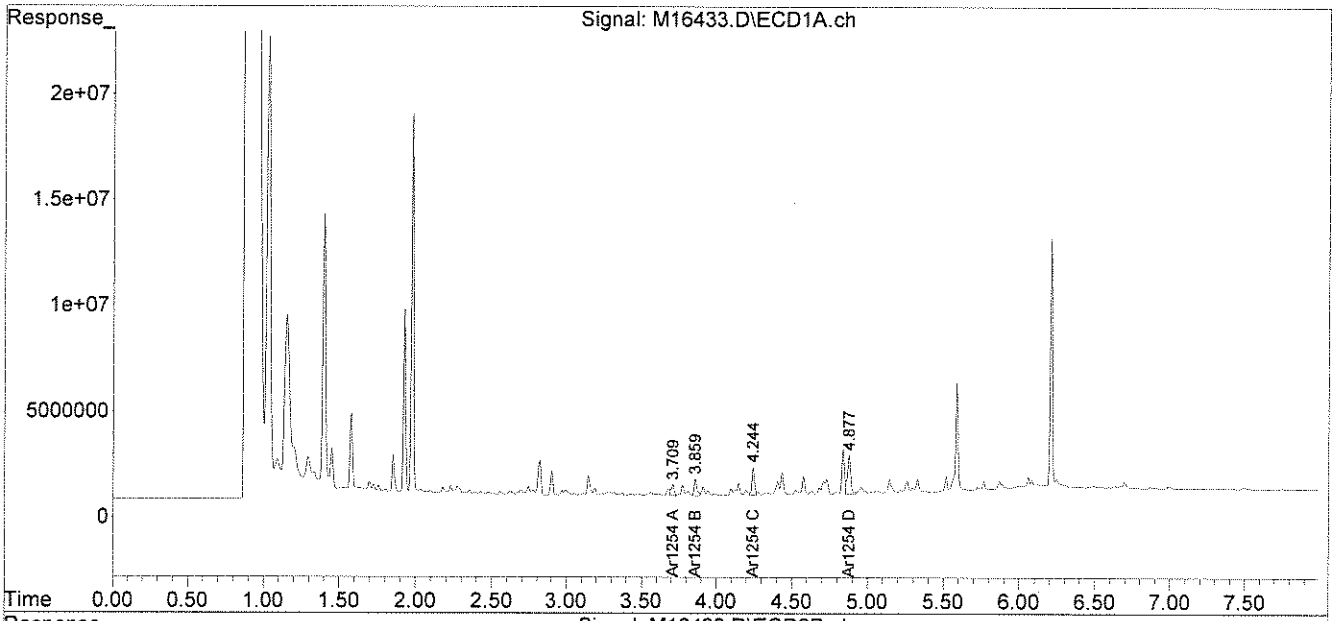
Comments: _____

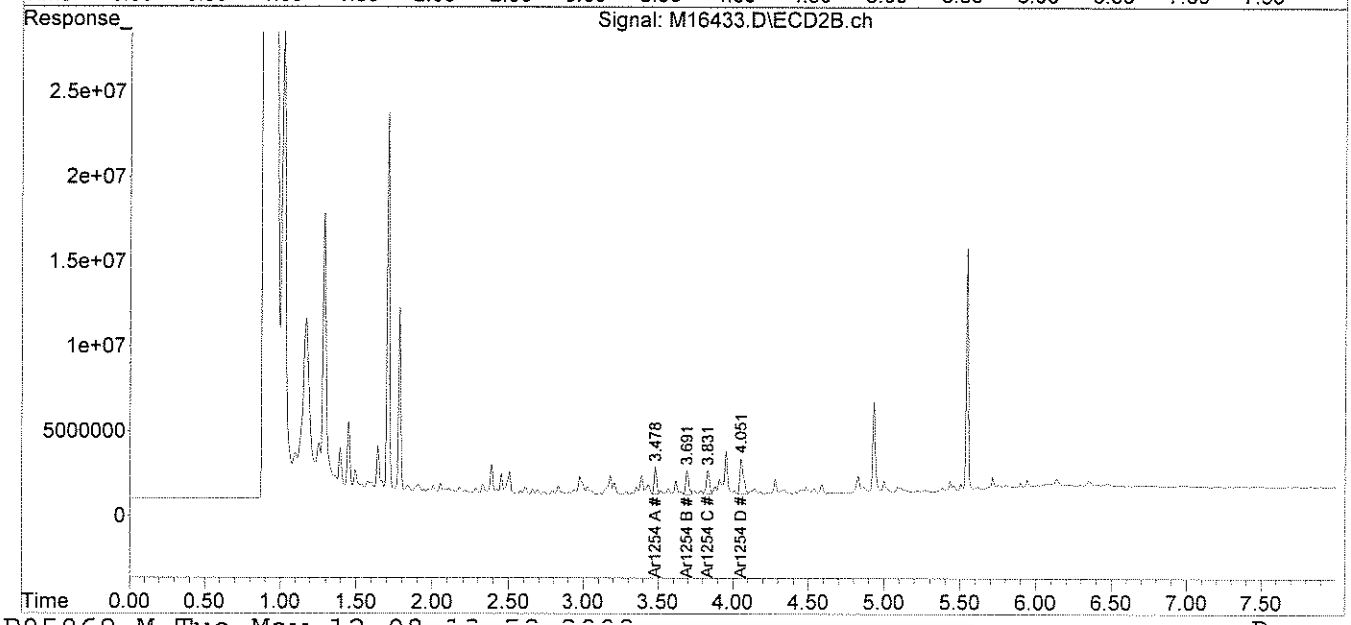
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16433.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 11 May 2009 5:15 pm
Operator :
Sample : 63835-1,,A/C
Misc : SOIL
ALS Vial : 68 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 08:13:58 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-2
Matrix:	Solid
Percent Solid:	83
Dilution Factor:	6
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/08/09
Analysis Date:	05/12/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-117

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	200	U
PCB-1221	200	U
PCB-1232	200	U
PCB-1242	200	U
PCB-1248	200	U
PCB-1254	200	**2300**
PCB-1260	200	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	98	%
Decachlorobiphenyl	84	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63835

Sample: 63835-2,1:5,,A/C

Data File: M16461.D

Dilution Factor: 5.9

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	1767	2300	26.2	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

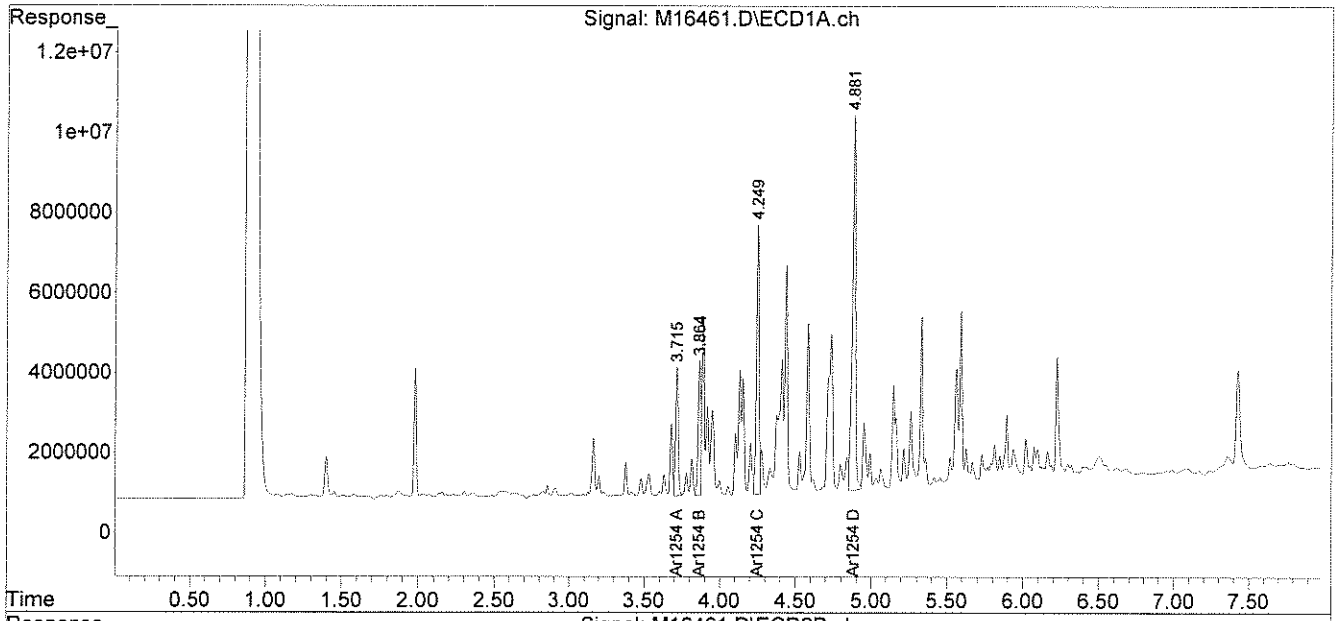
PCB FORM 10

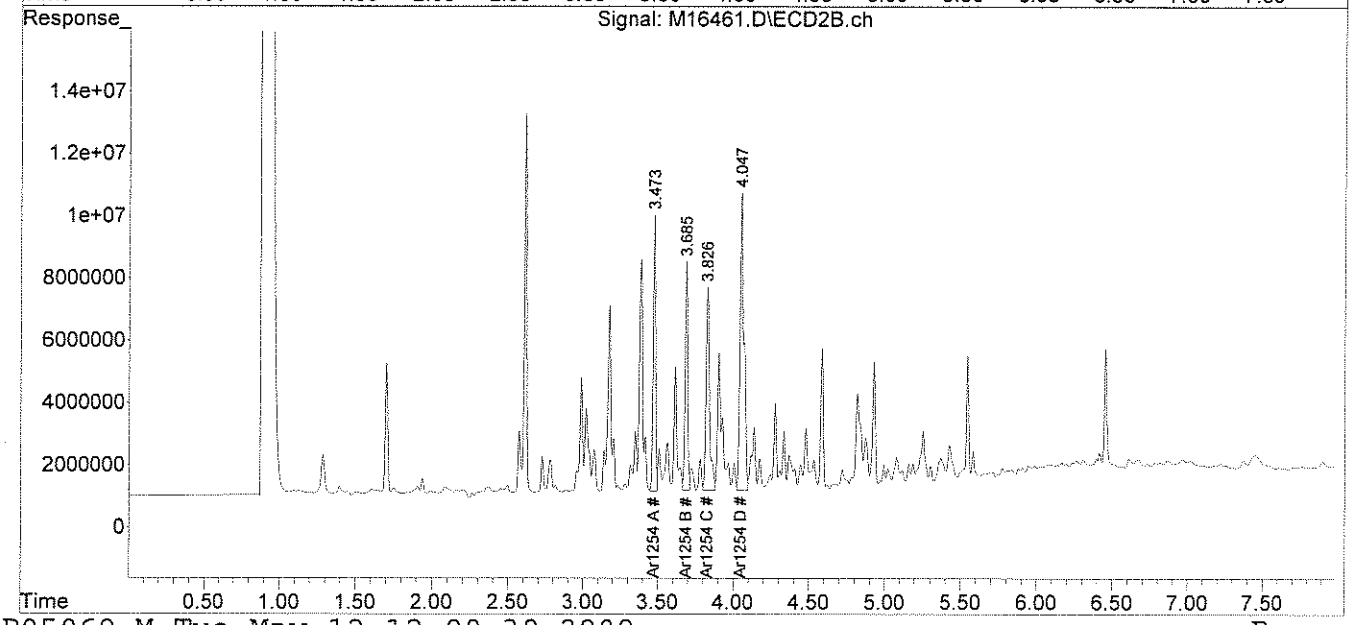
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16461.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 12 May 2009 10:37 am
Operator :
Sample : 63835-2,1:5,,A/C
Misc : SOIL
ALS Vial : 87 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 12:00:24 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-3
Matrix:	Solid
Percent Solid:	91
Dilution Factor:	1.0
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/08/09
Analysis Date:	05/12/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-118

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**101**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	79	%
Decachlorobiphenyl	72	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63835

Sample: 63835-3,,A/C

Data File: M16459.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	101	72	33.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

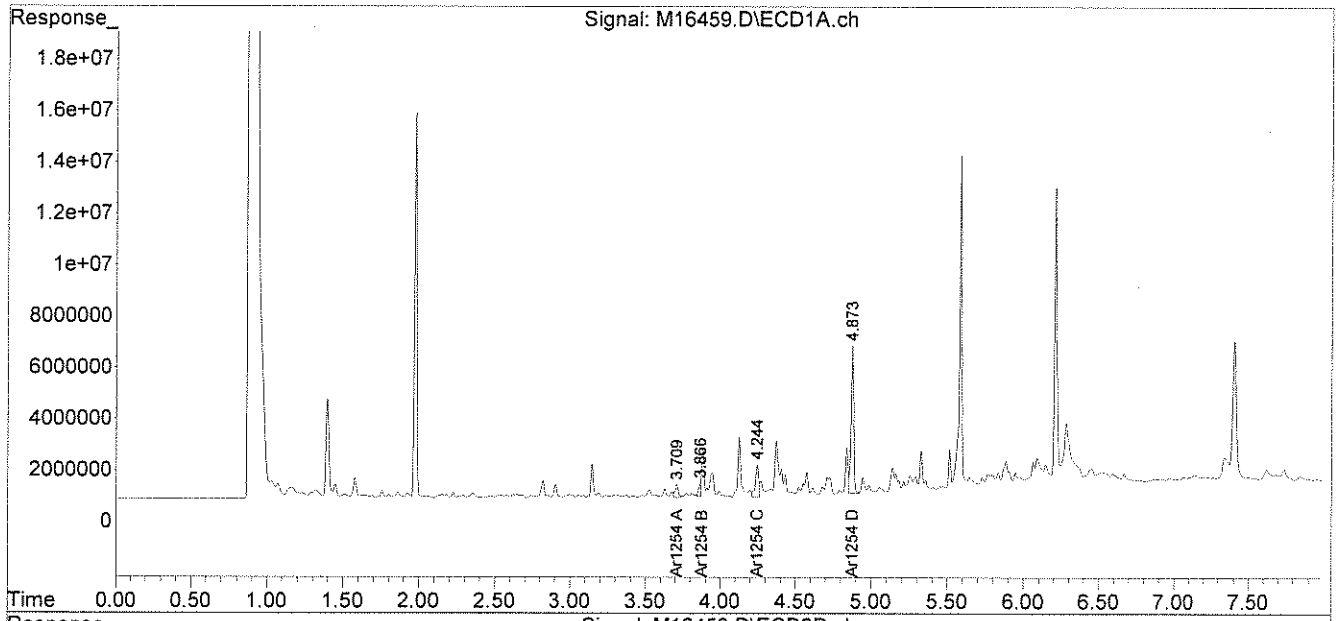
PCB FORM 10

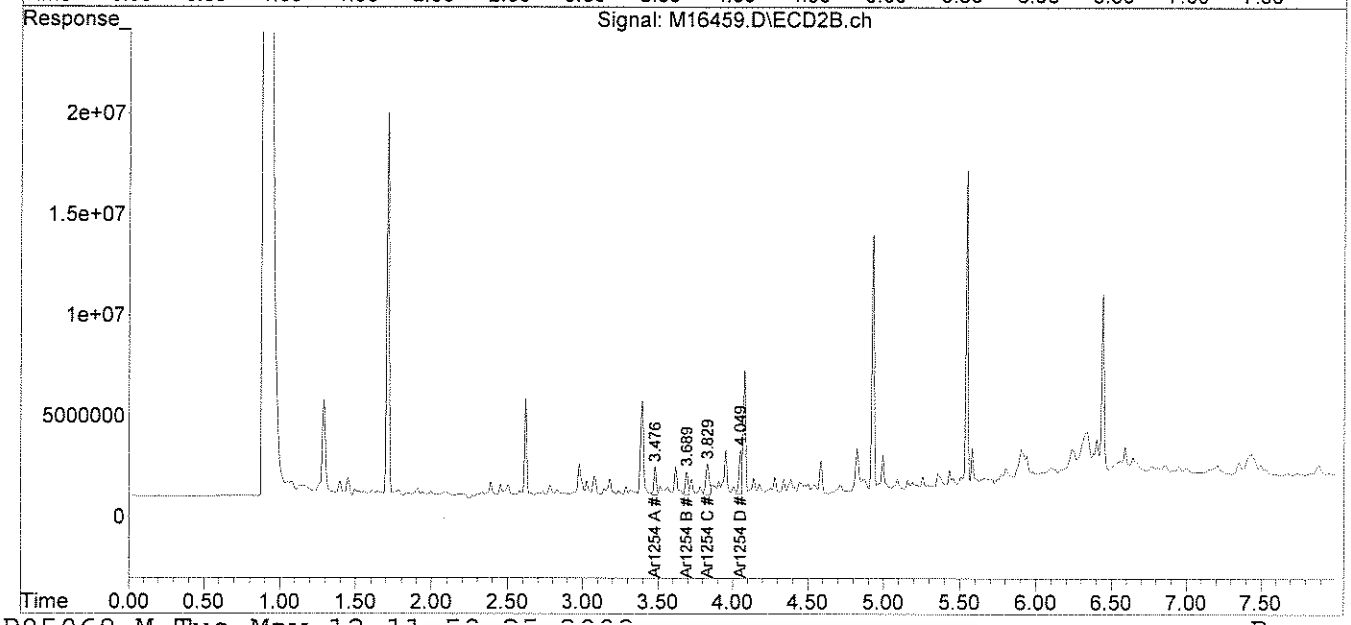
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16459.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 12 May 2009 10:11 am
Operator :
Sample : 63835-3,,A/C
Misc : SOIL
ALS Vial : 86 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 11:58:18 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-4
Matrix:	Solid
Percent Solid:	76
Dilution Factor:	1.3
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/08/09
Analysis Date:	05/12/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-119

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	43	U
PCB-1221	43	U
PCB-1232	43	U
PCB-1242	43	U
PCB-1248	43	U
PCB-1254	43	**543**
PCB-1260	43	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	115	%
Decachlorobiphenyl	90	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63835

Sample: 63835-4,,A/C

Data File: M16446.D

Dilution Factor: 1.3

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	543	433	22.5	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

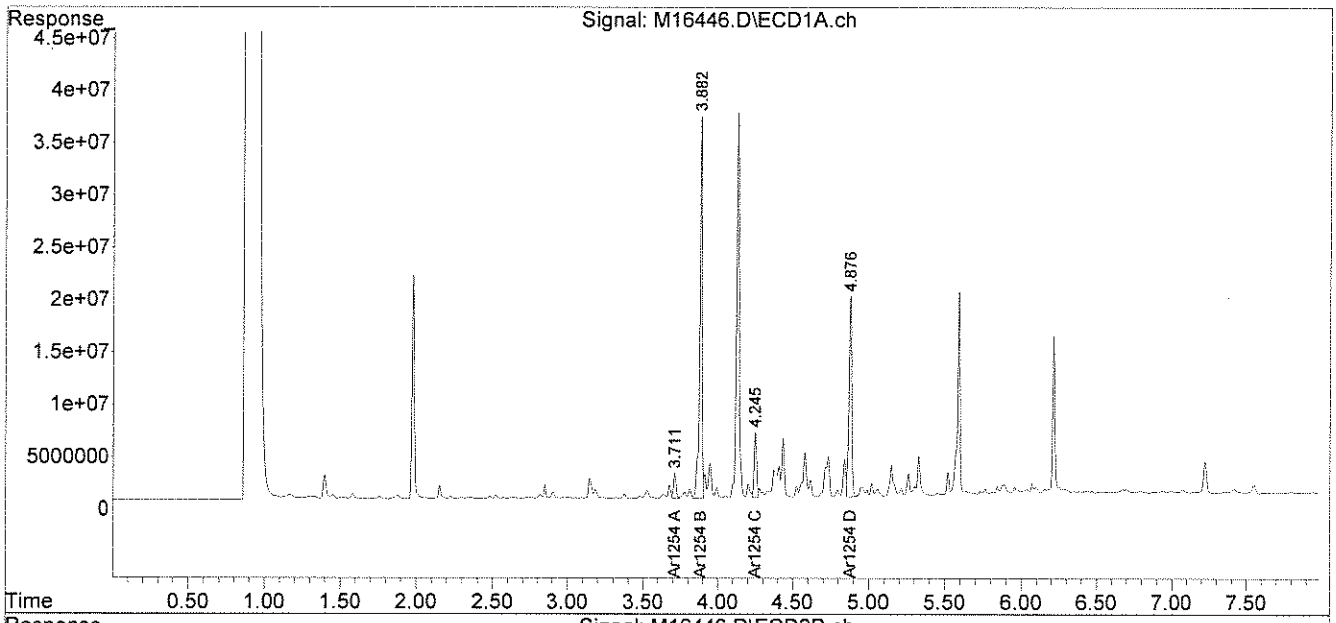
PCB FORM 10

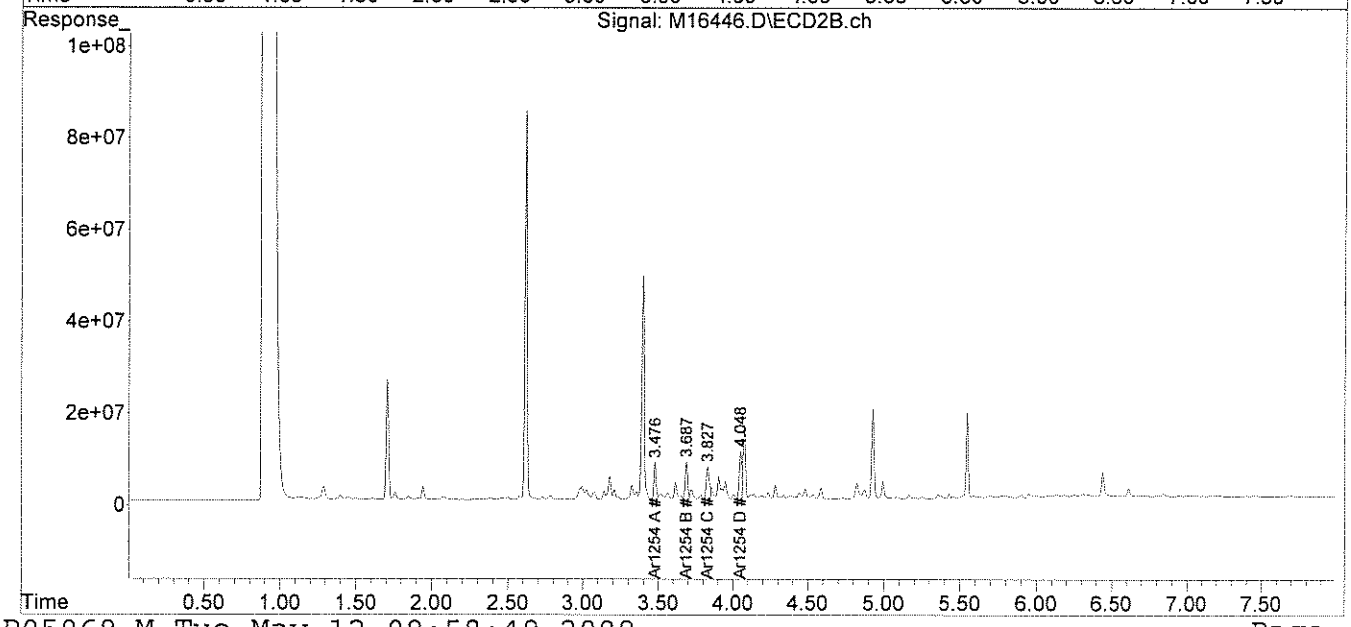
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16446.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 12 May 2009 7:58 am
Operator :
Sample : 63835-4,,A/C
Misc : SOIL
ALS Vial : 76 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 09:58:49 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-5
Matrix:	Solid
Percent Solid:	94
Dilution Factor:	1.0
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/08/09
Analysis Date:	05/11/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-120

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	91	%
Decachlorobiphenyl	75	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

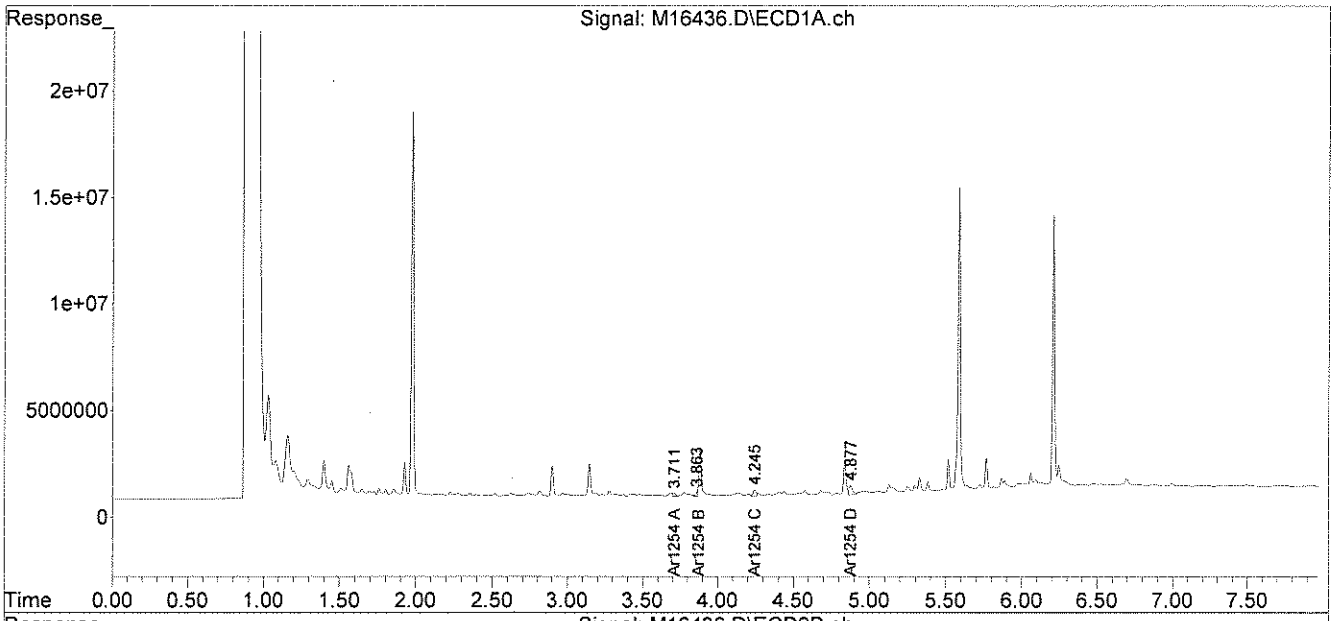
Authorized signature

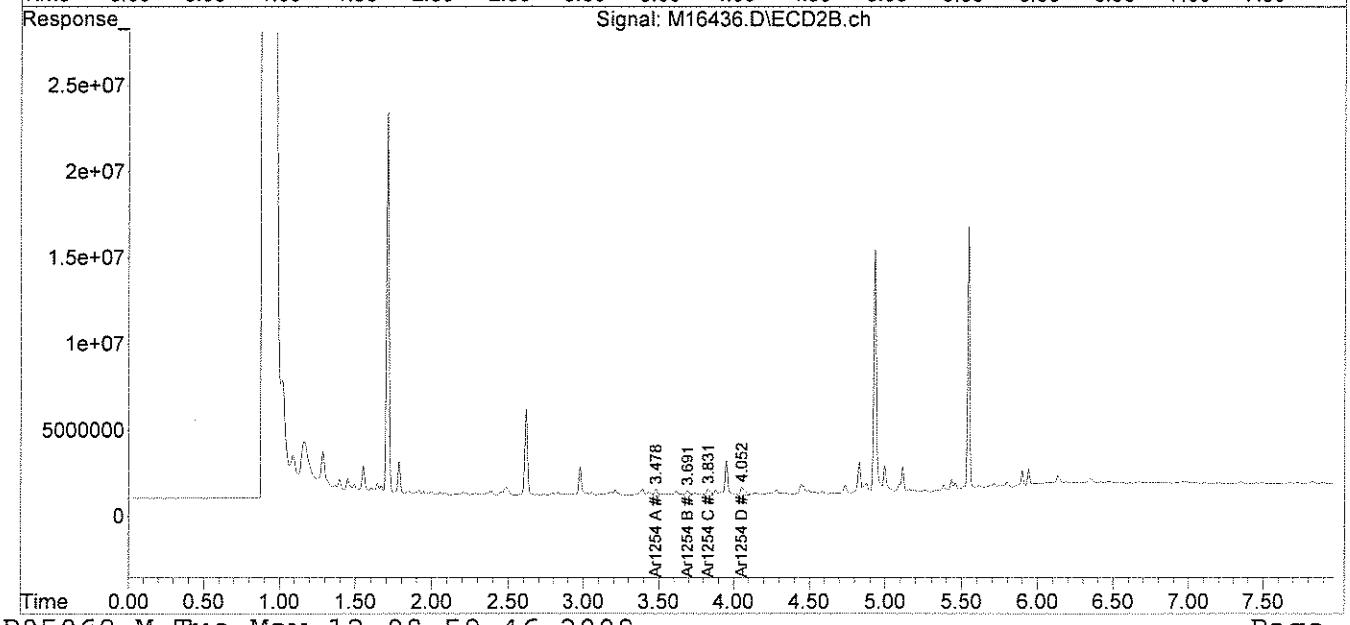
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16436.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 11 May 2009 5:45 pm
Operator :
Sample : 63835-5,,A/C
Misc : SOIL
ALS Vial : 71 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 08:59:33 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-6
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	1.0
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/08/09
Analysis Date:	05/11/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-121

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	90	%
Decachlorobiphenyl	70	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

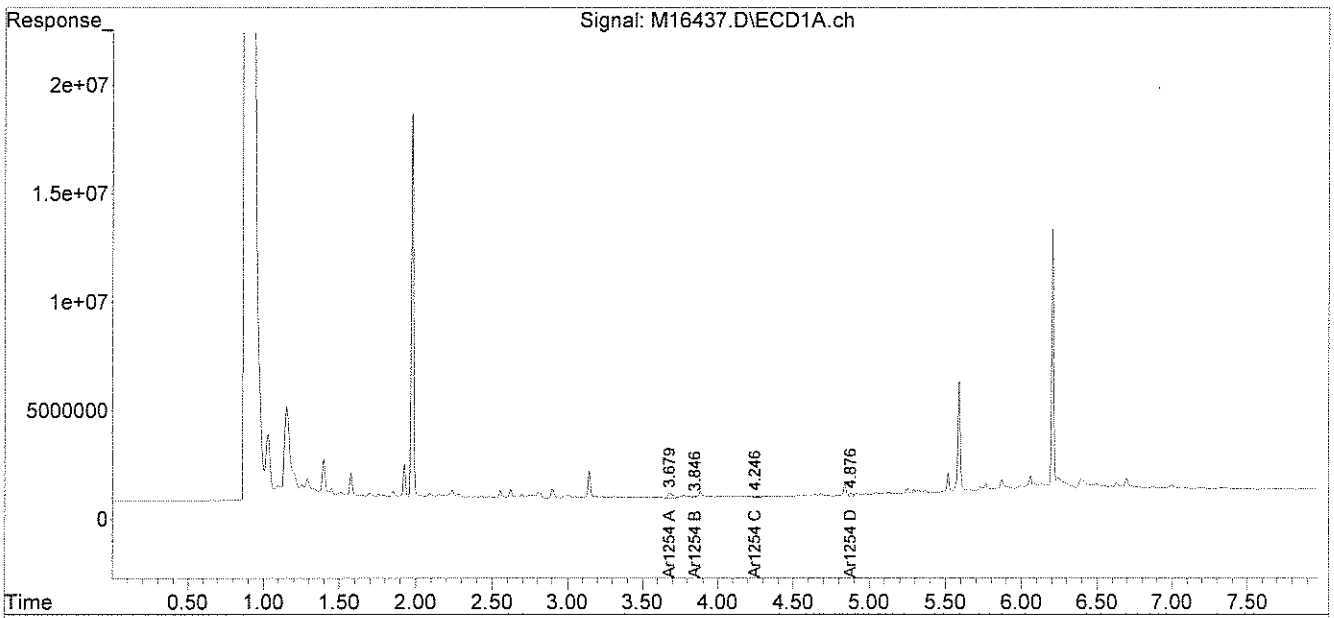
Authorized signature

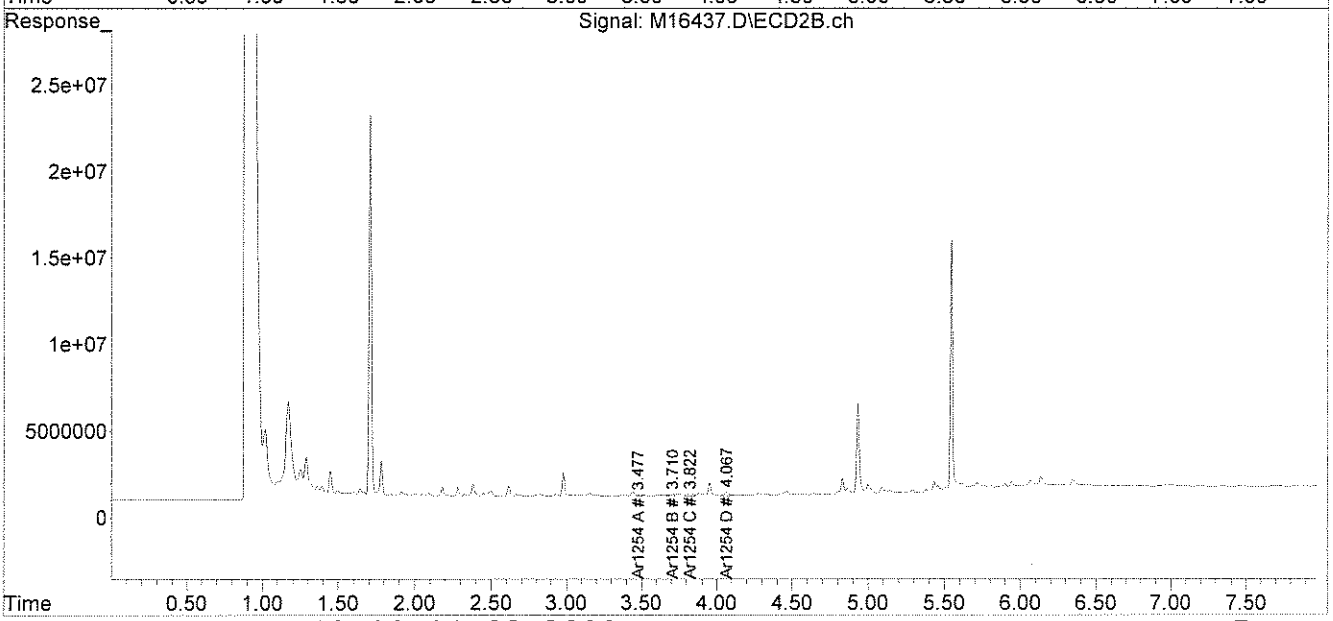
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16437.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 11 May 2009 5:55 pm
Operator :
Sample : 63835-6,,A/C
Misc : SOIL
ALS Vial : 72 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 08:14:02 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-7
Matrix:	Solid
Percent Solid:	93
Dilution Factor:	1.0
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/08/09
Analysis Date:	05/12/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-122

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**164**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	104	%
Decachlorobiphenyl	74	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63835

Sample: 63835-7,,A/C

Data File: M16450.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	120	164	31.2	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

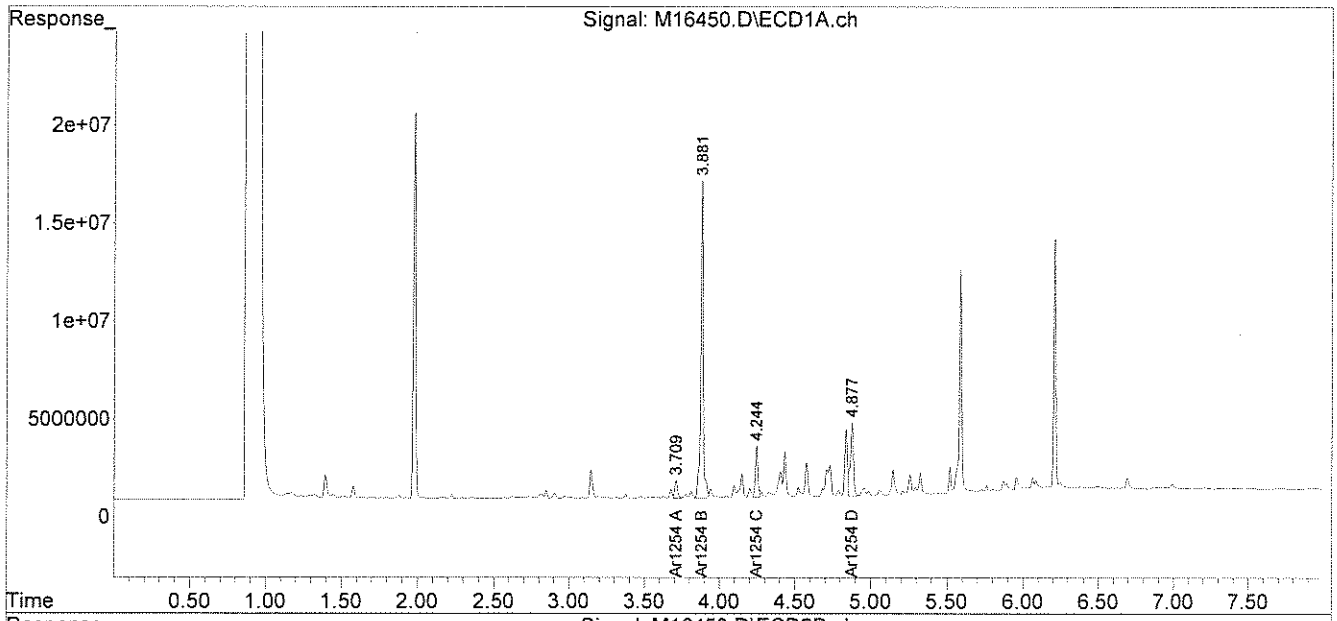
PCB FORM 10

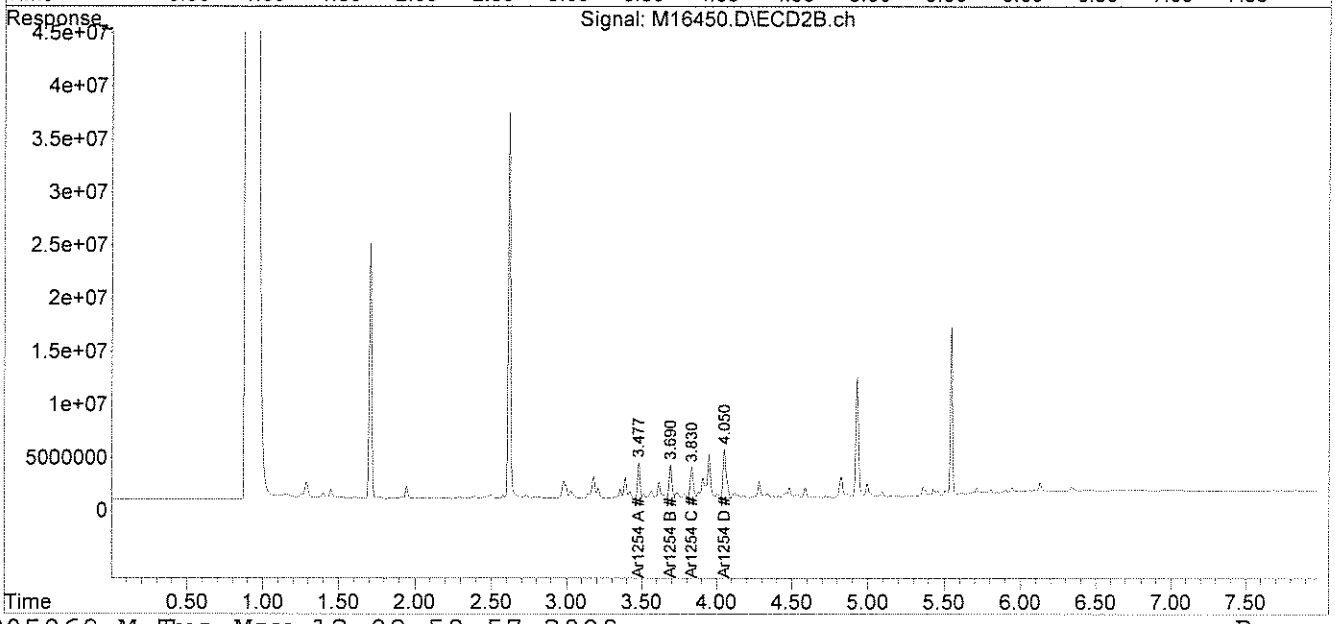
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16450.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 12 May 2009 8:39 am
Operator :
Sample : 63835-7,,A/C
Misc : SOIL
ALS Vial : 80 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 09:58:57 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-8
Matrix:	Solid
Percent Solid:	94
Dilution Factor:	1.0
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/08/09
Analysis Date:	05/11/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-123

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	89	%
Decachlorobiphenyl	66	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

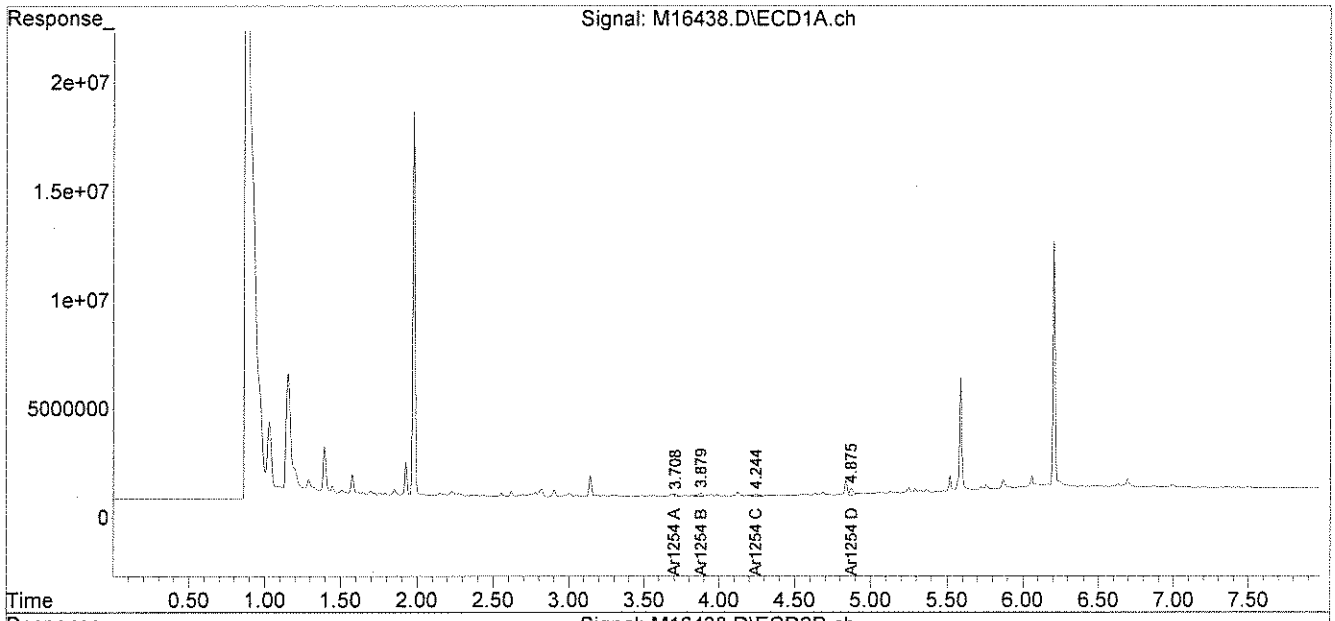
Authorized signature

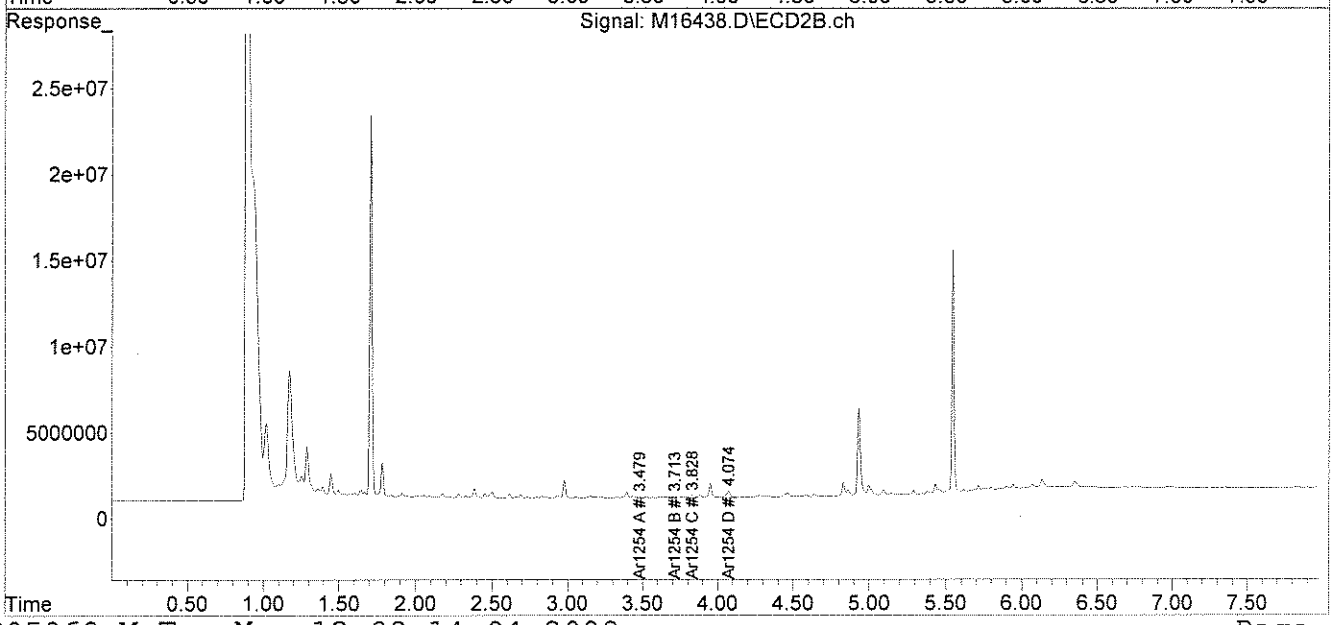
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16438.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 11 May 2009 6:05 pm
Operator :
Sample : 63835-8,,A/C
Misc : SOIL
ALS Vial : 73 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 08:14:04 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-9
Matrix:	Solid
Percent Solid:	91
Dilution Factor:	1.1
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/08/09
Analysis Date:	05/11/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-124

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**163**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	94	%
Decachlorobiphenyl	72	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63835

Sample: 63835-9,,A/C

Data File: M16439.D

Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	117	163	32.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

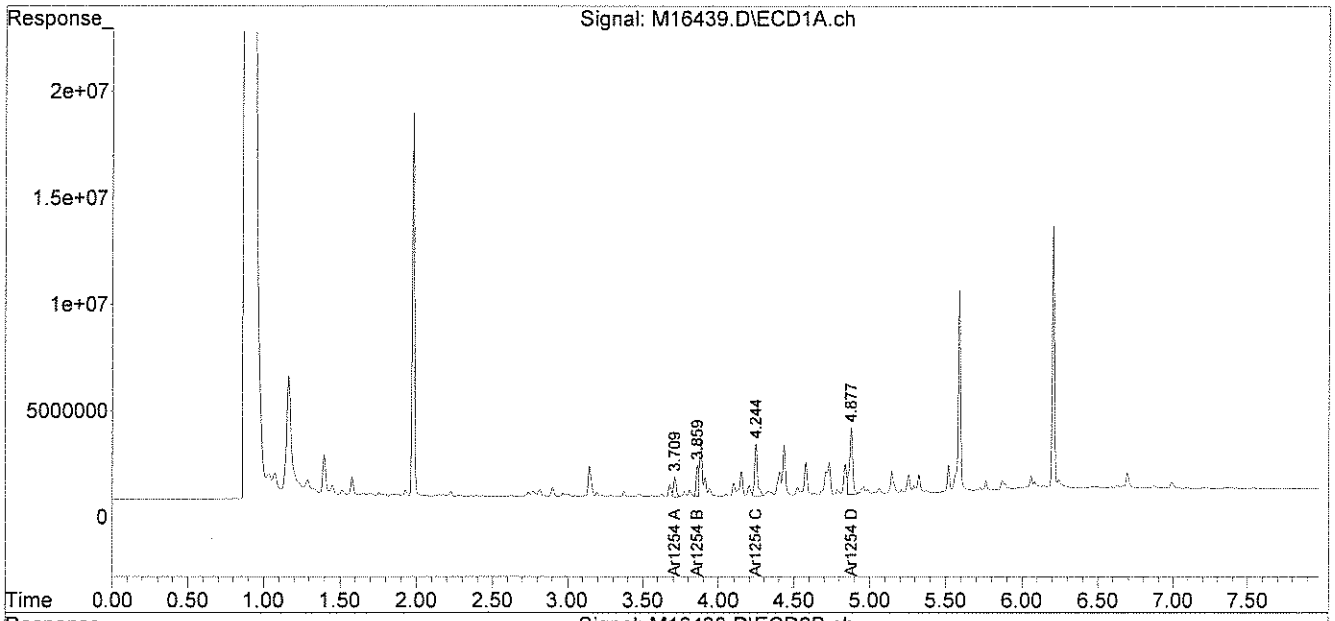
PCB FORM 10

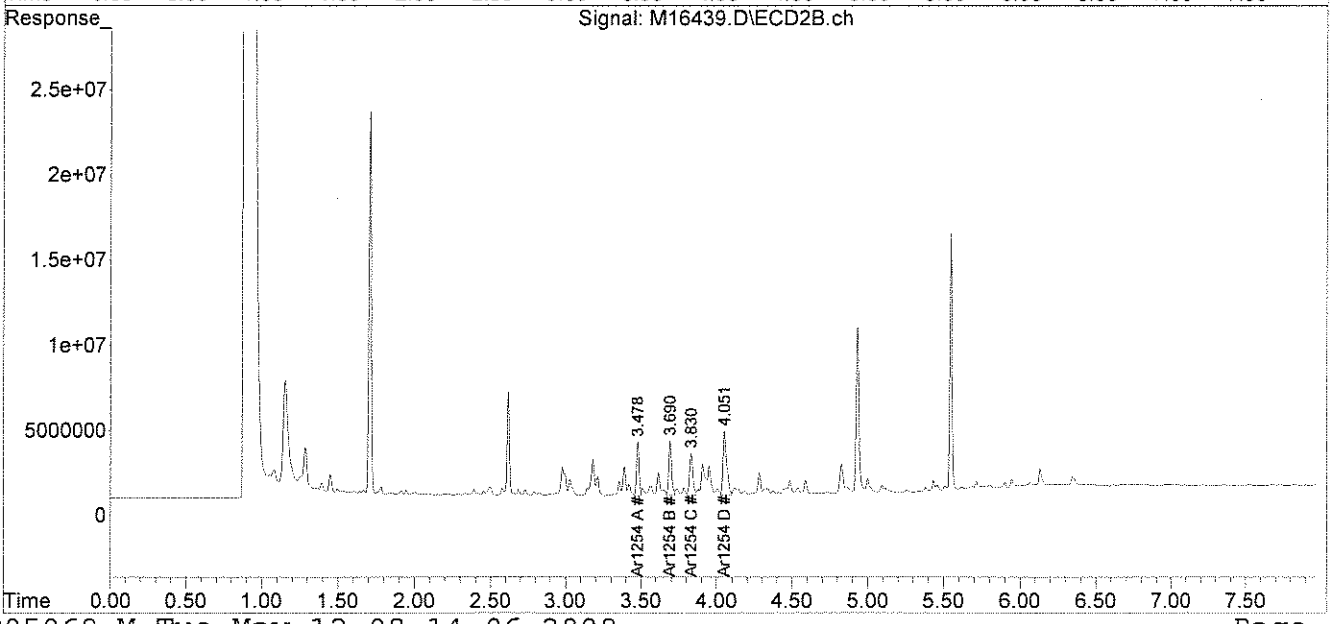
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16439.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 11 May 2009 6:15 pm
Operator :
Sample : 63835-9,,A/C
Misc : SOIL
ALS Vial : 74 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 08:14:06 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-10
Matrix:	Solid
Percent Solid:	90
Dilution Factor:	1.1
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/08/09
Analysis Date:	05/11/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-125

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**103**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	86	%
Decachlorobiphenyl	69	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63835
Sample: 63835-10,,A/C
Data File: M16440.D
Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	103	98	4.7	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

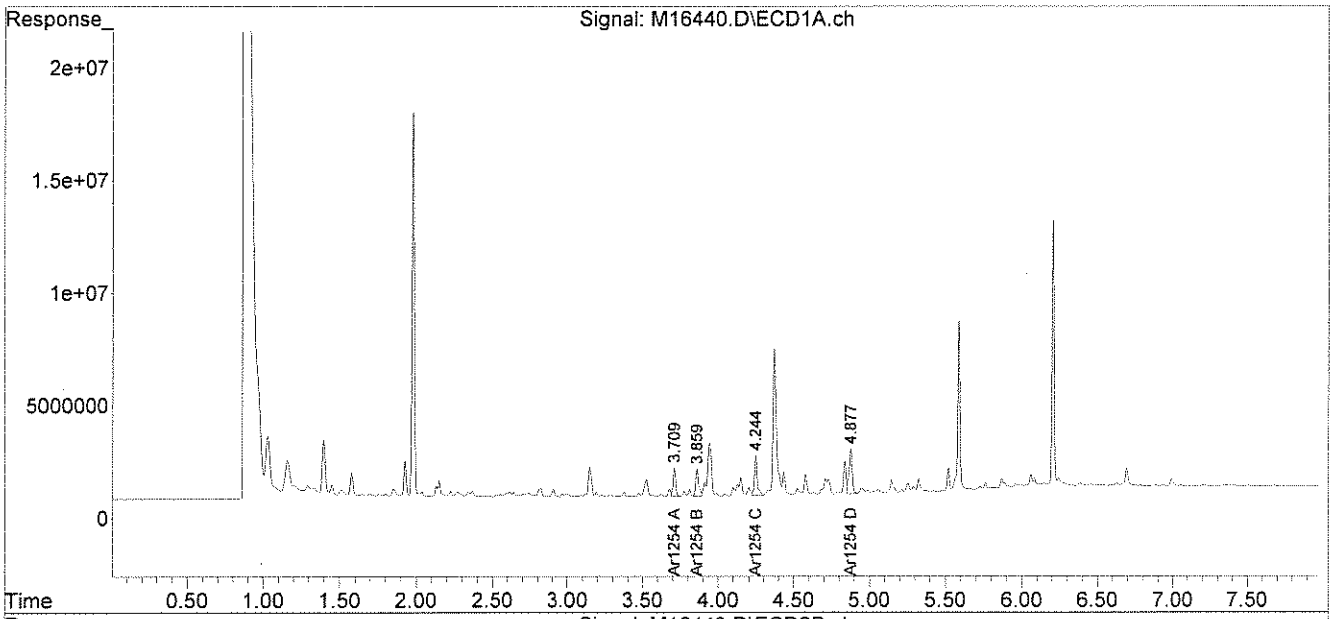
PCB FORM 10

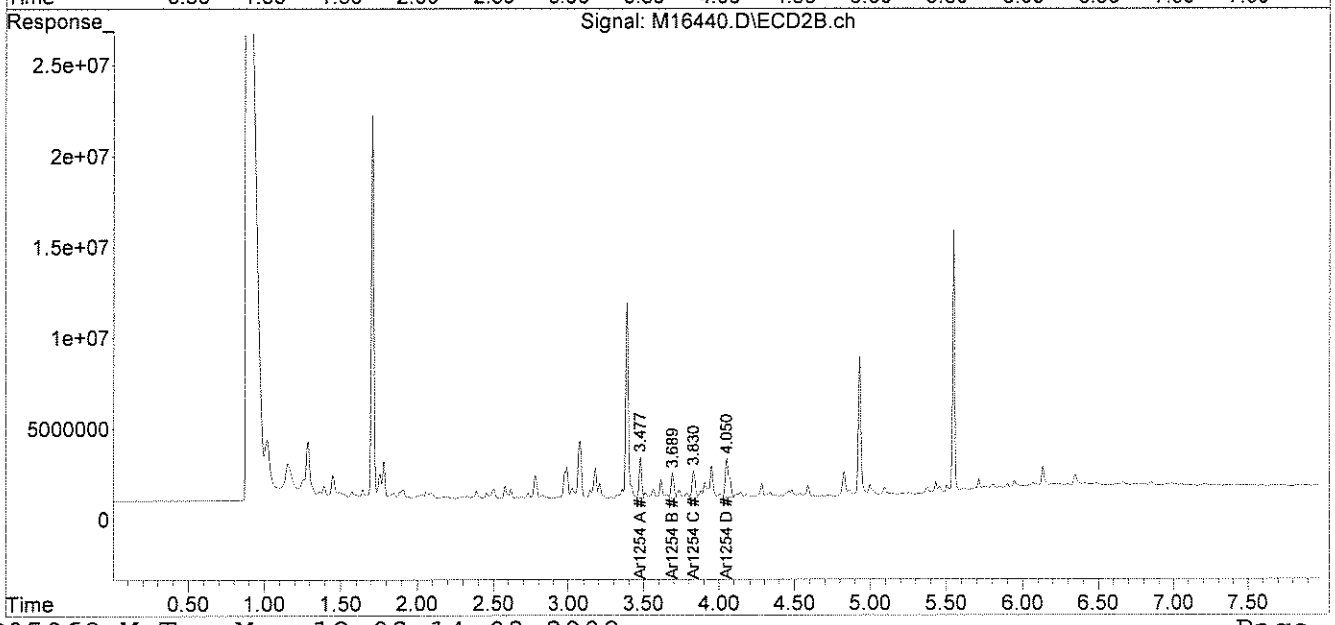
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16440.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 11 May 2009 6:25 pm
Operator :
Sample : 63835-10,,A/C
Misc : SOIL
ALS Vial : 75 Sample Multiplier: 1

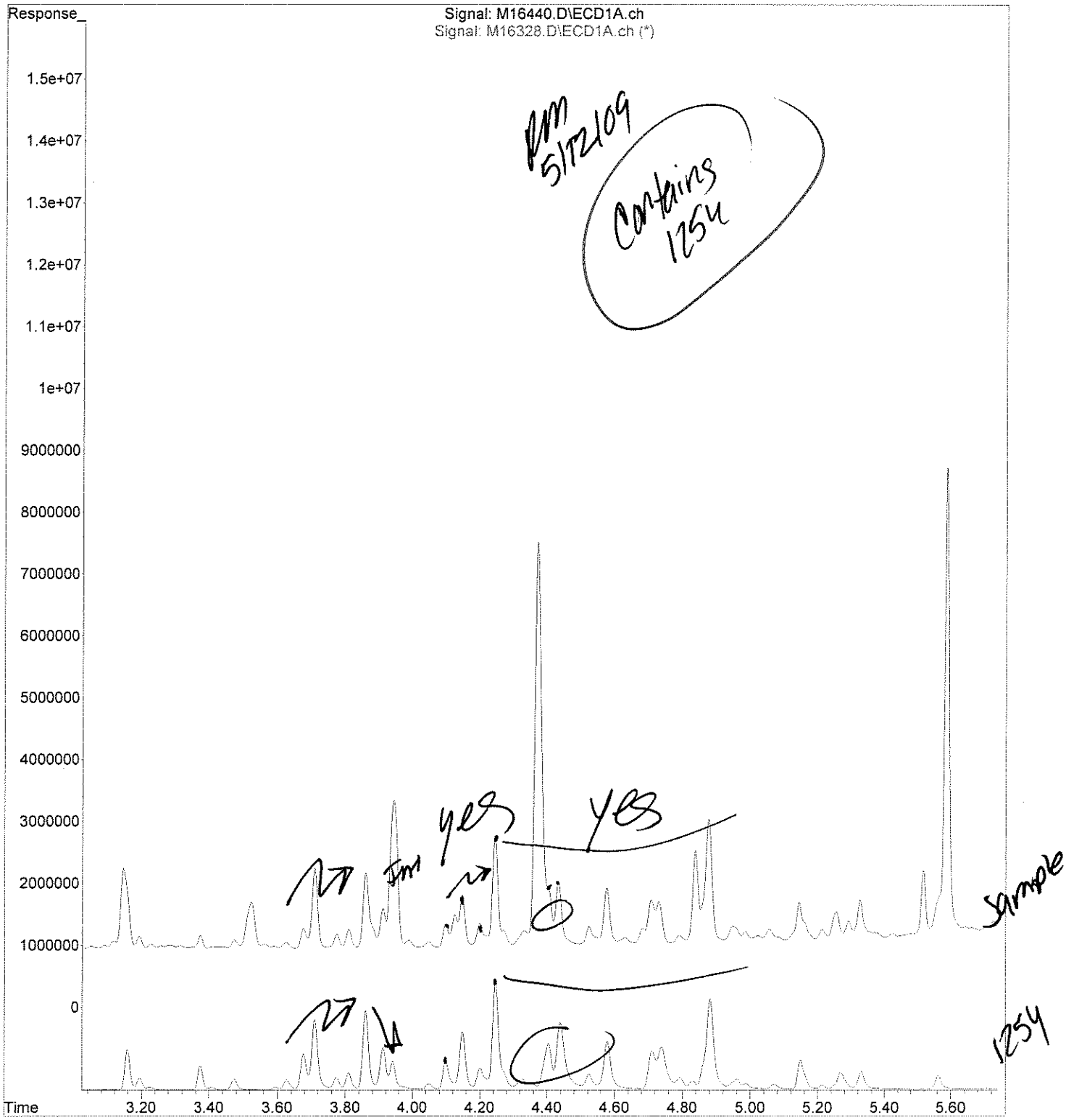
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 08:14:08 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\051109-M\M16440.D
Operator :
Acquired : 11 May 2009 6:25 pm using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63835-10,,A/C
Misc Info : SOIL
Vial Number: 75



DJ 12/09

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-11
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	1.5
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/08/09
Analysis Date:	05/11/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-126

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	50	U
PCB-1221	50	U
PCB-1232	50	U
PCB-1242	50	U
PCB-1248	50	U
PCB-1254	50	**120**
PCB-1260	50	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	97	%
Decachlorobiphenyl	78	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63835
Sample: 63835-11,,A/C
Data File: M16441.D
Dilution Factor: 1.5

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	105	120	13.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

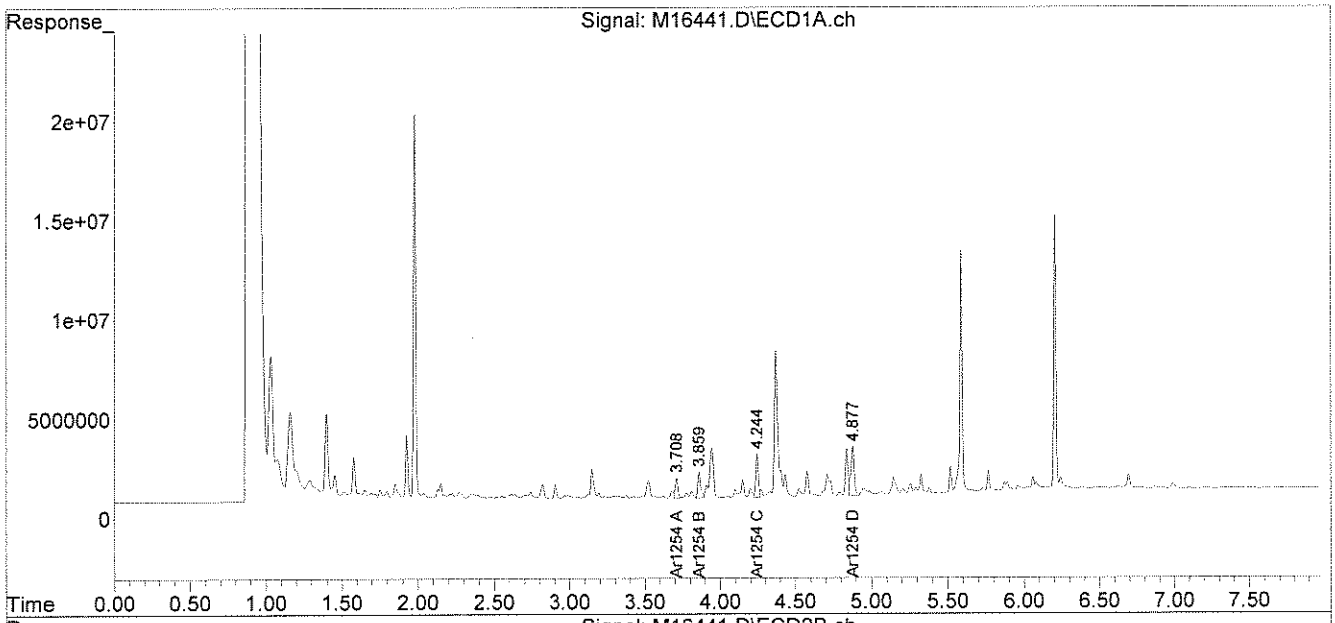
PCB FORM 10

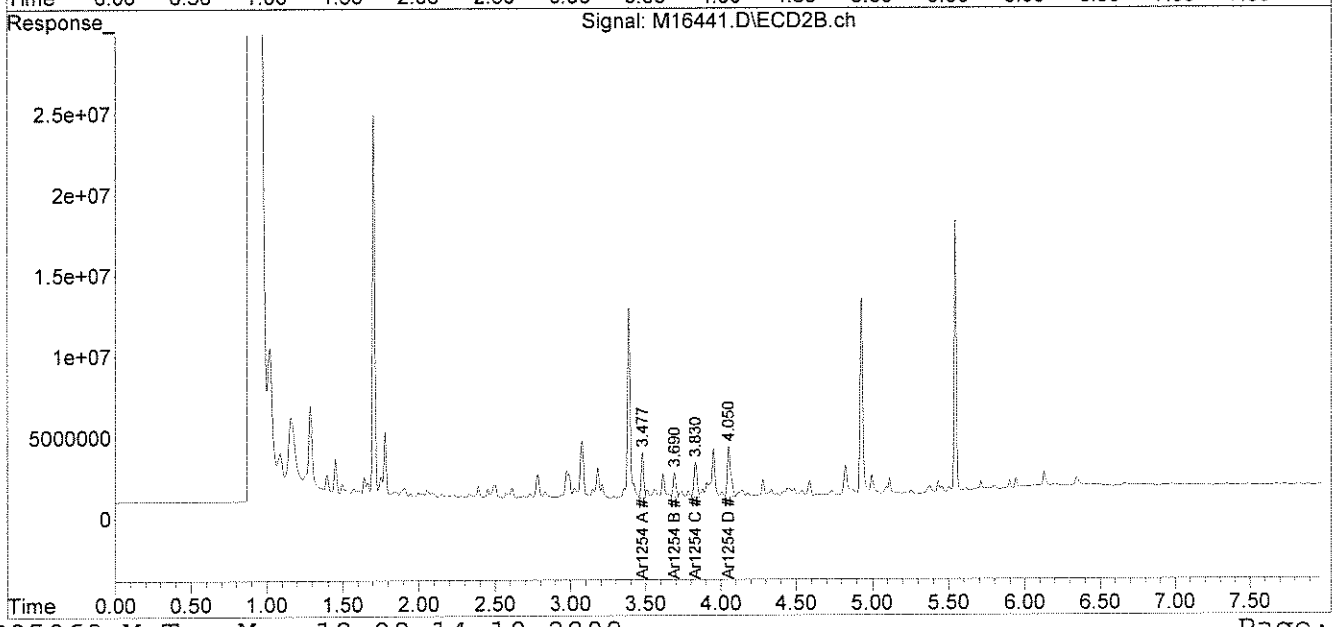
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16441.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 11 May 2009 6:35 pm
Operator :
Sample : 63835-11,,A/C
Misc : SOIL
ALS Vial : 76 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 08:14:10 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-12
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	1.0
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/08/09
Analysis Date:	05/11/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-127

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**249**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	90	%
Decachlorobiphenyl	74	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63835

Sample: 63835-12,,A/C

Data File: M16442.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	212	249	16.1	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

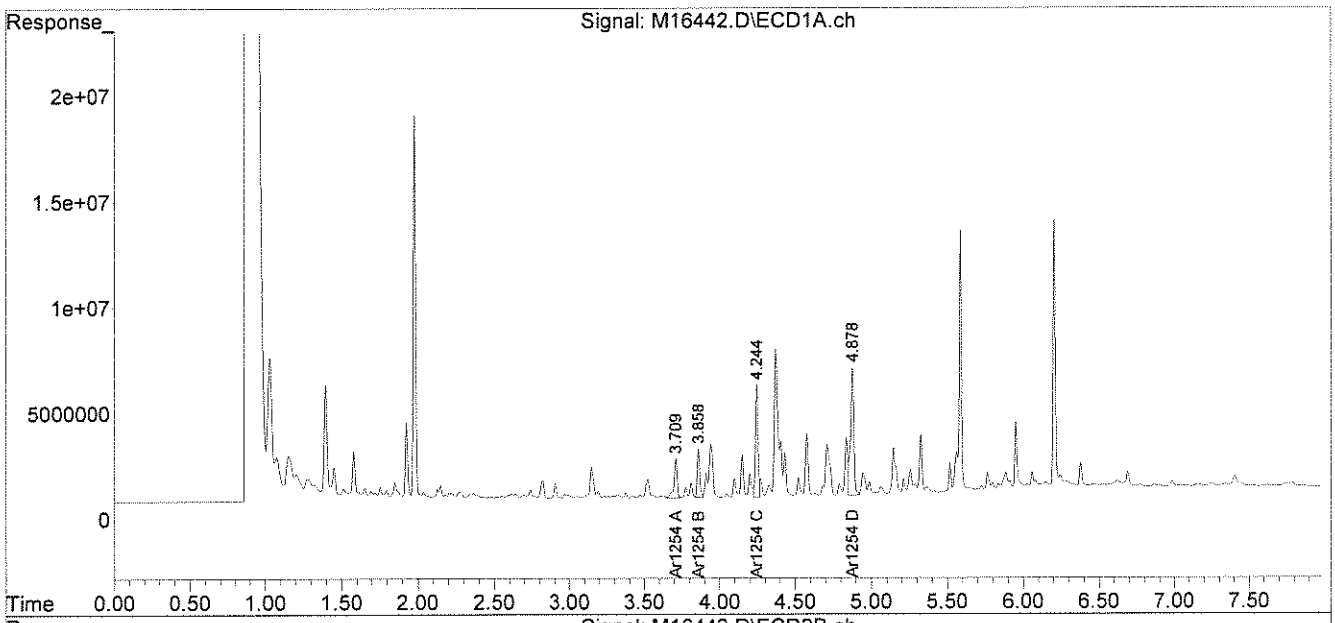
PCB FORM 10

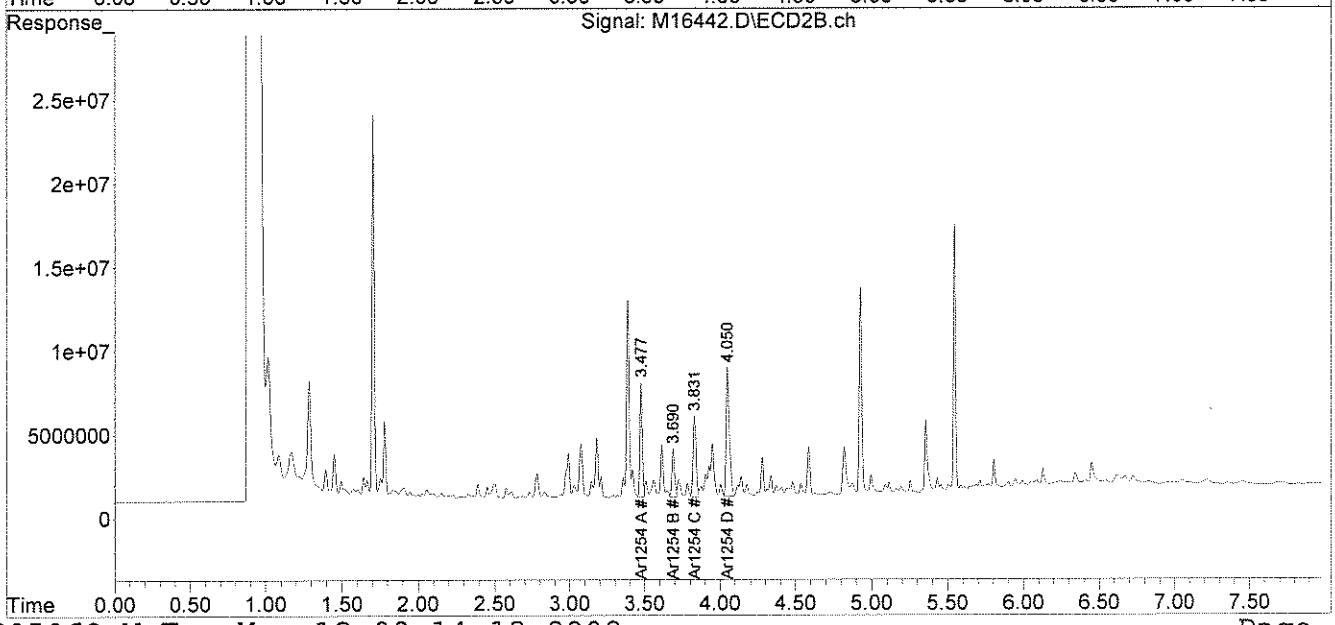
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16442.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 11 May 2009 6:45 pm
Operator :
Sample : 63835-12,,A/C
Misc : SOIL
ALS Vial : 77 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 08:14:12 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-13
Matrix:	Solid
Percent Solid:	94
Dilution Factor:	1.0
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/08/09
Analysis Date:	05/12/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-128

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**572**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	100	%
Decachlorobiphenyl	77	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63835
Sample: 63835-13,,A/C
Data File: M16447.D
Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	535	572	6.6	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

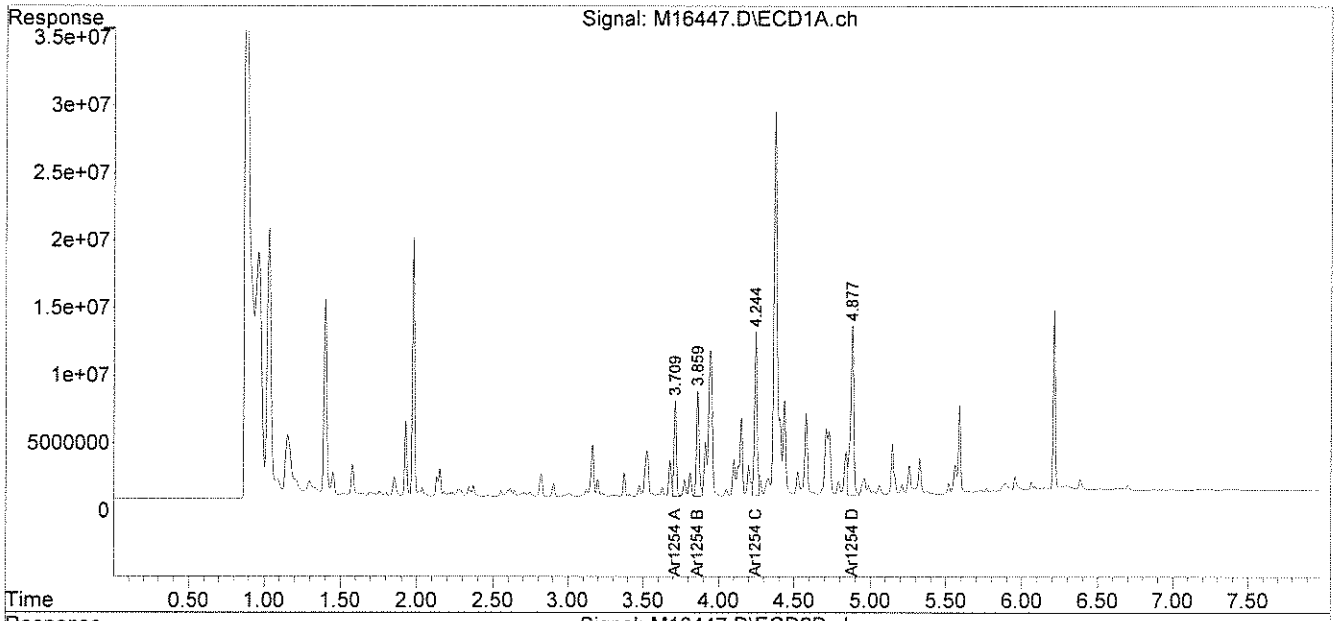
PCB FORM 10

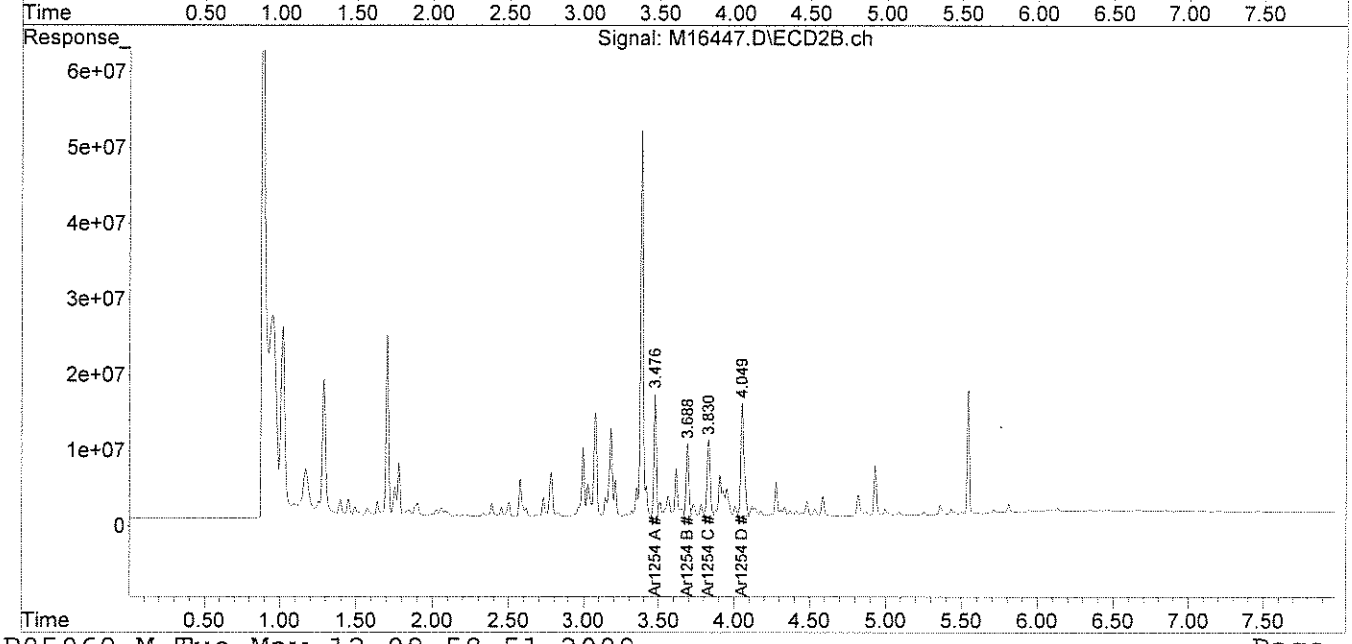
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16447.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 12 May 2009 8:09 am
Operator :
Sample : 63835-13,,A/C
Misc : SOIL
ALS Vial : 77 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 09:58:51 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-14
Matrix:	Solid
Percent Solid:	92
Dilution Factor:	1.0
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/08/09
Analysis Date:	05/12/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-129

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**195**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	97	%
Decachlorobiphenyl	75	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63835

Sample: 63835-14,,A/C

Data File: M16448.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	171	195	12.7	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

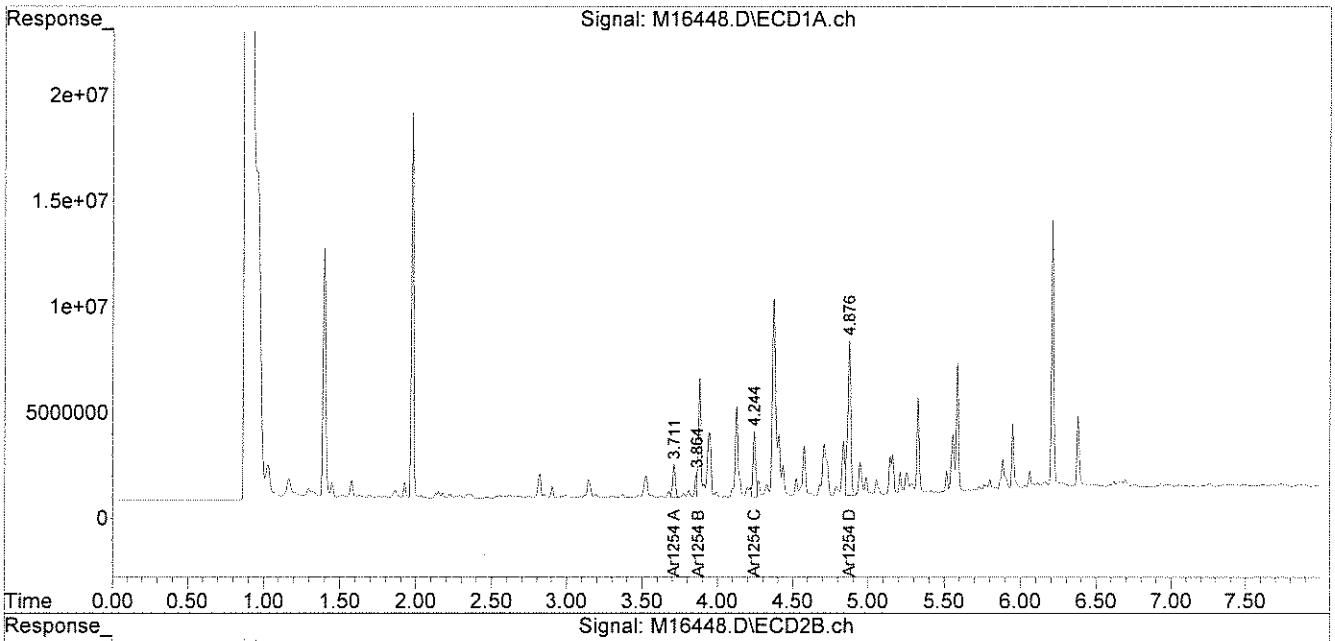
PCB FORM 10

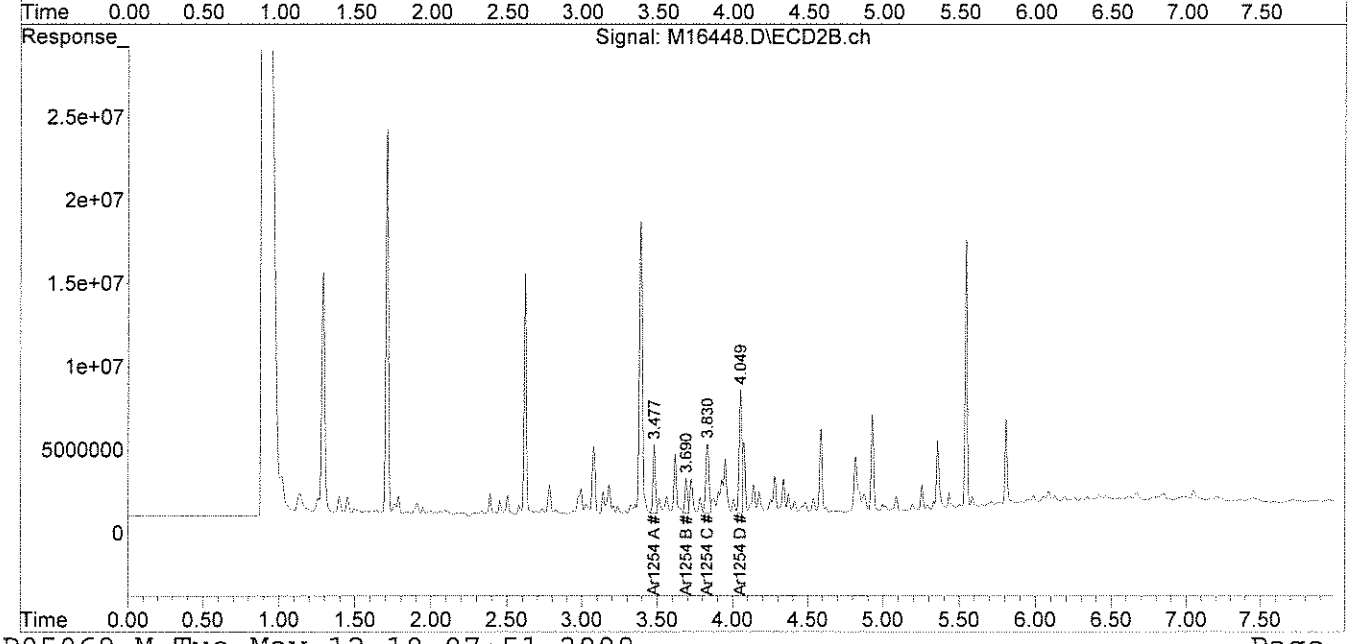
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16448.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 12 May 2009 8:19 am
Operator :
Sample : 63835-14,,A/C
Misc : SOIL
ALS Vial : 78 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 10:07:41 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-15
Matrix:	Solid
Percent Solid:	91
Dilution Factor:	1.0
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/08/09
Analysis Date:	05/12/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-130

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**946**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	99	%
Decachlorobiphenyl	82	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63835
Sample: 63835-15,,A/C
Data File: M16449.D
Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	946	938	0.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

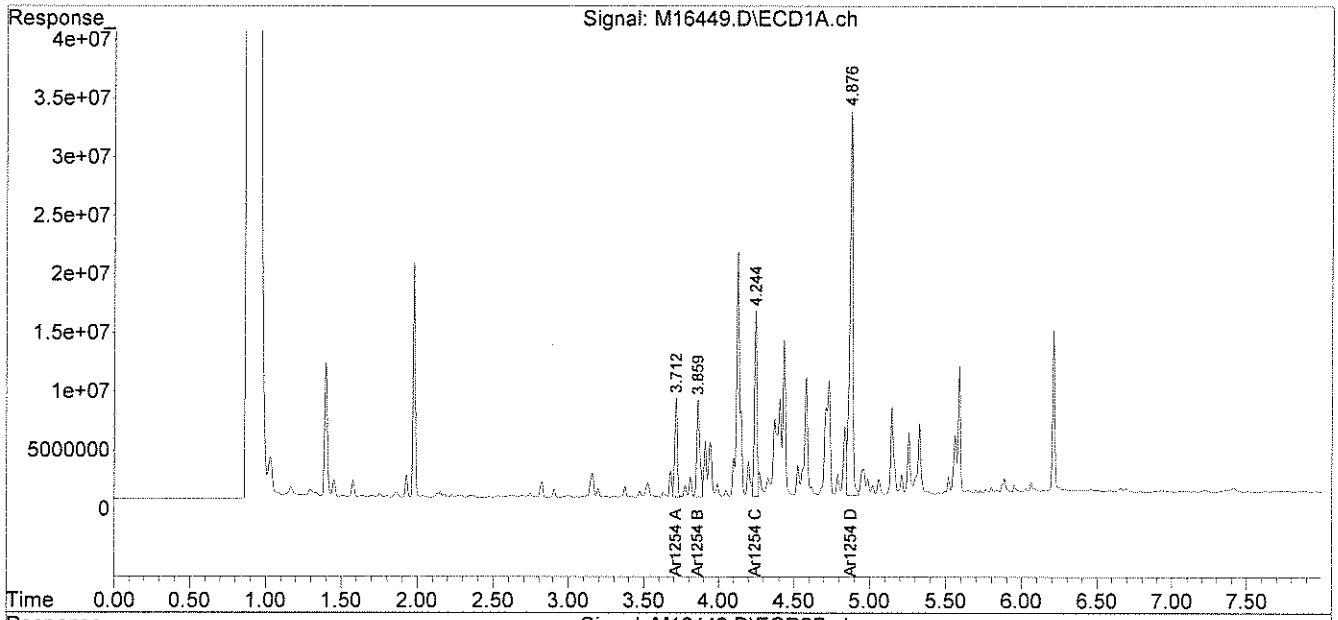
PCB FORM 10

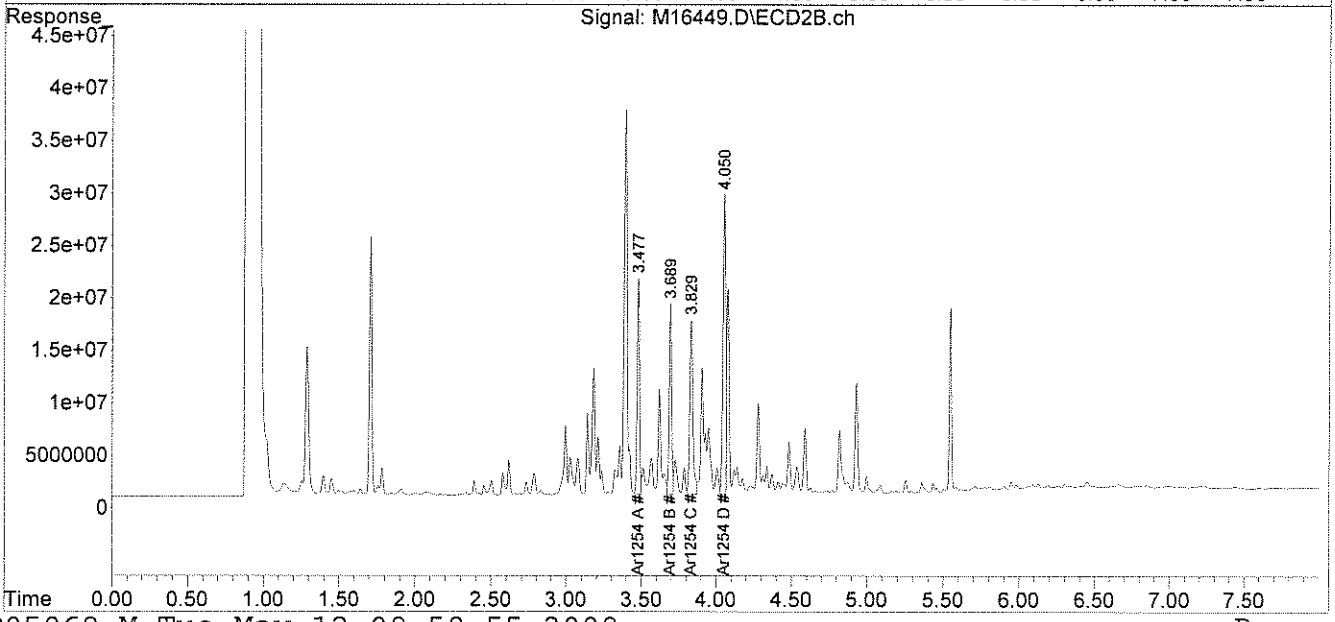
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16449.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 12 May 2009 8:29 am
Operator :
Sample : 63835-15,,A/C
Misc : SOIL
ALS Vial : 79 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 09:58:55 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-16
Matrix:	Solid
Percent Solid:	90
Dilution Factor:	11
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/08/09
Analysis Date:	05/12/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-131

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	360	U
PCB-1221	360	U
PCB-1232	360	U
PCB-1242	360	U
PCB-1248	360	U
PCB-1254	360	**5460**
PCB-1260	360	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	120	%
Decachlorobiphenyl	89	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63835
Sample: 63835-16,1:10,,A/C
Data File: M16462.D
Dilution Factor: 10.9

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	3884	5456	33.6	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

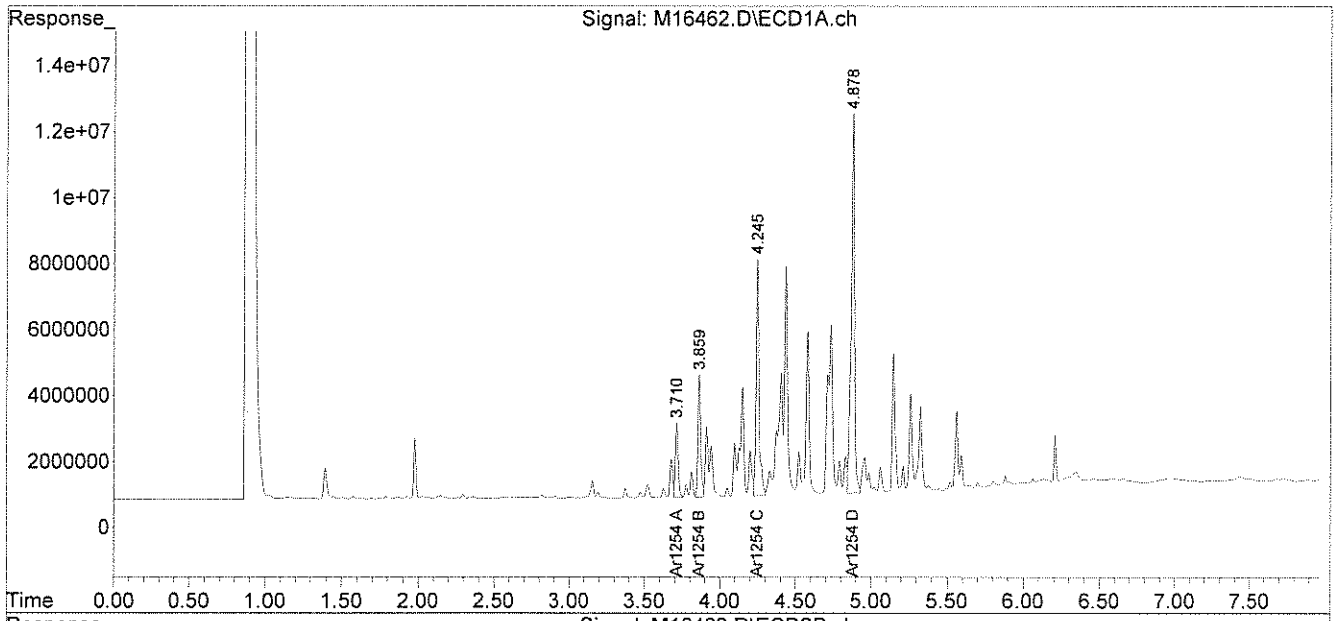
PCB FORM 10

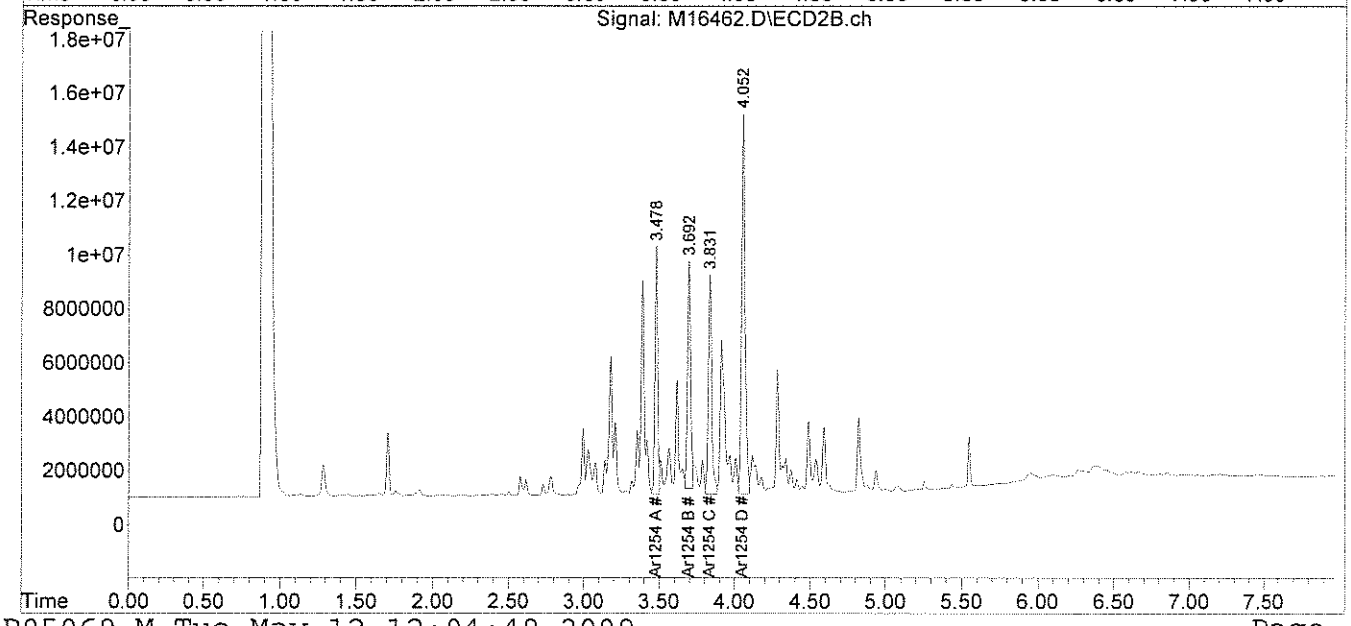
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16462.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 12 May 2009 10:48 am
Operator :
Sample : 63835-16,1:10,,A/C
Misc : SOIL
ALS Vial : 88 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 12:04:10 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-17
Matrix:	Solid
Percent Solid:	93
Dilution Factor:	1.0
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/08/09
Analysis Date:	05/12/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-132

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**241**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	99	%
Decachlorobiphenyl	79	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63835
Sample: 63835-17,,A/C
Data File: M16452.D
Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	226	241	6.5	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

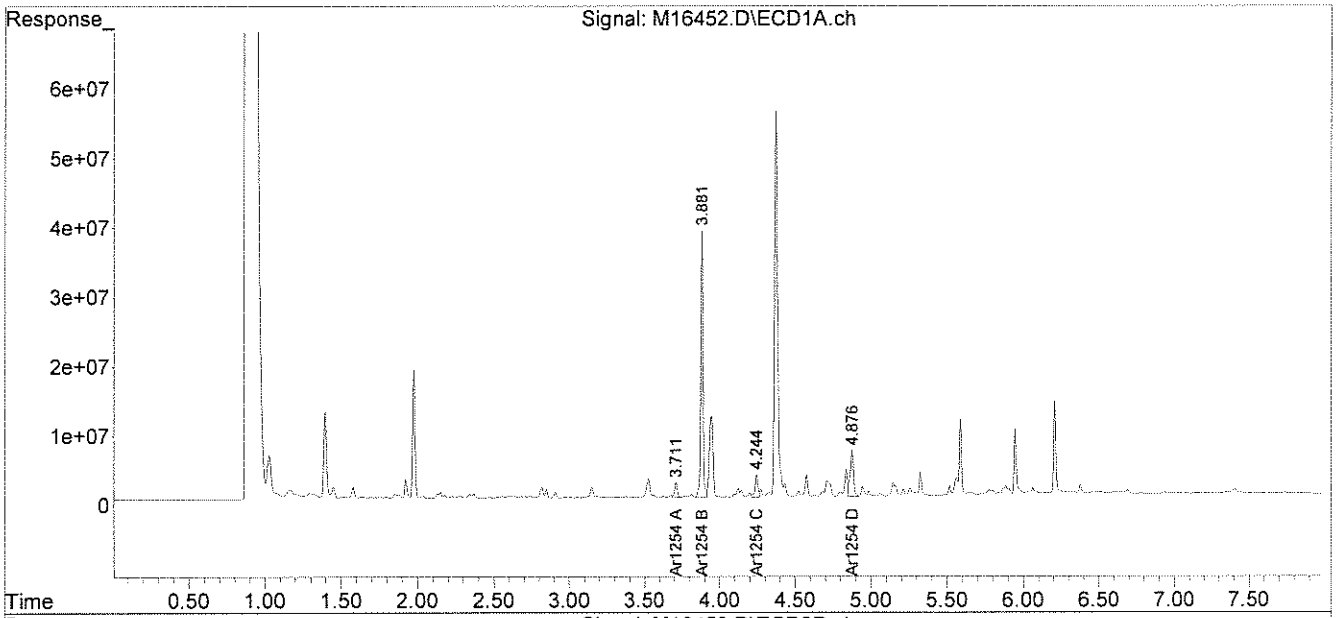
PCB FORM 10

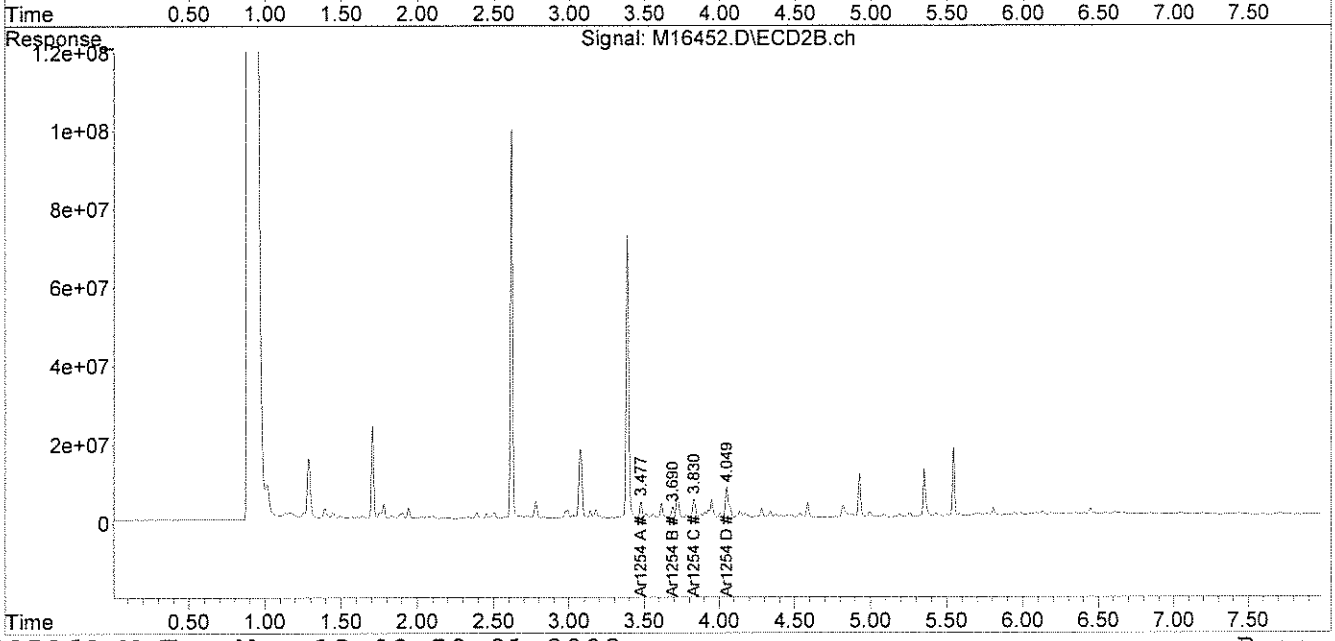
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16452.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 12 May 2009 8:59 am
Operator :
Sample : 63835-17,,A/C
Misc : SOIL
ALS Vial : 82 Sample Multiplier: 1

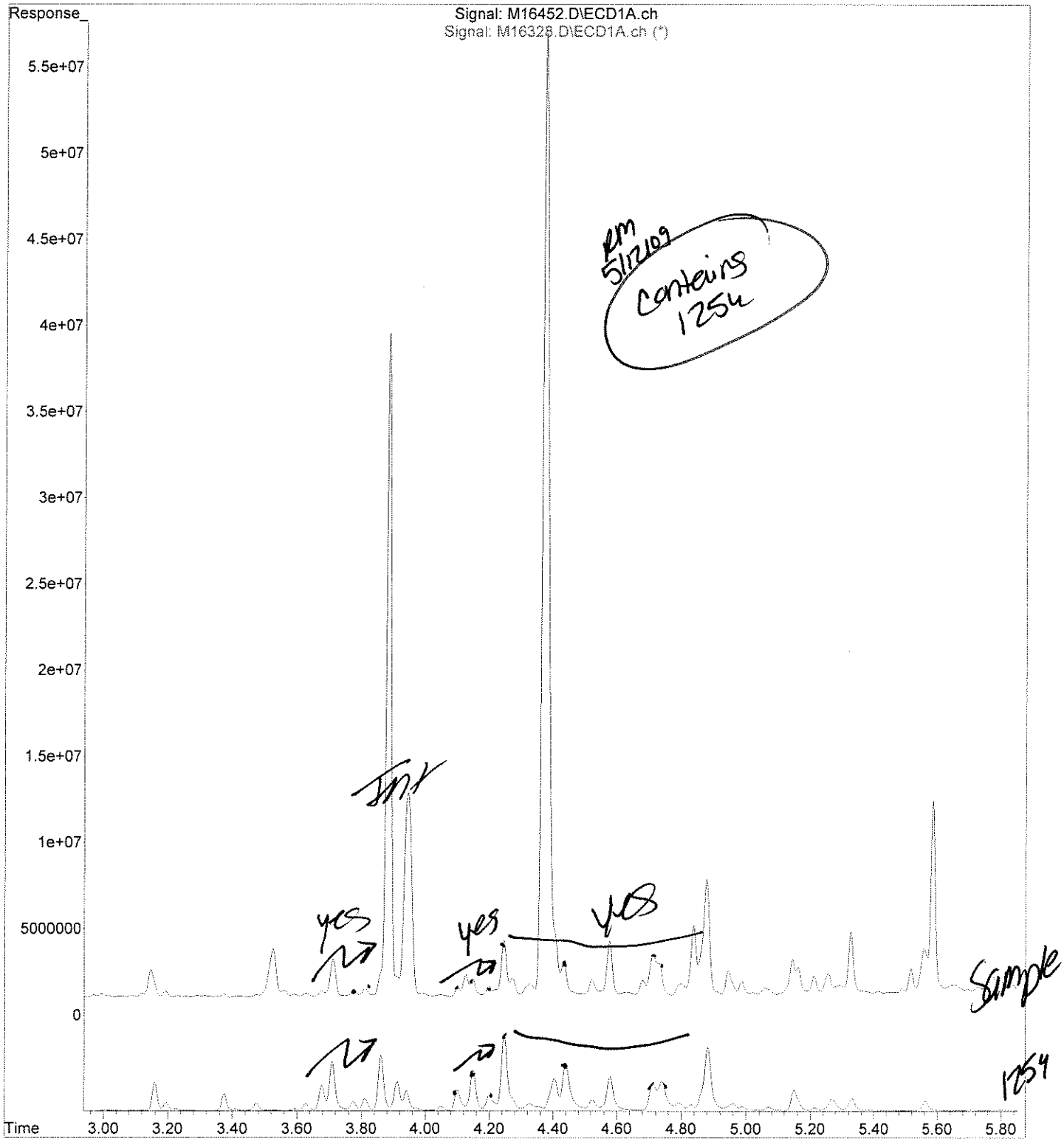
Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 09:59:01 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





File :C:\msdchem\1\DATA\051109-M\M16452.D
Operator :
Acquired : 12 May 2009 8:59 am using AcqMethod PCB.M
Instrument : Instrument M
Sample Name: 63835-17,,A/C
Misc Info : SOIL
Vial Number: 82



051209

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-18
Matrix:	Solid
Percent Solid:	92
Dilution Factor:	1.0
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/08/09
Analysis Date:	05/12/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-133

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**345**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	106	%
Decachlorobiphenyl	77	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63835
Sample: 63835-18,,A/C
Data File: M16453.D
Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	311	345	10.3	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

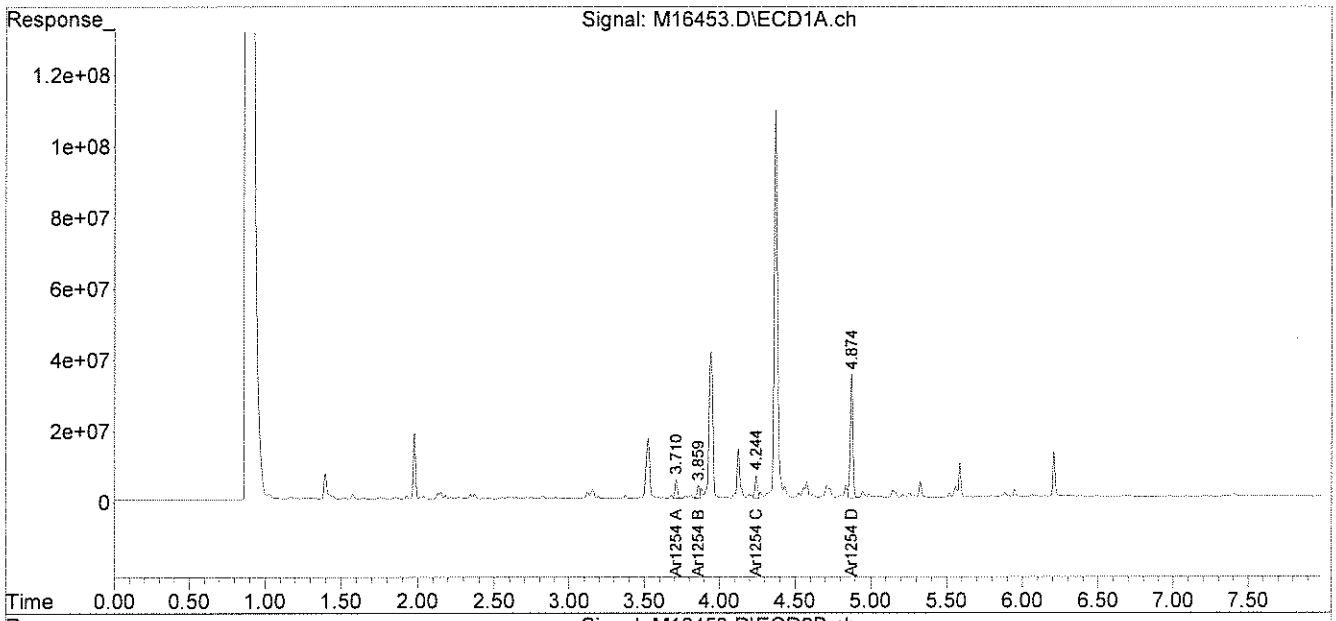
PCB FORM 10

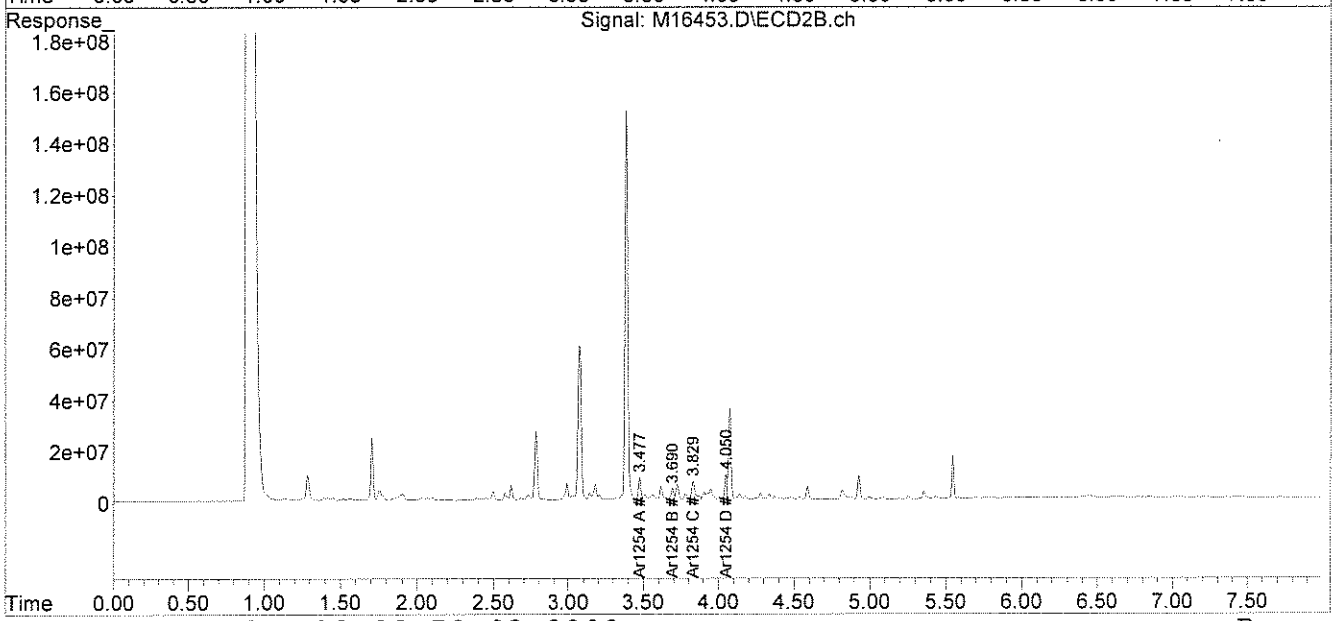
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16453.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 12 May 2009 9:09 am
Operator :
Sample : 63835-18,,A/C
Misc : SOIL
ALS Vial : 83 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 09:59:03 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-19
Matrix:	Solid
Percent Solid:	91
Dilution Factor:	1.1
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/08/09
Analysis Date:	05/12/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-134

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**203**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	100	%
Decachlorobiphenyl	80	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63835
Sample: 63835-19,,A/C
Data File: M16457.D
Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	203	161	23.1	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

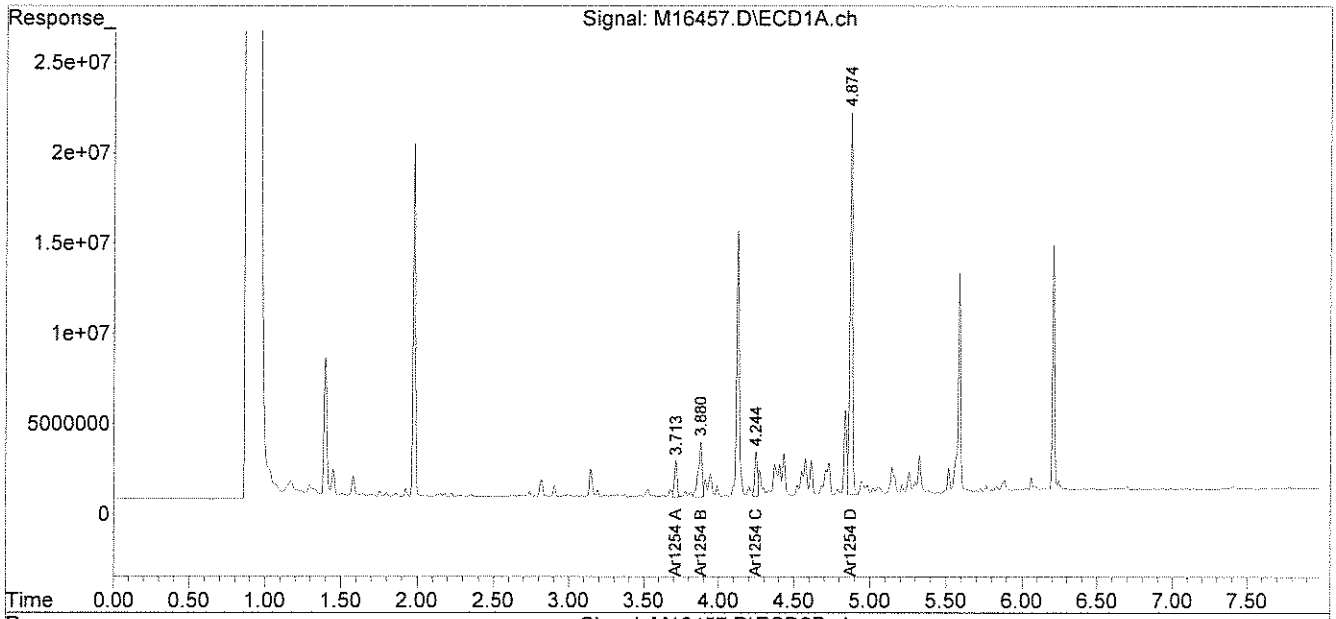
PCB FORM 10

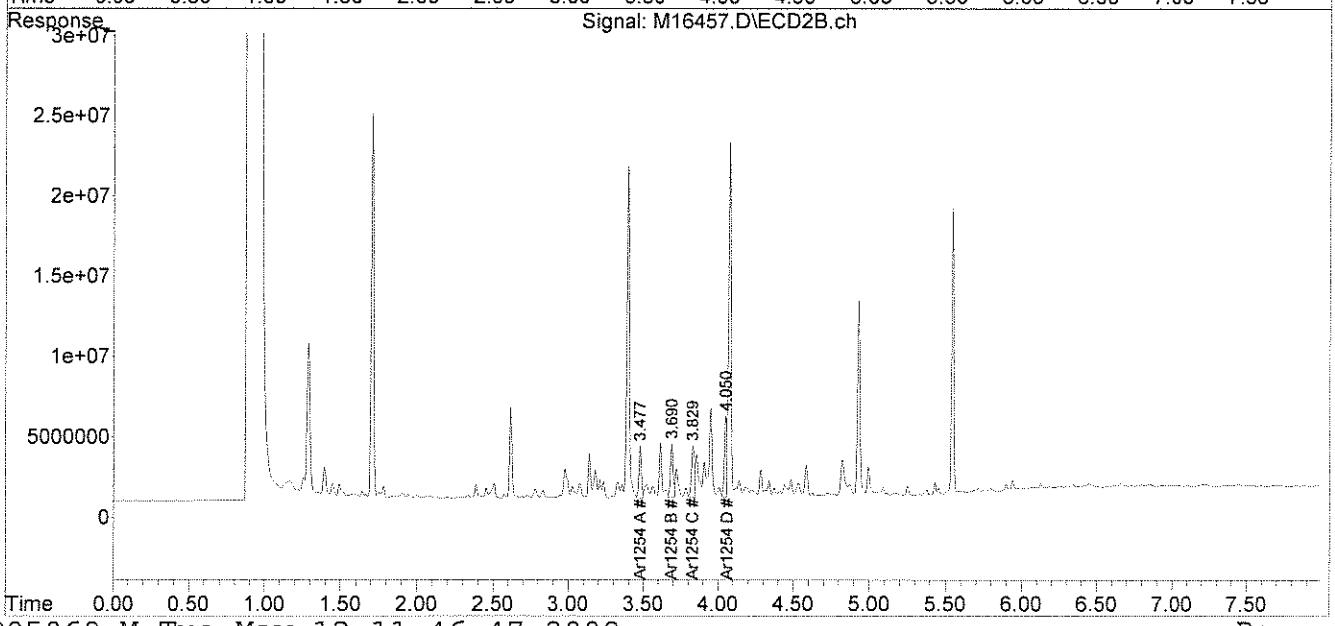
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16457.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 12 May 2009 9:51 am
Operator :
Sample : 63835-19,,A/C
Misc : SOIL
ALS Vial : 84 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 11:46:47 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-20
Matrix:	Solid
Percent Solid:	90
Dilution Factor:	1.0
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/11/09
Analysis Date:	05/12/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-135

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**684**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	116	%
Decachlorobiphenyl	91	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63835
Sample: 63835-20,,A/C
Data File: M16467.D
Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	554	684	20.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

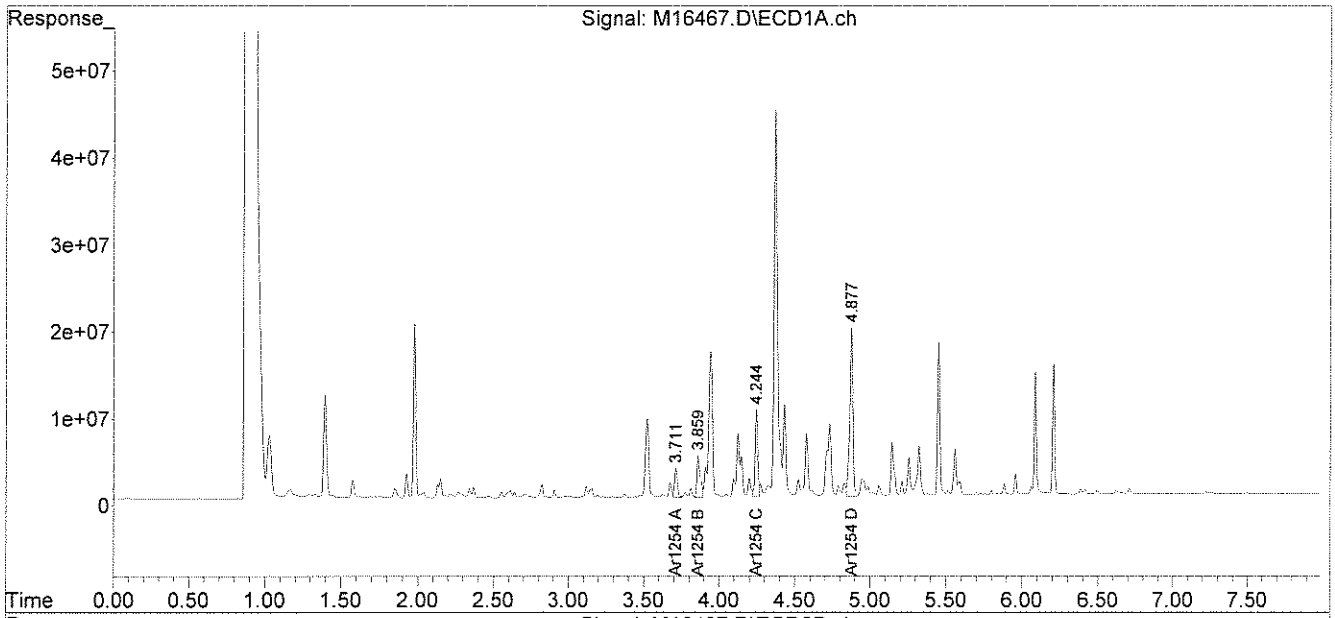
PCB FORM 10

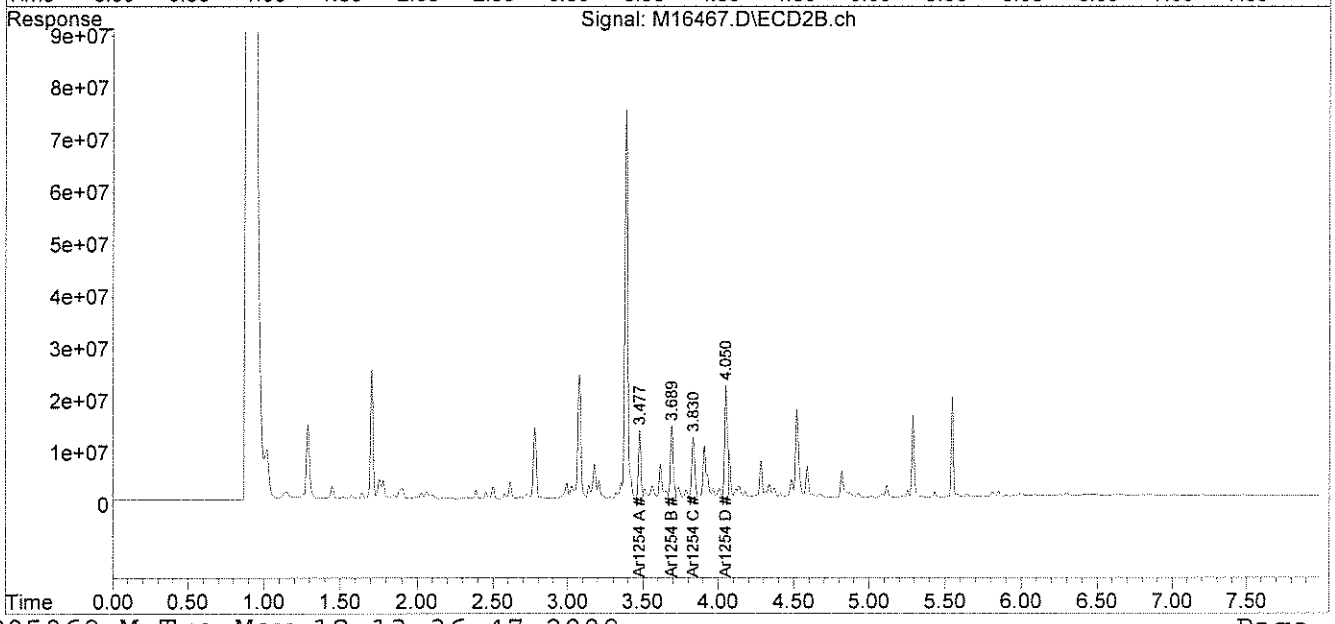
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16467.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 12 May 2009 11:52 am
Operator :
Sample : 63835-20,,A/C
Misc : SOIL
ALS Vial : 93 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 13:36:36 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 12, 2009

SAMPLE DATA

Lab Sample ID:	63835-21
Matrix:	Solid
Percent Solid:	82
Dilution Factor:	1.1
Collection Date:	05/08/09
Lab Receipt Date:	05/08/09
Extraction Date:	05/11/09
Analysis Date:	05/12/09

CLIENT SAMPLE ID

Project Name:	UMASS-LGRC
Project Number:	210918
Field Sample ID:	LGRC-VSS-136

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	**543**
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	100	%
Decachlorobiphenyl	81	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63835
Sample: 63835-21,,A/C
Data File: M16468.D
Dilution Factor: 1.1

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	543	522	3.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

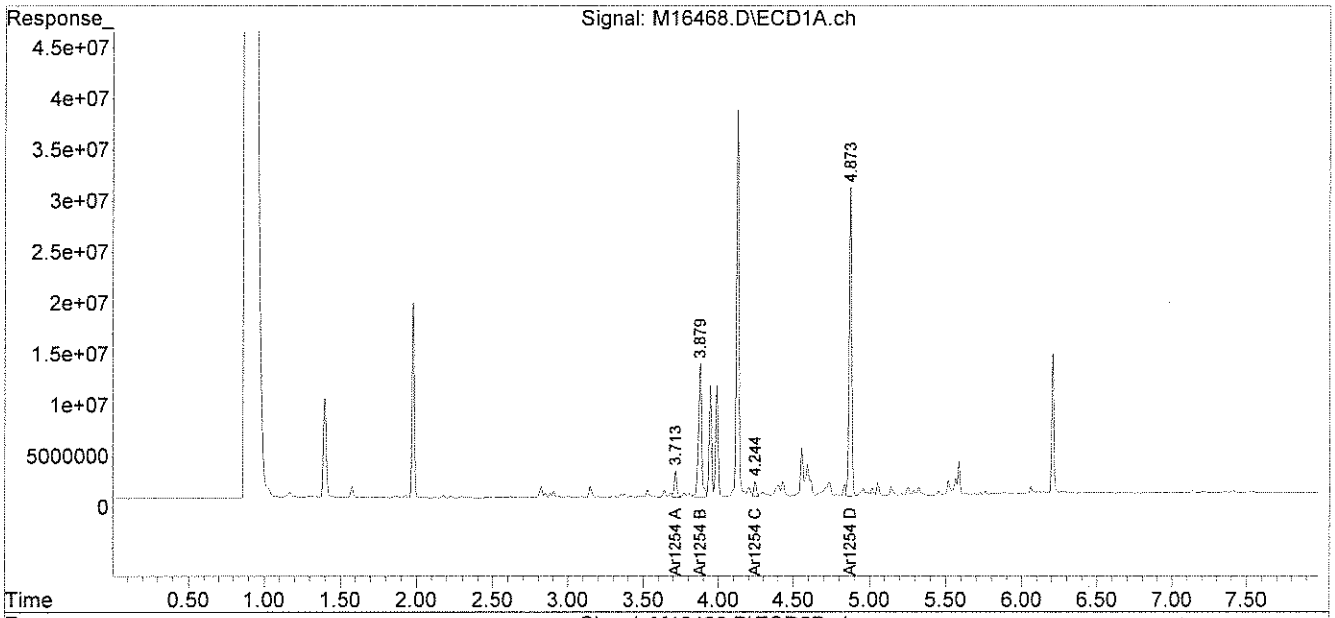
PCB FORM 10

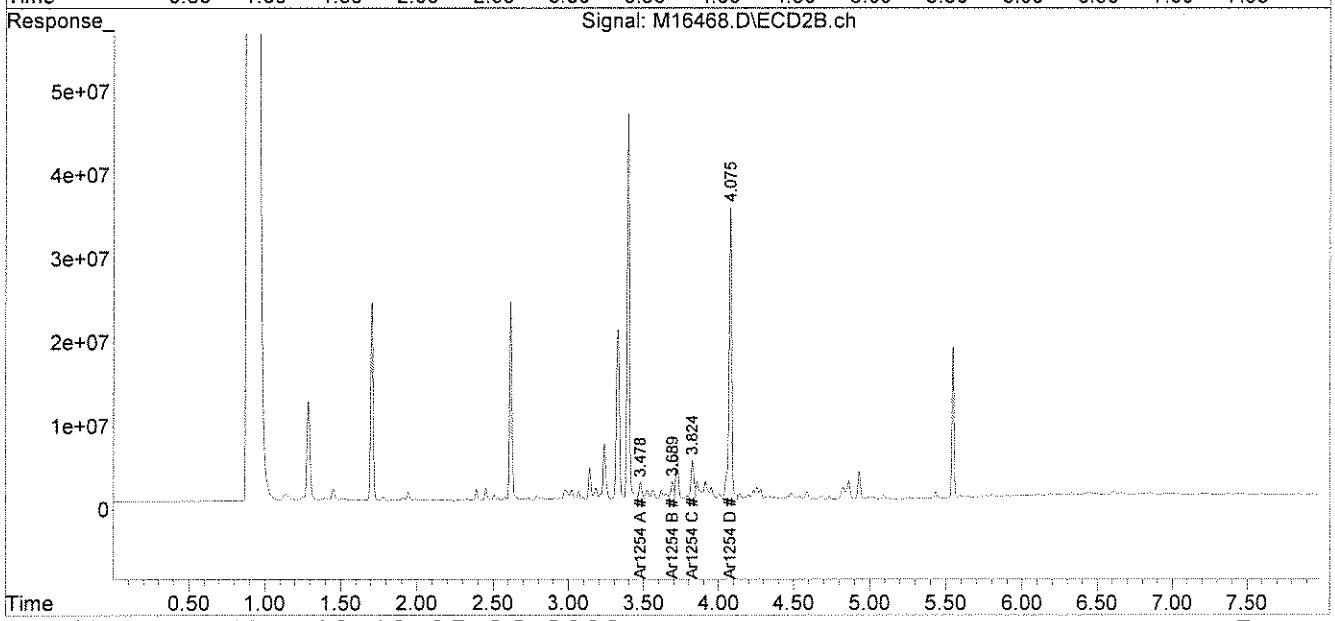
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051109-M\
Data File : M16468.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 12 May 2009 12:02 pm
Operator :
Sample : 63835-21,,A/C (Sig #1); ~~63835-21,MS,,A/C (Sig #2)~~ RM 5/12/09
Misc : SOIL
ALS Vial : 94 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 12 13:35:36 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





PCB
QC FORMS

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:PCBQC.doc

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63835

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B05089PSOX,,A/C	95		89		101		82	
L05089PSOX,,A/C	92		84		99		80	
LD05089PSOX,,A/C	107		79		93		80	
63835-1,,A/C	82		69		93		67	
63835-1,MS,,A/C	88		83		95		76	
63835-1,MSD,,A/C	93		80		93		75	
63835-5,,A/C	91		75		93		71	
63835-6,,A/C	90		70		94		71	
63835-8,,A/C	89		66		92		66	
63835-9,,A/C	92		72		94		72	
63835-10,,A/C	86		69		90		68	
63835-11,,A/C	96		85		97		78	
63835-12,,A/C	88		75		90		74	
63835-4,,A/C	115		90		113		84	
63835-13,,A/C	92		76		100		77	
63835-14,,A/C	92		75		97		75	
63835-15,,A/C	99		82		104		81	
63835-7,,A/C	102		74		104		74	
63835-17,,A/C	90		84		99		79	
63835-18,,A/C	93		76		106		77	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

\# Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63835

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B05079PAS,RR2,,A/C	99		78		101		83	
63835-19,,A/C	100		80		102		81	
63835-3,,A/C	79		72		81		69	
63835-2,1:5,,A/C	100		100		98		84	
63835-16,1:10,,A/C	129		85		120		89	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63835

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B05119PSOX,,A/C	86		80		103		85	
L05119PSOX,,A/C	94		85		105		91	
LD05119PSOX,,A/C	96		83		105		90	
63835-20,,A/C	104		89		116		91	
63835-21,,A/C	100		81		104		85	
63835-21,MS,,A/C	103		82		106		87	
63835-21,MSD,,A/C	97		78		99		81	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63835

Non-spiked sample: B05089PSOX,,A/C

Spike: L05089PSOX,,A/C

Spike duplicate: LD05089PSOX,,A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	200	200	65	140	30	0	209	105		226	113		7.5	
PCB 1260	200	200	60	130	30	0	206	103		193	97		6.4	
PCB 1016 #2	200	200	65	140	30	0	242	121		289	145	*	17.7	
PCB 1260 #2	200	200	60	130	30	0	215	108		210	105		2.8	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

PCB SOIL
MATRIX SPIKE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63835

Non-spiked sample: 63835-1,,A/C

Spike: 63835-1,MS,,A/C

Spike duplicate: 63835-1,MSD,,A/C

COMPOUND	MS SPIKE ADDED (ug/kg)	MSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	199	203	65	140	30	0	247	124		202	99		20.1	
PCB 1260	199	203	60	130	30	0	231	116		235	116		1.8	
PCB 1016 #2	199	203	65	140	30	0	276	138		266	131		3.8	
PCB 1260 #2	199	203	60	130	30	0	223	112		234	115		4.9	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

MS/MSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63835

Non-spiked sample: B05119PSOX,,A/C

Spike: L05119PSOX,,A/C

Spike duplicate: LD05119PSOX,,A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	200	200	65	140	30	0	265	133		231	116		13.9	
PCB 1260	200	200	60	130	30	0	199	99		196	98		1.4	
PCB 1016 #2	200	200	65	140	30	0	280	140		272	136		2.6	
PCB 1260 #2	200	200	60	130	30	0	223	112		222	111		0.4	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

PCB SOIL
MATRIX SPIKE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63835

Non-spiked sample: 63835-21,,A/C

Spike: 63835-21,MS,,A/C

Spike duplicate: 63835-21,MSD,,A/C

COMPOUND	MS SPIKE ADDED (ug/kg)	MSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	235	239	65	140	30	0	252	107		241	101		4.6	
PCB 1260	235	239	60	130	30	0	275	117		254	106		7.9	
PCB 1016 #2	235	239	65	140	30	0	279	119		257	108		8.3	
PCB 1260 #2	235	239	60	130	30	0	267	114		303	127		12.8	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

MS/MSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

PCB FORM 3

CHAIN OF CUSTODIES

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:COC.doc

Chain Of Custody Form

analytics environmental laboratory LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 3
3) Received in good condition Y or N
4) pH checked by: N/A
5) Labels checked by: 5/8/09

Project#: 210918 Proj. Name: UMass - LGRC
Company: **Woodard &Curran**
Contact: George Franklin / Amy Wallace
Address: **35 New England Business Center Suite 180**
Andover, MA 01810
Phone: (978)557-8150 PO# Quote # WCI809 1001
Sampler (Signature):

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

Station Identification	Sample Date	Sample Time	Analysis	Preservation: Unpres	4°C	HNO_3	H_2SO_4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
LGRC-VSS-116	5/8/09	9:20	PCBs 8082 SOX	X							S	1	G		63835 -1
LGRC-VSS-117	5/8/09	9:23	PCBs 8082 SOX	X							S	1	G		-2
LGRC-VSS-118	5/8/09	9:25	PCBs 8082 SOX	X							S	1	G		-3
LGRC-VSS-119	5/8/09	9:32	PCBs 8082 SOX	X							S	1	G		-4
LGRC-VSS-120	5/8/09	9:55	PCBs 8082 SOX	X							S	1	G		-5
LGRC-VSS-121	5/8/09	9:57	PCBs 8082 SOX	X							S	1	G		-6
LGRC-VSS-122	5/8/09	10:18	PCBs 8082 SOX	X							S	1	G		-7
LGRC-VSS-123	5/8/09	10:20	PCBs 8082 SOX	X							S	1	G		-8
LGRC-VSS-124	5/8/09	10:49	PCBs 8082 SOX	X							S	1	G		-9
LGRC-VSS-125	5/8/09	10:51	PCBs 8082 SOX	X							S	1	G		-10
LGRC-VSS-126	5/8/09	11:16	PCBs 8082 SOX	X							S	1	G		-11

Received By: Time: 5:20 pm Date: 5/8/09
Received By: Time: Date:
Received By: Time: Date:

Email Results to:
Jeff Hamel
Amy Wallace
George Franklin

Comments / Instructions:
PCBS 8082
Soxhlet Extraction

Turnaround Time (TAT)
☐ 24hr* ☐ 48hr*
☐ 72hr* ☐ 5 Days*
☐ 10 Days
*Fee may apply; lab approval required

Project Requirements:
*Fee may apply

Report Type:
☐ MCP* ☒ Level II*
☐ CTRCP* ☐ Level III*
☐ DOD* ☐ Level IV*
☐ Standard

State:
☐ NH
☒ MA
☐ ME
☐ CT
☐ RI
Other:

State Standard:
(eg. S-1 or GW-1)
EDD Required: Y* N
Type:

Relinquished By Sampler:
Relinquished By:
Relinquished By:

Analytics Report 63835 page 0084 of 86

Chain Of Custody Form

analytics environmental laboratory LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 3
3) Received in good condition Y or N
4) pH checked by: N/A
5) Labels checked by: SE 5/8/09

Project#: 210918 Proj. Name: UMass - LGRC
Company: Woodard &Curran
Contact: George Franklin / Amy Wallace
Address: 35 New England Business Center Suite 180
Andover, MA 01810
Phone: (978)557-8150 PO# Quote # WLI8091001
Sampler (Signature):

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

Station Identification	Sample Date	Sample Time	Analysis	Preservation: Unpres	4°C	HNO_3	H_2SO_4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
LGRC-VSS-127	11:18	5/8/09	PCBs 8082 SOX	X							S	1	G		63835-12
LGRC-VSS-128	11:20	↓	↓	↓							↓	↓	↓		-13
LGRC-VSS-129	13:15	↓	↓	↓							↓	↓	↓		-14
LGRC-VSS-130	13:17	↓	↓	↓							↓	↓	↓		-15
LGRC-VSS-131	13:18	↓	↓	↓							↓	↓	↓		-16
LGRC-VSS-132	13:40	↓	↓	↓							↓	↓	↓		-17
LGRC-VSS-133	14:34	↓	↓	↓							↓	↓	↓		-18
LGRC-VSS-134	14:52	↓	↓	↓							↓	↓	↓		-19
LGRC-VSS-135	15:00	↓	↓	↓							↓	↓	↓		-20
LGRC-VSS-136	15:09	↓	↓	↓							↓	↓	↓		-21

Received By: [signature] Time: 5:20pm Date: 5/8/09
Received By: Time: Date:
Received By: Time: Date:
Relinquished By Sampler: [signature] Relinquished By: Relinquished By:

Email Results to:
Jeff Hamel
Amy Wallace
George Franklin

Turnaround Time (TAT)
☐ 24hr* ☐ 48hr*
☐ 72hr* ☐ 5 Days*
☐ 10 Days
*Fee may apply; lab approval required

Comments / Instructions:
PCBs by 8082
Soxhlet Extraction

Project Requirements:
*Fee may apply

Report Type:
☐ MCP* ☒ Level II*
☐ CTRCP* ☐ Level III*
☐ DOD* ☐ Level IV*
☐ Standard

State:
☐ NH
☒ MA
☐ ME
☐ CT
☐ RI
Other:

State Standard:
(eg. S-1 or GW-1)
EDD Required: Y* N
Type:

Analytics\AEL Documents\AEL COC

analytics environmental laboratory LLC

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 63835

CLIENT: Woodard+Curran

PROJECT: UMASS-LGRC

COOLER NUMBER: _____

NUMBER OF COOLERS: 1

DATE RECEIVED: 5-8-09

A: PRELIMINARY EXAMINATION:

DATE COOLER OPENED: 5-8-09

1. Cooler received by(initials) — Date Received: NF 5-8-09

2. Circle one: Hand delivered (If so, skip 3) — Shipped

3. Did cooler come with a shipping slip? — Y — N

3a. Enter carrier name and airbill number here: _____

4. Were custody seals on the outside of cooler? — Y — N/A
How many & where: _____ Seal Date: _____ Seal Name: _____

5. Did the custody seals arrive unbroken and intact upon arrival? — Y — N/A

6. COC#: _____

7. Were Custody papers filled out properly (ink,signed, etc)? — Y — N

8. Were custody papers sealed in a plastic bag? — Y — N

9. Did you sign the COC in the appropriate place? — Y — N

10. Was the project identifiable from the COC papers? — Y — N

11. Was enough ice used to chill the cooler? — Y — N — Temp. of cooler: 3°C

B. Log-In: Date samples were logged in: 5-8-09 By: NF

12. Type of packing in cooler (bubble wrap, popcorn) — Y — N

13. Were all bottles sealed in separate plastic bags? — Y — N

14. Did all bottles arrive unbroken and were labels in good condition? — Y — N

15. Were all bottle labels complete(ID,Date,time,etc.) — Y — N

16. Did all bottle labels agree with custody papers? — Y — N

17. Were the correct containers used for the tests indicated: — Y — N

18. Were samples received at the correct pH? — Y — N/A

19. Was sufficient amount of sample sent for the tests indicated? — Y — N

20. Were bubbles absent in VOA samples? — Y — N/A

If NO, List sample #'s: _____

21. Laboratory labeling verified by (initials): SL — Date: 5/8/09

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

May 15, 2009

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

RE: Analytical Results Case Narrative
Analytics # 63856
UMass LGRC Proj# 210918

Dear Mr. Franklin;

Enclosed please find the analytical results for samples submitted for the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed Polychlorinated Biphenyls (PCBs) by EPA Method 8082.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II data package has been assembled in the following order:

Case Narrative/Non-Conformance Summary
Sample Log Sheet - Cover Page
PCB Form 1 Data Sheet for Samples and Blanks
Chromatograms
PCB Form 10 Confirmation Results
PCB Form 3 MS/MSD (LCS) Recoveries
Chain of Custody (COC) Forms

QC NON CONFORMANCE SUMMARY

Sample Receipt:
No exceptions.

PCBs by EPA Method 8082:
Sample 63856-1 required dilution due to the concentrations of PCBs detected in the sample.

If you have any questions on this data submittal, please do not hesitate to contact me.

Sincerely,
ANALYTICS Environmental Laboratory, LLC

Stephen Knollmeyer
Laboratory Director

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63856

Revision: Rev. 0

Re: UMASS-Amherst **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 13 May 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63856-1	05/13/09	LGRC-VSS-137	EPA 8082 (PCBs only)	
63856-2	05/13/09	LGRC-VSS-138	EPA 8082 (PCBs only)	
63856-3	05/13/09	LGRC-VSS-139	EPA 8082 (PCBs only)	
63856-4	05/13/09	LGRC-VSS-507	EPA 8082 (PCBs only)	
63856-5	05/13/09	LGRC-VSS-907	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature Melissa Hall for
Stephen L. Knollmeyer Lab. Director

Date 05/15/09

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-130	70-130	EPA 8260B
Toluene-d8	70-130	70-130	
Bromofluorobenzene	70-130	70-130	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	EPA 624/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA0	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH

PCB
DATA SUMMARIES

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 15, 2009

SAMPLE DATA

Lab Sample ID: B05139PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 05/13/09
Analysis Date: 05/14/09

CLIENT SAMPLE ID

Project Name: UMASS-Amherst
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	94	%
Decachlorobiphenyl	86	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

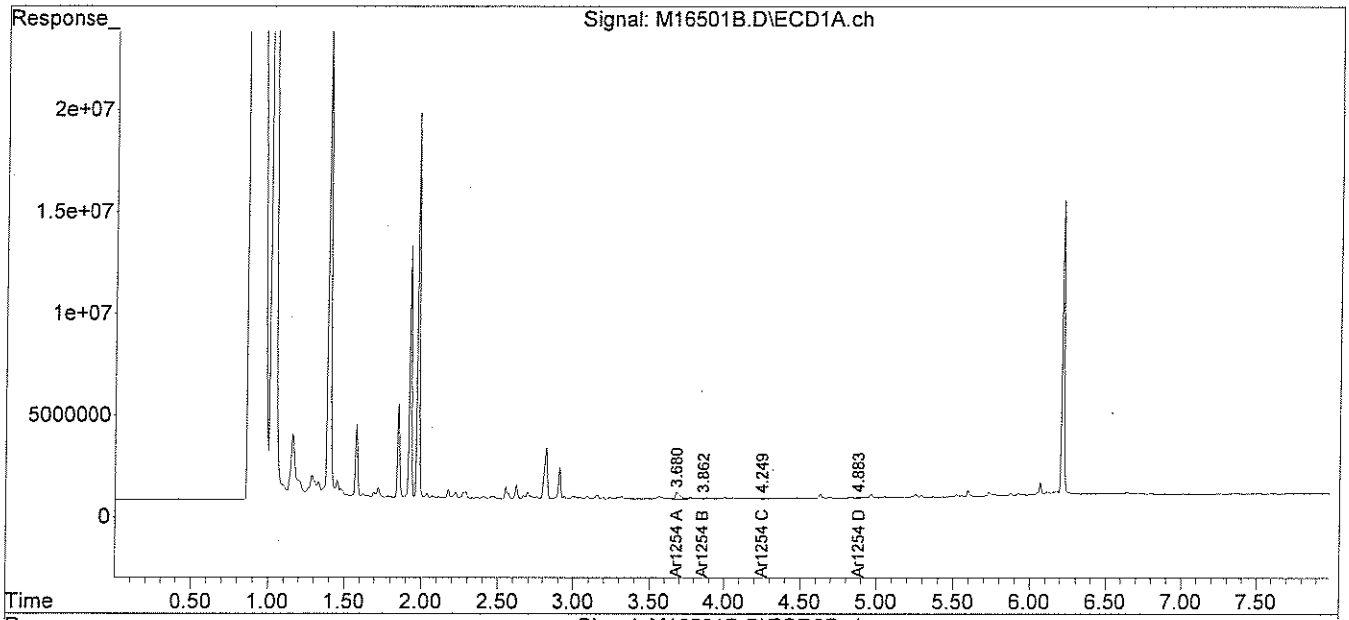
Authorized signature

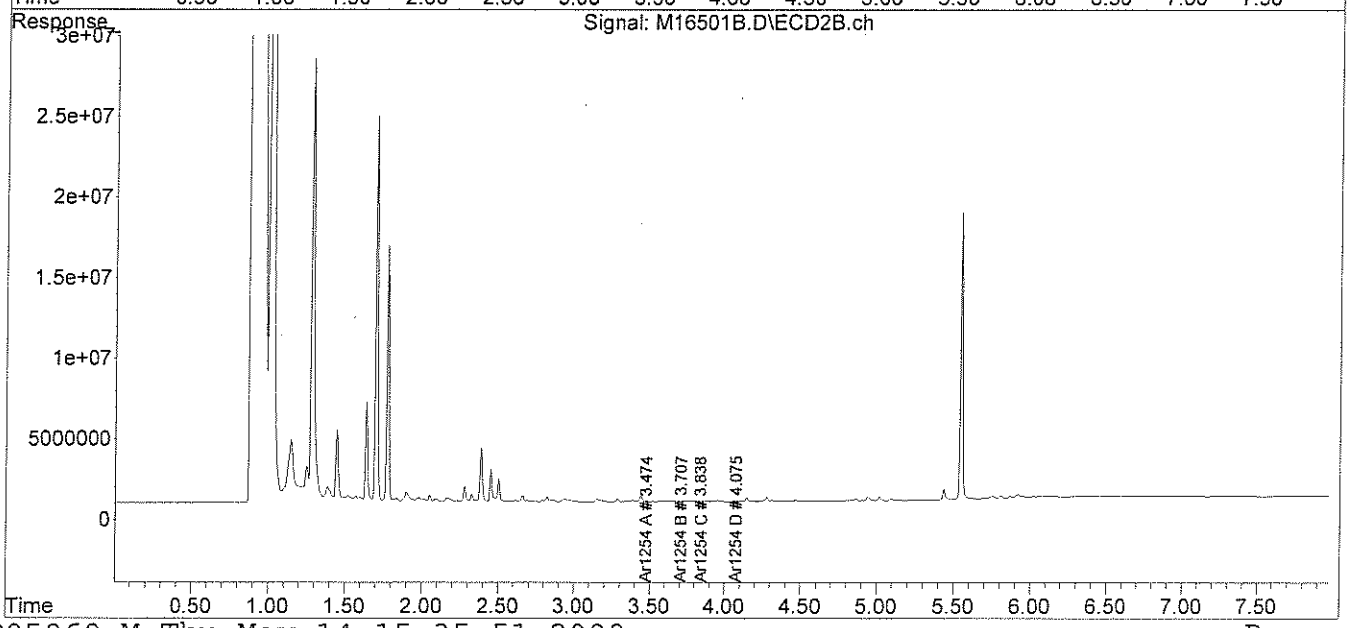
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051409-M\
Data File : M16501B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 May 2009 2:24 pm
Operator :
Sample : B05139PSOX,,A/C
Misc : SOIL
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 14 15:35:51 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 15, 2009

CLIENT SAMPLE ID

Project Name: UMASS-Amherst

Project Number: 210918

Field Sample ID: Lab QC

SAMPLE DATA

Lab Sample ID: B05149PW
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 05/14/09
Analysis Date: 05/14/09

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/L	Results µg/L
PCB-1016	0.2	U
PCB-1221	0.2	U
PCB-1232	0.2	U
PCB-1242	0.2	U
PCB-1248	0.2	U
PCB-1254	0.2	U
PCB-1260	0.2	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	78	%
Decachlorobiphenyl	66	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS:

PCB Report

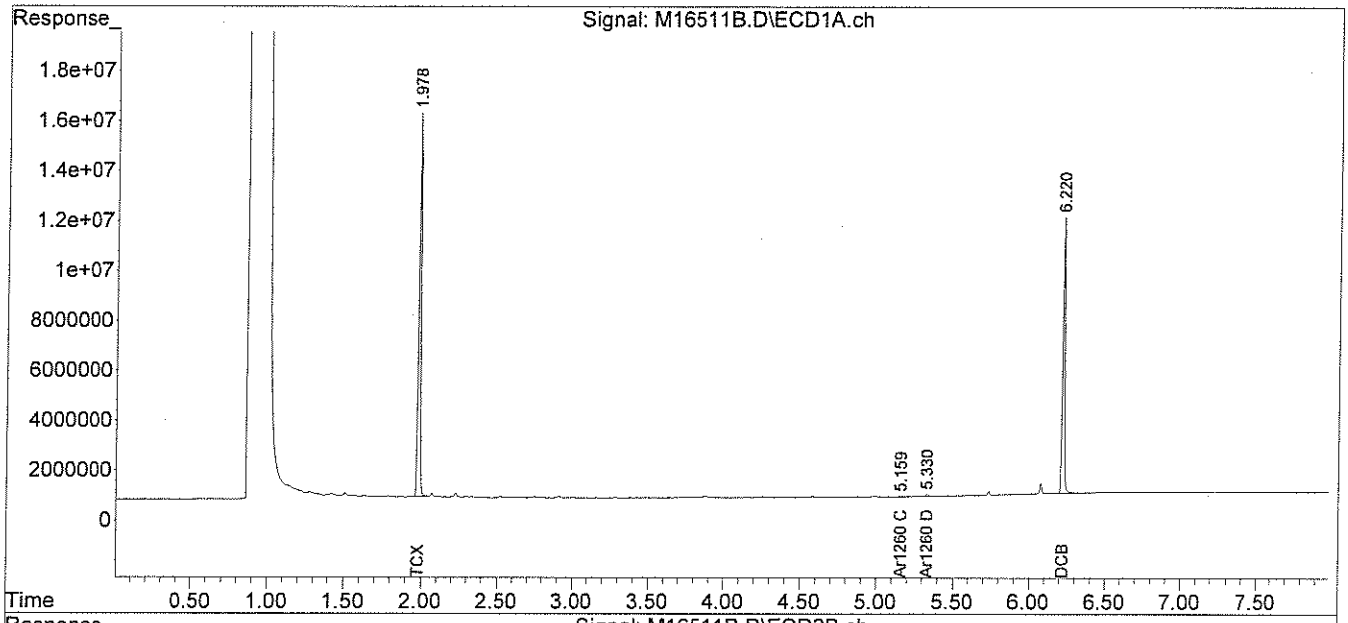
Authorized signature

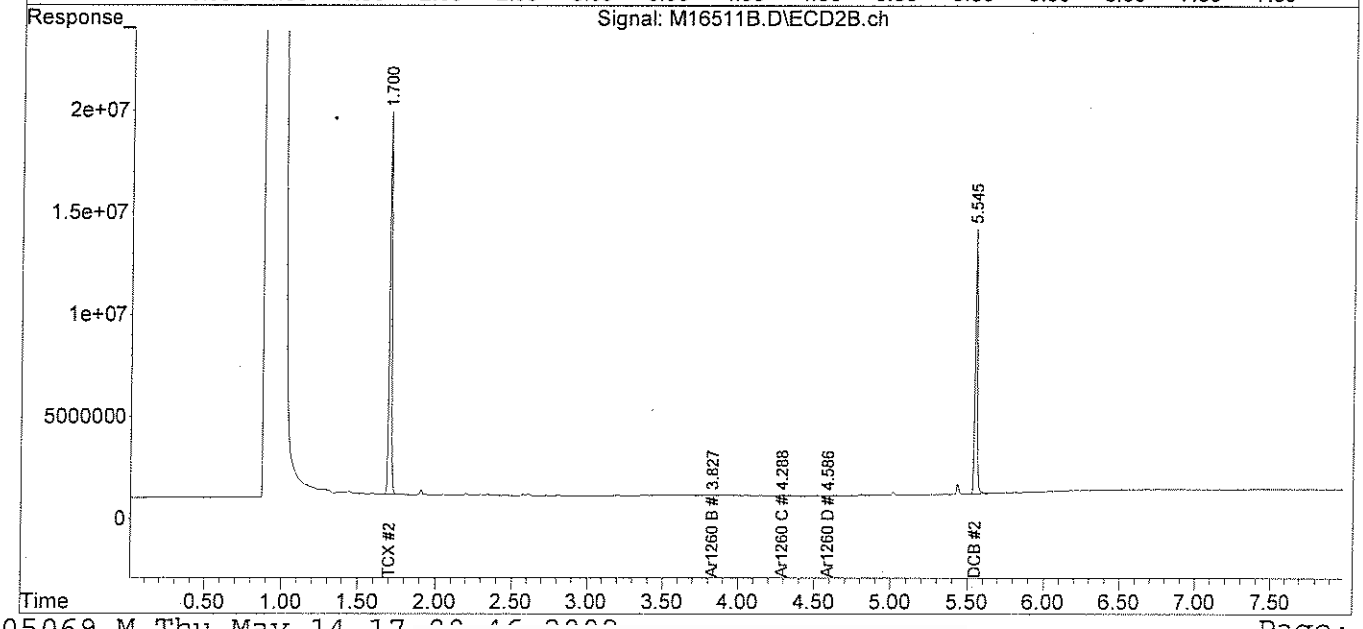
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051409-M\
Data File : M16511B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 May 2009 4:20 pm
Operator :
Sample : B05149PW
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 14 17:00:46 2009
Quant Method : C:\msdchem\1\METHODS\PCB05069.M
Quant Title : Aroclor 1016/1260
QLast Update : Thu May 07 09:09:28 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 15, 2009

SAMPLE DATA

Lab Sample ID:	63856-1
Matrix:	Solid
Percent Solid:	96
Dilution Factor:	10
Collection Date:	05/13/09
Lab Receipt Date:	05/13/09
Extraction Date:	05/13/09
Analysis Date:	05/14/09

CLIENT SAMPLE ID

Project Name:	UMASS-Amherst
Project Number:	210918
Field Sample ID:	LGRC-VSS-137

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	330	U
PCB-1221	330	U
PCB-1232	330	U
PCB-1242	330	U
PCB-1248	330	U
PCB-1254	330	**3560**
PCB-1260	330	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	122	%
Decachlorobiphenyl	97	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63856
Sample: 63856-1,1:10,,A/C
Data File: M16509.D
Dilution Factor: 9.6

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	3251	3561	9.1	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

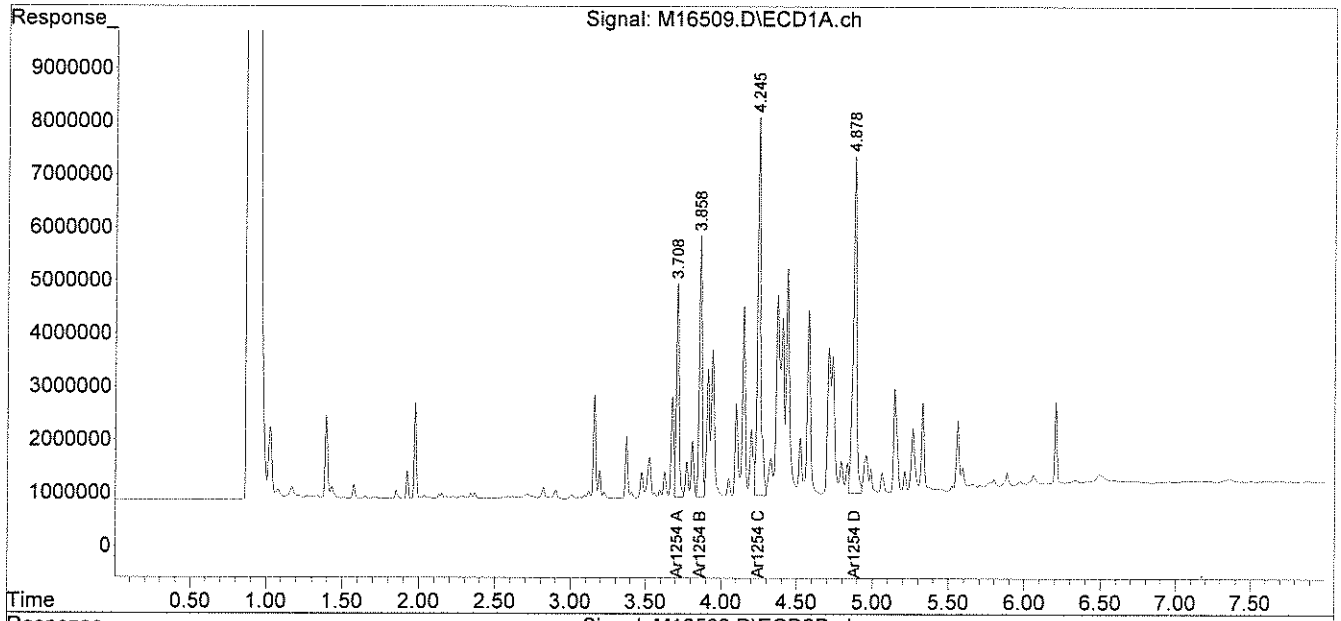
PCB FORM 10

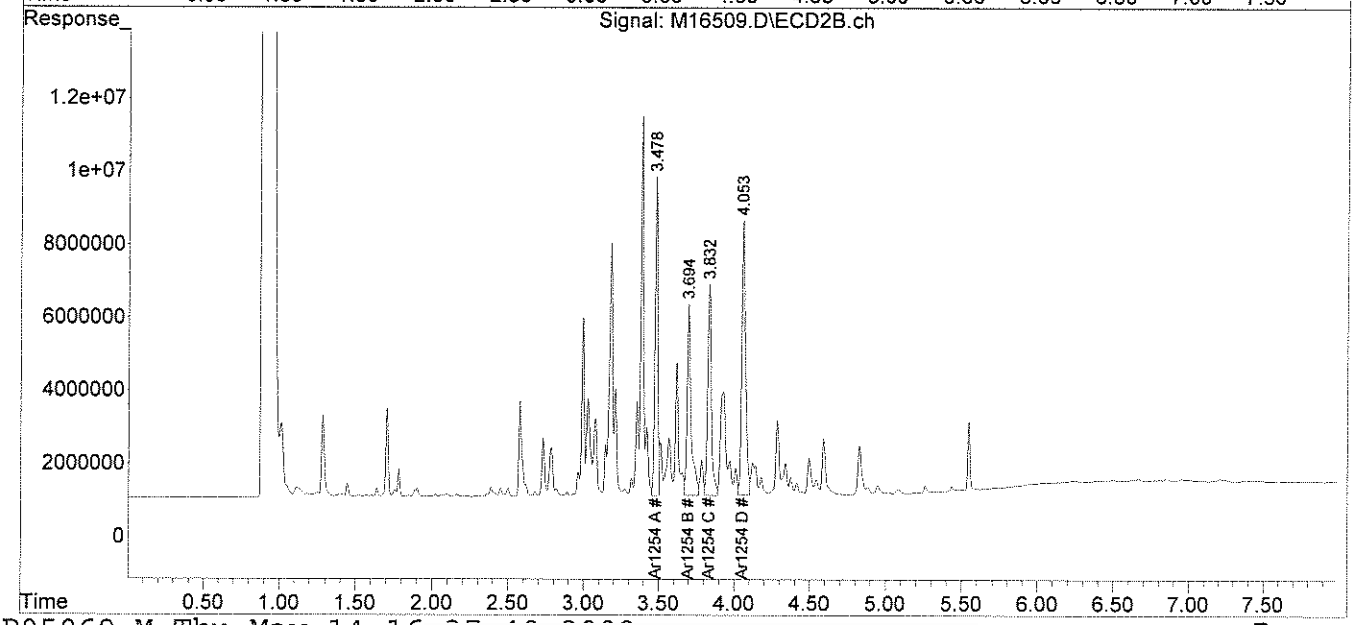
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051409-M\
Data File : M16509.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 May 2009 3:50 pm
Operator :
Sample : 63856-1,1:10,,A/C
Misc : SOIL
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 14 16:37:39 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 15, 2009

SAMPLE DATA

Lab Sample ID:	63856-2
Matrix:	Solid
Percent Solid:	94
Dilution Factor:	1.0
Collection Date:	05/13/09
Lab Receipt Date:	05/13/09
Extraction Date:	05/13/09
Analysis Date:	05/14/09

CLIENT SAMPLE ID

Project Name:	UMASS-Amherst
Project Number:	210918
Field Sample ID:	LGRC-VSS-138

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**664**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	92	%
Decachlorobiphenyl	85	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63856

Sample: 63856-2,,A/C

Data File: M16506.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	598	664	10.5	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

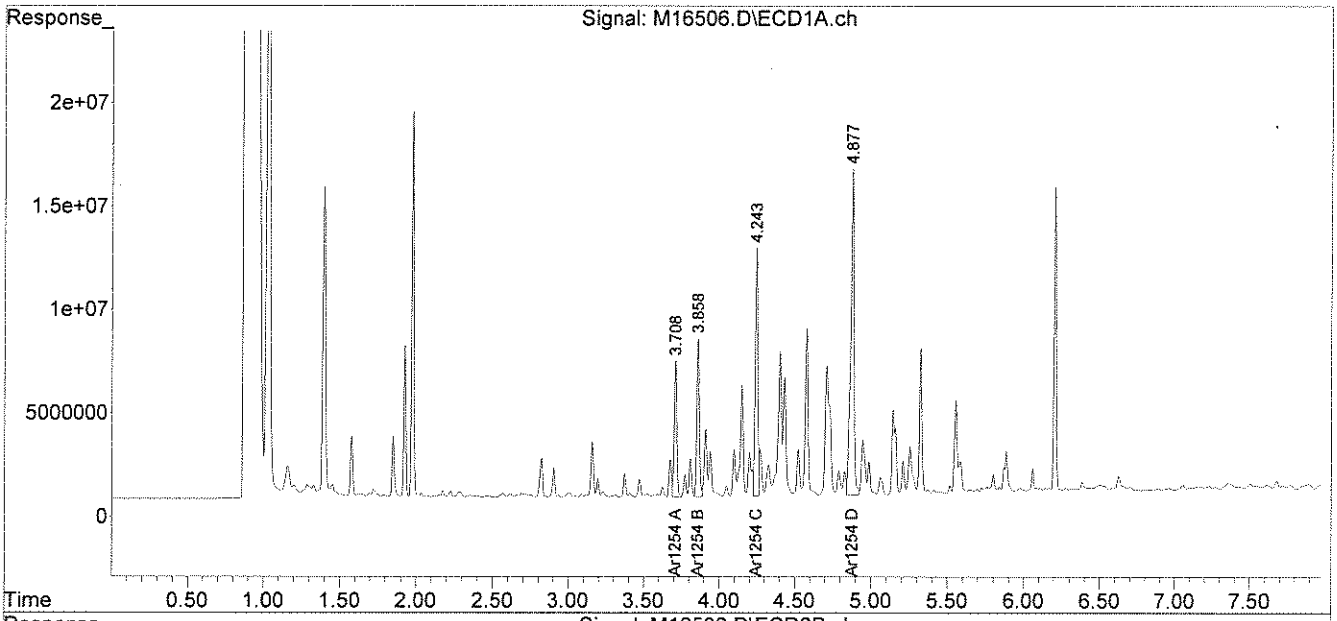
PCB FORM 10

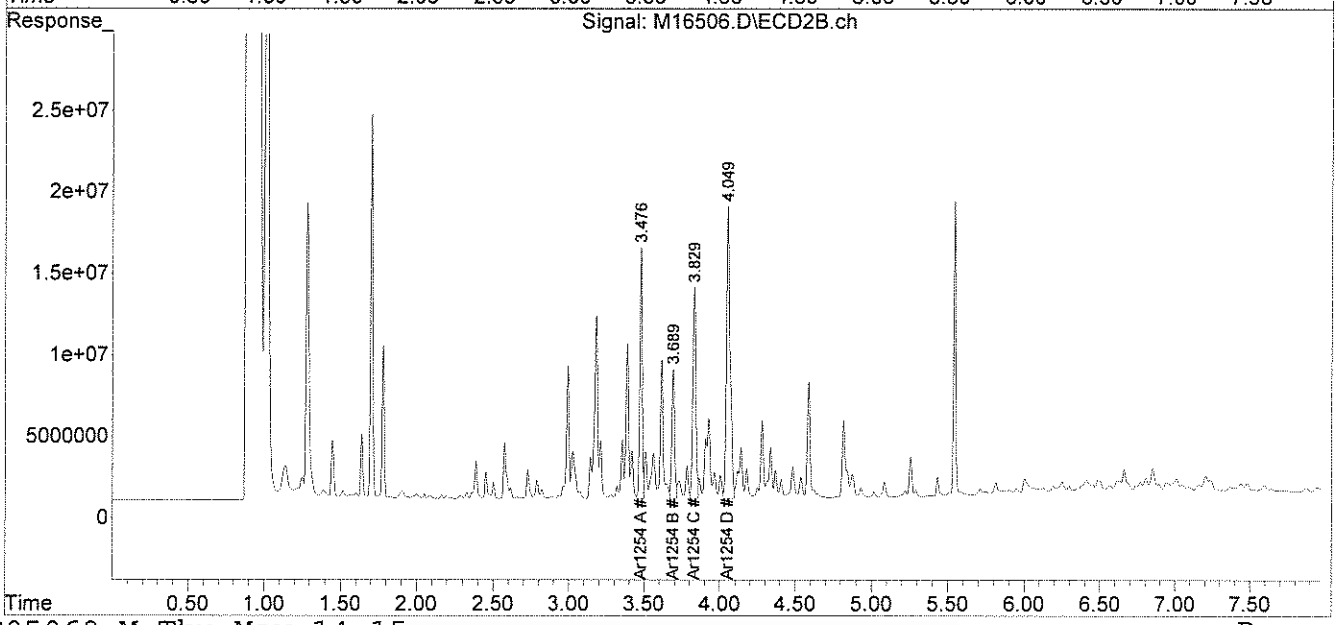
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051409-M\
Data File : M16506.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 May 2009 3:20 pm
Operator :
Sample : 63856-2,,A/C
Misc : SOIL
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 14 15:35:44 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 15, 2009

SAMPLE DATA

Lab Sample ID:	63856-3
Matrix:	Solid
Percent Solid:	95
Dilution Factor:	1.0
Collection Date:	05/13/09
Lab Receipt Date:	05/13/09
Extraction Date:	05/13/09
Analysis Date:	05/14/09

CLIENT SAMPLE ID

Project Name:	UMASS-Amherst
Project Number:	210918
Field Sample ID:	LGRC-VSS-139

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**790**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	92	%
Decachlorobiphenyl	86	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63856
Sample: 63856-3,,A/C
Data File: M16507.D
Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	687	790	13.9	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

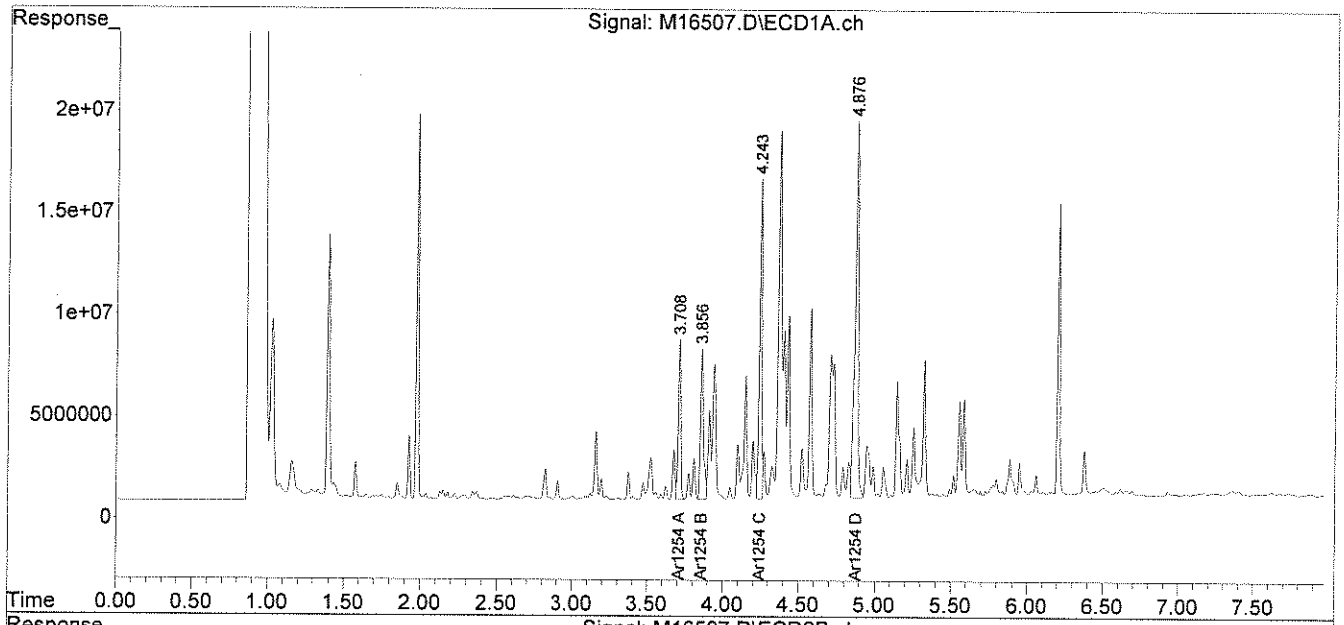
Comments: _____

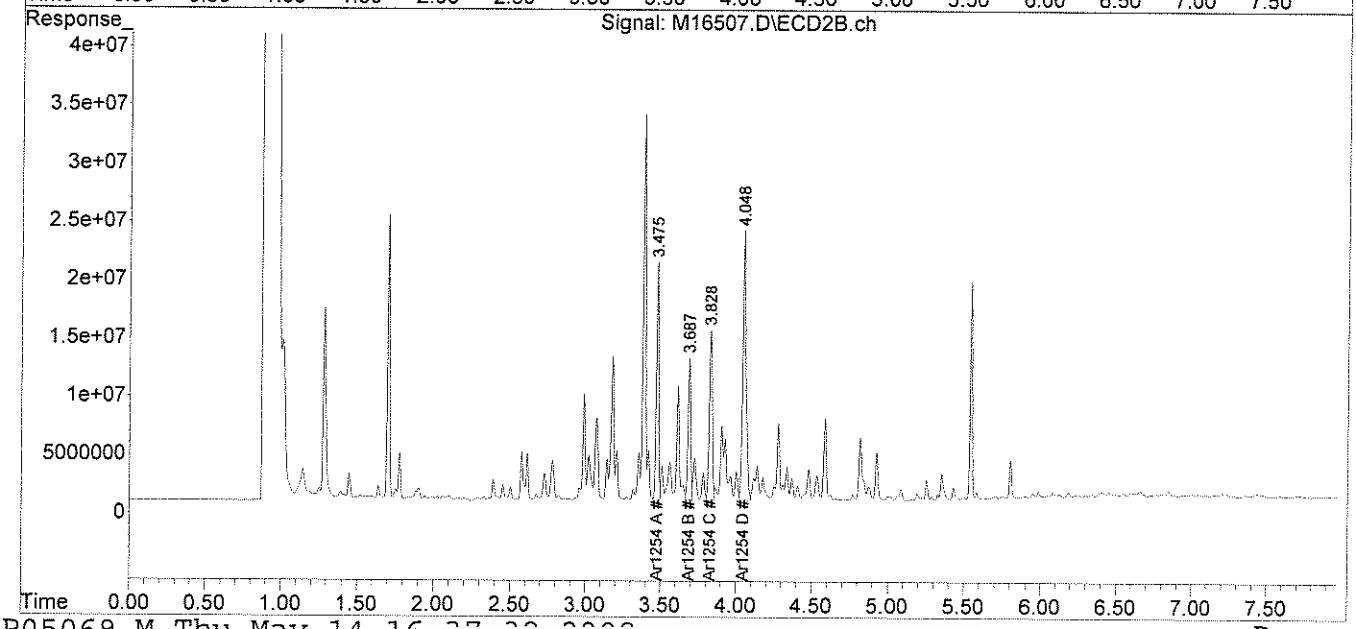
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051409-M\
Data File : M16507.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 May 2009 3:30 pm
Operator :
Sample : 63856-3,,A/C
Misc : SOIL
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 14 16:37:31 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 15, 2009

SAMPLE DATA

Lab Sample ID: 63856-4
Matrix: Solid
Percent Solid: 94
Dilution Factor: 1.0
Collection Date: 05/13/09
Lab Receipt Date: 05/13/09
Extraction Date: 05/13/09
Analysis Date: 05/14/09

CLIENT SAMPLE ID

Project Name: UMASS-Amherst
Project Number: 210918
Field Sample ID: LGRC-VSS-507

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**657**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	92	%
Decachlorobiphenyl	85	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63856

Sample: 63856-4,,A/C

Data File: M16508.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	583	657	11.8	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

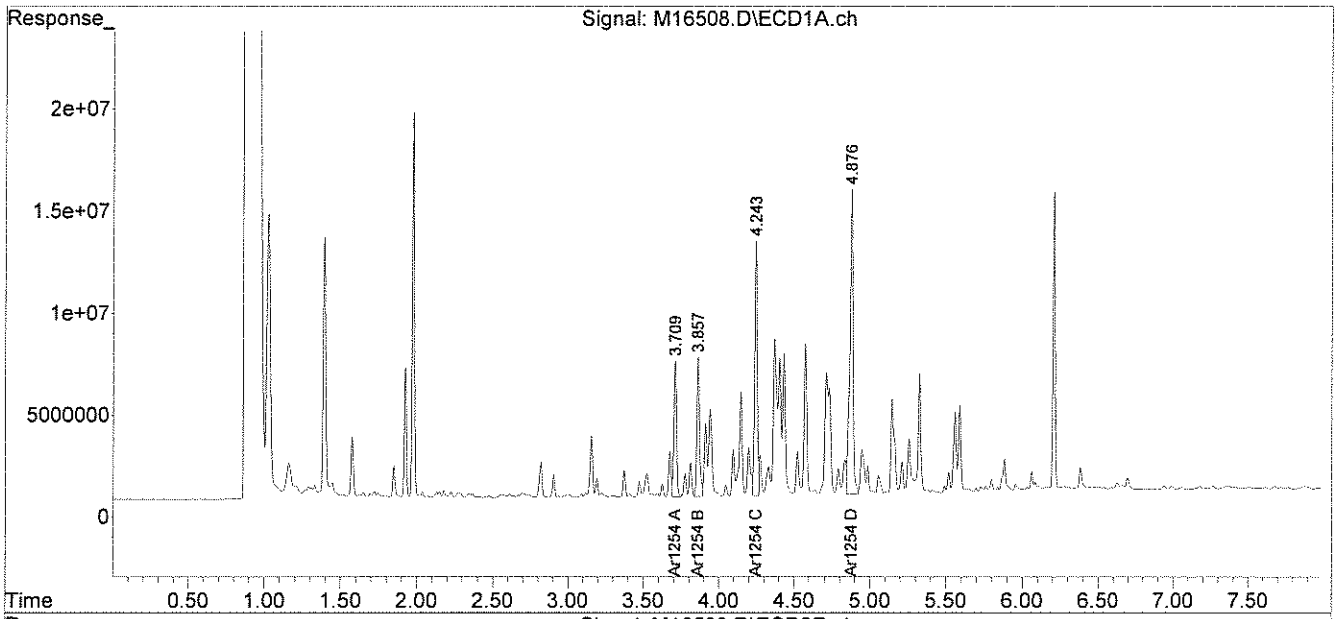
PCB FORM 10

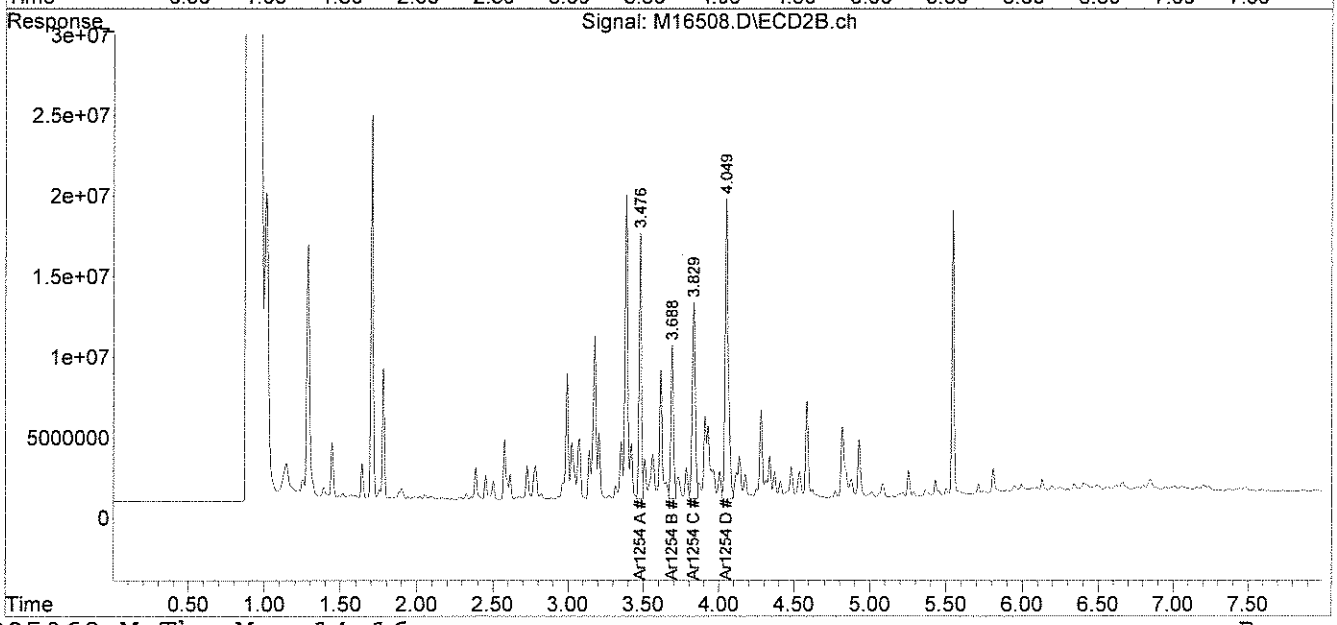
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051409-M\
Data File : M16508.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 May 2009 3:40 pm
Operator :
Sample : 63856-4,,A/C .
Misc : SOIL
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 14 16:01:04 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 15, 2009

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: UMASS-Amherst

Project Number: 210918

Field Sample ID: LGRC-VSS-907

Lab Sample ID: 63856-5
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date: 05/13/09
Lab Receipt Date: 05/13/09
Extraction Date: 05/14/09
Analysis Date: 05/14/09

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/L	Results µg/L
PCB-1016	0.2	U
PCB-1221	0.2	U
PCB-1232	0.2	U
PCB-1242	0.2	U
PCB-1248	0.2	U
PCB-1254	0.2	U
PCB-1260	0.2	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	80	%
Decachlorobiphenyl	70	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS:

PCB Report

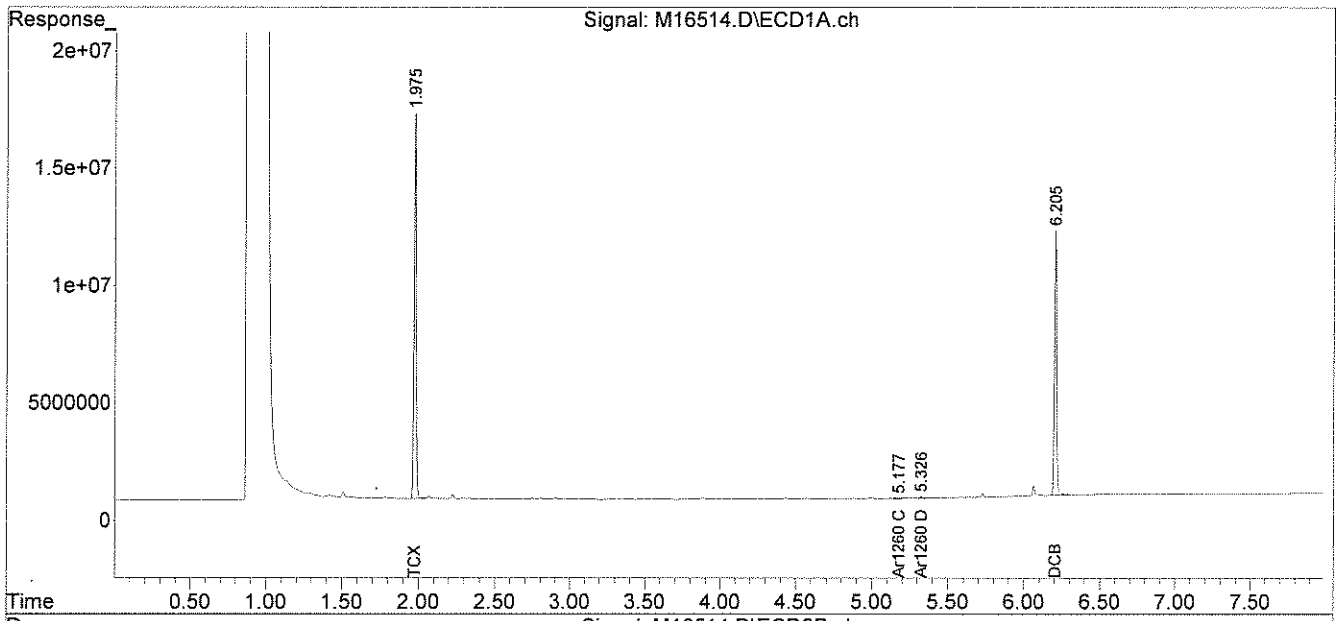
Authorized signature

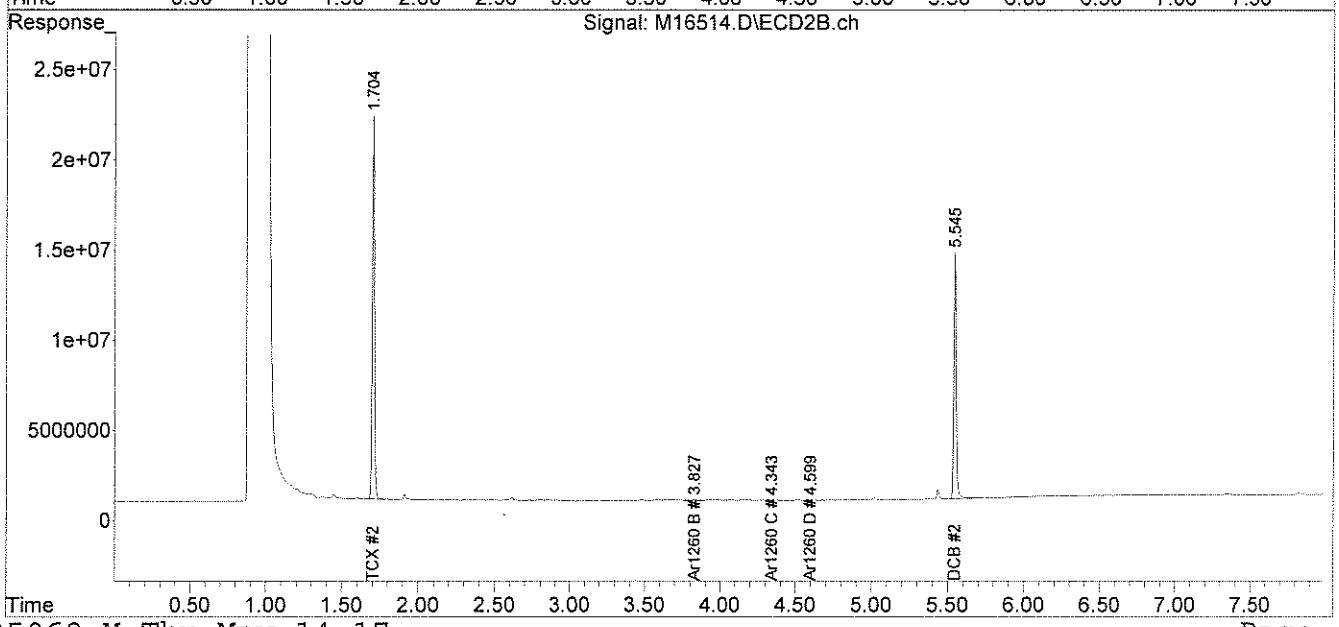
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051409-M\
Data File : M16514.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 May 2009 4:50 pm
Operator :
Sample : 63856-5
Misc :
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 14 17:00:53 2009
Quant Method : C:\msdchem\1\METHODS\PCB05069.M
Quant Title : Aroclor 1016/1260
QLast Update : Thu May 07 09:09:28 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

PCB
QC FORMS

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:PCBQC.doc

PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63856

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B05139PSOX,,A/C	94		86		96		89	
L05139PSOX,,A/C	95		91		95		92	
LD05139PSOX,,A/C	92		84		91		86	
63856-2,,A/C	92		85		93		85	
63856-3,,A/C	92		86		95		86	
63856-4,,A/C	92		85		93		84	
63856-1,1:10,,A/C	122		97		117		91	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

\# Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB AQUEOUS
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 63856

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B05149PW	78		66		79		67	
L05149PWB	79		64		82		67	
LD05149PWB	76		69		78		71	
63856-5	80		70		83		72	

		Lower Limit	Upper Limit
SMC #1 =	TCX	46	122
SMC #2 =	DCB	40	135

Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG:

Non-spiked sample: B05139PSOX,,A/C

Spike: L05139PSOX,,A/C

Spike duplicate: LD05139PSOX,,A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	200	200	65	140	30	0	209	105		196	98		6.5	
PCB 1260	200	200	60	130	30	0	196	98		184	92		6.2	
PCB 1016 #2	200	200	65	140	30	0	276	138		270	135		2.4	
PCB 1260 #2	200	200	60	130	30	0	208	104		202	101		3.0	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

PCB AQUEOUS
LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG:

Non-spiked sample: B05149PW

Spike: L05149PWB

Spike duplicate: LD05149PWB

COMPOUND	LCS SPIKE ADDED (ug/L)	LCSD SPIKE ADDED (ug/L)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
PCB 1016	2.0	2.0	79	113	25	0.00	1.64	82		1.94	97		16.6	
PCB 1260	2.0	2.0	58	115	25	0.00	1.83	92		1.83	91		0.3	
PCB 1016 #2	2.0	2.0	81	112	25	0.00	1.71	86		1.73	86		0.9	
PCB 1260 #2	2.0	2.0	54	123	25	0.00	1.96	98		1.92	96		1.6	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been volume adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

CHAIN OF CUSTODIES

Chain Of Custody Form

analytics environmental laboratory LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

Project#: 210918 Proj. Name: UMass - Amherst
Company: Woodard &Curran
Contact: Amy Wallace / George Franklin
Address: 35 New England Business Center Suite 180
Andover, MA 01810
Phone: (978)557-8150 PO# Quote # WCT 8091001
Sampler (Signature): Keri B Stevens

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 5.5 on ice
3) Received in good condition Y or N
4) pH checked by: NF 5/13/09
5) Labels checked by: CP 5/13/09

Amber liter 63856-5A tested negative for residual chlorine w/KI paper. NF 5/13/09

Container Key
P=plastic G=glass

Station Identification	Sample Date	Sample Time	Analysis	Unpres	4°C	HNO_3	H_2SO_4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
RC-VSS-137	5/13/09	1241	PCBs-8082	X	X						SO	1	G		63856-1
RC-VSS-138	5/13/09	1245	PCBs-8082	X	X						SO	1	G		-2
RC-VSS-139	5/13/09	1336	PCBs-8082	X	X						SO	1	G		-3
RC-VSS-507	5/13/09	1336	PCBs-8082	X	X						SO	1	G		-4
RC-VSS-907	5/13/09	1401	PCBs-8082	X	X						W	1	G	5.5	-5

Email Results to:
Jeff Hamel
Amy Wallace
George Franklin

Turnaround Time (TAT)
☐ 24hr* ☐ 48hr*
☐ 72hr* ☐ 5 Days*
☐ 10 Days
*Fee may apply; lab approval required

Comments / Instructions:
PCBs by 8082
Soxhlet Extraction

Project Requirements:
*Fee may apply

Report Type:
☐ MCP* ☒ Level II*
☐ CTRCP* ☐ Level III*
☐ DOD* ☐ Level IV*
☐ Standard

State:
☐ NH
☒ MA
☐ ME
☐ CT
☐ RI
Other:

State Standard: _____ (eg. S-1 or GW-1)
EDD Required: Y* N
Type: _____

Relinquished By Sampler:	Relinquished By:	Relinquished By:
Date: 5/13/09	Date:	Date:
Time: 1613	Time:	Time:
Received By:	Received By:	Received By:

analytics environmental laboratory LLC

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 63856

CLIENT: Woodard + Curran

PROJECT: UMASS - Amherst

COOLER NUMBER: _____

NUMBER OF COOLERS: 1

DATE RECEIVED: 5/13/09

A: PRELIMINARY EXAMINATION:

DATE COOLER OPENED: 5/13/09

1. Cooler received by(initials) — Date Received: NF 5/13/09

2. Circle one: Hand delivered (If so, skip 3) — Shipped

3. Did cooler come with a shipping slip? — Y — N

3a. Enter carrier name and airbill number here: _____

4. Were custody seals on the outside of cooler? — Y — N/A
How many & where: _____ Seal Date: _____ Seal Name: _____

5. Did the custody seals arrive unbroken and intact upon arrival? — Y — N/A

6. COC#: _____

7. Were Custody papers filled out properly (ink,signed, etc)? — Y — N

8. Were custody papers sealed in a plastic bag? — Y — N

9. Did you sign the COC in the appropriate place? — Y — N

10. Was the project identifiable from the COC papers? — Y — N

11. Was enough ice used to chill the cooler? — Y — N — Temp. of cooler: 5.5°C, on ice

B. Log-In: Date samples were logged in: 5/13/09 — By: NF

12. Type of packing in cooler(bubble wrap,popcorn) — Y — N

13. Were all bottles sealed in separate plastic bags? — Y — N

14. Did all bottles arrive unbroken and were labels in good condition? — Y — N

15. Were all bottle labels complete(ID,Date,time,etc.) — Y — N

16. Did all bottle labels agree with custody papers? — Y — N

17. Were the correct containers used for the tests indicated: — Y — N

18. Were samples received at the correct pH? — Y — N

19. Was sufficient amount of sample sent for the tests indicated? — Y — N

20. Were bubbles absent in VOA samples? — Y — N/A

If NO, List sample #'s: _____

21. Laboratory labeling verified by (initials): — Date: CP 5/13/09

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

May 19, 2009

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

RE: Analytical Results Case Narrative
Analytics # 63883
UMass LGRC Proj# 210918

Dear Mr. Franklin;

Enclosed please find the analytical results for samples submitted for the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed Polychlorinated Biphenyls (PCBs) by EPA Method 8082.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II data package has been assembled in the following order:

Case Narrative/Non-Conformance Summary
Sample Log Sheet - Cover Page
PCB Form 1 Data Sheet for Samples and Blanks
Chromatograms
PCB Form 10 Confirmation Results
PCB Form 3 MS/MSD (LCS) Recoveries
Chain of Custody (COC) Forms

QC NON CONFORMANCE SUMMARY

Sample Receipt:
No exceptions.

PCBs by EPA Method 8082:
No QC deviations.

If you have any questions on this data submittal, please do not hesitate to contact me.

Sincerely,
ANALYTICS Environmental Laboratory, LLC

Stephen Knollmeyer
Laboratory Director

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

Report Number: 63883

Revision: Rev. 0

Re: UMASS-LGRC **210918**

Enclosed are the results of the analyses on your sample(s). Samples were received on 18 May 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
63883-1	05/18/09	LGRC-VSS-140	EPA 8082 (PCBs only)	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 5/19/2009

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

analytics environmental laboratory LLC

Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-130	70-130	EPA 8260B
Toluene-d8	70-130	70-130	
Bromofluorobenzene	70-130	70-130	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	EPA 624/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA0	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH

PCB
DATA SUMMARIES

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 19, 2009

SAMPLE DATA

Lab Sample ID: B05189PSOX
Matrix: Soil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 05/18/09
Analysis Date: 05/19/09

CLIENT SAMPLE ID

Project Name: UMASS-LGRC
Project Number: 210918
Field Sample ID: Lab QC

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	95	%
Decachlorobiphenyl	84	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB Report

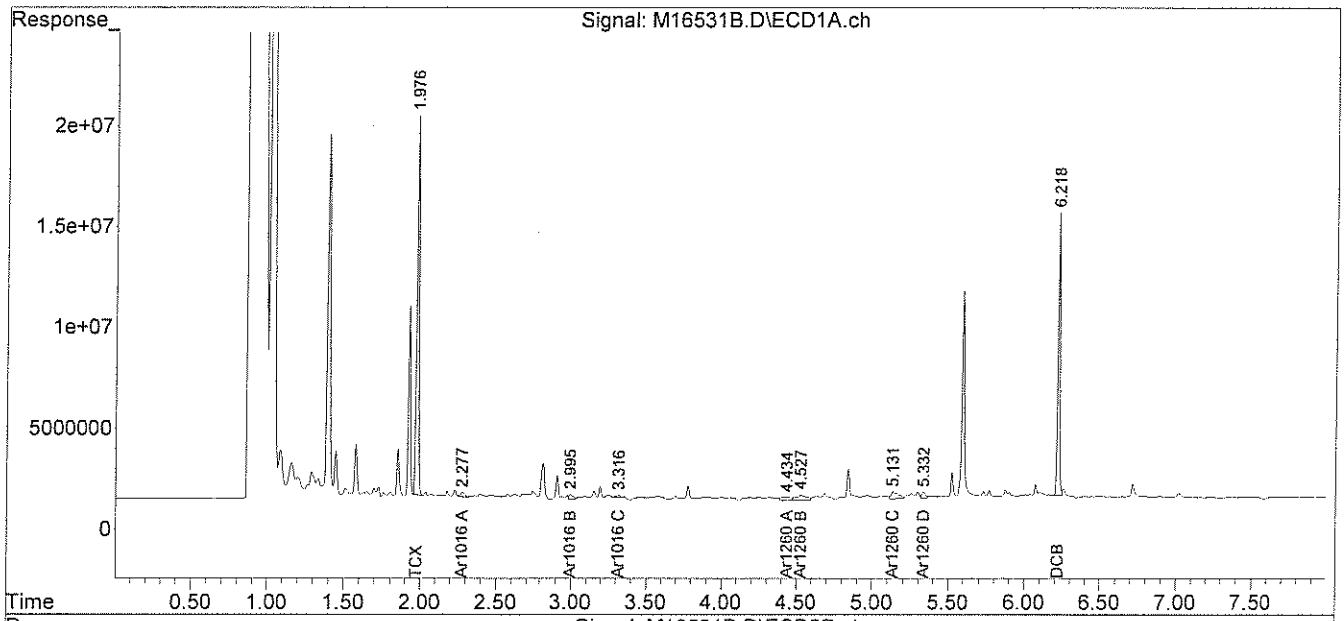
Authorized signature

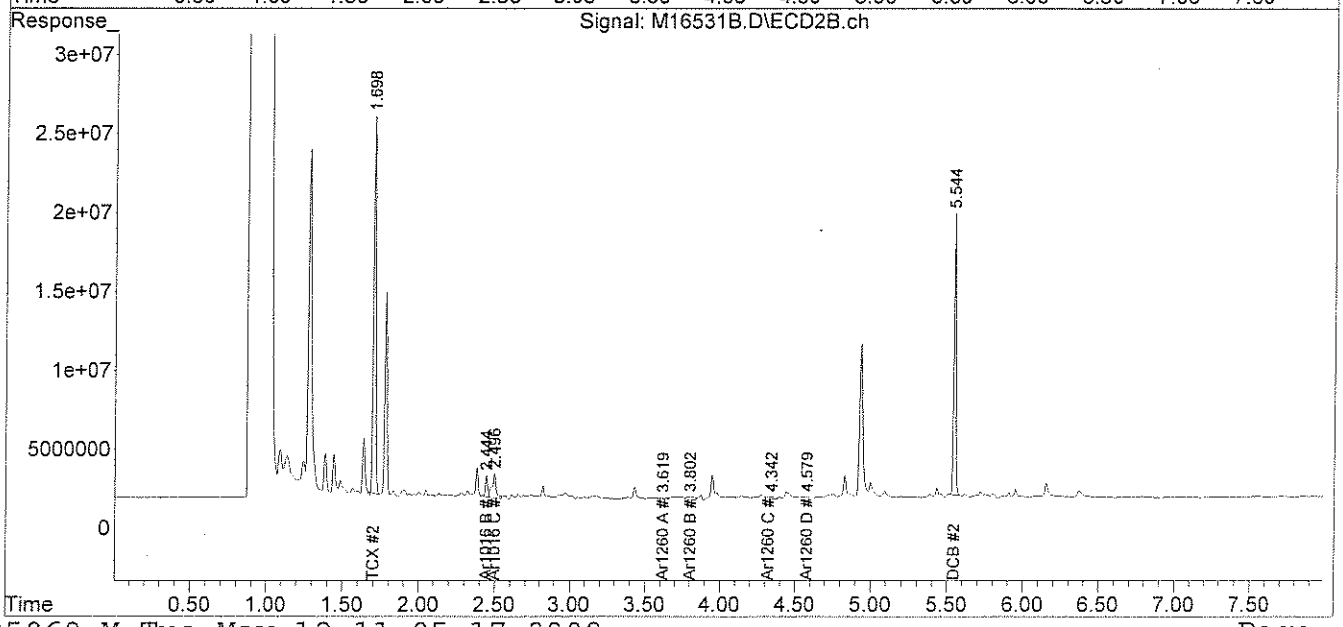
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051909-M\
Data File : M16531B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 19 May 2009 10:56 am
Operator :
Sample : B05189PSOX,,A/C
Misc : SOIL
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 19 11:05:17 2009
Quant Method : C:\msdchem\1\METHODS\PCB05069.M
Quant Title : Aroclor 1016/1260
QLast Update : Thu May 07 09:09:28 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. George Franklin
Woodard & Curran
35 NE Business Center Suite 180
Andover MA 01810

May 19, 2009

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: UMASS-LGRC

Project Number: 210918

Field Sample ID: LGRC-VSS-140

Lab Sample ID: 63883-1
Matrix: Solid
Percent Solid: 95
Dilution Factor: 1.0
Collection Date: 05/18/09
Lab Receipt Date: 05/18/09
Extraction Date: 05/18/09
Analysis Date: 05/19/09

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	**284**
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	90	%
Decachlorobiphenyl	76	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Results are expressed on a dry weight basis.

PCB Report

Authorized signature

PCB
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63883

Sample: 63883-1,,A/C

Data File: M16536.D

Dilution Factor: 1.0

	Column #1	Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	284	208	30.6	

Column to be used to flag RPD values greater than QC limit of 40%

* Values outside QC limits

Comments: _____

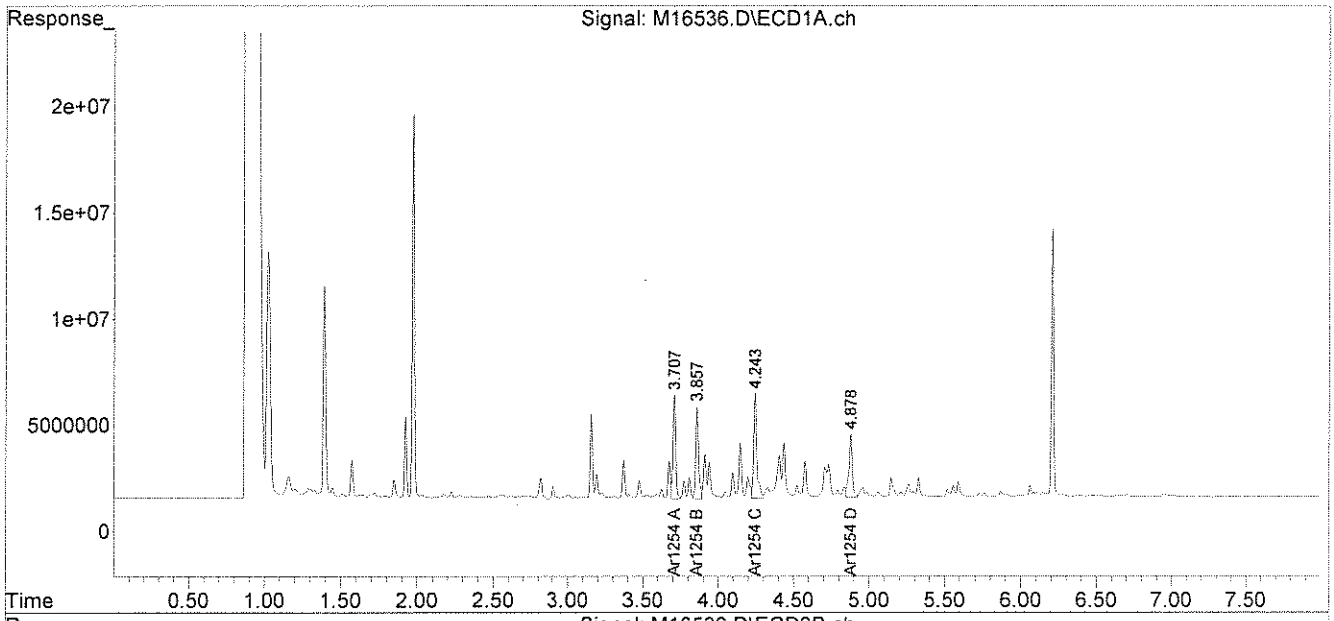
PCB FORM 10

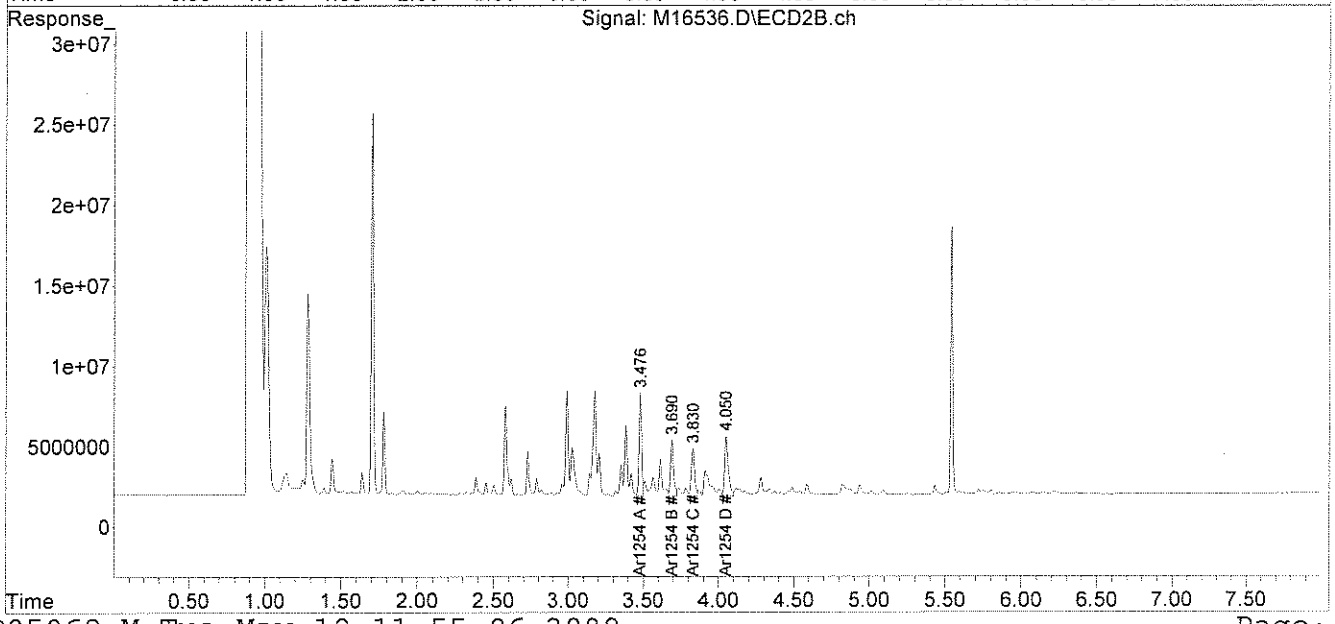
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\051909-M\
Data File : M16536.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 19 May 2009 11:46 am
Operator :
Sample : 63883-1,,A/C
Misc : SOIL
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 19 11:55:06 2009
Quant Method : C:\msdchem\1\METHODS\54SP05069.M
Quant Title :
QLast Update : Thu May 07 09:55:14 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





PCB
QC FORMS

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:PCBQC.doc

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 63883

Non-spiked sample: B05189PSOX,,A/C

Spike: L05189PSOX,,A/C

Spike duplicate: LD05189PSOX,,A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	200	200	65	140	30	0	179	90		178	89		0.4	
PCB 1260	200	200	60	130	30	0	211	106		170	85		21.3	
PCB 1016 #2	200	200	65	140	30	0	239	120		211	105		12.8	
PCB 1260 #2	200	200	60	130	30	0	222	111		194	97		13.5	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

PCB FORM 3

CHAIN OF CUSTODIES

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:COC.doc

Chain Of Custody Form

analytics environmental laboratory LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 5 06/18/08

Samples were:
1) Shipped or hand-delivered
2) Temp blank °C 0.3
3) Received in good condition Y or N
4) pH checked by: N/A
5) Labels checked by: JW 5.18.09

oject#: 210918 Proj. Name: UMASS - LGRC
ompany: Woodard & Curran
ontact: GEORGE FRANKLIN/AMY WALLACE
ddress: 35 New England Business Ctr.
Andover, MA 01810
hone: (866)702-6371 PO# Quote # WCI 8091001
am (Signature): Amy Wa

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
GW = Groundwater
DW = Drinking Water
S = Soil/Sludge
O = Oil
E = Extract
X = Other

Container Key
P=plastic G=glass

S	on Identification	Sample Date	Sample Time	Analysis	Unpres	4°C	HNO_3	H_2SO_4	HCL	Methanol	Other	Matrix	Container number/type		pH	Analytics Sample #
L	C-VSS-140	5/18/09	755	PCB		X						S	1	G		63883-1

Received By: Time: 11:15 Date: 5-18-09
Received By: Time: Date:
Received By: Time: Date:

Relinquished By Sampler: Amy Wa
Relinquished By:
Relinquished By:

nail Results to:
eorge Franklin
eff Hamel
my Wallace

Turnaround Time (TAT)
☐ 24hr* ☒ 48hr*
☐ 72hr* ☐ 5 Days*
☐ 10 Days
ee may apply; lab approval required

Comments / Instructions:
PCBs by 8082
SOXHLET EXTRACTION

Project Requirements:
*Fee may apply

Report Type:
☐ MCP* ☑ Level II*
☐ CTRCP* ☐ Level III*
☐ DOD* ☐ Level IV*
☐ Standard

State:
☐ NH
☐ MA
☐ ME
☐ CT
☐ RI
Other: TSCA

State Standard: _____ (eg. S-1 or GW-1)

EDD Required: Y* N
Type: pdf

analytics environmental laboratory LLC

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 63883

CLIENT: Woodard & Curran

PROJECT: UMASS-LGRC

COOLER NUMBER: _____

NUMBER OF COOLERS: 1

DATE RECEIVED: 5-18-09

A: PRELIMINARY EXAMINATION:

DATE COOLER OPENED: 5-18-09

1. Cooler received by(initials) JF — Date Received: 5-18-09

2. Circle one: Hand delivered (If so, skip 3) — Shipped

3. Did cooler come with a shipping slip? Y N

3a. Enter carrier name and airbill number here: _____

4. Were custody seals on the outside of cooler? Y (N)
How many & where: _____ Seal Date: _____ Seal Name: _____

5. Did the custody seals arrive unbroken and intact upon arrival? Y (N/A)

6. COC#: _____

7. Were Custody papers filled out properly (ink,signed, etc)? (Y) N

8. Were custody papers sealed in a plastic bag? (Y) N

9. Did you sign the COC in the appropriate place? (Y) N

10. Was the project identifiable from the COC papers? (Y) N

11. Was enough ice used to chill the cooler? (Y) N — Temp. of cooler: 0.3°C

B. Log-In: Date samples were logged in: 5-18-09 By: JF

12. Type of packing in cooler (bubble wrap, popcorn) (Y) N

13. Were all bottles sealed in separate plastic bags? (Y) N

14. Did all bottles arrive unbroken and were labels in good condition? (Y) N

15. Were all bottle labels complete(ID,Date,time,etc.) (Y) N

16. Did all bottle labels agree with custody papers? (Y) N

17. Were the correct containers used for the tests indicated: (Y) N

18. Were samples received at the correct pH? Y (N/A)

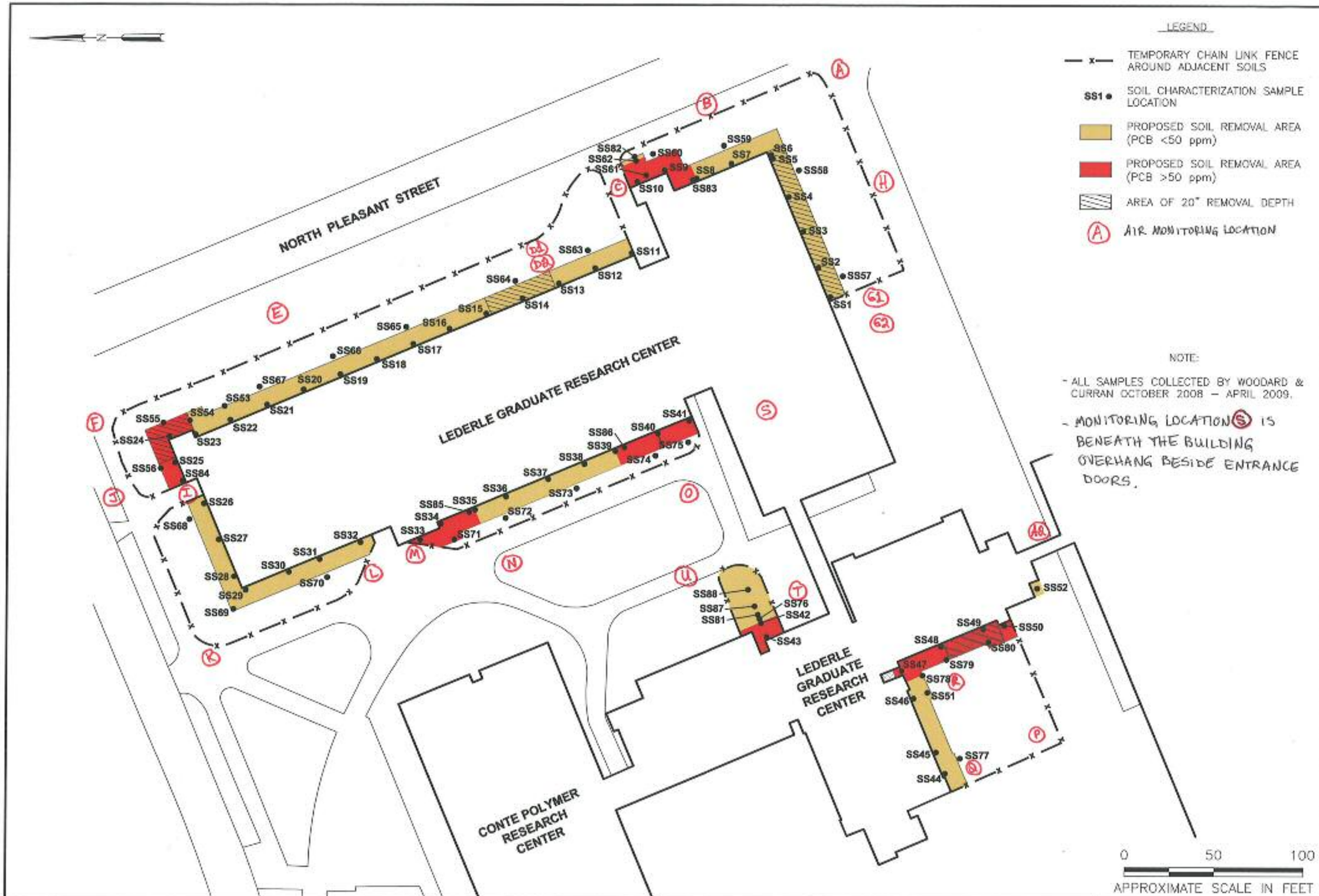
19. Was sufficient amount of sample sent for the tests indicated? (Y) N

20. Were bubbles absent in VOA samples? Y (N/A)

If NO, List sample #'s: _____

21. Laboratory labeling verified by (initials): JW Date: 5.18.09

APPENDIX C: AIR MONITORING LOGS



33 NEW ENGLAND BUSINES CENTER
ANDOVER, MASSACHUSETTS 01810
978.702.5371 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WOODARD & CURRAN

PROPOSED SOIL REMOVAL AREAS

DESIGNED BY: EVR
DRAWN BY: EVR
CHECKED BY: JKH
Figure 2-2.dwg

UMASS AMHERST
LEDERLE GRADUATE RESEARCH CENTER

JOB NO: 210918
DATE: JUNE 2009
SCALE: AS NOTED

FIGURE 2-2

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: A (on top of sewer ~~north~~ manhole, on sidewalk 25' NW of the end of the crosswalk)

Date	Time	Dust Level mg/M³	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/13/09	1801	0.037	50	sunny	none	light traffic
4/14/09	7:01	0.042	30	cool	none	light-mod. traffic
	8:03	0.027	30	clear	none	light traffic
	9:25	0.039	40	sunny calm	"	"
	10:29	0.039	40	"	soil excavation SS11-SS12	"
	11:21	0.080	45	"	"	mod. traffic
	13:13	0.087	55	sunny light NW breeze	soil excavation SS12-SS13	light traffic
	14:00	0.063	"	"	"	"
	14:45	0.061	"	"	none - machines off.	"
4/15/09	7:00	0.030	35	sunny calm	none	light traffic
	8:09	0.067	40	"	excavation @ SS15	"
	9:10	0.050	45	"	"	"
	10:13	0.018	"	"	"	"
	11:11	0.022	50	sunny N breeze	excavation @ SS16	"
	13:17	0.067	55	sunny N-E breeze	excavation @ SS17	"
	14:00	0.039	55	sunny NE breeze	excav. SS17-SS18	moderate traffic
	15:23	0.059	55	"	NONE MACHINES OFF	"
4/16/09	BACKGROUND	MOVED	DUE TO	SHIFTING	WIND	DIRECTION
4/17/09	0915	0.075	60	Sunny W Breeze	Excavation South Side Low Rise	NO BKGD READING LOCATION
	0907	0.090	60	"	"	Buses idling High Traffic
	1133	0.076	"	"	"	Moderate Traffic
	1430	0.083	65	"	"	Machine off 11:45 → 1400.

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: A (page 2 of 2)

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/20/09	0823	0.081	45	overcast	pre work	
	1007	0.074	50	"	Excavation East Side Library	Wind From North
	1103	0.051	50	overcast, slight breeze	Non. haz. Sample # SS6-SS8	wind from South
4/21/09	1135	0.036	high 40s	overcast slight breeze	loading non haz soil Sample 10 # SS6-SS8	wind from North
	1241	0.048	"	"	"	" heavy traffic
	1397	0.050	"	"	"	"
4/23/09	1010	0.081	low 50s	sunny slight breeze	haz soils, 6", SS8-SS10	wind NNE, side walk dusty work area very wet.
	1102	0.082	"	"	"	"
	1219	0.086	"	"	"	"
	1320	0.087	60s	"	"	heavy foot traffic
4/30/09	1035	0.016	70s	sunny slight	non haz soils, 6-14" SS8-SS10	wind from the south
	1245	0.026 ~~0.20~~	"	"	"	"
	1402	0.052	"	"	"	"
	1957	0.017	"	"	end of the day monitoring	"
5/1/09	~~[illegible]~~ 0708	0.088	50s	overcast humid	pre work monitoring (area behind generator	slight breeze from south
	0749	0.054	"	"	area behind generator east side	"
5/4/09	1520	0.087	65	hazy calm	none	machines off

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: A1 (BACKGROUND)

Date	Time	Dust Level mg/M³	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/16/09	0710	0.025	50	CLEAR	MACHINES WARMING	NEW BACKGROUND LOCATION
	1005	0.009	60	SUNNY BREEZE NE	EXCAVATION EAST SIDE LOW RISE	
	1116	0.029	65	"	"	
	1435	0.034	"	"	"	
	1520	0.041	"	"	"	HIGH TRAFFIC VOLUME
4/17/09	0700	0.049	60	SUNNY CLEAR	PRE WORK BACKGROUND	
4/20/09	0958	0.077	50	OVERCAST	EXCAVATION EAST SIDE LIBRARY	WIND FROM NORTH
	1120	0.047	50	partly sunny		wind from south
	1238	0.051	"	"	Haz. soil sample # SS23-SS25	"
	1328	0.053	"	overcast breezy	clearing trees on north side of low rise	wind from south
	1430	0.069	"	"	Top 6" of haz soils sample # SS23-SS25	Heavy traffic, wind from south
	1547	0.059	"	"	end of day monitoring	"
4/21/09	0710	0.026	40s	misty, overcast	start of the day, pre work monitoring	misty.
	0811	0.43 ~~0.034~~ MBS	"	"	haz. soils SS23-SS25 top 6"	misty, light traffic
	0913	0.038	"	"	"	misty, moderate traffic
4/28/09	0848	0.051	60s	Sunny breezy	now non-haz work SS23-SS25	house demo across st. wind from N.
	1000	0.072	"	"	"	"
5/5/09	1340	0.030	55	RAIN	EXC N END L.R.	

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: A2 BKGD (AT WALGREAN HOUSE) (150FT WEST OF EXCAVATION)

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/17/09	0815	0.080	55	SUNNY SLIGHT BREZE	EXCAVATION SOUTH SIDE LOWRISE	
	0910	0.087	60	"	"	HIGH TRAFFIC VOLUME. W. BREEZE
	1125	0.072	65	"	"	WIND "SWIRLS" IN AREA.
	1442	0.070	65	"	"	MACHINES OFF 11:45-1400.
4/20/09	0828	0.066	65	OVERCAST	PRE WORK SAMPLE	
5/4/09	1380	0.027	65	hazy calm	excavation haz @ SS43	
	14:19	0.026	65	"	excav. rasing lowrise south	tree chipping crew on N. Pleasant St.
5/5/09	07:15	0.024	50°	OVERCAST BREEZE	PRE-EXCAVATION SAMPLE	BKGD LOCATION
	0838	0.024	50	"	EXCAVATION EAST SIDE LIBRARY	
	0850	—	—	—	MACHINES OFF	—
5/15/09	1425	0.008	55	RAIN WIND	EXCAVATION non-haz E. SIDE TOWER A	
	1520	—	—	—	MACHINES OFF	—
5/8/09	730	0.012	55	sunny	non-haz e-side of highrise	—
	8:50	0.011	55	overcast	"	—
	948	0.011	60	sunny	non-haz e. side highrise	—
	10:35	0.024	65	sunny	non-haz. w. side lowrise	—
	1215	0.024	65	sunny breezy	haz w. side highrise	—
	1322	0.030	"	"	"	—
	1410	0.032	"	"	non-haz w side highrise	—
5/18/09	710	0.009	50	calm overcast	none	—
	740	0.014	"	"	excavation east high rise	

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: B (5' north of a green signpost with no sign, on sidewalk)

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/14/09	7:02	0.036	30	clear/cool	none	light-mod. traffic
	8:04	0.050	30	"	"	mod. traffic; bus fumes
	9:26	0.041	40	sunny calm	"	light traffic
	10:30	0.043	40	"	excavation SS11-SS12	"
	11:20	0.051	45	"	"	"
4/20/09	0819	0.074	45	overcast breezy	Machines off pre work	
	1004	0.079	50	"	EXCAVATION EAST SIDE LIBRARY.	wind from NORTH
	1106	0.044	50	overcast, breezy	non haz. samples SS6-SS8	wind from south
4/21/09	1142	0.037	40s	overcast slight breeze	non haz samples SS6-SS8	wind from north
	1245	0.045	"	"	"	" heavy traffic
	1341	0.049	"	"	"	"
4/24/09	1014	0.069	50s	sunny slightbreeze	haz soils, 6", SS6-SS8	sidewalk dusty, work area wet.
	1004	0.079	"	"	"	"
	1217	0.068	"	"	"	"
	1317	0.102	60s	"	"	heavy foot traffic
4/30	1035	0.029	70s	sunny breezy	~~non haz soils SS8-SS10~~ pre-work monitoring	wind from the south
	1241	0.018	"	"	non-haz soils SS8-SS10	"
	1401	0.098	"	"	"	"
	1454	0.028	"	"	end of the day monitoring	"
5/5/09	0726	0.027	50	overcast breezy	Pre Excavation sample	
	~~0733~~ 0833	0.026	"	"	Excavation East side Library	
	0850				Machines off	

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

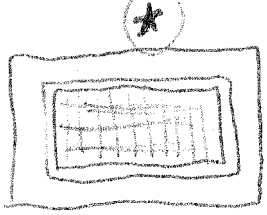
Air Monitoring Location: C (middle of sidewalk ⊥ to street, 12' north of hydrant)

Date	Time	Dust Level mg/M³	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/13/09	15:02	0.037	50	sunny	none	light traffic
4/14/09	7:04	0.034	30	clear/cool	none	light-mod. traffic
	8:05	0.058	"	"	none	mod. traffic; bus passi
	9:27	0.060	40	sunny calm	none	light traffic
	10:27	0.063	"	"	soil excavation, SS11-SS12	light traffic
	11:19	0.047	45	"	" "	"
	13:18	0.061	55	sunny light NW breeze	excavation SS12-SS13	"
	14:01	0.060	"	"	"	"
	14:46	0.056	"	"	none-machines off	"
4/15/09	7:01	0.032	35	sunny calm	none	light traffic
4/16/09	0722	0.020	50	Clear No Breeze	Machines warming	
4/20/09	1006	0.073	50	overcast	Excavation East Side Library	Wind From North
	1110	0.048	50	partly sunny	non haz soils # SS6-SS8 samples	wind from south
4/21/09	1140	0.036	40s	overcast Slight breeze	non haz soils # SS6 - SS8	wind from North
	1245	0.044	"	"	"	" heavy traffic
	1349	0.049	"	"	"	"
4/24/09	1012	0.055 ~~0.069~~	high 50s	Sunny Slight breeze	haz. soils, 6", SS8-SS10	Sidewalk dusty, Work area wet
	1102	0.060	"	"	"	"
	1215	0.049	"	"	"	"
	1313	0.078	"	"	"	heavy foot traffic
4/30/09	1033	0.015	60s	Sunny breezy	~~non haz soil SS8-SS10 6-14"~~ pre work monitoring	wind from south
	1240	0.062	"	"	non haz soils SS8-SS10 6-14"	"

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: C (middle of sidewalk, ⊥ to street, 12' North of hydrant)

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/30/09	1359	0.035	70s	Sunny breezy	non-haz soils SS8-SS10	breeze from S.
	1450	0.016	"	"	end of the day monitoring	~~End of~~
5/01/09	0702	0.033	50s	Overcast humid	pre work monitoring area behind generator	breeze from south
	0747	0.035	"	"	area behind generator east side	"
5/4/09	0728	0.029	50	Overcast Breeze	Pre Excavation Sample	
	0830 ~~0730~~	0.026	"	"	Excavation East Side Library	
	0850	—	—	—	Machines off	—



AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

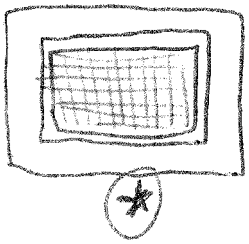
Air Monitoring Location: D1 (east side air intake)

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/13/09	15:03	0.038	50	sunny	none	light traffic
4/14/09	7:05	0.042	30	clear/cool	none	light - mod. traffic
	8:06	0.031	"	"	"	light - mod. traffic
	9:28	0.046	40	sunny, calm	none	light traffic
	10:25	0.038	40	"	excavation, SS11-SS12	"
	11:18	0.057	45	"	same as above	"
	13:14	0.061	55	sunny light NW breeze	excavation SS12-SS13	"
	14:02	0.052	"	"	"	"
	14:47	0.060	"	"	none-machines off	"
4/15/09	7:02	0.054	35	sunny calm	none	light traffic
	8:10	0.037	40	"	excavation, SS15	"
	9:08	0.039	45	"	"	"
	10:14	0.029	"	"	"	"
	11:09	0.021	50	sunny N breeze	excavation SS16	"
	13:16	0.039	55	"	excavation SS17	"
	14:01	0.019	55	sunny NE breeze	excav. SS17-SS18	moderate traffic
	15:20	0.048	55	"	NONE MACHINES OFF	"
4/16/09	0750	0.037	50	SUNNY NO BREEZE	MACHINES WARMING	INC. TRAFFIC AND WIND
	1012	0.008	60	SUNNY NO BREEZE	EXCAVATION EAST SIDE LOW RISE	
	1130	0.025	65	"	"	
	1151	0.030	"	"	"	
	1452 ~~1432~~	0.032	"	"	"	HIGH TRAFFIC VOLUME

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: D1 (east side air intake) (page 2 of 2)

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/16/09	1532	0.038	65	Sunny NE Breeze	Excavation East Side Low Rise	
	0700	0.036				
4/20/09	1235	0.045	55	Partly Sunny Slight breeze	Haz. soil. Sample # SS23-SS25	wind from the South
	1324	0.050	50	Overcast breezy	Clearing brush from north side of low rise	"
	1432	0.082	"	"	Haz. Soils (top 6") Sample ID SS23-SS25	wind from South, Heavy traffic
4/21/09	1138	0.034	high 40s	Over cast slight breeze	non haz soils, SS06-SS8	wind from north, Mod traffic
	1250	0.050	"	"	"	" heavy traffic
	1349	0.051	"	misty "	"	"
4/24/09	1004	0.051	low 50s	Sunny slight breeze	haz. area, 6", SS6-SS8	wind N/NE
	1101	0.067	"	"	"	"
	1218	0.067	"	"	"	"
	1325	0.081	"	"	"	heavy foot traffic
4/28/09	1510	0.072	Sunny 90s	Sunny windy	Soils (now non-haz) SS23-SS25	house being demolished across st. wind from NW
	1550	0.082	"	"	end of the day monitoring no machines running	"
4/29/09	0745	0.047	60s	Sunny	Pre-work monitoing	"
	0847	0.065	"	"	now non-haz work SS23-SS25	
4/30/09	1247	~~0.016~~ 0.029 KBs	"	Sunny breezy	non haz soil SS8-SS10	breeze from the South
	1407	0.039	"	"	"	"
	1450	0.028	"	"	end of the day monitoring	"
5/1/09	0710	0.041	50s	overcast humid	Pre work monitoing area behind generator	Slight breeze
	0745	0.035	"	"	area behind generator east side	"



AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: D2 (west side air intake)

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/14/09	9:29	0.043	40	sunny, calm	none	lt. traffic
	10:26	0.038	40	"	excavation, SS11-SS12	light traffic
	11:19	0.050	45	"	excavation, SS11-SS12	"
	13:15	0.084	55	sunny lt. NW breeze	excavation SS12-SS13	"
	14:03	0.067	"	"	"	"
	14:48	0.080	"	"	none - machines off	"
4/15/09	7:03	0.064	35	sunny, calm	none	light traffic
	8:11	0.034	40	"	excavation @ SS15	"
	9:09	0.051	45	"	"	"
	10:15	0.026	"	"	"	"
	11:08	0.036	50	sunny N breeze	excavation SS16	"
	13:15	0.053	55	"	excavation SS17	"
	14:02	0.045	55	sunny NE breeze	excav. SS17-SS18	moderate traffic
	15:18	0.059	55	"	NONE - MACHINES OFF	"
4/16/09	0753	0.017	50	CLEAR NO BREEZE	MACHINES WARMING	INC. TRAFFIC INC. BREEZE
	1015	0.010	60	SUNNY NE BREEZE	EXCAVATION EAST SIDE LOWRISE	
	1126	0.023	65	"	"	
	1148	0.038	"	"	"	NORMAL VARIATION IN LEVELS
	1447	0.023	"	"	"	
	1535	0.040	"	"	"	HIGH TRAFFIC VOLUME
	0703	0.050				
5/01/09	0708	0.062	50s	overcast humid	pre work monitoring area behind generator	breeze from South

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: D2 (page 2 of 2)

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
05/01/09	0746	0.059	50's	Overcast humid	Area behind generator east side	breeze from the south

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: E (due east of SS20, outside fence, on lawn)

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/14/09	13:19	0.060	55	sunny light NW breeze	excavation SS12-SS13	light traffic
	14:05	0.053	55	"	"	"
4/15/09	8:12	0.032	40	sunny calm	excavation @ SS15	light traffic
	9:07	0.053	45	"	"	"
	10:16	0.056	"	"	"	"
	11:10	0.025	50	Sunny N breeze	excavation @ SS16	"
	13:17	0.047	55	"	excavation @ SS17	"
	14:03	0.037	55	sunny NE breeze	excav. SS17-SS18	moderate traffic
	15:15	0.034				
4/16/09	0718	0.025	50	Clear NE Breeze	Machines warming	
	1010	0.010	60	Sunny NE Breeze	Excavation East Side Lowrise	Bkgd 0.009 Re count 1020 0.009
	1123	0.030	65	--	--	Bus at time of Sample.
	1445	0.033	--	--	--	
	~~1427~~ 1527 off	0.035	--	--	--	High traffic volume
	0704	0.056				

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: F (MANHOLE AT CORNER OF SIDEWALKS ~~GRASS LINE WITH BUILDING CORNER~~)

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/16/09	0715	0.024	50	CLEAR	MACHINES WARMING	SLIGHT BREEZE FROM NORTH
	1008	0.008	60	SUNNY BREEZE NE	EXCAVATION EAST SIDE LOWRISE	
	1120	0.022	65	"	"	
	1438	0.036	"	"	"	
	1524	0.028	"	"	"	HIGH TRAFFIC VOLUME
4/17/09	0702	0.051	60	SUNNY CALM	PRE-WORK READING	
4/20/09	1230	0.048	55	Sunny Slight breeze	Haz. Soils. Sample # SS23-SS25	wind from South moderate traffic
	1325	0.045	50	Overcast breezy	Clearing brush from north side of building	"
	1426	0.070	50	overcast breezy	top 6" Haz soils Samp. # SS23-SS25	wind from South Heavy traffic
	15:49	0.059	50	"	end of the day monitoring	"
4/21/09	0712	0.009	40s	misty overcast	Start of the day monitoring	excavator warming up.
	0817	0.034	"	"	haz soils SS23-SS25 top 6"	misty - light traffic
	0911	0.038	"	"	"	misty - moderate traffic
	1446	0.063	"	"	non haz soils SS26-SS29	"
	1533	0.055	"	rainy	end of the day conditions	
4/22/09	0709	0.021	50s	Sunny Slight breeze	Start of day monitoring digging non haz SS26-SS32	light traffic, wind from E
	0811	0.013	"	Sunny	non-haz soils, SS26-SS32 area	light traffic, calm
	0907	0.022	"	"	"	"
	1009	0.008	"	"	"	Mod. traffic "
	1012	0.017	"	"	"	"
4/28/09	1512	0.041	90s	Sunny windy	now non-haz soils area SS23-SS25	house demolishing across st wind from NW
		0.059				

0.065

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: F (page 2 of 2)

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/29/09	0746	0.064	60s	Sunny Slight breeze	Pre-work monitoring	house demo across st. Wind from north
	0845	0.064	"	"	now non-haz soil SS23-SS25	"
	0958	0.037	"	"	"	"
5/4/09	1145	0.031	60	hazy calm	excavation NW @ VSS-044	—
5/5/09	1347	0.027	55	RAIN	EXCAVATION N END L.R.	

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: G1 (east side of air intake)

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/16/09	1630	0.032	60	Sunny Breeze	None TEI offsite	BKGD for location
4/17/09	0710	0.080	60	Sunny Breeze	None Pre-work Reading	[illegible] 0.030 @ 15 sec. for [illegible]
	0826	0.070	60	Sunny Breeze	Excavation South Side Low Rise	
	0913	0.053	"	"	"	Lower than BKGD Reading
	1131	0.061	"	"	"	Breeze "Swirls" in area
	1147	0.065	65	"	"	Machines off 11:45-1400.
4/20/09	0826	0.078	45	Overcast	Pre work sample	
	1100	0.063 ~~0.072~~ KBS	50	Overcast Breezy	Non. haz soils sample # SS6-SS8	
4/30/09	1039	0.018	60s	Sunny breezy	pre work monitoring	wind from the south
	12:49	0.020	"	"	non haz soils SS8-SS10	"
	1404	0.032	"	"	"	"
5/4/09	14:18	0.033	65	hazy calm	exc. redigs south lowrise	tree chipping crew on N. Pleasant
	15:23	0.027	65	"	none	machines off
5/4/09	0721	0.030	50	Overcast Breeze	Pre-Excavation	

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: G2 (NORTHWEST CORNER OF AIR INTAKE)

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/16/09	1633	0.032	60	SUNNY BREEZE	NONE TEI OFFSITE	BKGD READING FOR LOCATION.
4/17/09	0705	0.088	50	SUNNY CALM	NONE PRE-WORK READING	SPIKE TO 0.158 FOR 10 SEC.
	0825	0.083	55	SUNNY BREEZE	EXCAVATION SOUTH SIDE LOWRISE	
	00915	0.057	60	--	--	LOWER THAN BKGD READING
	1129	0.057	--	--	--	WIND "SWIRLS" IN AREA
	1145	0.073	65	--	--	MACHINES OFF 11:45-1400
4/20/09	0830	0.079	45	OVERCAST	PRE WORK SAMPLE	
5/4/09	14:17	0.029	65	hazy calm	exc. redigs south face	tree chipping crew on N. Pleasant
5/5/09	07:19	0.040	50	OVERCAST BREEZE	PRE EXCAVATION SAMPLE	

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: H (AT 3RD COLUMN FROM RIGHT OUTSIDE FORCE)

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/17/09	0818	0.073	60	SUNNY W. BREEZE	EXCAVATION SOUTH SIDE LOW RISE	
	0908	0.085	"	"	"	HIGH TRAFFIC VOLUME
	1133	0.056	"	"	"	MODERATE TRAFFIC VOLUME
	1435	0.054	65	"	"	MACHINES OFF 11:45 - 1400.
4/20/09	0824 ~~0826~~ OFF	0.069	45	OVERCAST	PRE WORK SAMPLE	
5/4/09	14:16	0.035	65	hazy calm	excav. redigs@V55-029	tree chipping crew at end of walkway on N. Pleasant
	15:21	0.050	"	"	none	machines off
5/5/09	0723	0.032	50	OVERCAST BREEZE	PRE EXCAVATION SAMPLE	
	0835 ~~0735~~ OFF	0.024	"	"	EXCAVATION EAST SIDE LIBRARY	
	0850				MACHINES OFF	

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: I

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/20/09	1438	0.087	50°	Overcast breezy	~~Ha non~~ haz. soils, samp. # SS23 - SS25	wind from the south, mod. traffic
	1551	0.054	50	"	end of the day monitoring	wind from the south, light traffic
4/21/09	0714	0.032	40s	misty	Pre work monitoring	calm winds
	0813	0.055	"	"	digging, haz soil # SS25 - SS23	misty, light traffic
	0906	0.045	"	"	"	"
	1450	0.085	"	" overcast	non-haz soils, 14" SS26-SS29	misty, mod. traffic
	1530	0.054	"	raining	end of the day monitoring	machines not running
4/22/09	0714	0.029	50s	sunny breezy	start of the day monitoring	light traffic wind from the east
	0807	0.045	"	sunny calm	non haz soils, 14" SS26-SS32	light traffic, calm
	0902	0.021	"	"	"	"
	1006	0.025	"	"	"	moderate traffic calm
	1015	0.025	"	"	"	"
	1435	0.028	high 40's	overcast sprinkling	"	"
04/23	0630	0.006	40s	sunny breeze	non haz soil, 14" SS26-SS32, start of day	wind from the west, light traffic
4/28/09	1513	0.065	90s	sunny windy	now non-haz soils SS23-SS25	house being demolished across st. wind from NW
	1543	0.058	"	"	end of the day monitoring machines off	"
4/29/09	0750	0.033	60s	sunny breeze	pre-work monitoring	house demo across st wind from N.
	0841	0.052	"	"	now non haz soil SS23-SS25	"
	0959	0.044	"	"	"	"
5/4/09	11:16	0.035	60	muggy calm	excavation NW redig @ VSS-044	—
5/5/09	1349	0.017	55	RAIN	EXCAVATION NE L12	

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: J

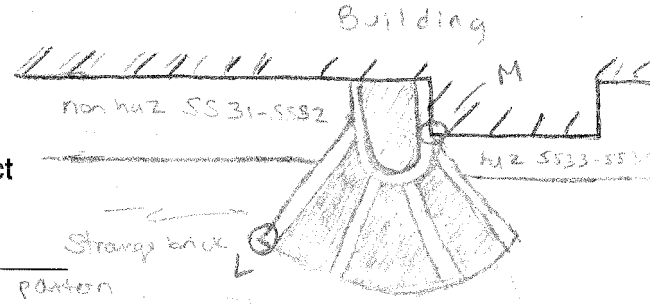
Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/21/09	0819	0.046	40s	misty overcast	Haz soils, top 6" # SS23-SS25	calm winds, low traffic volumes.
	0908	0.043	"	"	"	"
	1449	0.058	"	"	non-haz soils - 14" SS26-SS29	Misty, moderate traffic
	1532	0.068	"	rainy	end of the day monitoring	" machines not moving
4/22/09	0712	0.036 ~~0.055~~	50s	Sunny breezy	Start of the day monitoring	wind from the east light traffic
	0809	0.016	"	Sunny	non haz soils, 14", SS26-SS32	light traffic, calm
	0904	0.018	"	"	"	"
	1008	0.011	"	"	"	mod. traffic calm
4/28/09	1515	0.043	90s	sunny windy	now non-haz soils, SS23-SS25	house being demolished across st. wind from N
	1545	0.057	"	"	end of the day monitoring machines off	"
4/29/09	0748	0.032	60s	sunny breeze	pre work monitoring	house demo across st. wind from N
	0843	0.031	"	"	now non-haz soils SS23-SS25	"
	0959	0.036	"	"	"	"

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: K

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/21/09	1454	0.057	40's	overcast misty	non-haz soil, SS26-SS29 14"	calm, mod. traffic volume
4/22/09	0716	0.033	50s	sunny breezy	pre work ~~sampling~~ monitoring	wind from east, light traffic
	0813	0.031	"	sunny	non-haz soils, SS26-SS32, 14"	light traffic, calm
	0905	0.022 ~~0.019~~	"	"	"	"
	1011	0.005	"	"	"	mod. traffic calm
	1125	0.034	"	"	"	"
	1432	0.018	high 40s	overcast misty	"	"
04/23/09	0639	0.040	low 40s	sunny breezy	pre work activities	breeze from the west, light traffic
04/24/09	1440	0.038	high 60's	sunny breezy	non haz soils, 14" SS31-SS32	heavy traffic breeze from NNE
	1535	0.032	"	"	end of the day monitoring	machines not running
5/4/09	0735	0.062	50 muggy →	foggy, calm	(background) none yet - prep.	machines not running
5/4/09	0821	0.047	"	"	(haz) excavation @ SS41	—
	1018	0.036	60	hazy calm	(non-haz) excavation SS40-SS41	—
	11:17	0.031	60	"	NN resting excavation VSS-044 → 046	—

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project



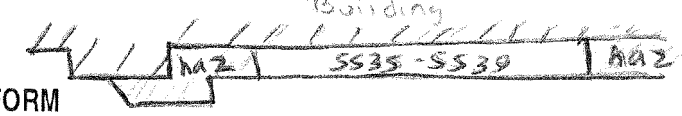
Air Monitoring Location: L

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/22/09	1127	0.042	50s	Sunny	non haz soils, SS26-SS32	calm, mod. traffic
	1430	0.013	high 40s	overcast misty	"	"
4/23/09	0636	0.007	low 40s	sunny breezy	pre work monitoring	wind from the west light traffic
4/24/09	1445	0.059	high 60s	sunny breezy	non haz soils, 14" SS31-SS32	heavy traffic, breeze from NNE
	1537	0.037	"	"	end of the day monitoring	machines not running
4/27/09	0713	0.029	60s	Sunny	Pre-Work Monitoring	"
4/29/09	1101	0.069	"	Sunny breezy	haz soil, SS33-SS35	breeze ~~to~~ from the N demo house across the street
	1155	0.055	"	"	"	breeze from N no demo across street
	1246	0.008	70s	"	"	" dust meter display broken, See field book
5/4/09	11:18	0.031	60	hazy calm	NW facing excavation 1155-044	—

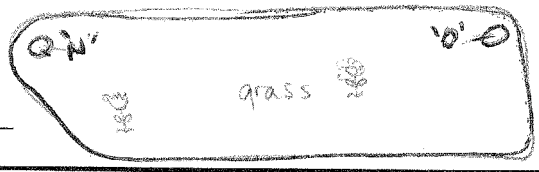
AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: M - See diagram on 'L'

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/23/09	0637	0.006	40s	Sunny breeze	pre work monitoring	wind from WNW
	1200	0.046	"	overcast ~~[illegible]~~	non-haz soils SS35-SS39	wind from the North
	1304	0.063	"	"	"	"
	1405	0.064	"	"	"	"
	1519	0.059	"	"	"	very windy
	1555	0.043	"	"	End of the day monitoring	"
4/24	0744	0.045	low 50's	Sunny light breeze	Start of the day monitoring	wind from the North ~~[illegible]~~ west
	0855	0.069	"	"	non haz soils, "A" SS35-SS39	"
	0715	0.018	60s	sunny	pre work monitoring	machines not running
4/29/09	1103	0.065	"	Sunny breezy	haz soil, SS33-SS35	breeze from the N
	1199	0.058	"	"	"	breeze from the N
	1245	0.002	70s	"	"	" dust meter display broken See field book
	1320	0.008	"	"	haz soils SS39-SS41	" house demo across st.
5/01/09	0822	0.038	50s.	Overcast humid	non haz soil SS33-SS35 (pre work)	wind from S.
	0915	0.055	60s	"	non haz soil SS33-SS35	"
	1032	0.067	"	Sprinkly	"	"
	1345	0.070	"	"	"	"
	1428	0.062	"	"	end of the day monitoring	no machines running
5/4/09	0734	0.054	50	muggy, ~~[illegible]~~, calm	none - setup	no machines running
5/8/09	1080	0.075	65	Sunny	non-haz w-side lowrise	—



AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project



Air Monitoring Location: N

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/23/09	1158	0.048	40s	windy overcast	non haz soils, SS32-SS39	wind from the North
	1302	0.034	"	"	"	"
	1403	0.059	"	"	"	"
	1517	0.051	"	"	"	"
	1554	0.058	"	"	end of the day monitoring	very windy
4/24/09	0746	0.062 ~~0.043~~	"	"	pre work monitoring	wind from the north
	0858	0.063	50s	sunny breezy	non haz soils, 14" SS35-SS39	"
	1448	0.064	high 60's	"	non haz soils, 14" SS31-SS32	heavy traffic, wind from the NNE
	1540	0.057	"	"	end of the day monitoring	machines not running
4/27/09	0716	0.021	60s	Sunny calm	pre-work monitoring	"
4/29/09	1105	0.049	"	sunny breezy	haz soil, SS33-SS35	breeze from the N.
	1153	0.048	"	"	"	"
	1247	0.043	"	"	"	" dust meter display broken see field book
	1321	0.015	"	"	haz soils SS39-SS41	" house demo across st.
5/1/09	0824	0.042	50s	overcast humid	non haz soils (pre work) SS33-SS35	wind from south
	0916 ~~0816~~	0.057	60s	"	"	"
	1033	0.068	"	Sprinkling	"	"
	1350	0.074	"	"	"	"
	1430	0.057	"	"	end of the day monitoring	no machines running
5/4/09	0733	0.068	50	muggy, fog calm	none	no machines running
5/4/09	0820	0.040	50	"	(haz) excavation @ SS41	—
5-4-09	1017	0.038	60	hazy calm	(non-haz) excavation SS40-41	—

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: N (page 2 of 2)

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
5/9/08	10:31	0.013	65	sunny	non-haz w. side low rise	—

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

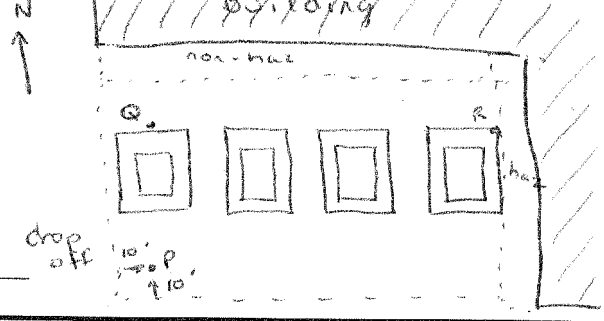
Air Monitoring Location: O - see diagram on 'N'

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/23/09	1201	0.050	40s	windy overcast	non haz soils SS32-SS39	wind from North
	1300	0.068	"	"	"	"
	1355	0.063	"	"	"	"
	1510	0.058	"	"	"	very windy
	1550	0.055	"	"	end of the day monitoring	"
4/24/09	0747	0.057	40s	sunny windy	pre site monitoring	wind from the north
	0900	0.066	50s	sunny windy	non-haz soil, 14" SS35-SS39	"
4/29/09	1105	0.040	60s	sunny breezy	haz soil, SS33-SS35	wind from the N.
	1152	0.047	"	"	"	"
	1249	0.053	70's	"	"	" dust meter display broken. see fieldbook
	1323	0.015	70's	"	haz soils SS35-SS39	" house demo across st.
5/01/09	0826	0.041	60s	overcast humid	non haz soil SS33-SS35 prework	breeze from the south
	0919	0.056	60s	"	"	"
	1034	0.076	"	sprinkling	"	"
	1351	0.069	"	"	"	"
	1432	0.058	"	"	end of the day monitoring	no machines running
5/4/09	0732	0.062	50	muggy calm	none	no machines
5/4/09	0819	0.048	"	"	(haz) excavation @ SS41	—
	1016	0.058	60	hazy calm	non-haz excavation SS40-SS41	faint exhaust odor
	1321	0.026	65	"	excavation haz @ SS43	—
5/8/09	932	0.019	55	sunny	non-haz e. side of high rise	—
	850	0.008	55	overcast	"	

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: 0 (page 2 of 2)

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
5/8/09	945	0.009	55	overcast	non-haz. e. side high rise	—
5/8/09	1032	0.016	65	sunny	non-haz w. side low rise	—
5/13/09	1108	0.018	70s	sunny	non haz - 5546 area pre-work monitoring	light breeze from ENE
	1145	0.017	"	"	excavation east side high rise old 5543	"
5/18/09	714	0.009	50	cam overcast	none	—
	741	0.024	"	"	excavation east high rise	



AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: P (10' from corner of drop off)

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/27/09	0948	0.028	70's	Sunny slight breeze	pre-digging monitoring SS51/SS77	breeze to the NNE
	1043	0.017	"	"	non-haz soil SS51/SS77	"
	1150	0.052	80's	"	"	"
	1242	0.052	80's	"	"	breeze from the NW
	1430	0.042	"	"	"	stopped + started digging
	1530	0.040	80's	"	end of the day monitoring	breeze from the NW
4/28/09	0710	0.044	70's	Sunny calm	pre-work monitoring	
	0840	0.032	80s	"	non-haz soil, 14", SS51-SS77	Stopped digging @ 0745 b/c of cars
	0948	0.029	high 80s	" breezy	haz soil, 6" SS79-SS80	Wind from the SE
	1045	0.047	"	"	"	"
	1149	0.040	"	"	"	"
5/01/09	1212	0.027	70's	sunny breezy	haz soils w. side highrise	—
	1326	0.029	"	"	"	—
	1412	0.029	"	"	non-haz w. side highrise	—
5/13/09	1305	0.022	75	Sunny breezy	non-haz, west side high rise, pre work monitoring	breeze from ENE
	1327	0.035	"	"	non haz - West Side highrise	"

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: Q (see diagram for P)

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/27/09	0948	0.000	70s	Sunny slight breeze	pre-digging monitoring non-haz SS51/SS77	wind from NNE
	1045	0.019	"	"	non-haz soil, 14" SS51/SS77	"
	1153	0.062	80's	"	"	"
	1254	0.123	"	"	"	breeze from NW, excavator drove by during reading, exhaust in direction of dust meter, no visible dust
	1255	0.039	"	"	"	
	1432	0.148	"	"	"	stopped + started digging exhaust from excavator, no dust
	1436	0.047	"	"	"	no visible dust
	1532	0.058	80s	Sunny	end of the day monitoring	"
4/28/09	0712	0.062	70s	Sunny calm	pre-work monitoring	
	0843	0.051	80s	"	non-haz soil, 14" SS51/SS77	Stopped digging ~ 0745 due to cars
	0949	0.032	high 80s	sunny breezy	haz soils, 6", SS79-SS80	breeze from the SE
	1046	0.034	"	"	"	"
	1147	0.048	"	"	"	"
5/8/09	1211	0.025	70s	sunny breezy	haz soils w. side high rise	—
	1324	0.029	"	"	"	—
	1414	0.033	"	"	non-haz w. side high rise	—
5/13/09	1303	0.021	75	sunny breezy	non-haz redig (pre-work) west side high rise	breeze from ENE
	1325	0.032	"	"	non-haz west side high rise	"

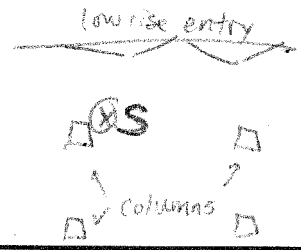
AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: R (See diagram for P)

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
4/27/09	1005	0.025	70s	Sunny breezy	pre-digging monitoring non-haz SS51/SS77	wind from the NNE
	1046	0.067	"	"	non-haz soils, 14", SS51/SS77	"
	1150	0.039	80's	"	"	"
	1250	0.033	"	"	"	wind from the NW
	1434	0.042	"	"	"	Stopped + Started digging
	1535	0.048	"	"	end of the day monitoring	windfrom the NE
4/28/09	0714	0.053	70s	Sunny calm	pre-work monitoring	
	0845	0.039	80s	"	non-haz soil, 14" SS51/SS77	Stopped work ~ 745 due to cons
	0951	0.050	high 80s	Sunny breezy	haz soils, 6"; SS79-SS80	breeze from the SE
	1048	0.056	"	"	"	"
	1148	0.044	"	"	"	"
5/8/09	1210	0.046	70's	sunny breezy	haz soils w. side high rise	—
	1323	0.038	"	"	"	—
	1416	0.039	"	"	non haz w. side high rise	—
5/13/09	1307	0.018	75	sunny breezy	non-haz soil, west side high rise, pre work monitoring	breeze from ENE
	1330	0.027	"	"	non-haz west side high rise	"

N

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project



Air Monitoring Location: S

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
5/4/09	0822	0.041	50	muggy calm	(haz) excavation @ SS41	
	1015	0.056	60	hazy calm	(non-haz) excavation @ SS40-41	exhaust odor from machine

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: T

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
5/4/09	1322	0.035	65	hazy calm	excavation haz@SS43	—
5/5/09	1428	0.008	55	RAW WIND	excavation non-haz E. Side Tower A	
	1520	—	—		MACHINES OFF	—
5/8/09	729	0.009	55	Sunny	excavation non-haz ~~North~~ east high rise	—
	848	0.015	55	overcast	excavation non-haz e. side of high rise	—
	942	0.010	60	sunny	"	—
5/13/09	1104	0.014	70s	Sunny	excavation non-haz SS43 area (Pre-work monitoring)	light breeze from east.
	1140	0.020	"	"	excavation - east side high rise (old SS43 area)	light breeze ENE
5/18/09	711	0.009	50	calm overcast	none	—
	743	0.045	"	"	excavation east high rise	

AIR MONITORING FORM
UMASS LGRC -
PCB Soil Excavation Project

Air Monitoring Location: U

Date	Time	Dust Level mg/M^3	Temperature °F	Weather Conditions	Current Site Activity	NOTES
5/4/09	1323	0.032	65	hazy calm	excavation haz @ SS43	
5/5/09	1431	0.008	55	RAIN WIND	excavation non-haz E. Side Tower A	
	1520	—	—	—	MACHINES OFF	—
5/8/09	728	0.015	55	Sunny	excavation non-haz E. side of high-rise	—
	842	0.010	55	overcast	"	—
	940	0.030	60	sunny	"	—
5/13/09	1105	0.018	70s	Sunny	non-haz area SS43 pre-work monitoring	light breeze from ENE
	1143	0.026	"	"	excavation old SS43 area east side high rise	"
5/18/09	712	0.009	50	calm overcast	none	—
	742	0.013	"	"	excavation east high rise	

APPENDIX D: UMASS LETTER TO MASSDEP

UNIVERSITY OF MASSACHUSETTS
AMHERST
117 Draper Hall
40 Campus Center Way
Amherst, MA 01003-9244

ENVIRONMENTAL HEALTH & SAFETY

Email: tbechta@ehs.umas.edu
Voice: 413.577.3632
Fax: 413.577.3634

April 30, 2009

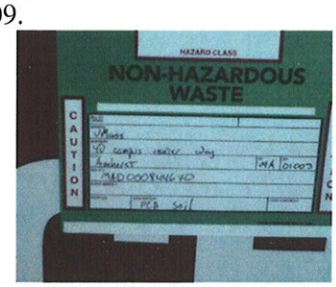
Catherine Wanat
Environmental Analyst
Bureau of Waste Site Cleanup
Massachusetts Department of Environmental Protection

RE: University of Massachusetts RTN 1-16269
Lederle Graduate Research Center PCB contaminated soil site visit on April 30, 2009

Dear Catherine,
This letter is in response to your site visit today at Lederle Graduate Research Center.
Corrections:

The opening to the fence line on the West Side of Lederle Graduate Research Center Lowrise was corrected on April 30, 2009

The hazardous waste and non hazardous waste roll-offs will be labeled appropriately whenever any product is put into the roll-offs rather than once they are full.
Corrected April 30, 2009.



It was a pleasure meeting you, and please feel free to contact me if you have any further questions.

Sincerely,

_____

Theresa W. Bechta, REM, TURP
Assistant Director for Environmental and Hazardous Materials Management

cc Jeff Hamel (Woodard and Curran)
Tom Dykstra (Triumvirate)

The University of Massachusetts is an Affirmative Action/Equal Opportunity Institution

APPENDIX E: WASTE SHIPMENT RECORDS

TRIUMVIRATE
ENVIRONMENTAL

University of Massachusetts - Amherst Hazardous PCB Contaminated Soil Disposal Summary

Profile #: NY298814

	Load #	Ship Date	Vehicle #	Weight in Tons
1	171588	4/28/2009	412-TRI-042011	16.65
2	171647	4/29/2009	419-TR2-992045	13.32
3	171700	4/30/2009	412-TRI-032026	19.96
4	171745	5/1/2009	411/TR2/992016	15.49
5	171816	5/6/2009	411-TR-G-042012	14.29
6	171907	5/14/2009	412-TR10-032030	16.18
			Total:	95.89

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

XXXXX
Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	MAD000844670	1	800 966 9282	006029150 JJK

5. Generator's Name and Mailing Address

University of Massachusetts - Amherst
Environmental Health & Safety 117 Draper Hall
Amherst, MA 01003
Generator's Phone: (413) 545-5122 Attn: Jim Field

Generator's Site Address (if different than mailing address)

University of MA - Amherst
E,H & S/~~Morrill N414~~ 42 Campus Center Way
Amherst, Massachusetts 01003

6. Transporter 1 Company Name: Ameritech Environmental Services, Inc. — U.S. EPA ID Number: MER000500595

7. Transporter 2 Company Name: AMERITECH ENVIRONMENTAL SERVICES INC. — U.S. EPA ID Number: MER000500595

8. Designated Facility Name and Site Address

CWM Chemical Services
1550 Balmer Road PO Box 200
Model City, NY 14107
Facility's Phone: (716) 754-8231

U.S. EPA ID Number: NYD049836679

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ: Polychlorinated biphenyls, solid 9, UN3432, II	001	CM	EST 16	K	MA02	B007	L
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information

SR# 904791 Recd 15105K

1 - (1 x Roll-off) NY298614 2- 3- 4-

Out of Service Date: 4/27/09 & 4/28 816 34065

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the 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 governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Theresa W. Becht — Signature: [signature] — Month 04 Day 27 Year 09

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Steve Solano — Signature: [signature] — Month 4 Day 27 Year 09

Transporter 2 Printed/Typed Name: DAVID TIBERIO — Signature: [signature] — Month 4 Day 27 Year 09

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: EILEEN CARTER — Signature: [signature] — Month 4 Day 28 Year 09

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

TRANSPORTER'S COPY

Transporter Log
CWM Chemical Services, Inc.
Model City, NY

171588

Cubic Yards

81634065
Receipt #

A367863 MI
Trailer License Plate # and State

SCALE 2 76660 LB G
06:38 AM 04/28/09 12

907721
Service Req. #

Profile #

MEFORPHM VAR
Permit #

AMERITECH
Transporter Name

412-TRI-042011
Tractor/Trailer/Roll-off #

DAVID TIBERIO
Driver's Name

UNIVERSITY OF MASS - AMHERST
Generator

SCALE 2 43360 LB G
06:39 AM 04/28/09 12

33300P
15105K

Scheduled Arrival: _____ Date _____ Time

Actual Arrival: _____ Date _____ Time In _____ Time Out

Arrived during Blackout? Y / N Notified DEC? Y / N

Receiving: _____ Initials _____ Comments

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify _____

☒ Bulk to Landfill ☐ No wet line ☐ Flatbed ☐ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory _____ Time In _____ Time Out _____ Initials _____ Comments

Stabilization _____ Time In _____ Time Out _____ Initials _____ Gross Wt. _____ Comments

Landfill _____ Time In _____ Time Out _____ Initials _____ Comments

Other _____ Time In _____ Time Out _____ Initials _____ Comments

Aqueous Treatment _____ Time In _____ Time Out _____ Signature (NO Initials) _____ Comments

Facility Personnel (*please initial*)

_____ Smoking or eating in prohibited areas

_____ Leaving truck unattended

_____ Failure to obey instructions of facility personnel

_____ Failure to display overweight flag

_____ Failure to wear appropriate PPE

_____ Improper tarping or detarpin

_____ Unsafe driving practices

_____ Overweight upon arrival

_____ Other (specify) _____

Security Guard Initials: _____
(Indicating receipt of Wash Bay pass, if necessary)

Driver's Comments

WASTE MANAGEMENT

CWM CHEMICAL SERVICES, LLC
1550 Balmer Road
P.O. Box 200
Model City, NY 14107
(716) 754-8231
(716) 754-0211 Fax

UNIVERSITY OF MASSACHUSETTS
ATTN: JIM FIELD
MAD000844670
117 DRAPER HALL 40 CAMPUS CENTER WAY
AMHERST MA 01003-0000

CERTIFICATE OF DISPOSAL

CWM CHEMICAL SERVICES, L.L.C., EPA ID: NYD049836679, has received waste material from UNIVERSITY OF MASSACHUSETTS on 04/28/09 as described on Shipping Document number 006029150JJK Sequence number 01. CWM CHEMICAL SERVICES, L.L.C. hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: NY298814
CWM Tracking ID: 8163406501
CWM Unit #: 1*0
Disposal Date: 04/28/09

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true accurate and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true accurate and complete.

MICHAEL D MAHAR
DISTRICT MANAGER
Certificate # 329890
04/29/09

For questions please call our Customer Service Dept. at (800) 843-3604

From everyday collection to environmental protection, Think Green.® Think Waste Management.

Printed on 100% post-consumer recycled paper.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

XXXXX
Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	MAD000844670	1	800 966 9282	006029151 JJK

5. Generator's Name and Mailing Address
University of Massachusetts - Amherst
Environmental Health & Safety 117 Draper Hall
Amherst, MA 01003
Generator's Phone: (413) 545-5122 Attn: Jim Field

Generator's Site Address (if different than mailing address)
University of MA - Amherst
E,H & S/Morrill N414
Amherst, Massachusetts 01003
117 Draper Hall
Campus Center Way

6. Transporter 1 Company Name: Ameritech Environmental Services, Inc. — U.S. EPA ID Number: MER000500595

7. Transporter 2 Company Name: AMERITECH ENV. SVCS — U.S. EPA ID Number: MER 000500595

8. Designated Facility Name and Site Address
CWM Chemical Services
1550 Balmer Road PO Box 200
Model City, NY 14107
Facility's Phone: (716) 754-8231
U.S. EPA ID Number: NYD049836679

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ: Polychlorinated biphenyls, solid 9, UN3432, II	001	CM	16E508	K	MA02	B007	L
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1 - (1 x Roll-off) NY298814 2- 24/29 3- 4-
Out of Service Date: 4/28/09 811-34124 SR# 904827

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the 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 governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Theresa W. Bechtz — Signature: [signature] — Month 04 Day 28 Year 09

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Steve Solano — Signature: [signature] — Month 4 Day 28 Year 09
Transporter 2 Printed/Typed Name: ROBERT SILLSBY — Signature: [signature] — Month 04 Day 28 Year 09

18. Discrepancy
18a. Discrepancy Indication Space ☑ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
qty est actual pend 120846
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H132 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Eileen Carter — Signature: [signature] — Month 4 Day 29 Year 09

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05). Previous editions are obsolete.

TRANSPORTER'S COPY

Transporter Log
CWM Chemical Services, Inc.
Model City, NY

171647 Cubic Yards

81639124 A290125 ME
Receipt # Trailer License Plate # and State

SCALE 1 71100 LB G
06:38 AM 04/29/09 I2

904827 NY298814 ME017
Service Req. # Profile # Permit #

AMERITECH ENV. SVCS. 419/TR2/992045
Transporter Name Tractor/Trailer/Roll-off #

ROBERT SILLSBY UNIV. OF MASS
Driver's Name Generator

SCALE 2 44460 LB G
09:17 AM 04/29/09 I2

26640P
12084K

Scheduled Arrival: Date Time

Actual Arrival: Date Time In 6/8 Time Out

Arrived during Blackout? Y / N Notified DEC? Y / N

Receiving: ✓ Initials Comments

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify

☒ Bulk to Landfill ☐ No wet line ☐ Flatbed ☐ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory Time In Time Out Initials OW Comments

Stabilization Time In Time Out Initials Gross Wt. Comments

Landfill Time In Time Out Initials Comments

Other Time In Time Out Initials Comments

Aqueous Treatment Time In Time Out Signature (NO Initials) Comments

Facility Personnel (please initial)

Smoking or eating in prohibited areas

Leaving truck unattended

Failure to obey instructions of facility personnel

Failure to display overweight flag

Failure to wear appropriate PPE

Improper tarping or detarpin

Unsafe driving practices

Overweight upon arrival

Other (specify)

Security Guard Initials:
(Indicating receipt of Wash Bay pass, if necessary)

Driver's Comments

WASTE MANAGEMENT

CWM CHEMICAL SERVICES, LLC
1550 Balmer Road
P.O. Box 200
Model City, NY 14107
(716) 754-8231
(716) 754-0211 Fax

UNIVERSITY OF MASSACHUSETTS
ATTN: JIM FIELD
MAD000844670
117 DRAPER HALL 40 CAMPUS CENTER WAY
AMHERST MA 01003-0000

CERTIFICATE OF DISPOSAL

CWM CHEMICAL SERVICES, L.L.C., EPA ID: NYD049836679, has received waste material from UNIVERSITY OF MASSACHUSETTS on 04/29/09 as described on Shipping Document number 006029151JJK Sequence number 01. CWM CHEMICAL SERVICES, L.L.C. hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: NY298814
CWM Tracking ID: 8163412401
CWM Unit #: 1*0
Disposal Date: 04/29/09

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true accurate and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true accurate and complete.

MICHAEL D MAHAR
DISTRICT MANAGER
Certificate # 329948
04/30/09

For questions please call
our Customer Service Dept.
at (800) 843-3604

From everyday collection to environmental protection, Think Green.® Think Waste Management.

Printed on 100% post-consumer recycled paper.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

XXXXX
Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: MAD0008446 70
2. Page 1 of 1
3. Emergency Response Phone: 800 966 9282
4. Manifest Tracking Number: 006029152 JJK

5. Generator's Name and Mailing Address
University of Massachusetts - Amherst
Environmental Health & Safety 117 Draper Hall
Amherst, MA 01003
Generator's Phone: (413) 545-5122 Attn: Jim Field

Generator's Site Address (if different than mailing address)
University of MA - Amherst 117 Draper Hall
E,H & S/Morrill-N414 40 Campus Center Way
Amherst, Massachusetts 01003

6. Transporter 1 Company Name: Ameritech Environmental Services, Inc.
U.S. EPA ID Number: MER000500595

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
CWM Chemical Services
1550 Balmer Road PO Box 200
Model City, NY 14107
Facility's Phone: (716) 754-8231
U.S. EPA ID Number: NYD049836679

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ: Polychlorinated biphenyls, solid 9, UN3432, II	001	CM	5985	K	MA02	B007	L
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
81634176
1 - (1 x Roll-off) NY298814 2- 3- 4- SR# 104882
Out of Service Date:

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the 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 governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Theresa W Bechtle
Signature: Theresa W Bechtle
Month Day Year: 04 29 09

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: DAVID TIBBRIE
Signature: David Tibbrie
Month Day Year: 4 29 09
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year:

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
qty left on truck pick 1 Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H132 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Colleen Carter
Signature: Colleen Carter
Month Day Year: 4 30 09

GENERATOR
TRANSPORTER INT'L
DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

TRANSPORTER'S COPY

Transporter Log
CWM Chemical Services, Inc.
Model City, NY

171700

Cubic Yards A 31348

81634176 — Receipt #
A 367861 [illegible] — Trailer License Plate # and State
904828 — Service Req. #
Profile #
MT 0171 — Permit #
Ameritech — Transporter Name
413 TRI-093086 — Tractor/Trailer/Roll-off #
David Tiafrio — Driver's Name
University of [illegible] — Generator

SCALE 1 81740 LB G
06:30 AM 04/30/09 I2

SCALE 2 41820 LB G
08:40 AM 04/30/09 I2

39920 P
18108 K

Scheduled Arrival: Date Time

Actual Arrival: Date Time In 616 Time Out

Arrived during Blackout? Y / N Notified DEC? Y / N

Receiving: Initials Comments

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify

☒ Bulk to Landfill ☐ No wet line ☐ Flatbed ☐ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory — Time In | Time Out | Initials JN | Comments

Stabilization — Time In | Time Out | Initials | Gross Wt. | Comments

2450

Landfill — Time In | Time Out | Initials | Comments

2450

40

Other — Time In | Time Out | Initials | Comments

Aqueous Treatment — Time In | Time Out | Signature (NO Initials) | Comments

15125 K

925.92

Facility Personnel (please initial)

	Smoking or eating in prohibited areas		Leaving truck unattended
	Failure to obey instructions of facility personnel		Failure to display overweight flag
	Failure to wear appropriate PPE		Improper tarping or detarpin
	Unsafe driving practices		Overweight upon arrival
	Other (specify)		

Security Guard Initials:
(Indicating receipt of Wash Bay pass, if necessary)

Driver's Comments

WASTE MANAGEMENT

CWM CHEMICAL SERVICES, LLC
1550 Balmer Road
P.O. Box 200
Model City, NY 14107
(716) 754-8231
(716) 754-0211 Fax

UNIVERSITY OF MASSACHUSETTS
ATTN: JIM FIELD
MAD000844670
117 DRAPER HALL 40 CAMPUS CENTER WAY
AMHERST MA 01003-0000

CERTIFICATE OF DISPOSAL

CWM CHEMICAL SERVICES, L.L.C., EPA ID: NYD049836679, has received waste material from UNIVERSITY OF MASSACHUSETTS on 04/30/09 as described on Shipping Document number 006029152JJK Sequence number 01. CWM CHEMICAL SERVICES, L.L.C. hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: NY298814
CWM Tracking ID: 8163417601
CWM Unit #: 1*0
Disposal Date: 04/30/09

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true accurate and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true accurate and complete.

MICHAEL D MAHAR
DISTRICT MANAGER
Certificate # 330000
05/01/09

For questions please call
our Customer Service Dept.
at (800) 843-3604

From everyday collection to environmental protection, Think Green® Think Waste Management.

Printed on 100% post-consumer recycled paper.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

XXXXX
Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
MAD000844670	1	800 966 9282	006029153 JJK

5. Generator's Name and Mailing Address
University of Massachusetts - Amherst
Environmental Health & Safety 117 Draper Hall
Amherst, MA 01003
Generator's Phone: (413) 545-5122 Attn: Jim Field

Generator's Site Address (if different than mailing address)
University of MA - Amherst 117 Draper
E,H & S/Morrill N414 40 Campus Center Way
Amherst, Massachusetts 01003

6. Transporter 1 Company Name: Ameritech Environmental Services, Inc. — U.S. EPA ID Number: MER000500595

7. Transporter 2 Company Name: AMERITECH ENV SVCS. — U.S. EPA ID Number: MER000500595

8. Designated Facility Name and Site Address
CWM Chemical Services
1550 Balmer Road PO Box 200
Model City, NY 14107
Facility's Phone: (716) 754-8231
U.S. EPA ID Number: NYD049836679

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ: Polychlorinated biphenyls, solid 9, UN3432, II	001	CM	EST 16500	K	MA02	B007	L
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1 - (1 x Roll-off) NY298814 2- 3- 4-
Out of Service Date: 4/30/09 & 5/1
Recd 14052K
81634222

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the 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 governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Theresa W. Bechtz — Signature: [signature] — Month 04 Day 30 Year 09

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Steve Solano — Signature: Steve Solano — Month 4 Day 30 Year 09
Transporter 2 Printed/Typed Name: ROBERT STUSSY — Signature: [signature] — Month 04 Day 30 Year 09

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H132 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: EILEEN CARTER — Signature: Eileen Carter — Month 5 Day 1 Year 09

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

TRANSPORTER'S COPY

Transporter Log
CWM Chemical Services, Inc.
Model City, NY

171745 EST 20 11 (CC)
Cubic Yards

81634222 — Receipt #
A290125 ME — Trailer License Plate # and State
NY 278814 — Service Req. #
ME017 — Profile #
Permit #
AMERITECH ENV. SVCS. — Transporter Name
417/JR2/992016 — Tractor/Trailer/Roll-off #
ROBERT STUGBY — Driver's Name
UNIV. OF MASS — Generator

SCALE 1 76100 LB G
06:29 AM 05/01/09 I2

SCALE 2 45120 LB G
08:46 AM 05/01/09 I2

30980P
14052K

Scheduled Arrival: _____ Date _____ Time

Actual Arrival: _____ Date 625 Time In _____ Time Out

Arrived during Blackout? Y / N Notified DEC? Y / N

Receiving: ✓ Initials _____ Comments

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify _____

☒ Bulk to Landfill ☐ No wet line ☐ Flatbed ☐ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory _____ Time In _____ Time Out _____ Initials _____ Comments

Stabilization _____ Time In _____ Time Out _____ Initials _____ Gross Wt. _____ Comments

Landfill _____ Time In _____ Time Out _____ Initials _____ Comments

Other _____ Time In _____ Time Out _____ Initials _____ Comments

Aqueous Treatment _____ Time In _____ Time Out _____ Signature (NO Initials) _____ Comments

Facility Personnel (*please initial*)

_____ Smoking or eating in prohibited areas
_____ Leaving truck unattended
_____ Failure to obey instructions of facility personnel
_____ Failure to display overweight flag
_____ Failure to wear appropriate PPE
_____ Improper tarping or detarpin
_____ Unsafe driving practices
_____ Overweight upon arrival
_____ Other (specify) _____

Security Guard Initials: _____
(Indicating receipt of Wash Bay pass, if necessary)

Driver's Comments _____

WASTE MANAGEMENT

CWM CHEMICAL SERVICES, LLC
1550 Balmer Road
P.O. Box 200
Model City, NY 14107
(716) 754-8231
(716) 754-0211 Fax

UNIVERSITY OF MASSACHUSETTS
ATTN: JIM FIELD
MAD000844670
117 DRAPER HALL 40 CAMPUS CENTER WAY
AMHERST MA 01003-0000

CERTIFICATE OF DISPOSAL

CWM CHEMICAL SERVICES, L.L.C., EPA ID: NYD049836679, has received waste material from UNIVERSITY OF MASSACHUSETTS on 05/01/09 as described on Shipping Document number 006029153JJK Sequence number 01. CWM CHEMICAL SERVICES, L.L.C. hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: NY298814
CWM Tracking ID: 8163422201
CWM Unit #: 1*0
Disposal Date: 05/01/09

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true accurate and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true accurate and complete.

MICHAEL D MAHAR
DISTRICT MANAGER
Certificate # 330045
05/04/09

For questions please call
our Customer Service Dept.
at (800) 843-3604

From everyday collection to environmental protection, Think Green.® Think Waste Management.

Printed on 100% post consumer recycled paper.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	MAD000844670	1	800 966 9282	006029154 JJK

5. Generator's Name and Mailing Address

University of Massachusetts - Amherst
~~Environmental Health & Safety~~ 117 Draper Hall
Amherst, MA 01003 48 CAMPUS CENTER WAY
Generator's Phone: (413) 545-5122 Attn: Jim Field

Generator's Site Address (if different than mailing address)

University of MA - Amherst
E,H & S/Morrill N414
Amherst, Massachusetts 01003

6. Transporter 1 Company Name: Ameritech Environmental Services, Inc. — U.S. EPA ID Number: MER000500595

7. Transporter 2 Company Name: Ameritech Environmental Services Inc — U.S. EPA ID Number: MER000500595

8. Designated Facility Name and Site Address

CWM Chemical Services
1550 Balmer Road PO Box 200
Model City, NY 14107
Facility's Phone: (716) 754-8231

U.S. EPA ID Number: NYD049836679

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ: Polychlorinated biphenyls, solid 9, UN3432, II	001	CM	15,500	Kg	MA02	B007	L
	2.				5/6			
	3.							
	4.							

14. Special Handling Instructions and Additional Information

1 - (1 x Roll-off) NY298814 2- 3- 4-

Out of Service Date: 5/5/09 [illegible] 716342 75

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the 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 governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: DENNIS D. GAGNON — Signature: [signature] — Month 05 Day 06 Year 09 (05 GMM)

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Glen M. Toomey — Signature: [signature] — Month 05 Day 05 Year 09

Transporter 2 Printed/Typed Name: Blaise A. Sullivan — Signature: [signature] — Month 05 Day 05 Year 09

18. Discrepancy

18a. Discrepancy Indication Space ☑ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

qty not [illegible] 12764K Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H132 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Eileen Carter — Signature: Eileen Carter — Month 5 Day 6 Year 09

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

TRANSPORTER'S COPY

Transporter Log
CWM Chemical Services, Inc.
Model City, NY

171816

Cubic Yards

31427

81634295 — Receipt #
A599557 MZ — Trailer License Plate # and State
905253 — Service Req. #
NY298814 — Profile #
ME-017 — Permit #
Ameritech — Transporter Name
411 TRG 042012 — Tractor/Trailer/Roll-off #
Blaise Sullivan — Driver's Name
University of MASS — Generator

SCALE 1 70420 LB G
06:52 AM 05/06/09 I2

SCALE 2 41840 LB G
08:47 AM 05/06/09 I2

28580P
12764K

Scheduled Arrival: _____ Date _____ Time

Actual Arrival: _____ Date 643 Time In _____ Time Out

Arrived during Blackout? Y / N Notified DEC? Y / N

Receiving: _____ Initials _____ Comments

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify _____

☒ Bulk to Landfill ☐ No wet line ☐ Flatbed ☐ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory
Time In | Time Out | Initials | Comments

Stabilization
Time In | Time Out | Initials | Gross Wt. | Comments

Landfill
Time In | Time Out | Initials | Comments

Other
Time In | Time Out | Initials | Comments

Aqueous Treatment
Time In | Time Out | Signature (NO Initials) | Comments

Facility Personnel (please initial)

_____ Smoking or eating in prohibited areas
_____ Leaving truck unattended
_____ Failure to obey instructions of facility personnel
_____ Failure to display overweight flag
_____ Failure to wear appropriate PPE
_____ Improper tarping or detarpin
_____ Unsafe driving practices
_____ Overweight upon arrival
_____ Other (specify) _____

Security Guard Initials: _____
(Indicating receipt of Wash Bay pass, if necessary)

Driver's Comments

White: Records Green & Canary: Accts Rec. Pink: Environmental Goldenrod: Driver

WASTE MANAGEMENT

CWM CHEMICAL SERVICES, LLC
1550 Balmer Road
P.O. Box 200
Model City, NY 14107
(716) 754-8231
(716) 754-0211 Fax

UNIVERSITY OF MASSACHUSETTS
ATTN: JIM FIELD
MAD000844670
117 DRAPER HALL 40 CAMPUS CENTER WAY
AMHERST MA 01003-0000

CERTIFICATE OF DISPOSAL

CWM CHEMICAL SERVICES, L.L.C., EPA ID: NYD049836679, has received waste material from UNIVERSITY OF MASSACHUSETTS on 05/06/09 as described on Shipping Document number 006029154JJK Sequence number 01. CWM CHEMICAL SERVICES, L.L.C. hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: NY298814
CWM Tracking ID: 8163429501
CWM Unit #: 1*0
Disposal Date: 05/06/09

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true accurate and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true accurate and complete.

MICHAEL D MAHAR
DISTRICT MANAGER
Certificate # 330218
05/07/09

For questions please call
our Customer Service Dept.
at (800) 843-3604

From everyday collection to environmental protection, Think Green.® Think Waste Management.

Printed on 100% post-consumer recycled paper.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

XXXXX
Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
MAD000844670	1	800 966 9282	006029155 JJK

5. Generator's Name and Mailing Address
University of Massachusetts - Amherst
Environmental Health & Safety 117 Draper Hall
Amherst, MA 01003
Generator's Phone: (413) 545-5122 Attn: Jim Field

Generator's Site Address (if different than mailing address)
University of MA - Amherst
E,H & S/Morrill N414
Amherst, Massachusetts 01003

6. Transporter 1 Company Name: Ameritech Environmental Services, Inc.
U.S. EPA ID Number: MER000500595

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
CWM Chemical Services
1550 Balmer Road PO Box 200
Model City, NY 14107
Facility's Phone: (716) 754-8231
U.S. EPA ID Number: NYD049836679

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ: Polychlorinated biphenyls, solid 9, UN3432, II	001	CM	15500	ESK	MA02	B007	L
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1 - (1 x Roll-off) NY298814 2- 3- 4-
Out of Service Date:

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the 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 governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: DENNIS D. GAGNON
Signature
Month 05 Day 13 Year 09

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: DAVID C TIBERIO
Signature
Month 5 Day 13 Year 09
Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H132 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Ellen Caton
Signature
Month 5 Day 14 Year 09

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

TRANSPORTER'S COPY

Transporter Log
CWM Chemical Services, Inc.
Model City, NY

171907

Cubic Yards

81634386 — Receipt #
AL82026 ME — Trailer License Plate # and State
T05291 — Service Req. #
NY 298814 — Profile #
ME 017 — Permit #
AMERITECH — Transporter Name
412-[illegible]-033050 — Tractor/Trailer/Roll-off #
DAVID TIBERIO — Driver's Name
UNIVERSITY OF MASS. AMHERST — Generator

SCALE 1 73140 LB G
06:50 AM 05/14/09 I2

SCALE 2 40780 LB G
08:59 AM 05/14/09 I2

32360P
14678K

Scheduled Arrival: _____ Date _____ Time

Actual Arrival: _____ Date 640 Time In _____ Time Out

Arrived during Blackout? Y / N Notified DEC? Y / N

Receiving: _____ Initials _____ Comments

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify _____

☒ Bulk to Landfill ☐ No wet line ☐ Flatbed ☐ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory _____ Time In _____ Time Out _____ Initials _____ Comments

Stabilization _____ Time In _____ Time Out _____ Initials _____ Gross Wt. _____ Comments

Landfill _____ Time In _____ Time Out _____ Initials _____ Comments

Other _____ Time In _____ Time Out _____ Initials _____ Comments

Aqueous Treatment 11653 _____ Time In _____ Time Out _____ Signature (NO Initials) _____ Comments

Facility Personnel (*please initial*)

_____ Smoking or eating in prohibited areas
_____ Leaving truck unattended
_____ Failure to obey instructions of facility personnel
_____ Failure to display overweight flag
_____ Failure to wear appropriate PPE
_____ Improper tarping or detarpin
_____ Unsafe driving practices
_____ Overweight upon arrival
_____ Other (specify) _____

Security Guard Initials: _____
(Indicating receipt of Wash Bay pass, if necessary)

Driver's Comments

WASTE MANAGEMENT

CWM CHEMICAL SERVICES, LLC
1550 Balmer Road
P.O. Box 200
Model City, NY 14107
(716) 754-8231
(716) 754-0211 Fax

UNIVERSITY OF MASSACHUSETTS
ATTN: JIM FIELD
MAD000844670
117 DRAPER HALL 40 CAMPUS CENTER WAY
AMHERST MA 01003-0000

CERTIFICATE OF DISPOSAL

CWM CHEMICAL SERVICES, L.L.C., EPA ID: NYD049836679, has received waste material from UNIVERSITY OF MASSACHUSETTS on 05/14/09 as described on Shipping Document number 006029155JJK Sequence number 01. CWM CHEMICAL SERVICES, L.L.C. hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: NY298814
CWM Tracking ID: 8163438601
CWM Unit #: 1*0
Disposal Date: 05/14/09

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true accurate and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true accurate and complete.

MYCHAEL D MAHAR
DISTRICT MANAGER
Certificate # 330399
05/14/09

For questions please call our Customer Service Dept. at (800) 843-3604

From everyday collection to environmental protection, Think Green.® Think Waste Management.

Printed on 100% post-consumer recycled paper.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012A

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number*
1 - 16269

A. LOCATION OF SITE OR DISPOSAL SITE WHERE REMEDIATION WASTE WAS GENERATED:

Release Name (optional): Lederle Low Rise

Street: North Pleasant and Governors Drive Location Aid:

City/Town: Amherst ZIP Code: 01003

Date/Period of Generation: to:

Additional Release Tracking Numbers Associated with this Bill of Lading:

** Note: If this Bill of Lading is the result of a Limited Removal Action (LRA) taken prior to Notification, a Release Tracking Number is not needed.*

B. PERSON CONDUCTING RESPONSE ACTION ASSOCIATED WITH BILL OF LADING:

Name of Organization: University of Massachusetts

Name of Contact: Theresa Bechta Title: Asst. Director Environmental Svcs.

Street: 40 Campus Center Way

City/Town: Amherst State: MA ZIP Code: 01003

Telephone: (413) 577-3632 Ext.:

C. RELATIONSHIP TO RELEASE OF PERSON CONDUCTING RESPONSE ACTION ASSOCIATED WITH BILL OF LADING:

- [x] RP or PRP Specify: [x] Owner [ ] Operator [ ] Generator [ ] Transporter Other RP or PRP:
- [ ] Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)
- [ ] Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))
- [ ] Other Person:

If an owner and/or operator is not conducting the response action associated with the Bill of Lading, provide on an attachment the name, contact person, address and telephone number, including any area code and extension, for each, if known.

D. TRANSPORTER OR COMMON CARRIER INFORMATION:

Transporter/Common Carrier Name: Ameri-Tech Environmental

Contact Person: Bruce Sullivan Title:

Street: 72 Jonspin Road

City/Town: Wilmington State: MA ZIP Code: 01887

Telephone: (617) 628-8098 Ext.:

E. RECEIVING FACILITY/TEMPORARY STORAGE LOCATION:

Operator/Facility Name: Waste Management - Turnkey Recycling and Environmental Enterprises

Contact Person: Steve Foye Title:

Street: 90 Rochester Neck Road, PO Box 7065

City/Town: Rochester State: NH ZIP Code: 03839

Telephone: (603) 330-2197 Ext.:

Type of Facility: (check one)

- [ ] Asphalt Batch/Cold Mix
- [ ] Asphalt Batch/Hot Mix
- [ ] Thermal Processing
- [x] Landfill/Disposal
- [ ] Landfill/Daily Cover
- [ ] Landfill/Structural Fill
- [ ] Incinerator
- [ ] Temporary Storage
- [ ] Other:

EPA Identification #: NHD980914634

Division of Hazardous Waste/Class A Permit #: Division of Solid Waste Management Permit #:

Actual/Anticipated Period of Temporary Storage (specify dates if applicable): to:

Reason for Temporary Storage:

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012A

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number*
1 - 16269

E. RECEIVING FACILITY/TEMPORARY STORAGE LOCATION (continued) :

Temporary Storage Address:

Street: _____

City/Town: _____ State: _____ ZIP Code: _____

F. DESCRIPTION OF REMEDIATION WASTE:
(check all that apply)

☑ Contaminated Media (check all that apply): ☑ Soil ○ Groundwater ○ Surface Water ☑ Other: PPE

☐ Contaminated Debris (check all that apply): ○ Vegetation or Organic Debris ○ Demolition/Construction Waste
○ Inorganic Absorbant Materials ○ Other: _____

☐ Non-hazardous Uncontainerized Waste (check all that apply): ○ Non-aqueous Phase Liquid ○ Other: _____

☐ Non-hazardous Containerized Waste (check all that apply): ○ Tank Bottoms/Sludges ○ Containers ○ Drums
○ Engineered Impoundments ○ Other: _____

Type of Contamination (check all that apply): ☐ Gasoline ☐ Diesel Fuel ☐ #2 Oil ☐ #4 Oil ☐ #6 Oil ☐ Waste Oil
☐ Kerosene ☐ Jet Fuel ☑ Other: polychlorinated biphenyls

Estimated Volume of Materials: Cubic Yards: 545 Tons: _____ Other: _____

Contaminant Source (check one/specify): ☐ Transportation Accident ☐ Underground Storage Tank ☑ Other: bldg material

Response Action Associated with Bill of Lading (check one): ☐ Immediate Response Action ☑ Release Abatement Measure
☐ Utility-Related Abatement Measure ☐ Limited Removal Action ☐ Comprehensive Response Action ☐ Other _____

Remediation Waste Charcterization Support Documentation attached:
☐ Site History Information ☐ Sampling and Analytical Methods and Procedures ☐ Laboratory Data ☐ Field Screening Data

If supporting documentation is not appended, provide an attachment stating thedate and in connection with what document such information was previously submitted to DEP.

G. LICENSED SITE PROFESSIONAL (LSP) OPINION:

Name of Organization: Woodard & Curran

LSP Name: Jeffrey A. Hamel Title: Senior Vice President

Telephone: (508) 557-8150 Ext.: 3607

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this submittal, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of

(i) the standard of care in 309 CMR 4.02(1),
(ii) the applicable provisions of 309 CMR 4.02(2) and (3), and
(iii) the provisions of 309 CMR 4.03(5),

to the best of my knowledge, information and belief, the assessment actions undertaken to characterize the Remediation Waste which is (are) the subject of this submittal for acceptance at the facility identified in this submittal comply with the applicable provisions of 310 CMR 40.0000, and such facility is permitted to accept Remediation Waste having the characteristics described in this submittal. I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

LSP Signature: Jeffrey A Hamel Seal:

Date: APRIL 13, 2009

License Number: 1278

COMMONWEALTH OF MASSACHUSETTS
Jeffrey A. Hamel
NO. 1278
REGISTERED LICENSED SITE PROFESSIONAL

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012A

Release Tracking Number*
1 - 16269

BILL OF LADING **(pursuant to 310 CMR 40.0030)**

H. CERTIFICATION OF PERSON CONDUCTING RESPONSE ACTION ASSOCIATED WITH THIS BILL OF LADING:

I certify under penalties of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

Signature: Theresa W Bech Date: 04/14/2009

Name of Person (print): Theresa W. Bechta

TRIUMVIRATE ENVIRONMENTAL

University of Massachusetts - Amherst Non Hazardous PCB Contaminated Soil Disposal Summary
Profile #: 103158NH

	Load #	Ship Date	Vehicle #	Weight in Tons
1	648093	4/17/2009	503	18.95
2	648157	4/17/2009	503	18.08
3	648184	4/17/2009	502	20.71
4	648213	4/17/2009	411	19.2
5	648274	4/17/2009	411	18.22
6	648323	4/17/2009	T501	19.17
7	648377	4/20/2009	T501	19.61
8	648418	4/20/2009	T501	19.4
9	648675	4/21/2009	503	16.77
10	648628	4/21/2009	419	19.86
11	648619	4/21/2009	503	18.48
12	648571	4/21/2009	503	20.76
13	648564	4/21/2009	419	16.13
14	654520	4/22/2009	412	20.08
15	655045	4/24/2009	412	17.6
16	655026	4/24/2009	411	17.22
17	654950	4/24/2009	411	20.07
18	654947	4/24/2009	412	19.94
19	654894	4/24/2009	411	21.1
20	654891	4/24/2009	412	19.54
21	632112	4/27/2009	503	17.89
22	632362	4/28/2009	T501	22.37
23	632392	4/28/2009	418	19.39
24	632424	4/28/2009	T501	17.67
25	632439	4/29/2009	502	15.08
26	632685	4/30/2009	502	20.8
27	649770	5/1/2009	502	18.69
28	649950	5/1/2009	T501	19.15
29	650653	5/12/2009	503	19.59
30	650765	5/12/2009	411	19
31	650758	5/12/2009	414	18.94
32	650753	5/12/2009	504	17.06
33	650750	5/12/2009	419	18.12
34	650912	5/13/2009	504	18.91
35	650911	5/13/2009	503	19.25
36	651130	5/14/2009	503	20.39
37	651131	5/14/2009	T501	18.97
38	634500	5/15/2009	504	19.17
39	606193	5/22/2009	503	16.25

TOTAL: 737.58

648093

WASTE MANAGEMENT

Turkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03835
Phone (603)330-2101

Original
Ticket# 559314

Customer Name TRIUMVIRATECH Triumvirate Eng
Ticket Date 04/17/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest
Destination
Generator NE UNIVOFMAAMHERST University of MA Amherst

Carrier AMERITECH AMERITECH
Vehicle# 503 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 10315AAH (PCB REMEDIATION WASTE <5

	Time	Scale	Operator	Inbound		
In	04/17/2009 06:39:37	scale 1 inbound	coristine blakey		Gross	73640 lb
Out	04/17/2009 07:10:39	scale 2 outbo	eric metzler		Tare	35740 lb
					Net	37900 lb
					Tons	18.95

Comments

	Product	LB%	Qty	UOM	Rate	Per	Amount	Origin
1	Cont Soil Mot-Tons	100	18.95	Tons				MA
2	PGENV-Environments	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

503

Massachusetts Department of Environmental Protection

Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030) 103158NH

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative: Steph J Solan
Date of Shipment: 4-16-09
Time of Shipment: 2:30 ☐ AM ☒ PM
Truck/Tractor Registration: mc 952888
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4/17/09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons): 18.95

Load 2:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 3:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

648157

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 599377

Customer Name TRIUMVIRATECN Triumvirate Env
Ticket Date 04/17/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest *
Destination
Generator NE-UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 503 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 103158NH (PCB REMEDIATION WASTE (5

	Time	Scale	Operator	Inbound		
In	04/17/2009 08:44:29	scale 1 inbou	christina blakey		Gross	70900 lb
Out	04/17/2009 09:23:51	scale 2 outbo	eric metzler		Tare	34740 lb
					Net	36160 lb
					Tons	18.08

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Mot-Tons	100	18.08	Tons				MA
2	PGENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE

Driver's Signature _____

404WMN-Gonic

503

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030) 103158NH

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative: Stephen J Solan
Date of Shipment: 4-16-09
Time of Shipment: 2:30 ☐ AM ☒ PM
Truck/Tractor Registration: ME 952889
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4/17/09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 2:
Signature of Transporter Representative: Stephen J Solan
Date of Shipment: 4-17-09
Time of Shipment: 8:00 ☒ AM ☐ PM
Truck/Tractor Registration: ME 952889
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4/17/09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons): 18.08

Load 3:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:
Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

648184

WASTE MANAGEMENT

Turnkey Landfill
39 Rochester Neck Rd
Rochester, NH, 03839
Phs (603)330-2181

Original
Ticket# 509416

Customer Name TRIUMVIRATEEN Triumvirate Env
Ticket Date 04/17/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest x
Destination
Generator NE-UNIVOFMAAMHFRST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 502 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 162150NH (PCB REMEDIATION WASTE (5

	Time	Scale	Operator	Inbound		
In	04/17/2009 09:45:38	scale 1 inbou	christina blakey		Gross	75920 lb
Out	04/17/2009 10:25:35	scale 2 outbo	eric aetzler		Tare	34500 lb
					Net	41420 lb
					Tons	20.71

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	20.71	Tons				MA
2	PSENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

404WMN-Gonic

Profile #103158 NH

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030) 602

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative: Glen Tcomey
Date of Shipment: 4-16-09
Time of Shipment: 2:15 ☐ AM ☒ PM
Truck/Tractor Registration: 954291
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 2:
Signature of Transporter Representative:
Date of Shipment: 4-17-09
Time of Shipment: 9:05 ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4/17/09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons): 20.71

Load 3:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:
Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

648213

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 599430

Customer Name TRIUMVIRATEEN Triumvirate Env
Ticket Date 04/17/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest
Destination
Generator NE-UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 411 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 103150NH (PCB REMEDIATION WASTE (5

	Time	Scale	Operator	Inbound		
In	04/17/2009 10:35:56	scale 1 inbou	christina blakey		Gross	86020 lb
Out	04/17/2009 11:24:00	scale 2 outbo	eric metzler		Tare	47620 lb
					Net	38400 lb
					Tons	19.20

Comments

	Product	LB%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	19.20	Tons				MA
2	P6ENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

404WMN-Gonic

Profile 103158 NH

Massachusetts Department of Environmental Protection **BWSC-012B**

Bureau of Waste Site Cleanup

BILL OF LADING (pursuant to 310 CMR 40.0030) 4/1

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:

Signature of Transporter Representative: Stephen J Blanc Blaise Sullivan

Date of Shipment: 4-16-09

Time of Shipment: 8:00 ☒ AM ☐ PM

Truck/Tractor Registration: ME 952889

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt: 4/17/09

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons): 19.20

Load 2:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 3:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 4:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 5:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 6:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)

Total Carried Forward (cu. yds./tons):

Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

648274

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 590502

Customer Name TRIUMVIRATEEN Triumvirate Env Carrier AMERITECH AMERITECH
Ticket Date 04/17/2009 Vehicle# 411 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0007284
State Waste Code NONE Gen EPA ID NOT REQUIRED
Manifest PO
Destination Profile 1021508NH OPCB REMEDIATION WASTE (5
Generator NF-UNIVOFMASSAMHERST University of MA - Amherst

	Time	Scale	Operator	Inbound		
In	04/17/2009 13:19:21	scale 1 inbou	eric metzler		Gross	83260 lb
Out	04/17/2009 14:13:00	scale 2 outbo	christina blakey		Tare	46820 lb
					Net	36440 lb
					Tons	18.22

Comments

	Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	18.22	Tons				MA
2	PSENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

103158NH 411

Massachusetts Department of Environmental Protection **BWSC-012B**

Bureau of Waste Site Cleanup

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16293

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative:
Date of Shipment: 4-17-09
Time of Shipment: 7:55 ☑ AM ☐ PM
Truck/Tractor Registration: 954291/Me.
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4 17 09
Time of Receipt: 18:00 ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 2:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 3:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

648323

WASTE MANAGEMENT

Turnkey Landfill
70 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 599556

Customer Name TRIUMVIRATEEN Triumvirate Env
Ticket Date 04/17/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest
Destination
Generator NE-UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# T501 Volume
Container
Driver
Check#
Billing # 0007204
Gen EPA ID NOT REQUIRED
PO
Profile 103150NH (PCB REMEDIATION WASTE 75

	Time	Scale	Operator	Inbound		
In	04/17/2009 15:03:49	scale 1 inbou	eric metzler		Gross	71620 lb
Out	04/17/2009 15:35:28	scale 2 outbo	ERIC METZLER		Tare	33280 lb
					Net	38340 lb
					Tons	19.17

Comments

	Product	LB%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	19.17	Tons				MA
2	PhENV Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

103158NH T501

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative: Glen Toomey
Date of Shipment: 4-16-09
Time of Shipment: 8:00 [X] AM [ ] PM
Truck/Tractor Registration: 954291 / ME.
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: [ ] AM [ ] PM
Load Size (cu. yds./tons):

Load 2:
Signature of Transporter Representative: George Hanson
Date of Shipment: 4/17/09
Time of Shipment: 2:15 [ ] AM [X] PM
Truck/Tractor Registration: 951763 ME
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4/17/09
Time of Receipt: [ ] AM [ ] PM
Load Size (cu. yds./tons):

Load 3:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: [ ] AM [ ] PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: [ ] AM [ ] PM
Load Size (cu. yds./tons):

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: [ ] AM [ ] PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: [ ] AM [ ] PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: [ ] AM [ ] PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: [ ] AM [ ] PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: [ ] AM [ ] PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: [ ] AM [ ] PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:
Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

648377

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 599615

Customer Name TRIUMVIRATEEN Triumvirate Env Carrier AMERITECH AMERITECH
Ticket Date 04/20/2009 Vehicle# T501 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0007284
State Waste Code NONE Gen EPA ID NOT REQUIRED
Manifest PO
Destination Profile 103158NH (PCB REMEDIATION WASTE (5
Generator NE-UNIVOFMAAMHERST University of MA Amherst

	Time	Scale	Operator	Inbound		
In	04/20/2009 06:48:46	scale 1 inbou	christina blakey		Gross	74380 lb
Out	04/20/2009 07:21:59	scale 2 outbo	christina blakey		Tare	35160 lb
					Net	39220 lb
					Tons	19.61

Comments

Product		LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	19.61	Tons				MA
2	P6ENV-Environmente	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

404WMN-Gonic

103158NH

Massachusetts Department of Environmental Protection

Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030) T581

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative:
Date of Shipment: 04/17/09
Time of Shipment: 1415 ☐ AM ☒ PM
Truck/Tractor Registration: 919363 ME
Trailer Registration (if any): A290125 ME
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4/20/09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons): 19.61

Load 2:
Signature of Transporter Representative:
Date of Shipment: 4/20/09
Time of Shipment: 6:00 ☒ AM ☐ PM
Truck/Tractor Registration: 951765 ME
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 3:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

648418

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 599667

Customer Name TRIUMVIRATEEN Triumvirate Env
Ticket Date 04/20/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest *
Destination
Generator NE-UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# T501 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 103158NH (PCB REMEDIATION WASTE (5

	Time	Scale	Operator	Inbound		
In	04/20/2009 08:48:24	scale 1 inbou	christina blakey		Gross	72520 lb
Out	04/20/2009 09:37:02	scale 2 outbo	christina blakey		Tare	33720 lb
					Net	38800 lb
					Tons	19.40

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	19.40	Tons				MA
2	PGENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

404WMN-Gonic

103.158NH

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030) 1581

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:

Signature of Transporter Representative: Glen Tcemey

Date of Shipment: 4-17-09

Time of Shipment: 2:30 ☐ AM ☒ PM

Truck/Tractor Registration: 954291/ME

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt: 4/20/09

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons): 19.40

Load 2:

Signature of Transporter Representative:

Date of Shipment: 4/20/09

Time of Shipment: 8:15 ☒ AM ☐ PM

Truck/Tractor Registration: 951763 ME

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 3:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 4:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 5:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 6:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)

Total Carried Forward (cu. yds./tons):

Total Carried Forward and This Page (cu. yds./tons):

648675

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2101

Original
Ticket# 590981

Customer Name TRIUMVIRATEEN Triumvirate Env
Ticket Date 04/21/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest *
Destination
Generator NE-UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 503 Volume
Container
Driver
Check#
Billing # 0007284
Gen FAA ID NOT REQUIRED
PO
Profile 103158NH (PCB REMEDIATION WASTE <5

	Time	Scale	Operator	Inbound		
In	04/21/2009 11:22:01	scale 1 inbou	christina blakey		Gross	69200 lb
Out	04/21/2009 11:54:15	scale 2 outbo	christina blakey		Tare	35660 lb
					Net	33540 lb
					Tons	16.77

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	16.77	Tons				MA
2	PGENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

404WMN-Gonic

Profile # 103158MA

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030) 503

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:
Signatiure of Transporter Representative: Glen Tcomo
Date of Shipment: 4-20-09
Time of Shipment: 8:15 ☒ AM ☐ PM
Truck/Tractor Registration: 954291/ME.
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4/21/09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 2:
Signatiure of Transporter Representative: Stephen J Solano
Date of Shipment: 4-21-09
Time of Shipment: 7:00 ☒ AM ☐ PM
Truck/Tractor Registration: ME 952889
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4/21/09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 3:
Signatiure of Transporter Representative: Stephen J Solano
Date of Shipment: 4-21-09
Time of Shipment: 8:30 ☒ AM ☐ PM
Truck/Tractor Registration: ME 952889
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4/21/09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signatiure of Transporter Representative: Stephen J Solano
Date of Shipment: 4-21-09
Time of Shipment: 10:30 ☒ AM ☐ PM
Truck/Tractor Registration: ME952889
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4/21/09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons): 66.77

Load 5:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:
Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

648628

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd.
Rochester, NH, 03839
Ph: (603)330-2151

Original
Ticket# 599921

Customer Name TRIUMVIRATEEN Triumvirate Env
Ticket Date 04/21/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest *
Destination
Generator NE-UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 419 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 103150NH (PCB REMEDIATION WASTE <5

	Time	Scale	Operator	Inbound		
In	04/21/2009 09:08:30	scale 1 inbou	christina blakey		Gross	84440 lb
Out	04/21/2009 10:00:28	scale 2 outbo	christina blakey		Tare	44720 lb
					Net	39720 lb
					Tons	19.86

Comments

Product		LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met Tons	100	19.86	Tons				MA
2	PGENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature Robert A [signature]

PROFILE #: 103158 NH

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030) 419

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:

Signatiure of Transporter Representative: Glen Tcomey

Date of Shipment: 4-20-09

Time of Shipment: 2:15 ☐ AM ☒ PM

Truck/Tractor Registration: 954291/ME.

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 2:

Signatiure of Transporter Representative: Robert A. Sim

Date of Shipment: 4/21/04

Time of Shipment: 0900 ☒ AM ☐ PM

Truck/Tractor Registration: 919363

Trailer Registration (if any): A921851

Receiving Facility/Temporary Storage Representative:

Date of Receipt: 4/21/05

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons): 19.86

Load 3:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 4:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 5:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 6:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)

Total Carried Forward (cu. yds./tons):

Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

648619

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph. (603)330-2181

Original
Ticket# 599919

Customer Name TRIUMVIRATECN Triumvirate Env
Ticket Date 04/21/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest *
Destination
Generator NE-UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 503 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 103158NH (PCB REMEDIATION WASTE (5

	Time	Scale	Operator	Inbound		
In	04/21/2009 09:02:22	scale 1 inbou	christina blakey		Gross	72840 lb
Out	04/21/2009 09:43:08	scale 2 outbo	christina blakey		Tare	35880 lb
					Net	36960 lb
					Tons	18.48

Comments

Product		LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	18.48	Tons				MA
2	P6ENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

404WMN-Gonic

*Profile # 103158MA

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030) 503

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:

Signatiure of Transporter Representative: Glen Tcomm

Date of Shipment: 4-20-09

Time of Shipment: 8:15 ☒ AM ☐ PM

Truck/Tractor Registration: 954291/ME.

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt: 4/21/09

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 2:

Signatiure of Transporter Representative: Stephen J Solan

Date of Shipment: 4-21-09

Time of Shipment: 7:00 ☒ AM ☐ PM

Truck/Tractor Registration: ME 952889

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt: 4/21/09

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons): 18.48

Load 3:

Signatiure of Transporter Representative: Stephen J Solan

Date of Shipment: 4-21-09

Time of Shipment: 8:30 ☒ AM ☐ PM

Truck/Tractor Registration: ME 952889

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 4:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 5:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 6:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)

Total Carried Forward (cu. yds./tons):

Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

648571

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2101

Original
Ticket# 599861

Customer Name TRIUMVIRATEEN Triumvirate Env
Ticket Date 04/21/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest
Destination
Generator NE UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 503 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 103158NH (PCB REMEDIATION WASTE ...

	Time	Scale	Operator	Inbound		
In	04/21/2009 07:01:00	scale 1 inbou	christina blakey		Gross	76420 lb
Out	04/21/2009 07:35:04	scale 2 outbo	christina blakey		Tare	34900 lb
					Net	41520 lb
					Tons	20.76

Comments

Product		LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Net-Tons	100	20.76	Tons				MA
2	PGENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

404WMN-Gonic

Profile # 103158NA

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030) 503

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:

Signatiure of Transporter Representative: Glen Tcomey

Date of Shipment: 4-20-09

Time of Shipment: 8:15 ☒ AM ☐ PM

Truck/Tractor Registration: 954291/ME.

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt: 4/21/09

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons): 20.76

Load 2:

Signatiure of Transporter Representative: [signature]

Date of Shipment: 4-21-09

Time of Shipment: 7:00 ☒ AM ☐ PM

Truck/Tractor Registration: ME 952889

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 3:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 4:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 5:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 6:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)

Total Carried Forward (cu. yds./tons):

Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

648564

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 599840

Customer Name TRIUMVIRATECH Triumvirate Env
Ticket Date 04/21/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest *
Destination
Generator NE UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 419 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 103158NH (PCB REMEDIATION WASTE <5

	Time	Scale	Operator	Inbound		
In	04/21/2009 06:41:58	scale 1 inbou	christina blakey		Gross	78100 lb
Out	04/21/2009 07:24:41	scale 2 outbo	christina blakey		Tare	45840 lb
					Net	32260 lb
					Tons	16.13

Comments

Product		LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	16.13	Tons				MA
2	PGENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature [signature]

PROFILE # 103158 NH

Massachusetts Department of Environmental Protection **BWSC-012B**

Bureau of Waste Site Cleanup

BILL OF LADING (pursuant to 310 CMR 40.0030) 4/19

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1: Signatiure of Transporter Representative: [signature]

Date of Shipment: 04/20/09 Time of Shipment: 14:15 ☐ AM ☒ PM

Truck/Tractor Registration: 919363 ME Trailer Registration (if any): A290125 ME

Receiving Facility/Temporary Storage Representative: [signature]

Date of Receipt: 4/21/09 Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons): 16.13

Load 2: Signatiure of Transporter Representative:

Date of Shipment: Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration: Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt: Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 3: Signatiure of Transporter Representative:

Date of Shipment: Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration: Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt: Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 4: Signatiure of Transporter Representative:

Date of Shipment: Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration: Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt: Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 5: Signatiure of Transporter Representative:

Date of Shipment: Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration: Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt: Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 6: Signatiure of Transporter Representative:

Date of Shipment: Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration: Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt: Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)

Total Carried Forward (cu. yds./tons):

Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

654520

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 600240

Customer Name TRIUMVIRATEEN Triumvirate Env
Ticket Date 04/22/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest +
Destination
Generator NE-UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 412 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 103150NH (PCB REMEDIATION WASTE <5

	Time	Scale	Operator	Inbound		
In	04/22/2009 11:19:42	scale 1 inbou	eric metzler		Gross	81020 lb
Out	04/22/2009 12:13:24	scale 2 outbo	christina blakey		Tare	40860 lb
					Net	40160 lb
					Tons	20.08

Comments

Product		LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met Tons	100	20.08	Tons				MA
2	P6ENV-Environments	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature [signature]

403158NH

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative: Glen Tcomey
Date of Shipment: 4-21-09
Time of Shipment: 1:30 ☒ AM ☒ PM
Truck/Tractor Registration: 954291 / NE.
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 2:
Signature of Transporter Representative: David Rivera
Date of Shipment: 4 22-09
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4 22 09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons): 20.08

Load 3:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:
Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

655045

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 600796

Customer Name TRIUMVIRATEEN Triumvirate Env
Ticket Date 04/24/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest *
Destination
Generator NE-UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 412 Volume
Container
Driver
Check#
Billing # 0007204
Gen EPA ID NOT REQUIRED
PO
Profile 103158NH (PCB REMEDIATION WASTE <5

	Time	Scale	Operator	Inbound		
In	04/24/2009 12:20:11	scale 1 inbou	christina blakey		Gross	78360 lb
Out	04/24/2009 13:59:45	scale 2 outbo	eric metzler		Tare	43160 lb
					Net	35200 lb
					Tons	17.60

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	17.60	Tons				MA
2	PGENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature [signature]

404WMN-Gonic

CAN 992022 PR# 103158NH

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030) 412

SUMMARY SHEET _____ **OF** _____

Release Tracking Number 1 - 16269

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative: [signature]
Date of Shipment: 4-23-09
Time of Shipment: 2:30 ☐ AM ☒ PM
Truck/Tractor Registration: ME 952889
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative: [signature]
Date of Receipt: 4/24/09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons): 17.60

Load 2:
Signature of Transporter Representative: [signature]
Date of Shipment: 4-24-09
Time of Shipment: 11 30 ☒ AM ☐ PM
Truck/Tractor Registration: 917938
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 3:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

655026

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330 2181

Original
Ticket# 600796

Customer Name TRIUMVIRATEEN Triumvirate Env
Ticket Date 04/24/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest
Destination
Generator NE UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 411 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 103158NH (PCB REMEDIATION WASTE /5

	Time	Scale	Operator	Inbound		
In	04/24/2009 12:15:15	scale 1 inbou	christina blakey		Gross	82200 lb
Out	04/24/2009 13:26:44	scale 2 outbo	eric metzler		Tare	47760 lb
					Net	34440 lb
					Tons	17.22

Comments

Product		LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	17.22	Tons				MA
2	PGENV-Environments	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

404WMN-Gonic

992018 103158 NH

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030) 4/4

SUMMARY SHEET _____ **OF** _____

Release Tracking Number
1 - 16269

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative: Allen Toomey
Date of Shipment: 4-21-09
Time of Shipment: 7:20 ☒ AM ☐ PM
Truck/Tractor Registration: 954291 / ME
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4/24/09
Time of Receipt: 17:22 ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 2:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 3:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:
Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

654950

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph. (603)330-0100

Original
Ticket# 600722

Customer Name TRIUMVIRATEEN Triumvirate Env Carrier AMERITECH AMERITECH
Ticket Date 04/24/2009 Vehicle# 411 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 00007264
State Waste Code NONE Gen EPA ID NOT REQUIRED
Manifest PO
Destination Profile 103158## (PCB REMEDIATION WASTE (5
Generator NE-UNIVOFMASSAMHERST University of MA - Amherst

	Time	Scale	Operator	Inbound		
In	04/24/2009 09:34:41	scale 1 inbou	eric metzler		Gross	07420 lb
Out	04/24/2009 10:27:00	scale 2 outbo	christina blakey		Tare	47280 lb
					Net	40140 lb
					Tons	20.07

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	20.07	Tons				MA
2	PGENV-Environments	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

103158 NH

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

411

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:
Signatiure of Transporter Representative:
Date of Shipment: 4-22-09
Time of Shipment: 8:30 ☒ AM ☐ PM
Truck/Tractor Registration: 954291/ME
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4 24 09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons): 20.07

Load 2:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 3:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

654947

WASTE MANAGEMENT

Burkey Landfill
30 Rochester Neck Rd
Rochester, MA, 02839
Ph: (508)330-2101

Original
Ticket# 600720

Customer Name TRIUMVIRATEEN Triumvirate Env Carrier AMERITECH AMERITECH
Ticket Date 04/24/2009 Vehicle# 412 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Routing Ticket# Check#
Route Billing # 0007284
State Waste Code NONE Gen EPA ID NOT REQUIRED
Manifest PO
Destination Profile 103156NA (PCB REMEDIATION WASTE (5
Generator NE-UNIVOFMASSAMHERST University of MA - Amherst

	Time	Scale	Operator	Inbound		
In	04/24/2009 09:30:40	scale 1 inbou	eric metzler		Gross	81020 lb
Out	04/24/2009 10:21:23	scale 2 outbo	christina blakey		Tare	41140 lb
					Net	39880 lb
					Tons	19.94

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	19.94	Tons				MA
2	PGENV-Environmental	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

404WMN-Gonic

CAN# ~~[illegible]~~ 092013 Profile 103158NH

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

412

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:

Signature of Transporter Representative: [signature]

Date of Shipment: 4/23/09

Time of Shipment: 7:45 ☒ AM ☐ PM

Truck/Tractor Registration: 951763 ME

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative: [signature]

Date of Receipt: 4 24 09

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons): 19.94

Load 2:

Signatiure of Transporter Representative: David Tubeiro

Date of Shipment: 4-24-09

Time of Shipment: 8:45 ☑ AM ☐ PM

Truck/Tractor Registration: 917938

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 3:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 4:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 5:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 6:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)

Total Carried Forward (cu. yds./tons):

Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

654894

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 600654

Customer Name TRIUMVIRATECH Triumvirate Env
Ticket Date 04/24/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest
Destination
Generator NE-UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 411 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 103158NH (PCB REMEDIATION WASTE 45

	Time	Scale	Operator	Inbound		
In	04/24/2009 06:45:05	scale 1 inbou	eric metzler		Gross	87860 lb
Out	04/24/2009 07:55:05	scale 2 outbo	christina blakey		Tare	45660 lb
					Net	42200 lb
					Tons	21.10

Comments

Product		LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	21.10	Tons				MA
2	PGEN0-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

404WMN-Gonic

Profile#103158NH 411

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16289

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative:
Date of Shipment: 4/23/09
Time of Shipment: 1:30pm ☐ AM ☒ PM
Truck/Tractor Registration: 951763MA
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4/24/09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons): 21.10

Load 2:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 3:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

654891

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 600653

Customer Name TRIUMVIRATEEN Triumvirate Env
Ticket Date 04/24/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest +
Destination
Generator NE-UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 412 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 103158NH (PCB REMEDIATION WASTE 45

	Time	Scale	Operator	Inbound		
In	04/24/2009 06:39:48	scale 1 inbou	eric metzler		Gross	82340 lb
Out	04/24/2009 07:50:52	scale 2 outbo	christina blakey		Tare	43260 lb
					Net	39080 lb
					Tons	19.54

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	19.54	Tons				MA
2	PGENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

404WMN-Gonic

412 CAN# 992009 PRF# 103 158 WH

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

DEP

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative:
Date of Shipment: 4-23-09
Time of Shipment: 8:30 ☑ AM ☐ PM
Truck/Tractor Registration: ME 951889
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4 24 09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons): 19.84

Load 2:
Signature of Transporter Representative:
Date of Shipment: 4 24 09
Time of Shipment: 8:30 ☑ AM ☐ PM
Truck/Tractor Registration: 917938
Trailer Registration (if any): CAN# 992009
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 3:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:
Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

632112

WASTE MANAGEMENT

Turnkey Landfill
39 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 601120

Customer Name TRIUMVIRATEFN Triumvirate Env
Ticket Date 04/27/2000
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest
Destination
Generator NF-UNIVOFMASSAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 503 Volume
Container
Driver
Check#
Billing # 0007204
Gen EPA ID NOT REQUIRED
PO
Profile 102158NH (PCB REMEDIATION WASTE <5

	Time	Scale	Operator	Inbound		
In	04/27/2000 13:09:15	scale 1 inbou	eric metzler		Gross	71240 lb
Out	04/27/2000 13:47:01	scale 2 outbo	vrivera		Tare	35540 lb
					Net	35700 lb
					Tons	17.85

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	17.85	Tons				MA
2	PGENV-Environmente	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

404WMN-Gonic

503 103 158 NH

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:

Signature of Transporter Representative: Stephen Solano

Date of Shipment: 4-27-09

Time of Shipment: 10:15 ☒ AM ☐ PM

Truck/Tractor Registration: ME 952889

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt: 4-27-09

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons): 17.89

Load 2:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 3:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 4:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 5:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 6:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)

Total Carried Forward (cu. yds./tons):

Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

632362

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 601419

Customer Name TRIUMVIRATEEN Triumvirate Env
Ticket Date 04/28/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest
Destination
Generator NE-UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# T501 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 102150MH (PCB REMEDIATION WASTE 45

	Time	Scale	Operator	Inbound		
In	04/28/2009 13:22:09	scale 1 inbou	eric metzler		Gross	78280 lb
Out	04/28/2009 13:58:37	scale 2 outbo	christina blakey		Tare	33540 lb
					Net	44740 lb
					Tons	22.37

Comments

Product		LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	22.37	Tons				MA
2	PGENV-Environments	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

TS01 · 103158NH

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

DEP

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative:
Date of Shipment: 4/27/09
Time of Shipment: 9:30 ☐ AM ☒ PM
Truck/Tractor Registration: 951 763 MA
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4 28 09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons): 2237

Load 2:
Signature of Transporter Representative:
Date of Shipment: 4/28/09
Time of Shipment: 12:45 ☐ AM ☒ PM
Truck/Tractor Registration: 951 763 MA
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 3:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

632392

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 601439

Customer Name TRIUMVIRATECH Triumvirate Env
Ticket Date 04/28/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest +
Destination
Generator NE-UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 318 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 103150NH (PCB REMEDIATION WASTE <5

	Time	Scale	Operator	Inbound		
In	04/28/2009 14:07:48	scale 1 inbou	eric metzler		Gross	84460 lb
Out	04/28/2009 14:59:32	scale 2 outbo	christina blakey		Tare	45680 lb
					Net	38780 lb
					Tons	19.39

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	19.39	Tons				MA
2	PGENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature [signature]

404WMN-Gonic

418 103158NH

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:
Signatiure of Transporter Representative:
Date of Shipment: 4/27/09
Time of Shipment: 8:00 ☒ AM ☐ PM
Truck/Tractor Registration: 951763ME
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 2:
Signatiure of Transporter Representative:
Date of Shipment: 4-28-09
Time of Shipment: 1:15 ☐ AM ☒ PM
Truck/Tractor Registration: 918578ME
Trailer Registration (if any): A952185ME
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4 28 09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons): 19.39

Load 3:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:
Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

632424

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 801491

Customer Name TRIUMVIRATEEN Triumvirate Env
Ticket Date 04/28/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest +
Destination
Generator NE-UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# T501 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 103150NH (PCB REMEDIATION WASTE (5

	Time	Scale	Operator	Inbound		
In	04/28/2009 15:33:34	scale 1 inbou	eric weizler		Gross	71160 lb
Out	04/28/2009 16:00:24	scale 2 outbo	eric weizler		Tare	35820 lb
					Net	35340 lb
					Tons	17.67

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	17.67	Tons				MA
2	PSENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

992009 103158NH T501

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative:
Date of Shipment: 4-28-09
Time of Shipment: 8:00 ☒ AM ☐ PM
Truck/Tractor Registration: ME 952889
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 4-28-09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons): 17.67

Load 2:
Signature of Transporter Representative:
Date of Shipment: 4/28/09
Time of Shipment: 2:45 ☐ AM ☒ PM
Truck/Tractor Registration: 951763 ME
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 3:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:
Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

632439

WASTE MANAGEMENT

Turnkey Landfill
70 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 601503

Customer Name TRIUMVIRATEEN Triumvirate Env Carrier AMERITECH AMERITECH
Ticket Date 04/29/2009 Vehicle# 500 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0007284
State Waste Code NONE Gen EPA ID NOT REQUIRED
Manifest PO
Destination Profile 103150NH (PCB REMEDIATION WASTE (5
Generator NE-UNIVOFMASSAMHERST University of MA - Amherst

	Time	Scale	Operator	Inbound		
In	04/29/2009 06:36:35	scale 1 inbou	christina blakey		Gross	65900 lb
Out	04/29/2009 07:09:40	scale 2 outbo	eric metzler		Tare	35740 lb
					Net	30160 lb
					Tons	15.08

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	15.08	Tons				MA
2	PGENV-Environmental	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

Profile 103158 nH

Massachusetts Department of Environmental Protection **BWSC-012B**

Bureau of Waste Site Cleanup

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ **OF** _____

Release Tracking Number 1 - 16269

I. LOAD INFORMATION:

Load 1:

Signature of Transporter Representative:

Date of Shipment: 4-28-09

Time of Shipment: 3:30 ☐ AM ☑ PM

Truck/Tractor Registration: 914988

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt: 4/29/09

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons): 15.08

Load 2:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 3:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 4:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 5:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 6:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)

Total Carried Forward (cu. yds./tons):

Total Carried Forward and This Page (cu. yds./tons):

632685

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 601796

Customer Name TRIUMVIRATEEN Triumvirate Env
Ticket Date 04/30/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest #
Destination
Generator NE-UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 502 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 103158NH (PCB REMEDIATION WASTE (5

	Time	Scale	Operator	Inbound		
In	04/30/2009 06:45:31	scale 1 inbou	christine blakey		Gross	75940 lb
Out	04/30/2009 07:18:26	scale 2 outbo	eric metzler		Tare	34340 lb
					Net	41600 lb
					Tons	20.80

Comments

Product		LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	20.80	Tons				MA
2	PGENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Profile # 103158NH

Massachusetts Department of Environmental Protection **BWSC-012B**
Bureau of Waste Site Cleanup

BILL OF LADING (pursuant to 310 CMR 40.0030) 502

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1: Signatiure of Transporter Representative: [signature]
Date of Shipment: 04/20/09
Time of Shipment: 0815 ☒ AM ☐ PM
Truck/Tractor Registration: 919363 ME
Trailer Registration (if any): A290825 ME

Receiving Facility/Temporary Storage Representative: [signature]
Date of Receipt: 4/30/09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons): 20.80

Load 2: Signatiure of Transporter Representative: Glen M. Tarney
Date of Shipment: 4/30/09
Time of Shipment: 6:00 ☒ AM ☐ PM
Truck/Tractor Registration: 914980/ME.
Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 3: Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4: Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5: Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6: Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:
Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

649770

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 602116

Customer Name TRIUMVIRATEEN Triumvirate Env
Ticket Date 05/01/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest
Destination
Generator NE UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 502 Volume
Container
Driver
Check#
Billing # 0007204
Gen EPA ID NOT REQUIRED
PO
Profile 103158NH (PCB REMEDIATION WASTE <5

	Time	Scale	Operator	Inbound		
In	05/01/2009 06:46:05	scale 1 inbou	christina blakey		Gross	74640 lb
Out	05/01/2009 07:22:22	scale 2 outbo	christina blakey		Tare	37260 lb
					Net	37380 lb
					Tons	18.69

Comments

Product		LDY	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	18.69	Tons				MA
2	P6ENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature Glen T.

404WMN Genie

Profile # 103158 NH

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative: Stephen Nolan
Date of Shipment: 4-30-09
Time of Shipment: 9:00 ☒ AM ☐ PM
Truck/Tractor Registration: ME 951889
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 2:
Signature of Transporter Representative: Glen Toomey
Date of Shipment: 5-1-09
Time of Shipment: 6:00 ☒ AM ☐ PM
Truck/Tractor Registration: 914950 / ME.
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 5/1/09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons): 18.69

Load 3:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

649950

WASTE MANAGEMENT

Turnkey Landfill
20 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 502325

Customer Name TRIUMVIRATEEN Triumvirate Env
Ticket Date 05/01/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest
Destination
Generator NE-UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# T501 Volume
Container
Driver
Check#
Billing # 0007904
Gen EPA ID NOT REQUIRED
PO
Profile 103158NH (PCB REMEDIATION WASTE (S

	Time	Scale	Operator	Inbound		
In	05/01/2009 13:10:30	scale 1 inbou	christina blakey		Gross	74190 lb
Out	05/01/2009 13:40:27	scale 2 outbo	christina blakey		Tare	35800 lb
					Net	38300 lb
					Tons	19.15

Comments

Product		LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	19.15	Tons				MA
2	P6ENV-Environments	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

103158NH

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030) T501

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative:
Date of Shipment: 4-30-09
Time of Shipment: 2:30 ☐ AM ☒ PM
Truck/Tractor Registration: ME 952869
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 2:
Signature of Transporter Representative:
Date of Shipment: 5/1/09
Time of Shipment: 11:15 ☒ AM ☐ PM
Truck/Tractor Registration: 951763MA
Trailer Registration (if any): N/A
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 5/1/09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons): 19.15

Load 3:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:
Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

650653

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 604099

Customer Name TRIUMVIRATEEN Triumvirate En.
Ticket Date 05/12/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest *
Destination
Generator NE-UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 503 Volume
Container
Driver
Check#
Billing # 0007204
Gen EPA ID NOT REQUIRED
PO
Profile 103158NH (PCB REMEDIATION WASTE (5

	Time	Scale	Operator	Inbound		
In	05/12/2009 10:53:51	scale 1 inbou	christina blakey		Gross	75800 lb
Out	05/12/2009 11:27:10	scale 2 outbo	eric metzler		Tare	34620 lb
					Net	39180 lb
					Tons	19.59

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	19.59	Tons				MA
2	P&ENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

Profile # 103158NH

Massachusetts Department of Environmental Protection

Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030) 503

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:

Signature of Transporter Representative: Stephen J Solano

Date of Shipment: 5-12-09

Time of Shipment: 8:00 ☑ AM ☐ PM

Truck/Tractor Registration: ME 952889

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt: 5/12/09

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons): 19.59

Load 2:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 3:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 4:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 5:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 6:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)

Total Carried Forward (cu. yds./tons):

Total Carried Forward and This Page (cu. yds./tons):

650765

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603) 330-2181

Original
Ticket# 604284

Customer Name TRIUMVIRATEEN Triumvirate Env
Ticket Date 05/12/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest
Destination
Generator NE-UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 411 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 103158MU (PCB REMEDIATION WASTE /S

	Time	Scale	Operator	Inbound		
In	05/12/2009 14:40:27	scale 1 inbou	eric metzler		Gross	80420 lb
Out	05/12/2009 15:40:31	scale 2 outbo	eric metzler		Tare	42420 lb
					Net	38000 lb
					Tons	19.00

Comments

Product		LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	19.00	Tons				MA
2	PSENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

Massachusetts Department of Environmental Protection **BWSC-012B**

Bureau of Waste Site Cleanup

411

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number: 1 - 16269

SUMMARY SHEET _____ OF _____

I. LOAD INFORMATION:

Load 1:

Signatiure of Transporter Representative:

Date of Shipment: 5-12-09

Time of Shipment: 11:45 ☐ AM ☑ PM

Truck/Tractor Registration: ME 917397

Trailer Registration (if any): A599557

Receiving Facility/Temporary Storage Representative:

Date of Receipt: 5/12/09

Time of Receipt: 1900 ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 2:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 3:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 4:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 5:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 6:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)

Total Carried Forward (cu. yds./tons):

Total Carried Forward and This Page (cu. yds./tons):

Profile 103158-014

650758

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 604209

Customer Name TRIUMVIRATEEN Triumvirate Env
Ticket Date 05/12/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest
Destination
Generator NE-UNIVOFMAAMHERST University of MA - Paherst

Carrier AMERITECH AMERITECH
Vehicle# 414 Volume
Container
Driver
Check#
Billing # 000/284
Gen EPA ID NOT REQUIRED
PO
Profile 103158NH (PCB REMEDIATION WASTE 15

	Time	Scale	Operator	Inbound		
In	05/12/2009 14:16:40	scale 1 inbou	eric metzler		Gross	80260 lb
Out	05/12/2009 15:24:30	scale 2 outbo	eric metzler		Tare	42380 lb
					Net	37880 lb
					Tons	18.94

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	18.94	Tons				MA
2	PGENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

404WMN-Gonic

Con# 042018 Profile # 103158 NH

414

Massachusetts Department of Environmental Protection **BWSC-012B**

Bureau of Waste Site Cleanup

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16289

I. LOAD INFORMATION:

Load 1:

Signature of Transporter Representative:

Date of Shipment: 5/12/09

Time of Shipment: 11:30 ☑ AM ☐ PM

Truck/Tractor Registration: 917677 ME

Trailer Registration (if any): A68902G ME

Receiving Facility/Temporary Storage Representative:

Date of Receipt: 5/12/09

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons): 18.94

Load 2:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 3:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 4:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 5:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 6:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)

Total Carried Forward (cu. yds./tons):

Total Carried Forward and This Page (cu. yds./tons):

650753

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 604223

Customer Name TRIUMVIRATECH Triumvirate Env
Ticket Date 05/12/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest +
Destination
Generator NE-UNIVOFMAAMHERST University of MA Amherst

Carrier AMERITECH AMERITECH
Vehicle# 504 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 103150NH (PCB REMEDIATION WASTE <5

	Time	Scale	Operator	Inbound		
In	05/12/2009 14:38:48	scale 1 inbou	eric metzler		Gross	69680 lb
Out	05/12/2009 15:15:38	scale 2 outbo	eric metzler		Tare	35560 lb
					Net	34120 lb
					Tons	17.06

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	17.06	Tons				MA
2	PGENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

Massachusetts Department of Environmental Protection **BWSC-012B**

Bureau of Waste Site Cleanup

504

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number 1 - 16269

SUMMARY SHEET _____ **OF** _____

I. LOAD INFORMATION:

Load 1:
Signatiure of Transporter Representative: Aaron Rouleau
Date of Shipment: 5/12
Time of Shipment: 11:30 ☐ AM ☐ PM
Truck/Tractor Registration: 954291
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 5/20
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons): 17.06

Load 2:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 3:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:
Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

Profile 103158 1/4

650750

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Phn (603)330-2192

Original
Ticket# 594200

Customer Name TRIUMVIRATECH Triumvirate Env Carrier AMERITECH AMERITECH
Ticket Date 05/12/2009 Vehicle# 419 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000284
State Waste Code NONE Gen EPA ID NOT REQUIRED
Manifest PO
Destination Profile 100150NH (PCB REMEDIATION WASTE (S
Generator NE-UNIVOFMAAMHERST University of MA Amherst

	Time	Scale	Operator	Inbound		
In	05/12/2009 14:15:45	scale 1 inbou	eric metzler		Gross	81920 lb
Out	05/12/2009 15:10:13	scale 2 outbo	eric metzler		Tare	43680 lb
					Net	38240 lb
					Tons	19.12

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	19.12	Tons				MA
2	PSENV Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature Robert A Gray

404WMN-Gonic

PROFILE #103158 NH

Massachusetts Department of Environmental Protection **BWSC-012B**

Bureau of Waste Site Cleanup

419

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number 1 - 16269

SUMMARY SHEET _____ **OF** _____

I. LOAD INFORMATION:

Load 1: Signature of Transporter Representative: Robert A [signature]

Date of Shipment: 05/12/09

Time of Shipment: 1130 ☒ AM ☐ PM

Truck/Tractor Registration: 919363 ME

Trailer Registration (if any): A290125 ME

Receiving Facility/Temporary Storage Representative: [signature]

Date of Receipt: 51209

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons): 18.12

Load 2: Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 3: Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 4: Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 5: Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 6: Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)

Total Carried Forward (cu. yds./tons):

Total Carried Forward and This Page (cu. yds./tons):

650912

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 604400

Customer Name TRIUMVIRATEEN Triumvirate Env Carrier AMERITECH AMERITECH
Ticket Date 05/13/2009 Vehicle# 504 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0007284
State Waste Code NONE Gen EPA ID NOT REQUIRED
Manifest # PO
Destination Profile 103158NH (PCB REMEDIATION WASTE (S
Generator NE-UNIVUFMAAMHERST University of MA - Amherst

	Time	Scale	Operator	Inbound		
In	05/13/2009 12:05:24	scale 1 inbou	eric metzler		Gross	72660 lb
Out	05/13/2009 12:38:16	scale 2 outbo	eric metzler		Tare	34840 lb
					Net	37820 lb
					Tons	18.91

Comments

Product		LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	18.91	Tons				MA
2	P6ENV Environmenta	100		%				MA
3	FUEL Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

Profile 103158nH

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

504

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number: L - 16269

SUMMARY SHEET _____ **OF** _____

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative: Glen Toomey
Date of Shipment: ~~5-1-09~~ 5-13-09
Time of Shipment: ~~12:22~~ 11:18 [X] AM [X] PM
Truck/Tractor Registration: 914980
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 5 13 09
Time of Receipt: [ ] AM [ ] PM
Load Size (cu. yds./tons): 18.91

Load 2:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: [ ] AM [ ] PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: [ ] AM [ ] PM
Load Size (cu. yds./tons):

Load 3:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: [ ] AM [ ] PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: [ ] AM [ ] PM
Load Size (cu. yds./tons):

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: [ ] AM [ ] PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: [ ] AM [ ] PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: [ ] AM [ ] PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: [ ] AM [ ] PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: [ ] AM [ ] PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: [ ] AM [ ] PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

650911

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03837
Ph: (603)330-2181

Original
Ticket# 604431

Customer Name TRIUMVIRATEEN Triumvirate Sys
Ticket Date 05/13/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest
Destination
Generator NE UNIVOFMAAMHERST University of MA - Amherst

Carrier AMERITECH AMERITECH
Vehicle# 503 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 103158NH (PCB REMEDIATION WASTE 75

	Time	Scale	Operator	Inbound		
In	05/13/2009 12:06:21	scale 1 inbou	eric metzler		Gross	74000 lb
Out	05/13/2009 12:36:43	scale 2 outbo	eric metzler		Tare	35500 lb
					Net	38500 lb
					Tons	19.25

Comments

Product		LO%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Net-Tons	100	19.25	Tons				MA
2	PGENV-Environments	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

404WMN-Gonic

103158 NH

Massachusetts Department of Environmental Protection **BWSC-012B**

Bureau of Waste Site Cleanup

BILL OF LADING (pursuant to 310 CMR 40.0030) 503

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:
Signatiure of Transporter Representative: Aaron Rousseau
Date of Shipment: 5/13
Time of Shipment: 7:30 ☒ AM ☐ PM
Truck/Tractor Registration: 918881 ME
Trailer Registration (if any): A849590 ME
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 5/13/09
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons): 19.25

Load 2:
Signatiure of Transporter Representative: Stephen Solano
Date of Shipment: 5-13-09
Time of Shipment: 11:15 ☒ AM ☐ PM
Truck/Tractor Registration: ME 952889
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 3:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

651130

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH. 03839
Ph: (603)330-2191

Original
Ticket# 604651

Customer Name TRIUMVIRATECH Triumvirate Env Carrier AMERITECH AMERITECH
Ticket Date 05/14/2009 Vehicle# 303 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 00007238
State Waste Code NONE Gen EPA ID NOT REQUIRED
Manifest # PO
Destination Profile 10315ANH (PCB REMEDIATION WASTE (S
Generator NE-UNIVOFMASSAMHERST University of MA - Amherst

	Time	Scale	Operator	Inbound		
In	05/14/2009 10:05:56	scale 1 inbou	christina blakey		Gross	74000 lb
Out	05/14/2009 11:33:50	scale 2 outbo	eric meisler		Tare	33220 lb
					Net	40780 lb
					Tons	20.39

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	20.39	Tons				MA
2	P6ENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

103158 NH

Massachusetts Department of Environmental Protection

Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ OF _____ 503

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:

Signature of Transporter Representative: Stephen J Solano

Date of Shipment: 5-14-09

Time of Shipment: 7130 ☒ AM ☐ PM

Truck/Tractor Registration: ME 952889

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt: 5/14/09

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons): 20.39

Load 2:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 3:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 4:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 5:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 6:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)

Total Carried Forward (cu. yds./tons):

Total Carried Forward and This Page (cu. yds./tons):

651131

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 604652

Customer Name TRIUMVIRATEEN Triumvirate Env Carrier AMERITECH AMERITECH
Ticket Date 05/14/2009 Vehicle# T501 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0007984
State Waste Code NONE Gen EPA ID NOT REQUIRED
Manifest # PO
Destination Profile 10-158NH (PCB REMEDIATION WASTE 45
Generator NE-UNIVOFMAAMHERST University of MA - Amherst

	Time	Scale	Operator	Inbound		
In	05/14/2009 10:55:23	scale 1 inbou	christina blakey		Gross	73720 lb
Out	05/14/2009 11:35:31	scale 2 outbo	eric metzler		Tare	35780 lb
					Net	37940 lb
					Tons	18.97

Comments

Product		LO%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	18.97	Tons				MA
2	PGENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

103158NH CAN FI 992009

Massachusetts Department of Environmental Protection

Bureau of Waste Site Cleanup

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030) T587

SUMMARY SHEET _____ **OF** _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:

Signature of Transporter Representative: [signature]

Date of Shipment: 5/14/09

Time of Shipment: 7:30 ☒ AM ☐ PM

Truck/Tractor Registration: 951763MF

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative: [signature]

Date of Receipt: 5/14/09

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons): 18.97

Load 2:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 3:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 4:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 5:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 6:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)

Total Carried Forward (cu. yds./tons):

Total Carried Forward and This Page (cu. yds./tons):

634500

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 604947

Customer Name TRIUMVIRATECH Triumvirate Fee Carrier AMERITECH AMERITECH
Ticket Date 05/15/2009 Vehicle# 504 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0002284
State Waste Code NONE Gen EPA ID NOT REQUIRED
Manifest # PO
Destination Profile 10315ANH (PCB REMEDIATION WASTE (5
Generator ME-UNIVOFMAAMHERST University of MA - Amherst

	Time	Scale	Operator	Inbound		
In	05/15/2009 07:34:13	scale 1 inbou	christina blakey		Gross	73460 lb
Out	05/15/2009 08:09:26	scale 2 outbo	eric metzler		Tare	35120 lb
					Net	38340 lb
					Tons	19.17

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Net-Tons	100	19.17	Tons				MA
2	PGENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Profile 103158 NH

Massachusetts Department of Environmental Protection BWSC-012B

Bureau of Waste Site Cleanup

DEP

BILL OF LADING (pursuant to 310 CMR 40.0030) 504

SUMMARY SHEET _____ OF _____

Release Tracking Number: 1 - 16269

I. LOAD INFORMATION:

Load 1:

Signatiure of Transporter Representative: ~~Aaron Houtteau~~

Date of Shipment: ~~5/13/09~~

Time of Shipment: ~~1:30~~ ☐ AM ☒ PM

Truck/Tractor Registration: ~~918881 ME~~

Trailer Registration (if any): ~~A849590 ME~~

Receiving Facility/Temporary Storage Representative:

Date of Receipt: 5/15/09

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons): 19.17

Load 2:

Signatiure of Transporter Representative: Glen Tcomey

Date of Shipment: 5-15-09

Time of Shipment: 7:00 ☒ AM ☐ PM

Truck/Tractor Registration: 954291 / ME

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 3:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 4:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 5:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 6:

Signatiure of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons):

Total Carried Forward (cu. yds./tons):

Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

649264

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603)330-2181

Original
Ticket# 606193

Customer Name TRIUMVIRATEEN Triumvirate En
Ticket Date 05/22/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code NONE
Manifest
Destination
Generator NE UNIVOFMAAMHERST University of MA Amherst

Carrier AMERITECH AMERITECH
Vehicle# 503 Volume
Container
Driver
Check#
Billing # 0007284
Gen EPA ID NOT REQUIRED
PO
Profile 103158NH (PCB REMEDIATION WASTE (5

	Time	Scale	Operator	Inbound		
In	05/22/2009 06:41:35	scale 1 inbou	eric oetzler		Gross	67400 lb
Out	05/22/2009 07:22:55	scale 2 outbo	christina blakey		Tare	34900 lb
					Net	32500 lb
					Tons	16.25

Comments

	Product	LB%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met Tons	100	16.25	Tons				MA
2	PGENV-Environmenta	100		%				MA
3	FUEL-Fuel Surcharg	100		%				MA

Total Fees
Total Ticket

OUT OF STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.
TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

404WMN Genie

103158NB

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

503

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET _____ **OF** _____

Release Tracking Number 1 - 16269

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative: Stephen Johnson
Date of Shipment: 5-11-09
Time of Shipment: 2100 ☐ AM ☑ PM
Truck/Tractor Registration: ME 95889
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative: E Mello
Date of Receipt: 5
Time of Receipt: 2200 ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 2:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 3:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

Revised 10/3/94

103158NH

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012C

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY SHEET 1 **OF** 1

Release Tracking Number
1 - 16269

K. SUMMARY OF SHIPMENTS:

Date of Shipment:	Date of Receipt:	Number of Loads Shipped:	Daily Volume Shipped (cu. yds./tons):
04/17/2009	04/17/2009	6	114.33
04/20/2009	04/20/2009	2	39.01
04/21/2009	04/21/2009	5	92.00
04/22/2009	04/22/2009	1	20.08
04/24/2009	04/24/2009	6	115.47
04/27/2009	04/27/2009	1	17.89
04/28/2009	04/28/2009	3	59.43
04/29/2009	04/29/2009	1	15.08
04/30/2009	04/30/2009	1	20.80
05/01/2009	05/01/2009	2	37.84
05/12/2009	05/12/2009	5	92.71
05/13/2009	05/13/2009	2	38.16
05/14/2009	05/14/2009	2	39.36
05/15/2009	05/15/2009	1	19.17
05/22/2009	05/22/2009	1	16.25
Summary Sheet Total Shipped:		39 shipments	737.58 tons
Bill of Lading Total Shipped (only if different):			

103158NH

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012C

BILL OF LADING (pursuant to 310 CMR 40.0030

SUMMARY SHEET

Release Tracking Number
1 - 16269

ONLY COMPLETE ONE COPY OF THIS PAGE AND ATTACH TO THE FINAL COPY OF THE SUMMARY SHEET.

L. ACKNOWLEDGMENT OF RECEIPT OF REMEDIATION WASTE AT RECEIVING FACILITY OR TEMPORARY STORAGE:

Receiving Facility/Temporary Storage Representative (print): Ellen Bellio

Title: Approvals Manager

Signature: Ellen Bellio

Date: June 26, 2009

M. ACKNOWLEDGMENT OF SHIPMENT AND RECEIPT OF REMEDIATION WASTE BY PERSON CONDUCTING RESPONSE ACTION ASSOCIATED WITH THIS BILL OF LADING:

I certify under penalties of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in herein is, to the best of my knowledge and belief, true, accurate and complete, I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

Signature: Thera W Bechta

Date: June 26, 2009

Name of Person (print): Theresa W. Bechta

APPENDIX F: DATA VALIDATION SUMMARIES

UMASS-LGRC SOIL SAMPLES - PROJECT SUMMARY

Analytics Environmental Laboratory Job Numbers: 63629, 63651, 63652, 63659, 63673, 63715, 63731, 63759, 63774, 63787, 63805, 63835, 63856, 63883

A modified Tier II validation was performed on the data. The criteria detailed below were used to qualify the data. Raw data were not used to verify the results reported by the laboratory.

Samples were received at 0.3, 2, 2.3, 2.9, 3, 3.2, 3.5, 4, 4.5, 5.5, or 6 degrees Celsius. Although one of the samples was received at less than 2 degrees Celsius, it was not frozen and no qualifications will be applied.

PCBs:

All polychlorinated biphenyl compound (PCB) samples were extracted and analyzed within technical holding times. No qualifications will be applied.

All PCB surrogates met acceptance criteria (or were diluted out) with the following exceptions. The recoveries for the surrogate tetrachloro-m-xylene (142%) in sample LGRC-VSS-017 (63629-19) and (706%) in sample LGRC-SS83-121 (63651-1) were above acceptance limits (30%-150%) on one column. No qualifications will be applied to either sample since only one surrogate on one column failed acceptance criteria.

The PCB method blanks were non-detect (ND) for all target analytes. No qualifications will be applied.

PCB field blank samples LGRC-VSS-901 (63629-16), LGRC-VSS-903 (63715-13), LGRC-VSS-904 (63731-11), LGRC-VSS-905 (63774-14), LGRC-VSS-906 (63805-5), and LGRC-VSS-907 (63856-5) were ND for all target analytes. No qualifications will be applied.

PCB matrix spike/matrix spike duplicate (MS/MSD) performed on samples LGRC-SS81-119 (62629-1), LGRC-SS83-121 (63651-1), LGRC-VSS-027 (63673-1), LGRC-VSS-040 (63715-1), LGRC-VSS-056 (63715-24), LGRC-VSS-066 (63731-15), LGRC-VSS-006 (63774-1), LGRC-VSS-105 (63787-13), LGRC-VSS-110 (63805-1), LGRC-VSS-116 (63835-1), and LGRC-VSS-136 (63835-21) met acceptance criteria with the following exceptions. The recoveries for PCB-1016 (ok/ok/ok/141%) and for PCB-1260 (463%/324%/253%/277%) in sample LGRC-SS81-119 (62629-1); the recoveries for PCB-1016 (ok/ok/ok/141%) and for PCB-1260 (174%/173%/153%/153%) in sample LGRC-VSS-040 (63715-1); the recoveries for PCB-1260 (139%/ok/ok/ok) in sample LGRC-VSS-056 (63715-24); and the recoveries for PCB-1016 (ok/ok/144%/ok) and for PCB-1260 (175%/167%/170%/160%) in sample LGRC-VSS-110 (63805-1) were above acceptance limits (PCB-1016 65%-140%; PCB-1260 60%-130%). No qualifications will be applied since the high recoveries were caused by PCB-1254 interference and PCB-1016 and PCB-1260 were not detected in the samples selected for the MS/MSD.

Analytics Environmental Laboratory Job Numbers: 63629, 63651, 63652, 63659, 63673, 63715, 63731, 63759, 63774, 63787, 63805, 63835, 63856, 63883

The PCB laboratory control samples (LCS) and/or laboratory control sample duplicates (LCSD) met acceptance criteria with the following exceptions. The recoveries for PCB-1016 (ok/ok/71%/72%) in the aqueous LCS/LCSD associated with field blank sample LGRC-VSS-905 (63774-14) were below laboratory acceptance limits (81%-112%). The non-detected PCB-1016 result in sample LGRC-VSS-905 (63774-14) will be estimated (UJ) due to low LCS/LCSD recoveries. The recovery for PCB-1016 (ok/ok/ok/145%) in one of the LCS/LCSD associated with analytical package 63835 was above acceptance limits (65%-140%). No qualifications will be applied since only one recovery was high and the associated samples are all ND for PCB-1016.

PCB field duplicate samples LGRC-VSS-016 (63629-17)/LGRC-VSS-501 (63629-18), LGRC-VSS-032 (63673-5)/LGRC-VSS-502 (63673-6), LGRC-VSS-046 (63715-7)/LGRC-VSS-503 (63715-8), LGRC-VSS-065 (63731-16)/LGRC-VSS-504 (63731-17), LGRC-VSS-088 (63774-9)/LGRC-VSS-505 (63774-11), LGRC-VSS-110 (63805-1)/LGRC-VSS-506 (63805-2), and LGRC-VSS-139 (63856-3)/LGRC-VSS-507 (63856-4) met acceptance criteria. No qualifications will be applied.

The relative percent difference (RPD) between the column results for all detected PCBs met acceptance criteria (≤25%) with the following exceptions:

LAB ID	SAMPLE ID	PCB	RPD	QUALIFIER
63629-2	LGRC-SS82-120	1254	51.6	J
63629-12	LGRC-VSS-012	1254	32.6	J
63629-14	LGRC-VSS-014	1254	32.3	J
63629-18	LGRC-VSS-501	1254	27.7	J
63629-21	LGRC-VSS-019	1254*	48.0	J
63629-22	LGRC-VSS-020	1254	34.2	J
63651-2	LGRC-SS9-122	1254	31.9	J
63715-10	LGRC-SS86-128	1254	29.8	J
63715-19	LGRC-SS87-135	1254	25.3	J
63715-20	LGRC-VSS-052	1254	25.8	J
63731-2	LGRC-SS49-133	1254	27.6	J
63731-3	LGRC-SS48-132	1254	25.6	J
63731-4	LGRC-SS47-131	1254	25.1	J
63731-15	LGRC-VSS-066	1260	30.4	J
63731-19	LGRC-VSS-063	1254	46.7	J
63759-4	LGRC-VSS-073	1254	38.8	J
63759-6	LGRC-VSS-075	1254	29.7	J
63759-12	LGRC-VSS-080	1254	33.8	J
63774-1	LGRC-VSS-006	1254	28.9	J
63774-3	LGRC-VSS-082	1254	34.5	J
63774-9	LGRC-VSS-088	1254	35.8	J
63774-10	LGRC-VSS-089	1254	38.3	J

UMASS-LGRC SOIL SAMPLES - PROJECT SUMMARY

Analytics Environmental Laboratory Job Numbers: 63629, 63651, 63652, 63659, 63673, 63715, 63731, 63759, 63774, 63787, 63805, 63835, 63856, 63883

LAB ID	SAMPLE ID	PCB	RPD	QUALIFIER
63774-11	LGRC-VSS-505	1254	32.4	J
63774-12	LGRC-VSS-090	1254	32.7	J
63774-13	LGRC-VSS-091	1254	25.3	J
63787-2	LGRC-VSS-094	1254	27.9	J
63787-11	LGRC-VSS-103	1254	30.8	J
63835-2	LGRC-VSS-117	1254	26.2	J
63835-3	LGRC-VSS-118	1254	33.3	J
63835-7	LGRC-VSS-122	1254	31.2	J
63835-9	LGRC-VSS-124	1254	32.9	J
63835-16	LGRC-VSS-131	1254	33.6	J
63883-1	LGRC-VSS-140	1254	30.6	J

*The lower concentration for PCB-1254 was reported for this sample since there was interference on the other column.

Several samples in analytical packages 63651, 63652, 63659, 63673, 63715, 63731, 63759, 63774, 63805, 63835, and 63856 were analyzed at a dilution due to the high concentration of PCB-1254 present in the samples. Elevated quantitation limits are reported in these samples as a result of the dilutions performed.

The detected and non-detected results for sample LGRC-VSS-026 (63659-1) will be estimated (J, UJ) since some of the melted ice from the cooler leaked into the sample container.

Data Check, Inc.
P.O. Box 29
81 Meaderboro Road
New Durham, NH 03855

Gloria J. Switalski:
President

Date: 06/06/09