

# Limited Site Investigation

155 and 159 Hamm Road  
Chattanooga, Hamilton County, Tennessee

January 14, 2013  
Terracon Project No.: E2107081



**Prepared for:**  
Chattanooga-Hamilton County  
Regional Planning Agency  
Chattanooga, Tennessee

**Prepared by:**  
Terracon Consultants, Inc.  
Chattanooga, Tennessee

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**Terracon**

January 14, 2013



Chattanooga-Hamilton County  
Regional Planning Agency  
1250 Market Street, Suite 2000, DRC  
Chattanooga, Tennessee 37402  
Attn: Ms. Yuen Lee

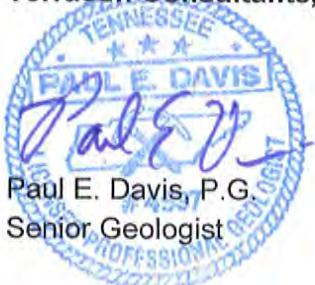
Re: Limited Site Investigation  
155 and 159 Hamm Road  
Chattanooga, Tennessee  
Terracon Project No.: E2107081

Dear Ms. Lee:

We are pleased to present the Limited Site Investigation (LSI) completed for the City of Chattanooga and the Chattanooga-Hamilton County Regional Planning Agency for the properties located at 155 and 159 Hamm Road, Chattanooga, Hamilton County, Tennessee.

We appreciate the opportunity to be of service to you on this project. In addition to environmental and geotechnical services, our professionals provide construction materials and facilities services on a wide variety of projects locally, regionally and nationally. For more detailed information on all of Terracon's services please visit our website at <http://www.terracon.com>. If there are any questions regarding this report or if we may be of further assistance, please do not hesitate to contact us.

Sincerely,  
**Terracon Consultants, Inc.**



Paul E. Davis, P.G.  
Senior Geologist



Dallas Whitmill  
Senior Engineer /  
Chattanooga Environmental Manager

Attachments

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**LIMITED SITE INVESTIGATION  
155 AND 159 HAMM ROAD  
CHATTANOOGA, HAMILTON COUNTY, TENNESSEE**

Terracon Project No.: E2107081

January 14, 2013

## **1.0 INTRODUCTION**

Terracon Consultants, Inc. (Terracon) has completed a Limited Site Investigation (LSI) at the properties located at 155 and 159 Hamm Road in Chattanooga, Hamilton County, Tennessee (site). This LSI was requested by the Chattanooga-Hamilton County Regional Planning Agency as part of an assessment of the site to aid in determining the environmental condition of the property. The purpose of this LSI is to investigate, collect, and evaluate soil and groundwater data from specific areas across the site. This LSI has been prepared in part to meet the requirements of the Brownfields Assessment Grant between the United States (US) Environmental Protection Agency (EPA) and the City of Chattanooga (the Grantee) under the US EPA Cooperative Agreement No. BF-95407108-0. The Grantee requested the LSI be conducted pursuant to a US EPA Brownfields Assessment Grant to assess potential contaminants in areas of environmental concern previously identified at the site.

The purpose of conducting this LSI is to support the City of Chattanooga Regional Planning Agency's broader effort to revitalize communities with a diversified mix of businesses – resulting in a sustainable local economy as well as better positioning the City within the regional economy. At the center of this effort is the redevelopment of Brownfields properties into uses compatible with adjacent development without the stigma associated with potentially contaminated properties. Uncertainties related to contamination have inhibited redevelopment efforts in the region. Individual Brownfield assessments will help the City resolve these uncertainties, and are expected to increase the marketability of sites to prospective purchasers and developers.

The scope of this LSI is site specific and is based on a review of historical files and previous assessments completed for the site. Soil sampling at the site was conducted to identify potential Gasoline Range Organics (GRO), Extractable Petroleum Hydrocarbons (EPH), Resource Conservation and Recovery Act (RCRA) 8 Metals, polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs), Pesticides and herbicides in the media at specific locations across the site. Details of this LSI are presented in the body of this report.

### **1.1 Site Location and Use**

The site is located at 155 Hamm Road and 159 Hamm Road. The site is composed of two parcels of land identified as parcel 135 027.01 and 135 027.03. Both parcels of land total

approximately 12.25 acres and are located along Hamm Road in Chattanooga, Hamilton County, Tennessee. The location of the site is illustrated on Appendix A/Exhibit 1 – Site Location Map. Currently, the site is improved with a warehouse type building being utilized as a mechanical repair facility for tractor trailers. The site is currently occupied by Affiliated Transit. The site is bound to the north by The Chattanooga Bakery facility and the Pratt & Associates / Hospice of Chattanooga facility. Hamm Road borders the site to the east and immediately across Hamm Road to the east is the Craftique facility. The site is bound to the south and west by undeveloped land. The general layout of the site and surrounding properties are illustrated on Appendix A/Exhibit 2 – Site Vicinity Map.

## **1.2 Site, Vicinity, and Topography**

Based on a review of information obtained from the Hamilton County Tax Assessor's records, the site consists of two parcels of land identified by parcel numbers: 135 027.1 and 135 027.03. The site is located at 155 Hamm Road and 159 Hamm Road. Both parcels of land total approximately 12.25 acres and are located along Hamm Road in Chattanooga, Hamilton County, Tennessee. According to reviewed documents, Karalex, LLC currently owns the site. Currently, the site is improved with a warehouse type building being utilized as a mechanical repair facility for tractor trailers.

The site is currently occupied by Affiliated Transit. The site is bound to the north by The Chattanooga Bakery facility and the Pratt & Associates / Hospice of Chattanooga facility. Hamm Road borders the site to the east and immediately across Hamm Road to the east is the Craftique facility. The site is bound to the south and west by undeveloped land. Based on site observations, the site slopes to the south, southeast toward the Tennessee River.

## **1.3 Regional Geologic Section**

Based on the Geology of Hamilton County, Tennessee Bulletin 79, dated 1978, and the information presented in the EDR database, the site is underlain by the Rockwood Formation. The Rockwood Formation consists of gray to greenish-gray shale with thin beds of siltstone and sandstone lenses. Thin layers and lenses of hematite have the potential to occur in the upper portion of the Rockwood Formation. The typical thickness of the Rockwood Formation is 200 to 300 feet thick.

According to the soil composition information obtained from the Soil Survey of Hamilton County, dated 1982, soils at the site consist of the Sequatchie-Urban land complex. Sequatchie soils are typically identified on 2 to 7 percent slopes, deep to moderately deep, and well drained.

The Urban Land complex is located in the inner city of Chattanooga, where buildings, streets, parking lots, sidewalks, and other structures cover eighty-five percent or more of the land. There are no identifiable soils in this unit. Residual soils in these areas have been altered by the installation of utilities and excavation for buildings, streets, and other structures. Evaluation of this unit for any specific use requires onsite investigation.

The hydrogeology in the vicinity of the site is influenced by physiographic and geologic features in the area. In general, groundwater from the site was found to be approximately 9.5 feet below the ground surface and to flow in a south, southeast direction toward the Tennessee River. A Site Map and Site Vicinity Map are included as Exhibits 1 and 2, respectively.

## **1.4 Site Environmental Investigation History**

The Chattanooga-Hamilton County Regional Planning Agency on behalf of the City of Chattanooga retained Terracon to perform a Phase I ESA on the site in July 2011. The purpose of the Phase I ESA was to obtain an understanding of the actual and potential environmental liability associated with past or current operations conducted at and in the vicinity of the subject property and to provide the “innocent landowner defense” under Superfund. Based on information discovered during the course of producing the Phase I ESA, Terracon recommended that further investigation of the site was warranted based on the history of the site and the properties located adjacent to the site.

The 159 Hamm Road facility was classified historically as a large quantity generator of lead. The 159 Hamm Road facility currently has one 300-gallon used oil AST and one 200-gallon, new oil AST. The facility previously closed a 17,000-gallon diesel UST in 1989.

The 159 Hamm Road parcel is currently occupied by Affiliated Transit. The parcel is improved with a garage and office building and a large gravel parking area. The garage is used by Affiliated Transit for repairs to the truck fleet. The 155 Hamm Road parcel is currently vacant; however the warehouse foundation remains at the site.

As described in the Phase I ESA report, a petroleum release was discovered at Fox Transport, Inc., formerly located at 159 Hamm Road, during the closure of a 17,000-gallon diesel UST. The tank was removed in 1989 and a Permanent Closure Letter was issued in 2000. At the time the UST closure, pump islands and the product lines were not removed and testing for suspected contamination in these areas was not required. In many cases, petroleum releases are a result of leaking product lines and pump islands. Hydro Chem Industrial Services, Inc. was previously located at 159 Hamm Road. As described in the Phase I ESA report, Hydro Chem Industrial Services, Inc. was once a large quantity generator of lead.

According to the Phase I ESA report, 155 Hamm Road was listed as being the former location of Scenicland Motors and Bus Service and later the Kamatsu Stage facility. No spills or releases were reported at the location of these former facilities.

Terracon conducted a geotechnical investigation in October 2011. During the investigation, a petroleum-type product was observed in boring samples collected at the 155 Hamm Road parcel in two boring locations. Foundry sand was also observed in several boring samples

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155 and 159 Hamm Road ■ Chattanooga, Tennessee  
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collected from both parcels of the site. Based on data collected during the geotechnical investigation, proposed sample locations were selected based on the locations of suspected contamination.

### **1.5 Standard of Care**

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. Please note that Terracon does not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report. These LSI services were performed in accordance with the scope of work agreed with you, our client, as reflected in our proposal and were not restricted by ASTM E1903-97.

This LSI has been performed to quantify suspected impacts to the site relative to redevelopment considerations. Terracon (LSI Contractor) previously developed a Site Specific QAPP to address specific QA/QC requirements prescribed by the Cooperative Agreement and the specific US EPA quality documents. This Site Specific QAPP described the process for producing analytical data of sufficient quality and quantity to accurately evaluate site conditions and meet data quality requirements under US EPA and the Tennessee Department of Environment and Conservation (TDEC) programs. Project-specific data quality concerns were developed to meet the US EPA's quality process, and also to satisfy data quality requirements of TDEC.

### **1.6 Additional Scope Limitations**

Findings and conclusions resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, nondetectable or not present during these services, and we cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this LSI. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations or exploratory services; the data, interpretations, and findings are based solely upon data obtained at the time and within the scope of these services.

### **1.7 Reliance**

This report has been prepared for the exclusive use of the Chattanooga-Hamilton County Regional Planning Agency on behalf of the City of Chattanooga and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the site) is prohibited without the express written authorization of the Chattanooga-Hamilton County Regional Planning Agency on behalf of the City of Chattanooga and Terracon. Any

unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal, LSI report, and Terracon's terms and conditions. The limitation of liability defined in the terms and conditions is the aggregate limit of Terracon's liability to the client and all relying parties unless otherwise agreed in writing.

## **1.8 Ancillary Documents**

Attached as appendices to this LSI is a Threatened/Endangered Species Habitat Assessment (Appendix B) and correspondence regarding Section 106 of the National Historic Preservation Act (Appendix C).

# **2.0 SAMPLE LOCATION**

## **2.1 Sampling Process**

This LSI was prepared in general accordance with the technical intent of the EPA National Contingency Plan. The Site-Specific QAPP outlined the tasks to be performed, and the principle use of the data obtained from each task. The basis for the work scope is based on the requirements for US EPA Cooperative Agreement Number BF-95462910-0 for a Brownfields Assessment of properties located in Chattanooga, Tennessee. In addition, the Brownfield QAPPs Interim Instructions Generic QAPP and Site-Specific QAPP Addendum for Brownfields Site Assessments and/or Cleanups, dated May 4, 2012. This work was performed to evaluate the potential impact at the site from historical operations and was conducted in accordance with the EPA Region 4, Field Branches Quality System and Technical Procedures.

## **2.2 Detail and Design Elements**

A total of six boring locations and six groundwater monitoring wells were installed to aid in investigating the site for potential RECs. The sample locations are illustrated on Appendix A/Exhibit 3 – Site Diagram and Sample Location Plan. This site assessment consisted of advancing six soil borings to first encountered groundwater and collecting two subsurface soil samples from each boring. The six soil borings were advanced using hollow stem auger drilling methods and completed as two-inch diameter groundwater monitoring wells. Well installation logs are included as Appendix D. Subsurface soil samples were collected from each soil boring prior to the installation of groundwater monitoring wells. Boring locations HR-1, HR-2, HR-3 are proposed on Tax Parcel 135 027.01. The borings were advanced near the existing building foundations. These sample locations based on historical industrial use on this parcel and suspected petroleum contamination. Boring locations HR-4, HR-5, and HR-6 were proposed on Tax Parcel 135 027.03. Soil boring HR-4 was advanced near the former location of the UST. Soil borings HR-5 and HR-6 will be advanced down gradient of the location of the former UST along the site property boundary. These sample locations were chosen based on

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155 and 159 Hamm Road ■ Chattanooga, Tennessee

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suspected petroleum contamination from the former UST. A site reconnaissance was conducted during the Phase I ESA investigation. The site and area reconnaissance assisted in the conceptualization of the sampling process and design.

## 2.3 Sampling Locations

The following provides specific information concerning the sampling locations and the analyses of the samples collected from each location.

### Sampling Locations and Analysis

Area of Concern	DQO's			
	Sample Media	Sample Total	Purpose	Analyses
HR-1 SE-MW-1	Soils and Groundwater	2 subsurface soils 1 groundwater	Northeastern area of Parcel #135 027.01 - to determine release characterization and define vertical extent of possible impact to soil and evaluate groundwater from potential on-site sources.	RCRA Metals, GRO, SVOC, VOC, Pesticides, Herbicides, EPH, and PCB
HR-2 HR-MW-2	Soils and Groundwater	2 subsurface soils 1 groundwater	On building pad of Parcel #135 027.01 - to determine release characterization and define vertical extent of possible impact to soil and evaluate groundwater from potential on-site sources.	RCRA Metals, GRO, SVOC, VOC, Pesticides, Herbicides, EPH, and PCB
HR-3 HR-MW-3	Soils and Groundwater	2 subsurface soils 1 groundwater	On east side of building pad of Parcel #135 027.01 - to determine release characterization and define vertical extent of possible impact to soil and evaluate groundwater from suspect petroleum releases onsite and potential on-site sources.	RCRA Metals, GRO, SVOC, VOC, Pesticides, Herbicides, EPH, and PCB
HR-4 HR-MW-4	Soils and Groundwater	2 subsurface soils 1 groundwater	Southwestern area of Parcel #135 027.03 - to determine release characterization and define vertical extent of possible impact to soil and evaluate groundwater from suspect petroleum releases onsite and potential on-site sources.	RCRA Metals, GRO, SVOC, VOC, Pesticides, Herbicides, EPH, and PCB

Area of Concern	DQO's			
	Sample Media	Sample Total	Purpose	Analyses
HR-5 HR-MW-5	Soils and Groundwater	2 subsurface soils 1 groundwater	Formerly LUST location of Parcel #135 027.03 - to determine release characterization and define vertical extent of possible impact to soil and evaluate groundwater from suspect petroleum releases onsite and potential on-site sources.	RCRA Metals, GRO, SVOC, VOC, Pesticides, Herbicides, EPH, and PCB
HR-6 HR-MW-6	Soils and Groundwater	2 subsurface soils 1 groundwater	Southwestern area of Parcel #135 027.03 - to determine release characterization and define vertical extent of possible impact to soil and evaluate groundwater from suspect petroleum releases onsite and potential on-site sources.	RCRA Metals, GRO, SVOC, VOC, Pesticides, Herbicides, EPH, and PCB

## 2.4 Site Characterization

The goal of the site characterization was to determine if subsurface soil impacts and/or groundwater impacts were present, as well as the magnitude and approximate spatial extent of those impacts. This information will be used to determine the feasibility of redevelopment in and around this area; potential risks to receptors; and potential remedies for the identified impacts.

## 2.5 Determination of Spatial Extent and Site Soil Sampling

The initial task in evaluation of the site is to determine the approximate spatial extent of impacts in both the horizontal and vertical planes. Sampling, handling, and analysis were performed using procedures outlined in the EPA Region 4 Soil Sampling Standard Operating Procedure (SOP). This document was also used to assist personnel in choosing sampling strategies, locations, and frequency for proper assessment of site characteristics. Applicable quality assurance/quality control (QA/QC) techniques were employed and were in accordance with the EPA Region 4 Field Branches Quality System and Technical Procedures. Equipment was decontaminated prior to sample collection and between samples. Field decontamination was conducted in accordance with the EPA Region 4 Field Equipment Cleaning and Decontamination Standard Operating Procedure. Soil samples were collected at 2-foot intervals using split spoon samplers. Each 2-foot sample interval was field-screened using a calibrated Organic Vapor Analyzer (OVA) for headspace analysis. Up to two soil samples per boring (subsurface, highest OVA, and/or capillary fringe) were obtained for analysis of contaminants of potential concern specific to the respective source area.

Field logs of each sample, cross-referenced with a photographic log and screening data, were completed by the on-site geologist/environmental scientist and submitted to US EPA and TDEC

with the final report of findings. All field logs were maintained in the project file and treated as site-specific data. Significant deviations, if any) from this approach were first discussed with and approved by the Terracon Project Manager and approving agencies, and subsequently documented in field logs.

Soil samples were submitted for laboratory analysis of RCRA Metals, SVOC, VOC, GRO, EPH, Pesticides, Herbicides, and PCB. Quality control samples were submitted for laboratory analysis. One rinseate sample per soil sampling event was collected from deionized water poured over the sampling device after the completion of decontamination. This sample was used for quality assurance of decontamination procedures. Quality control samples were labeled on the sample bottles and Chain of Custody forms as appropriate.

Soil samples submitted for laboratory analysis were placed in sample containers provided by the analytical laboratory. Soil VOC samples were collected in laboratory sample kits prior to mixing in order to minimize the loss of volatiles to the atmosphere during sample handling. After VOC sample collection, the remainder of the samples were placed in a stainless steel bowl and mixed with a stainless steel spoon using the quartering method, and the remaining laboratory provided containers were filled. The soil samples were placed in an insulated container with ice and delivered along with chain of custody documentation to ESC Lab Sciences (ESC) of Mt. Juliet, Tennessee for laboratory analysis.

Each stainless steel bowl, spoon, and auger was decontaminated before mobilization to the site, and subsequent to each use. Field decontamination was completed in accordance with the EPA Region 4 Field Equipment Cleaning and Decontamination Standard Operating Procedure.

## **2.6 Site Groundwater Water Elevation**

Six groundwater monitoring wells, HR-MW-1, HR-MW-2, HR-MW-3, HR-MW-4, HR-MW-5, and HR-MW-6, were installed at locations shown on Appendix A/Exhibit 3. A single-cased monitoring well, screened across the initial water table was installed. All wells were installed according to the EPA Region 4 Design and Installation of Monitoring Wells Standard Operating Procedure. Drilling activities were supervised by Paul E. Davis, who is a Tennessee registered Professional Geologist (P.G.), and all monitoring wells were installed by Craig Penton, who is Tennessee licensed well driller. Copies of the Water Well Record form were submitted with the Geologist's Logs which included the well construction details and well driller's name.

The borings for the temporary monitoring wells were drilled with 3½-inch inner diameter (ID) hollow stem augers. The wells were constructed using 10 to 15 feet of two-inch diameter, 0.010-inch machine slotted PVC well screen with a threaded bottom cap, and 2-inch diameter, threaded, flush-joint PVC riser pipe to the surface. Addition of pre-sieved 20/40 grade silica sand for annular sand pack was installed around the well screen from the bottom of the boring

to approximately two feet above the top of the well screen. The monitoring well was developed and sampled as described below.

The monitoring wells were developed in accordance with the EPA guidelines which included surging and removing groundwater until fluids appeared relatively free of sediment. All investigative derived waste (IDW; i.e. soil cuttings, development purge water) were temporarily stored on-site in labeled 55-gallon drums pending the results of the laboratory analyses. The drums were labeled to identify the apparent contents of the drum and the initial accumulation date. All investigative derived waste was properly disposed in accordance with state regulations and upon regulatory approval. The Chattanooga-Hamilton County RPA was listed as the waste generator and was required to sign the waste manifest for waste derived from the soil and water sampling.

The groundwater monitoring wells were sampled for laboratory analysis following the EPA Region 4 Groundwater Sampling Standard Operating Procedure. Prior to groundwater sample collection, each monitoring well was purged with a dedicated bailer until the monitoring well formation failed to recharge, (i.e., well runs dry) or consistent values (i.e., less than 10% variance between consecutive readings) are obtained for pH, temperature and specific conductivity. Turbidity was monitored during purging with a calibrated turbidity meter.

The monitoring wells were sampled with a dedicated bailer as described in Section E.2000 of the Terracon SOPs. The monitoring wells were sampled for RCRA Metals, SVOC, VOC, GRO, EPH, Pesticides, Herbicides, and PCBs. Sample bottles for VOCs were filled first, followed by bottles for metals and the remaining additional analyses. Sample containers were supplied by the contract analytical laboratory, ESC. The samples were pre-preserved by the laboratory in accordance with the analytical method to be performed. The laboratory provided preservation methods for the various analytics. Six groundwater samples were submitted for RCRA Metals, SVOC, VOC, GRO, EPH, Pesticides, Herbicides, and PCB analysis. The results of this sampling were utilized to determine current groundwater conditions with respect to selected chemical contaminants at the site. This information was used to evaluate risk to any receptors identified during the receptor survey as well as any risk to site redevelopment posed by impacted groundwater. This data was collected during the initial phase of assessment.

Quality Control samples were submitted for laboratory analysis which included trip blanks, field blanks, temperature blanks, and duplicate samples. One preservative field blank, one VOC trip blank, and one Matrix Spike/Matrix Spike Duplicate (MS/MSD) were collected for this groundwater sampling event. The quality control samples were labeled on the sample bottles and Chain of Custody forms as appropriate.

## **2.7 LNAPL and DNAPL Evaluation**

Soil borings were drilled as described in the Site Specific QAPP, and the soil samples were evaluated for the presence of LNAPL (light non-aqueous phase liquids) and DNAPL (dense non-aqueous phase liquids). The areas of concern were evaluated by visual inspection and laboratory analysis of soil and groundwater samples.

The newly installed monitoring wells were gauged for the presence of LNAPL and DNAPL using an electronic product/water level meter, capable of measuring the depth to the product/liquid interface to within +/- 0.01 foot.

## **2.8 Potential Receptor Survey**

A potential receptor survey of the site and vicinity was performed to determine potential receptors of impacted groundwater or soil vapors in the area. A reconnaissance within a one-half mile radius of the property was completed to document the location of any exposure points such as underground utilities, water supply wells, streams or other receptors that could potentially be impacted by contaminant migration from the site. The survey results are summarized in tabular format and located on the site diagram and sample location map included as Appendix A/ Exhibit 3.

## **2.9 Vapor Intrusion Evaluation**

Soil/groundwater impacts in the vicinity of HR-MW-1 have been identified during this investigation. Currently there are no buildings on the site in the immediate vicinity of HR-MW-1. In the future if buildings are to be located on the site, it is recommended that a soil gas sampling event be conducted in the foot print of the proposed buildings to estimate the potential for future commercial workers to be impacted by the presence of soil vapors encroaching into the buildings proposed to be constructed on site.

# **3.0 LABORATORY ANALYTICAL AND RESULTS**

## **3.1 Laboratory Analytical Program**

Soil samples were collected from HR-MW-1 through HR-MW-6. Six groundwater samples were also collected from the onsite groundwater monitoring wells HR-MW-1 through HR-MW-6. All soil and groundwater samples were prepared and submitted to ESC. of Mt. Juliet, Tennessee for laboratory analysis. Soil and groundwater samples were submitted for analysis according to the following tables:

**Standard Analytical Methods for Solid-Matrix Samples**

# of Field Samples	Contaminant of Concern	Analytical Method	Packaging and Preservation	Maximum Holding Times
12	EPH	TDEC GC-FID	4oz CWM, 4°C	14 days
12	RCRA Metals	US EPA 6010/7471	4oz CWM, 4°C	Hg 28 days, all others 6 months
12	SVOC	US EPA 8270C	4oz CWM, 4°C	14 days
12	VOC	US EPA 8260B	4oz CWM, 4°C	48 hours
12	Pesticides	US EPA 8081	4oz CWM, 4°C	14 days
12	Herbicides	US EPA 8151	4oz CWM, 4°C	7 days
12	GRO	TDEC GC-FID	4oz CWM, 4°C	14 days
12	PCB	US EPA 8082	4oz CWM, 4°C	14 days

Note: One (1) QC sample (i.e. 1 field duplicate and 1 rinseate) will be collected for the matrix/parameter, based on the number of field samples to be collected.

**Standard Analytical Methods for Aqueous Samples**

# of Field Samples	Contaminant of Concern	Analytical Method	Packaging and Preservation	Maximum Holding Times
6	EPH	TDEC GC-FID	(2) 1-L HCL, 4°C	7 days
6	RCRA Metals	US EPA 6010/7471	(1) 250-mL vials nitric HNO <sub>3</sub>	14 days
6	SVOC	US EPA 8270C	(2) 1-L Amber Glass, 4°C	7 days
6	VOC	US EPA 8260B	(3) 40-mL vials HCl	14 days
6	Pesticides	US EPA 8081	(2) 1-L Amber Glass, 4°C	7 days
6	Herbicides	US EPA 8151	(2) 1-L Amber Glass, 4°C	7 days
6	GRO	TDEC	(3) 40-mL vials HCl	14 days
6	PCB	US EPA 8082	(2) 1-L Amber Glass, 4°C	7 days

Note: One (1) QC sample (i.e. 1 field duplicate and 1 trip blank) will be collected for the matrix/parameter, based on the number of field samples to be collected.

A clean pair of latex gloves was donned prior to collecting each soil and groundwater sample to preclude cross contamination. The laboratory analytical report for the collected soil and groundwater samples is included in Appendix F.

### 3.2 Potentiometric Data

Depth to groundwater measurements were collected from the six onsite groundwater monitoring wells on August 14, 2012. Based on depth to groundwater measurements collected in the field, groundwater flows to the southeast toward the Tennessee River. Potentiometric surface elevations for August 14, 2012 are presented as Appendix A/Exhibit 4.

### 3.3 Analytical Results

Laboratory analytical results for the soil and groundwater samples collected during this sampling event are summarized in Table 1 through Table 9. Analytical Laboratory Data Sheets are presented as Appendix E; Appendix A/Exhibit 5 illustrates detected contaminant concentrations in Soil and Appendix A/Exhibit 6 illustrates detected contaminants in Groundwater. Analytical results were compared to the April 2012 EPA Regional Screening Levels (RSLs) for residential and industrial soils, groundwater MCLs, tap water standards and the TDEC Background Screening Level.

For certain compounds, the applicable action levels (i.e. MCLs, or screening levels) are less than the lowest levels which can be routinely quantified and reported by the laboratory. These lowest levels are known as the “practical quantitation limits” (PQLs). For the purposes of this report, compounds not detected above the laboratory PQL are not compared to the applicable action level.

Analytical data collected during this Phase II ESA revealed the following information:

- Arsenic was detected in the analyzed soil samples collected during the installation of groundwater monitoring wells HR-MW-1, HR-MW-4, and HR-MW-6 at concentrations that either meet or exceed the TDEC Division of Remediation Background Screening Level (DoR) of 10 mg/kg for Arsenic. TDEC has adopted this action level based on 10 mg/kg being measured as naturally occurring background concentrations within Tennessee. Due to the relatively consistent concentrations and detections across the site, the arsenic is believed to be naturally occurring;
- Extractable Petroleum Hydrocarbons (EPHs) were detected above the TDEC Division of Solid Waste action level of 100 ppm in the soil samples collected from HR-MW-1, HR-MW-4, HR-MW-5, and from HR-MW-6;
- Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, and Naphthalene were found to be above their respective action levels in soil samples collected from HR-MW-1 and the duplicate soil sample which was also collected from HR-MW-1. In addition, Benzene was found to be above its action level in the duplicate soil sample which was collected from HR-MW-1;
- Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, and Dibenz(a,h)anthracene were found to be above their applicable action levels in the soil samples collected from HR-MW-4, HR-MW-5, and HR-MW-6. These three groundwater monitoring wells were installed on the property identified as 159 Hamm Road. The boring logs

indicate black sand, metal pieces, and water rounded stones were encountered within the subsurface at these boring locations. It appears that undocumented dumping of metal waste and black foundry sand may have occurred at the site. Further investigation of the extent of the metal waste and black foundry sand is recommended;

- Naphthalene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(a)pyrene, Benzo(k)fluoranthene, Benzo(g,h,l,)perylene, Indeno(1,2,3-cd)pyrene, and Chrysene were all detected above their applicable TDEC and/or EPA drinking water action level in the groundwater sample collected from the monitoring well HR-MW-1;
- The concentrations of SVOCs and one VOC (Naphthalene) encountered in the groundwater sample collected from HR-MW-1 can likely be attributed to a black viscous material located within the capillary fringe directly above the water table. Soil boring logs completed during the installation of HR-MW-1 described a material encountered from 4 to 14 feet as a soft, black viscous material with a strong petroleum odor. It is anticipated this material is the source of the SVOC and VOC contaminants encountered in the samples collected from HR-MW-1. Further investigation of the extent of the black, viscous material is recommended; and
- Lead was found to be above the applicable TDEC and/or EPA drinking water action level in the groundwater sample collected from the monitoring well HR-MW-5. Based on the site currently having city water available for use, it is not anticipated that the groundwater of the site would be utilized for drinking water purposes in the future. We recommend placing a deed restriction on the use of groundwater.

All other parameters were either not detected above the laboratory PQLs or were reported to be below applicable action levels. Analytical results and residential and industrial EPA and TDEC action levels are illustrated in Appendix A/Exhibit 5 and Exhibit 6. These figures illustrate the sample locations, the detected contaminant concentrations, and their applicable action levels. Tables 1-9 provide a comparison of the analytical results for each sample to the applicable action level, and are provided in Appendix E. The laboratory data sheets are presented as Appendix F.

## 4.0 QUALITY ASSURANCE / QUALITY CONTROL

In addition to strict chain-of-custody procedures, appropriate quality control and duplicate samples were used, as necessary, to assure the integrity of the sampling and shipping process.

A record of laboratory sample receipt, storage and analysis procedures were kept for each sample received.

#### **4.1 Field Sampling QA/QC**

As quality assurance procedures are an integral part of each segment of field sampling methodology, the quality assurance procedures associated with each step of the field sampling routine (e.g., proper well purging, field sampling and preservation methodologies) were directly incorporated into each respective field sampling event. Additionally, duplicate and rinseate samples were utilized during sampling activities at the site to detect evidence of cross-contamination and to demonstrate analysis precision. There were no field sampling QA/QC indicators that were discovered to have any significant effects on the results or findings of this investigation.

#### **4.2 Laboratory QA/QC**

The analytical laboratory reported the preparation of sufficient blanks and spikes to assure analysis quality in accordance with the laboratory's Quality Assurance/Quality Control Plan. Any internal quality control problem associated with the submitted sample/analyte has been identified on the data qualifier report included with each sample's analytical report. The laboratory did not report any internal quality control problems that required corrective action.

### **5.0 CONCLUSIONS AND RECOMMENDATIONS**

The data collected during this LSI revealed the following information about the subject site status pertaining to soil and groundwater conditions at the sample locations:

- Arsenic was detected at or above the TDEC action level in soil samples collected from HR-MW-1, HR-MW-4, and HR-MW-6;
- EPHs were detected above the TDEC action level in soil samples collected from HR-MW-1, and the duplicate soil sample also collected from HR-MW-1, HR-MW-4, HR-MW-5, and HR-MW-6;
- Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, and Naphthalene were found to be above their respective action levels in soil samples collected from HR-MW-1 and the duplicate soil. In addition, Benzene was found to be above its action level in the duplicate soil sample which was collected from HR-MW-1.
- Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, and Dibenz(a,h)anthracene was found

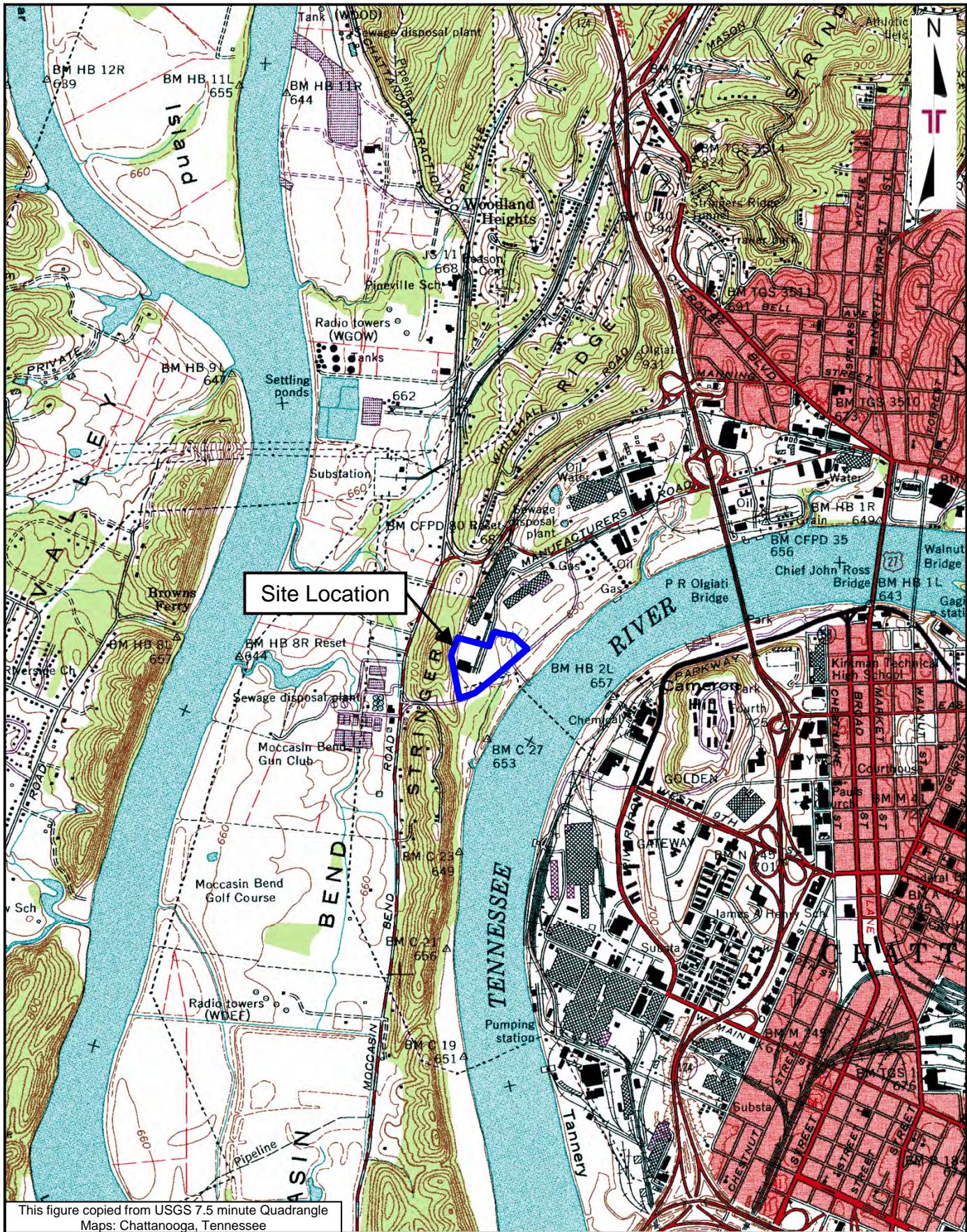
to be above its applicable action level in soil samples collected from HR-MW-4, HR-MW-5, and HR-MW-6.

- Naphthalene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(g,h,l,)perylene, Indeno(1,2,3-cd)pyrene, Benzo(a)pyrene, and Chrysene were detected above their applicable TDEC and/or EPA action level in the groundwater sample collected from monitoring well HR-MW-1;
- The lead was found to be above its action level in the groundwater sample collected from monitoring well HR-MW-5; and
- Due to contaminants being present in soil and groundwater, all future construction personnel expected to conduct any excavation activities at the site and have the potential to be exposed to the contaminated soil and groundwater at the site may be required to complete 40-hour OSHA Hazardous Waste Operations and Emergency Response (Hazwoper) training.

It is recommended that a corrective action plan that details procedures of how to further investigate and manage and potentially remediate the contaminated soil and groundwater located at the site be developed. Along with the corrective action plan, deed restrictions should be placed on the site restricting the future use of the groundwater. Based on the concentrations of soil and groundwater contaminants found at the site, a Brownfield agreement between the current property owners and the State of Tennessee may be in order.

## **APPENDIX A**

- Exhibit 1 – Site Location Map
- Exhibit 2 - Site Vicinity Map
- Exhibit 3 – Site diagram and Sample Location Plan
- Exhibit 4 – Potentiometric Map 8/14/12
- Exhibit 5 - Contaminant concentrations in Soil
- Exhibit 6 – Contaminant concentrations in Groundwater



Project Manager:  
PED  
Drawn By:  
JIM  
Checked By:  
PED  
Approved By:  
DEW

Project No.  
E2107081  
Scale:  
1" = 2,000'  
File Name:  
N:\Projects\2010  
Date:  
11/7/12

**Terracon**  
Consulting Engineers & Scientists

51 Lost Mound Drive, Suite 135 Chattanooga, TN 37406  
PH. (423) 499-6111 FAX. (423) 499-8099

**Site Location Map**  
Limited Site Investigation  
**155 & 159 Hamm Road**  
Chattanooga, Tennessee

Exhibit  
**1**



0 100 200  
1" = 200'

Project Mngr: **PED**  
Drawn By: **JIM**  
Checked By: **PED**  
Approved By: **DEW**

Project No. **E2107081**  
Scale: **AS SHOWN**  
File No. **N:\Projects\2010**  
Date: **11/7/12**

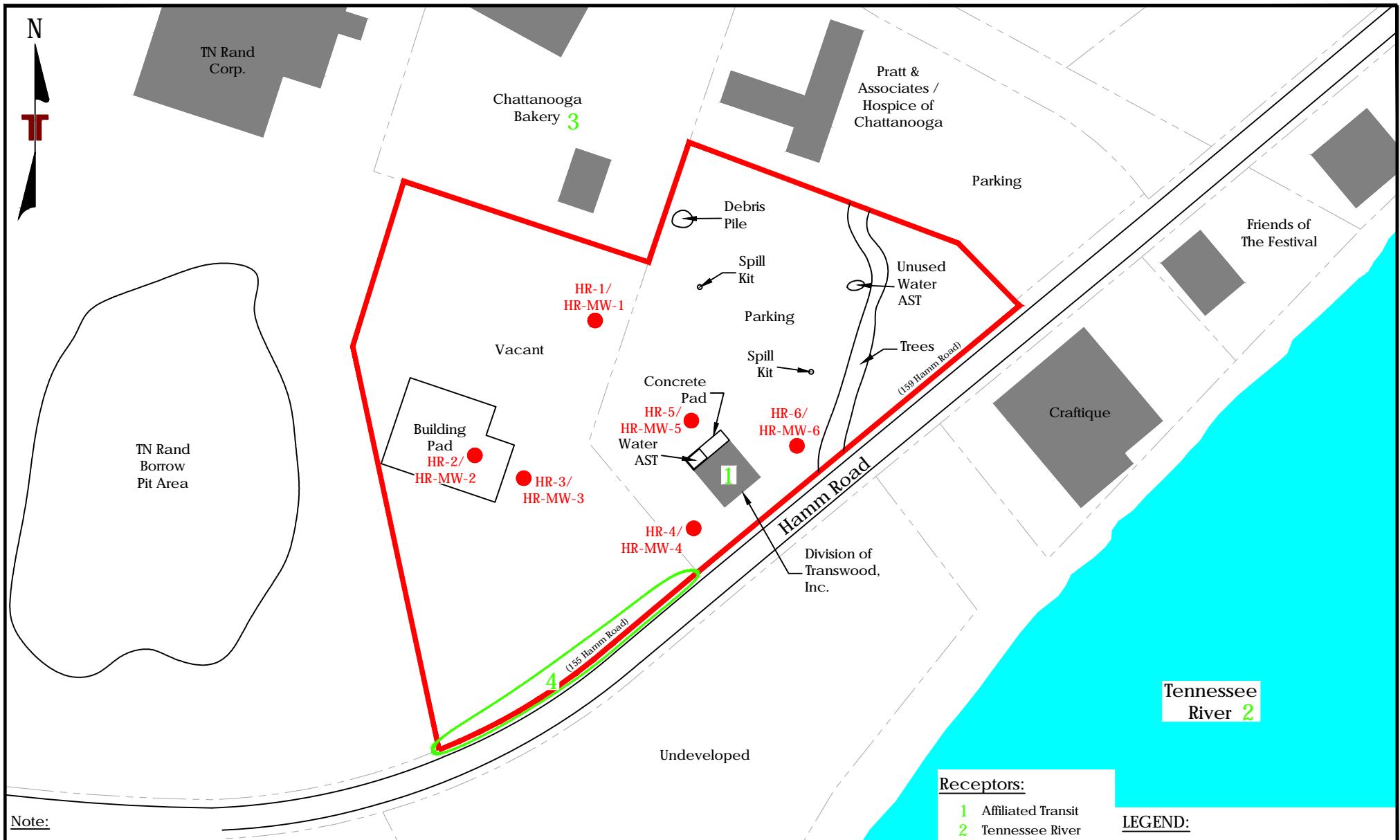
**Terracon**  
Consulting Engineers and Scientists

51 Lost Mound Dr. Suite 135 Chattanooga, TN 37406  
PH. (423) 499-6111 FAX. (423) 499-8099

**Site Vicinity Map**  
**Limited Site Investigation**  
**155 & 159 Hamm Road**  
Chattanooga, Tennessee

**Exhibit**

**2**



Note:

Site Map image provided by Hamilton County GIS.

0 100 200  
1" = 200'

Project Mngr:	PED
Drawn By:	JIM
Checked By:	PED
Approved By:	DEW

Project No.	E2107081
Scale:	AS SHOWN
File No.	N:\Projects\2010
Date:	11/7/12

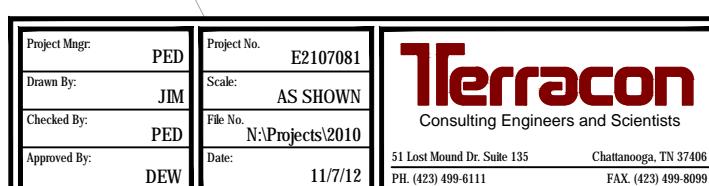
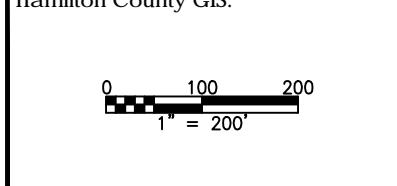
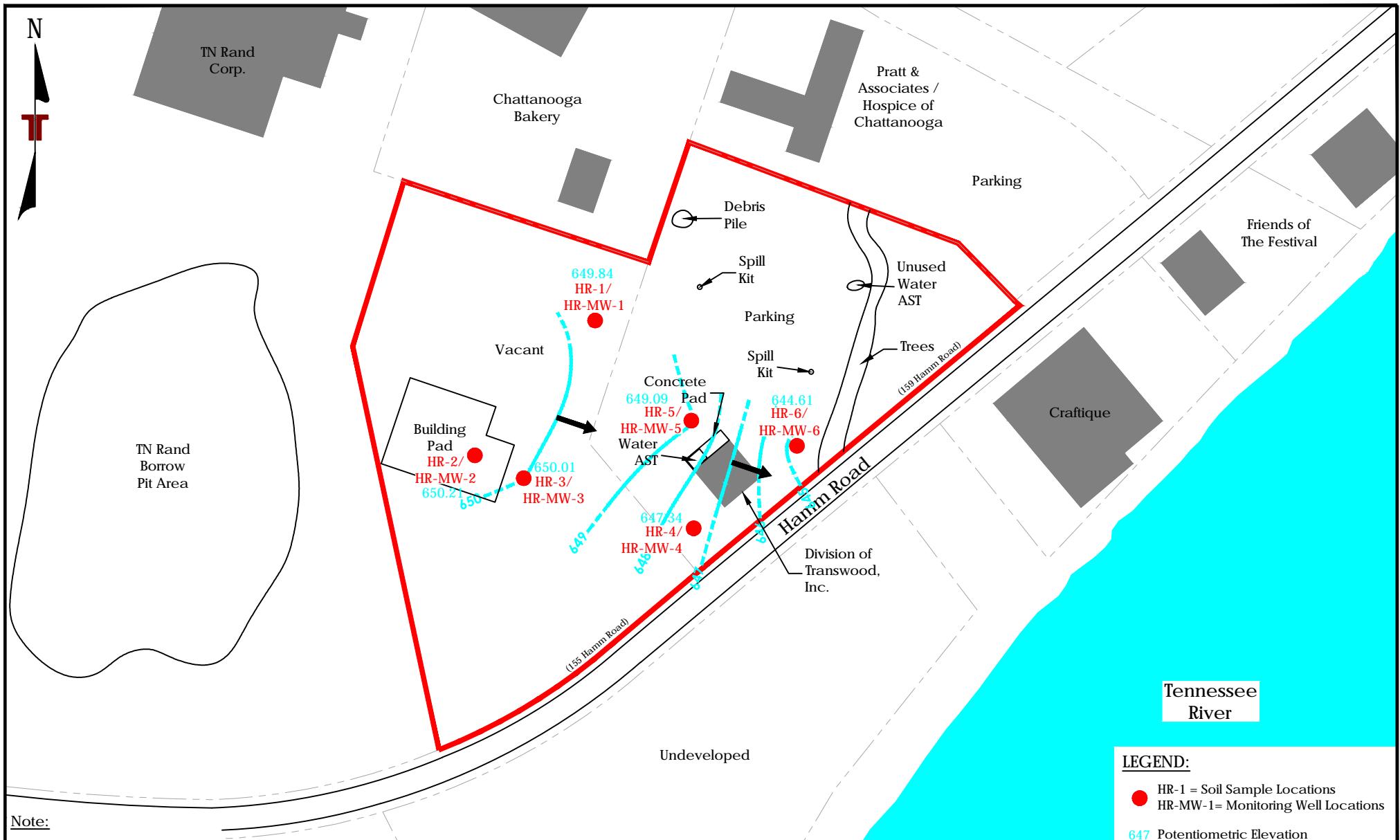


**Site Diagram & Sample Location Plan**

Limited Site Investigation  
155 & 159 Hamm Road  
Chattanooga, Tennessee

**Exhibit**

**3**



Potentiometric Map 8/14/12  
Limited Site Investigation  
155 & 159 Hamm Road  
Chattanooga, Tennessee

Exhibit 4

N  
T

Date: 8/8/12			
Depth	Conc.	Clean-up Levels	Constituent
10'-12'	1800	100	EPH
12'-14'	6400	10	Arsenic
Dup	17000		
10'-12'	11	2.1	Benzo(a)-anthracene
12'-14'	11	2.1	Benzo(b)-fluoranthene
10'-12'	85	2.1	Benzo(k)-fluoranthene
12'-14'	110	0.21	Benzo(a)pyrene
Dup	92	0.21	Indeno(1,2,3-cd)pyrene
10'-12'	93	2.1	Naphthalene
12'-14'	110	2.1	
Dup	92	2.1	
10'-12'	28	2.1	
Dup	28	2.1	
10'-12'	63	2.1	
12'-14'	80	0.21	
Dup	64	0.21	
10'-12'	20	0.21	
12'-14'	25	0.21	
Dup	22	0.21	
Dup	930	0.21	
	403	0.21	

TN Rand  
Borrow  
Pit Area

Chattanooga  
Bakery

Pratt &  
Associates /  
Hospice of  
Chattanooga

Parking

ends of  
Festival

Date: 8/9/12			
Depth	Conc.	Clean-up Levels	Constituent
10'-12'	190	100	EPH
10'-12'	42	2.1	Benzo(a)-anthracene
4'-6'	2.5	2.1	Benzo(b)-fluoranthene
10'-12'	39	2.1	Benzo(a)pyrene
4'-6'	1.7	0.21	Dibenzo(a,h)anthracene
10'-12'	27	0.21	Indeno(1,2,3-cd)pyrene
10'-12'	3.2	0.21	
10'-12'	5.3	2.1	

Craftique

Date: 8/8/12			
Depth	Conc.	Clean-up Levels	Constituent
10'-12'	120	100	EPH
10'-12'	11	10	Arsenic
10'-12'	2.6	2.1	Benzo(a)-anthracene
10'-12'	3	2.1	Benzo(b)-fluoranthene
0'-2'	0.75	0.21	Benzo(a)pyrene
10'-12'	2	0.21	Dibenzo(a,h)anthracene
10'-12'	0.38	0.21	

(155 Hamm Road)

Hamm Road

Undeveloped

Division of  
Transwood,  
Inc.

Water AST

Concrete  
Pad

HR-5/  
HR-MW-5

Water AST

HR-6/  
HR-MW-6

HR-4/  
HR-MW-4

HR-2/  
HR-MW-2

NAA

HR-3/  
HR-MW-3

NAA

Debris  
Pile

Spill  
Kit

Parking

Spill  
Kit

Trees

(159 Hamm Road)

Tennessee  
River

#### LEGEND:

● HR-1 = Soil Sample Locations  
● HR-MW-1= Monitoring Well Locations

1.53 Concentrations in ppm

NAA Not Above Action Limit

\*\*Only concentrations above industrial soil action levels are illustrated.\*\*

#### Note:

Site Map image provided by  
Hamilton County GIS.

0 100 200  
1" = 200'

Project Mngr:

PED

Drawn By:

JIM

Checked By:

PED

Approved By:

DEW

Project No. E2107081

Scale: AS SHOWN

File No. N:\Projects\2010

Date: 11/7/12

**Terracon**  
Consulting Engineers and Scientists

51 Lost Mound Dr. Suite 135 Chattanooga, TN 37406  
PH. (423) 499-6111 FAX. (423) 499-8099

#### Contaminant Concentrations in Soil

Limited Site Investigation

155 & 159 Hamm Road

Chattanooga, Tennessee

Exhibit

5

N  
T

TN Rand Corp.

Chattanooga Bakery

Pratt & Associates /  
Hospice of Chattanooga

Parking

Friends of  
The Festival

Date: 8/14/12			
Conc.	Non Drinking Action Levels	Drinking Action Levels	Constituent
0.59	9.81	0.02	Naphthalene
0.0097	NE	0.00117	Benzo(a)-anthracene
0.0083	NE	0.00117	Benzo(b)-fluoranthene
0.0025	NE	0.0008	Benzo(b)-fluoranthene
0.0026	NE	0.007	Benzo(g,h,i) perylene
0.0055	NE	0.002	Benzo(a)pyrene
0.0087	NE	0.0016	Chrysene
0.0023	NE	0.000029	Indeno (1,2,3-cd)pyrene

TN Rand  
Borrow  
Pit Area

Vacant

Building Pad

HR-2/  
HR-MW-2

NAA

HR-3/  
HR-MW-3

Concrete Pad

HR-5/  
HR-MW-5

Water AST

NAA

HR-6/  
HR-MW-6

Trees

HR-4/  
HR-MW-4

Hamm Road

(155 Hamm Road)

Undeveloped

Hamm Road

(159 Hamm Road)

Hamm Road

## **APPENDIX B**

Threatened/Endangered Species Habitat Assessment

# **Threatened/Endangered Species Habitat Assessment**

**Revision 0**  
**US EPA Brownfields Assessment Grant**

**155 and 159 Hamm Road  
Chattanooga, Hamilton County, Tennessee 37405**

US EPA Cooperative Agreement No. BF-95462910-0  
Terracon Project No. E2107081  
December 2012



**Prepared for:**  
Chattanooga-Hamilton County Regional Planning Agency  
1250 Market Street  
Suite 2000, Development Resource Center  
Chattanooga, Tennessee 37402

**Prepared by:**  
Terracon Consultants, Inc.  
51 Lost Mound Drive, Suite 135  
Chattanooga, Tennessee 37406

Offices Nationwide  
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Established in 1965  
[terracon.com](http://terracon.com)

**Terracon**

December 4, 2012

Chattanooga-Hamilton County  
Regional Planning Agency  
1250 Market Street, Suite 2000, DRC  
Chattanooga, Tennessee 37402  
Attn: Ms. Yuen Lee

Re: Threatened/Endangered Species Assessment  
155 and 159 Hamm Road  
Chattanooga, Hamilton County, Tennessee  
Terracon Project No.: E2107081

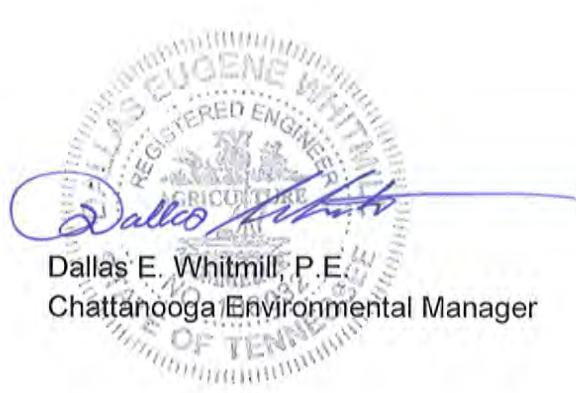
Dear Ms. Lee:

At your request, Terracon Consultants, Inc. (Terracon) has completed a Threatened/Endangered Species Habitat Assessment at the above-referenced property. Terracon appreciates the opportunity to be of continued service to you on this important project. If you have any questions or comments pertaining to the material presented herein, please contact the undersigned at (423) 499-6111 or (423) 499-8099 (facsimile).

Sincerely,  
**Terracon Consultants, Inc.**



Amanda M. Herrit, M.S.  
Environmental Scientist



Dallas E. Whitmill, P.E.  
Chattanooga Environmental Manager

**THREATENED/ ENDANGERED SPECIES HABITAT ASSESSMENT  
155 AND 159 HAMM ROAD  
CHATTANOOGA, HAMILTON COUNTY, TENNESSEE**

**Terracon Project No.: E2107081  
December 2012**

**TABLE OF CONTENTS**

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<b>2.0 HABITAT ASSESSMENT.....</b>	<b>2</b>
<b>3.0 CONCLUSION .....</b>	<b>5</b>
<b>4.0 REFERENCES.....</b>	<b>5</b>

**TABLES**

Table 1 – Habitat Assessment for Rare Species

**APPENDICES**

Appendix A    Exhibit 1 – USGS Topographic Map  
                    Exhibit 2 – Site Map

Appendix B    Correspondence with Regulatory Agencies

**THREATENED/ ENDANGERED SPECIES HABITAT ASSESSMENT**  
**155 AND 159 HAMM ROAD**  
**CHATTANOOGA, HAMILTON COUNTY, TENNESSEE**

**Terracon Project No.: E2107081**  
**December 2012**

## **EXECUTIVE SUMMARY**

On July 17, 2012, Terracon Consultants, Inc. (Terracon) personnel conducted a Threatened/Endangered Species Habitat Assessment on two parcels of property, located at 155 and 159 Hamm Road in Chattanooga, Hamilton County, Tennessee (the "site") and identified as Tax Parcels 135 027.01 and 135 027.03. The assessment was performed by collection of available published information and by on-site investigation. The on-site investigation included traversing the property and observing habitats, vegetation and wildlife.

Before conducting a field assessment, Terracon personnel completed a database search of state and federal Threatened/Endangered species listed in the area. This included a review of the Tennessee Department of Environment and Conservation Department of Natural Areas (TDEC-DNA) records. TDEC-DNA has documented three rare species [dromedary pearlymussel (*Dromus dromas*), orangefoot pimpleback (*Plethobasus cooperianus*), and Cumberland monkeyface (*Quadrula intermedia*)] located within one-mile of the site. All three mussel species are known to inhabit the Tennessee River located to the southeast of the site. No species have been documented at the site. A total of 29 rare species are listed as having been observed within the Chattanooga, Tennessee Quadrangle. Descriptions of typical habitats of the rare species within the Chattanooga, Tennessee Quadrangle have been included in Table 1.

On July 17, 2012, Terracon personnel completed a field assessment of potential habitats of listed Threatened/Endangered species at the subject property. It was concluded that there exists available habitat for 3 of the 29 rare species indicated by TDEC-DNA. Potential habitat of the Indiana bat (*Myotis sodalis*) is also present along the northeast and northwest sides of the site. Prior to the removal of any trees with a diameter of 5 inches or greater, a survey for the presence of bats and their habitat should be conducted and the USFWS should be consulted. No listed endangered or threatened species were observed during the habitat assessment.

**Summary of Potential Habitats Observed Onsite**

<b>Common Name</b>	<b>Species</b>	<b>Habitat</b>	<b>Individuals Observed</b>
Yellow Jessamine	<i>Gelsemium sempervirens</i>	Dry openings	No
Wood Lily	<i>Lilium philadelphicum</i>	Dry openings, power lines	No
Barn Owl	<i>Tyto alba</i>	Open and partly open areas often around homes and farms	No

<b>Common Name</b>	<b>Species</b>	<b>Habitat</b>	<b>Individuals Observed</b>
Indiana Bat	<i>Myotis sodalis</i>	Trees with loose, exfoliating bark and/or dead or hollow and have diameters of 5 inches or more	No

## **1.0 SITE DESCRIPTION**

The site is located at 155 and 159 Hamm Road in Chattanooga, Hamilton County, Tennessee and identified as Tax Parcel 135 027.01 and 135 027.03. The 159 Hamm Road parcel is currently occupied by Affiliated Transit. The parcel is improved with a garage and office building and a large gravel parking area. The garage is used by Affiliated Transit for repairs to the truck fleet. The 155 Hamm Road parcel is currently vacant; however the warehouse foundation remains at the site. The parcel was historically the location of Scenicland Motors and Bus Service, and the Kamatsu Stage facility. The parcel is approximately 12.25 acres. The surrounding properties consist of a mix of industrial and commercial properties (See Exhibit 1 – Topographic Map and Exhibit 2 – Site Map located in Appendix A).

## **2.0 HABITAT ASSESSMENT**

Before conducting a field assessment, Terracon personnel completed a database search of state and federal Threatened/Endangered species listed in the area including a review of the TDEC-DNA records. Correspondence was also requested from the United States Fish and Wildlife Service (USFWS), Tennessee Wildlife Resources Agency (TWRA), and TDEC-DNA. A total of 29 rare species are listed as having been observed within the Chattanooga, Tennessee Quadrangle (refer to Table 1). USFWS responded by email dated August 15, 2012 and TWRA responded in a letter dated July 31, 2012 that no listed species or protected habitat were known to exist at the site. TWRA also stated that trees bordering the site may provide bat habitat. The TDEC-DNA responded in a letter dated August 24, 2012 that three rare species (dromedary pearlymussel, orangefoot pimpleback, and Cumberland monkeyface) have been documented within one-mile of the site.

On July 17, 2012, Terracon personnel completed a field assessment of potential habitats of listed Threatened/Endangered species at the site. Potential habitat of the Indiana bat is present along the northeast and northwest sides of the site. Prior to the removal of any trees with a diameter of 5 inches or greater, a survey for the presence of bats and their habitat should be conducted and the USFWS should be consulted.

The field assessment concluded that there are no caves located on the property and as such, the site lacks suitable habitat for the Tennessee cave salamander (*Gyrinophilus palleucus*) or Norton's Cave Amphipod (*Apocrangonyx nortoni*). No streams or wet areas were observed at the site. Due to the absence of suitable habitat, it was determined that habitat was not available for the following species since they prefer habitat with perennial flow and a consistently submerged channel: dromedary pearlymussel, orange-foot pimpleback, Cumberland monkeyface, Nuttall's pondweed (*Potamogeton epihydrus*), and snail darter (*Percina tanasi*).

The king rail (*Rallus elegans*) and the least bittern (*Ixobrychus exilis*) are found in marshes and flooded habitats. The Florida hedge-hyssop (*Gratiola floridana*) is found in swamps, stream banks, and ditches. Even though the southern portion of the site is located within the 500-year floodplain, water does not typically remain onsite long enough to create a flooded habitat. Potential habitat for these species was not observed during the site evaluation and no individuals were observed.

Heros nest in colonies, usually building their stick platform nests in trees in lowland hardwood swamps. These nesting areas are commonly found in river and lake edges, wet meadows, freshwater marshes, swamps, fields and other wetland environments. There was no habitat potential for heron rookeries near the aquatic features at the site and a heron rookery was not identified at the site during the field assessment.

The Bachman's sparrow (*Aimophila aestivalis*) is typically found in mature to old growth southern pine woodland subject to frequent growing-season fires and requires a well-developed grass and herb layer. Potential habitat for the Bachman's sparrow was not observed on-site.

The green salamander (*Aneides aeneus*) habitat includes damp crevices in shaded rock outcrops and beneath loose bark and in cracks of standing or fallen trees near rock outcrops. Potential habitat for the green salamander was not observed at the site and no individuals were observed.

The spreading false-foxtongue (*Aureolaria patula*) is a perennial herb with showy yellow flowers that is typically found in the shade of hardwoods on steep limestone bluffs. Potential habitat for the spreading false-foxtongue was not observed at the site and no individuals were observed.

The yellow honeysuckle (*Lonicera flava*) is a woody vine that grows in woods and thickets and along stream margins. The white-leaved leatherflower (*Clematis glaucophylla*) also prefers habitat along wooded stream banks. No streams are located within the boundaries of the site. Potential habitat for the yellow honeysuckle was not observed at the site and no individuals were observed.

The Fraser's loosestrife (*Lysimachia fraseri*) is a perennial plant that grows in moist, rocky areas with open woods. Potential habitat for the Fraser's loosestrife was not observed at the site and no individuals were observed.

The large-flowered skullcap (*Scutellaria montana*) is a perennial herb that is found in rocky, shallow soils in oak-pine forest. Potential habitat for the large-flowered skullcup was not observed at the site and no individuals were observed.

The compass plant (*Silphium laciniatum*) is a tall plant with large sunflower like flowers. The compass plant prefers well drained soils and full sun and is found in barrens. Potential habitat for the compass plant was not observed at the site and no individuals were observed.

The southern morning glory (*Stylosma humistrata*) is a perennial vine found in dry piney woods. Potential habitat for the southern morning glory was not observed at the site and no individuals were observed.

The limestone fame-flower (*Talinum calcaricum*) is a perennial plant with bright rose colored flowers. The limestone fame-flower is found in limestone glades. Potential habitat for the limestone fame-flower was not observed at the site and no individuals were observed.

The narrow-leaved trillium (*Trillium lancifolium*) is a flowering plant that is part of the lily family. The narrow-leaved trillium is found in moist wooded slopes of bluffs and ravines. Potential habitat for the narrow-leaved trillium was not observed at the site and no individuals were observed.

The three-parted violet (*Viola tripartita* var. *tripartita*) is a perennial herb found on wooded slopes. Potential habitat for the three-parted violet was not observed at the site and no individuals were observed.

The mountain bush-honeysuckle (*Diervilla sessilifolia* var. *rivularis*) is a flowering plant that prefers habitats on dry cliffs and bluffs. Potential habitat for the mountain bush-honeysuckle was not observed at the site and no individuals were observed.

The American ginseng (*Panax quinquefolius*) prefers a moist, mature hardwood stand habitat with rich soils and a thick layer of leaf litter. Potential habitat for the American ginseng was not observed at the site and no individuals were observed.

The Swainson's warbler (*Limnothlypis swainsonii*) prefers a habitat with thick understory growth in swamplands, crane breaks, and rarely in rhododendron thickets. Potential habitat for the Swainson's warbler was not observed at the site and no individuals were observed.

The barn owl (*Tyto alba*) is typically found in open to partly open areas and is often found around human developments. Potential habitat for the barn owl was observed at the site, but no individuals were observed.

The yellow jessamine (*Gelsemium sempervirens*) is a fast growing vine found in open fields and along fence lines. Potential habitat for the yellow jessamine was observed at the site, but no individuals were observed.

The wood lily (*Lilium philadelphicum*) is a flowering plant that is part of the lily family. The wood lily is found along dry openings and mechanically maintained areas such as powerline easements. Potential habitat for the wood lily was observed at the site, but no individuals were observed.

Indiana bats are small bats with a total length of less than two inches. Their fur varies from dark chestnut gray to pinkish gray with a lighter underfur. Indiana bats are known to hibernate in only a few caves located in Indiana, Kentucky, and Missouri. During the summer, Indiana bats roost in trees with loose, exfoliating bark and/or dead or hollow trees. According to the Range-Wide Indiana Bat Protection and Enhancement Guidelines, Indiana bats prefer trees that are over five inches in diameter. Indiana bats prefer a foraging habitat of riparian, floodplain, and/or upland forest. Indiana bats are listed as an endangered species due to disturbance by humans including deforestation, pesticide use, cave habitat disturbance, and white-nose syndrome. Indiana bats hibernate in only a few select caves and are easily disturbed by human activity. Potential habitat for the Indiana bat was observed at the site, but no individuals were observed.

## 3.0 CONCLUSION

Based on the review of available data and field assessment and correspondence with TDEC-DNA, TWRA, and USFWS, it was determined that the site has habitat potential for 3 of the 29 rare species indicated by TDEC-DNA. Potential habitat of the Indiana bat is also present along the northeast and northwest sides of the site. Prior to the removal of any trees with a diameter of 5 inches or greater, a survey for the presence of bats and their habitat should be conducted and the USFWS should be consulted. Although potential habitat of rare species exists on-site, no listed threatened or endangered species were observed during the habitat assessment.

## 4.0 REFERENCES

The following references were reviewed in order to prepare this report:

- FEMA FIRM maps.
- NatureServe. 2010. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: April 19, 2011).

**Threatened/Endangered Species Habitat Assessment**

**155 and 159 Hamm Road ■ Chattanooga, TN**

**December 2012 ■ Terracon Project No. E2107081**



- USDA, NRCS. 2011. The PLANTS Database (<http://plants.usda.gov>, 19 May 2011). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.
- USGS 7.5 minute Chattanooga and East Chattanooga, Tennessee.
- United States Department of Agriculture – Natural Resource Conservation Service - [websoilsurvey.nrcs.usda.gov](http://websoilsurvey.nrcs.usda.gov).
- United States Fish and Wildlife Service. 2009. Range-Wide Indiana Bat Protection and Enhancement Plan Guidelines.
- [www.alabamaplants.com](http://www.alabamaplants.com)

## **TABLES**

Table 1 – Habitat Assessment for Rare Species



**Table 1**  
**Habitat Assessment for Rare Species**  
**155 and 159 Hamm Road**  
**Chattanooga, Hamilton County, Tennessee**

Type	Common Name	Scientific Name	Habitat	Federal Status	State Status	Potential Habitat at Subject Property	Species Observed Onsite
Bird	Bachman's Sparrow	<i>Aimophila aestivalis</i>	Requires well-developed grass layer in open pine forest	--	E	No	No
Amphibian	Green Salamander	<i>Aneides aeneus</i>	Damp crevices in shaded ledges and downed trees	--	*	No	No
Crustacean	Norton's Cave Amphipod	<i>Apocrangonyx nortoni</i>	Found in small cave pools	--	--	No	No
Flowering Plant	Spreading False-foxglove	<i>Aureolaria patula</i>	Oak woods and edges	--	S	No	No
Flowering Plant	White-leaved Leatherflower	<i>Clematis glaucophylla</i>	Wooded stream banks	--	E	No	No
Flowering Plant	Mountain Bush-honeysuckle	<i>Diervilla sessilifolia var. rivularis</i>	Dry cliffs and bluffs	--	T	No	No
Mollusc	Dromedary Pearlmussel	<i>Dromus dromas</i>	clean, fast-flowing water in clean substrates	LE	E	No	No
Flowering Plant	Yellow Jessamine	<i>Gelsemium sempervirens</i>	Dry openings	--	S	Yes	No
Flowering Plant	Florida Hedge-hyssop	<i>Gratiola floridana</i>	Wooded swamps	--	E	No	No
Amphibian	Tennessee Cave Salamander	<i>Gyrinophilus palleucus</i>	benthic, subterranean obligate	--	T	No	No
Heron Rookery	Heron Rookery	<i>Heron rookery</i>	freshwater & brackish marshes, rivers	--	--	No	No
Bird	Least Bittern	<i>Ixobrychus exilis</i>	Marshes with woody growth, may use man-made wetland habitats	--	D	No	No
Flowering Plant	Wood Lily	<i>Lilium philadelphicum</i>	Dry openings, powerlines	--	E	Yes	No
Bird	Swainson's Warbler	<i>Limnothlypis swainsonii</i>	Extensive understory thickets with 20' canopy	--	D	No	No
Flowering Plant	Yellow Honeysuckle	<i>Lonicera flava</i>	Rocky woods and thickets	--	T	No	No
Flowering Plant	Fraser's Loosestrife	<i>Lysimachia fraseri</i>	Dry open woods	--	E	No	No
Flowering Plant	American Ginseng	<i>Panax quinquefolius</i>	Rich woods	--	S-CE	No	No
Fish	Snail Darter	<i>Percina tanasi</i>	Large creeks with moderately flowing	LT	T	No	No
Mollusc	Orange-foot Pimpleback	<i>Plethobasus cooperianus</i>	Benthic, moderate gradient	LE	E	No	No
Flowering Plant	Nuttall's Pondweed	<i>Potamogeton epihydrus</i>	Lakes and streams	--	S	No	No
Mollusc	Cumberland Monkeyface	<i>Quadrula intermedia</i>	Benthic, high to moderate gradient	LE	E	No	No
Bird	King Rail	<i>Rallus elegans</i>	Flooded habitats including marshes, wetlands, and farmlands.	--	D	No	No
Flowering Plant	Large-flowered Skullcap	<i>Scutellaria montana</i>	Escarpments, dry woods	LT	T	No	No
Flowering Plant	Compass Plant	<i>Silphium laciniatum</i>	Barrens	--	T	No	No
Flowering Plant	Southern Morning-glory	<i>Stylisma humistrata</i>	Dry piney wood	--	T	No	No
Flowering Plant	Limestone Fame-flower	<i>Phemeranthus calcaricus</i>	Escarpments, dry woods	--	S	No	No
Flowering Plant	Narrow-leaved Trillium	<i>Trillium lancifolium</i>	Alluvial woods and moist ravines	--	E	No	No



**Table 1**  
**Habitat Assessment for Rare Species**  
**155 and 159 Hamm Road**  
**Chattanooga, Hamilton County, Tennessee**

Type	Common Name	Scientific Name	Habitat	Federal Status	State Status	Potential Habitat at Subject Property	Species Observed Onsite
Bird	Barn Owl	<i>Tyto alba</i>	Open and partly open areas often around homes and farms	--	D	Yes	No
Flowering Plant	Three-parted Violet	<i>Viola tripartita var. tripartita</i>	Wooded slopes	--	S	No	No

Federal Status: LE - Taxon is threatened by extinction throughout all or a significant portion of its range

LT - Taxon is likely to become an endangered species in the foreseeable future

State Status: E - Any species or subspecies whose prospects of survival or recruitment within the state are in jeopardy or are likely to become so within the foreseeable future

T - Any species or subspecies that is likely to become an endangered species within the foreseeable future

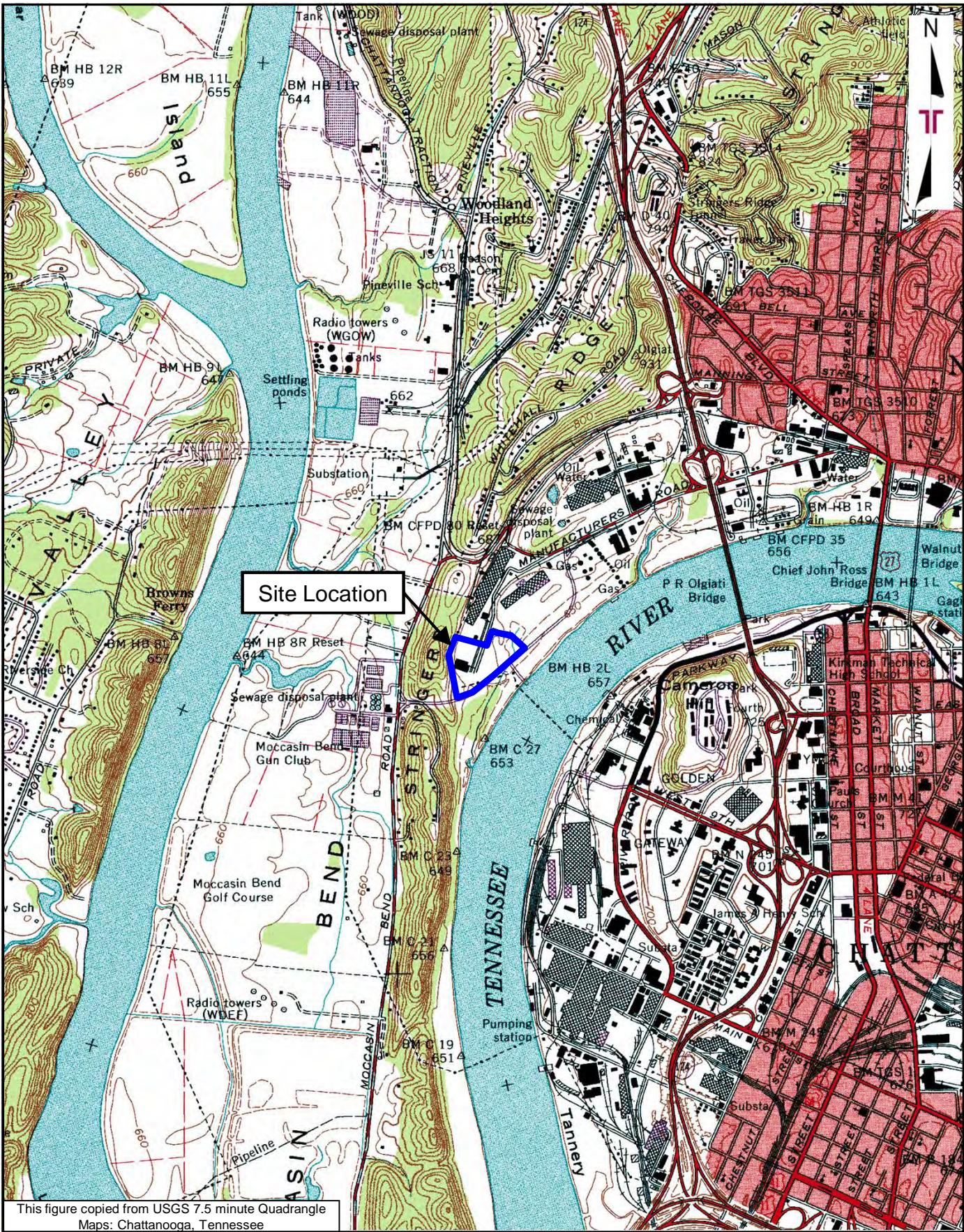
D - Deemed in need of management

S - Special concern; uncommon in Tennessee, or has unique or highly specific habitat requirements or scientific value and therefore requires careful monitoring of its status

\*Rare not State Listed

## **APPENDIX A**

Exhibit 1 – USGS Topographic Map  
Exhibit 2 – Site Map



This figure copied from USGS 7.5 minute Quadrangle Maps: Chattanooga, Tennessee

Project Manager:	AMH	Project No.	E2107081
Drawn By:	DAC	Scale:	1" = 2,000'
Checked By:	AMH	File Name:	N:\Projects\2010
Approved By:	DEW	Date:	8/6/12



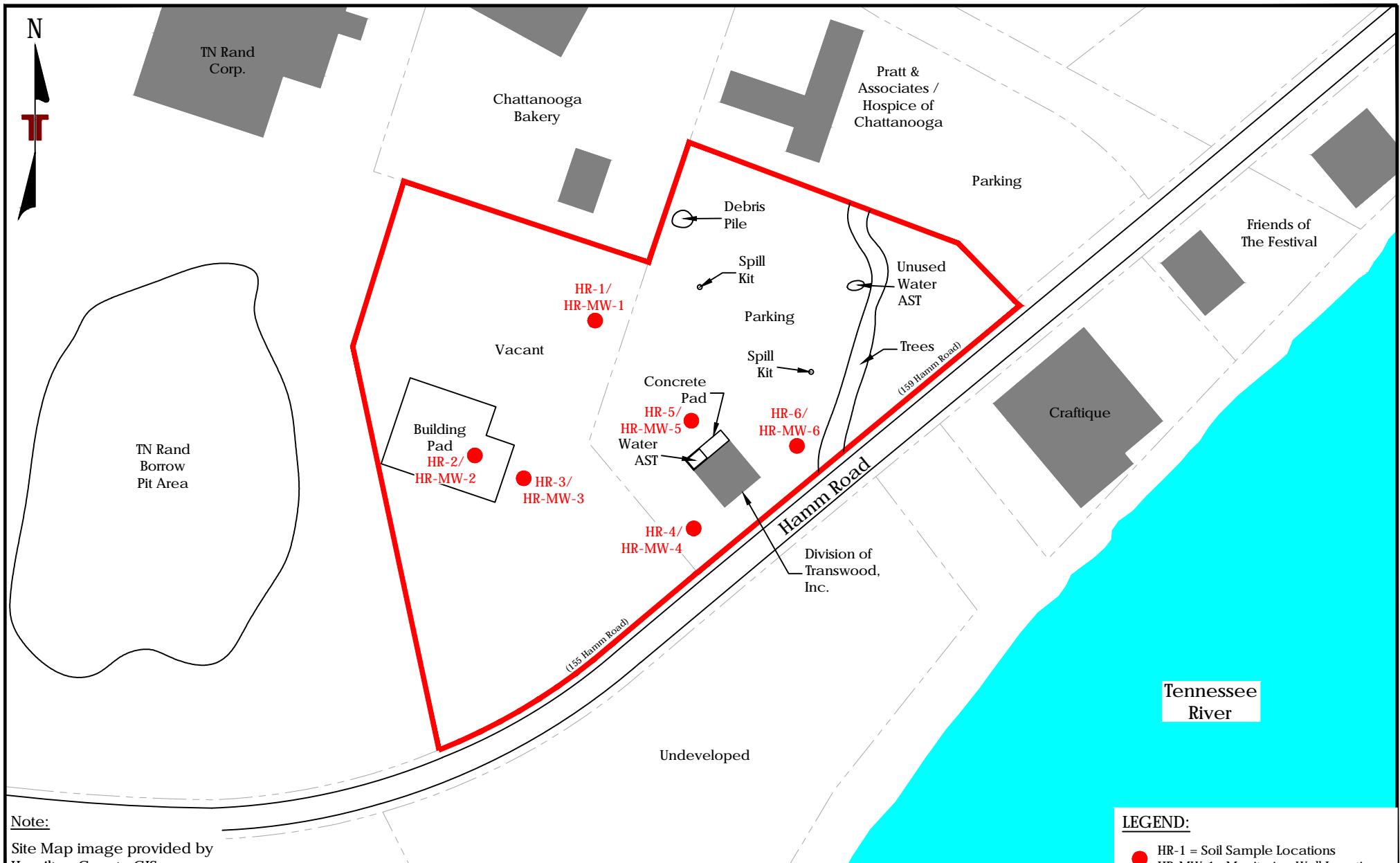
51 Lost Mound Drive, Suite 135      Chattanooga, TN 37406  
PH. (423) 499-6111      FAX. (423) 499-8099

## Site Location Map

Threatened/Endangered Species Habitat Assessment  
**155 & 159 Hamm Road**  
Chattanooga, Tennessee

Exhibit

1



0 100 200  
1" = 200'

Project Mngr: PED  
Drawn By: JIM  
Checked By: PED  
Approved By: DEW

Project No. E2107081  
Scale: AS SHOWN  
File No. N:\Projects\2010  
Date: 11/7/12

**Terracon**  
Consulting Engineers and Scientists  
51 Lost Mound Dr. Suite 135 Chattanooga, TN 37406  
PH. (423) 499-6111 FAX. (423) 499-8099

Site Diagram  
Threatened / Endangered Species Habitat Assessment  
**155 & 159 Hamm Road**  
Chattanooga, Tennessee

Exhibit  
2

## **APPENDIX B**

Correspondence with Regulatory Agencies



## TENNESSEE WILDLIFE RESOURCES AGENCY

ELLINGTON AGRICULTURAL CENTER  
P. O. BOX 40747  
NASHVILLE, TENNESSEE 37204

July 31, 2012

Amanda Herrit  
Terracon Consultants, Inc.  
P.O. Box 5010  
51 Lost Mound Drive  
Suite 135  
Chattanooga, TN 37406

Re: Response to the Request for Information  
Southeast Tennessee Petroleum Related Brownfields Assessment  
Chattanooga, Hamilton County, Tennessee

Dear Mr. Herrit:

The Tennessee Wildlife Resources Agency has reviewed the information that you provided regarding the proposed re-development of brownfields located at 155 Hamm Road and 3100 St. Elmo Avenue in Chattanooga, Hamilton County, Tennessee. Your letter to us requested that we review the proposed project for potential impacts to federally or state listed species or protected habitat due to the proposed re-development of these brownfields.

In our review, we did not find any federally or state listed species or protected habitat within the project footprint at the two brownfield locations proposed for re-development. Aerial imagery available to use did reveal that trees may be present along the property's perimeter. We suggest that you consult with the U.S. Fish and Wildlife Service, Cookeville Environmental Field Office regarding the potential that these trees may provide suitable bat habitat.

Thank you for the opportunity to review and comment on this proposed project. If you have further questions regarding this matter, please contact me at 615-781-6572.

Sincerely,

A handwritten signature in black ink that reads "Robert M. Todd".

Robert M. Todd  
Fish and Wildlife Environmentalist

cc: Bobby Brown, Region III Habitat Biologist  
Mark Thurman, Region III Fisheries Coordinator  
John Mayer, Region III Manager  
Mary Jennings, USFWS

**The State of Tennessee**

# Terracon

July 30, 2012

Ms. Mary Jennings  
 Field Supervisor  
 United States Fish and Wildlife Service  
 446 Neal Street  
 Cookeville, Tennessee 38501

No significant impacts to wetlands are anticipated from this proposal. No federally listed endangered or threatened species, or habitat suitable for such species, are known to exist in the project area.

RE: Request for Information  
 Southeast Tennessee Petroleum Related Brownfields Assessment  
 Chattanooga, Hamilton County, Tennessee

*Mary Jennings 8/15/12*

Field Supervisor Date  
 U.S. Fish and Wildlife Service  
 Cookeville, TN 38501

Dear Ms. Jennings:

Terracon Consultants, Inc. (Terracon) is addressing certain environmental criteria associated with two brownfields sites located at 155 Hamm Road and 3100 St. Elmo Avenue in Chattanooga, Tennessee as part of the Southeast Tennessee Petroleum Related Brownfields Assessment project for the Chattanooga-Hamilton County Regional Planning Agency. The location of the brownfield sites are shown on the attached topographic and site maps. The brownfield sites have been designated for re-development and are being evaluated as part of a brownfields assessment grant. We would appreciate your assistance in addressing the following item:

#### FEDERAL and STATE-LISTED ENDANGERED AND THREATENED SPECIES

Would the proposed re-development impact any federally- or state-listed or proposed endangered or threatened species of flora and fauna, or impact critical habitat at the properties identified above?

We respectfully request a written response that documents whether the proposed re-development would affect federally listed endangered or threatened species or protected habitat. If you have any questions, please do not hesitate to contact us at 423-499-6111 or by e-mail at amherrit@terracon.com.

Sincerely,  
**Terracon Consultants, Inc.**

*Amanda M. Herrit*  
 Amanda M. Herrit, M.S.  
 Environmental Scientist

*Dallas Whitmill*  
 Dallas Whitmill, P.E.  
 Senior Engineer/Environmental Manager

cc: Terracon Files

Terracon Consultants, Inc. P.O. Box 5010, 51 Lost Mound Drive, Suite 135 Chattanooga, TN 37406  
 P [423] 499 6111 F [423] 499 8099 terracon.com



STATE OF TENNESSEE

**DEPARTMENT OF ENVIRONMENT AND CONSERVATION**

Division of Natural Areas  
Natural Heritage Program  
7th Floor L&C Tower  
401 Church Street  
Nashville, Tennessee 37243  
Phone 615/532-0431 Fax 615/532-0046

August 24, 2012

Amanda M. Herrit  
Terracon Consultants, Inc.  
P.O. Box 5010  
51 Lost Mound Drive, Suite 135  
Chattanooga, TN 37460

Subject: Southeast Tennessee Petroleum Related Brownfields Assessment  
3100 St. Elmo Avenue, 155 and 159 Hamm Road  
Chattanooga, Hamilton County, Tennessee  
Rare Species Database Review

Dear Ms. Herrit:

Thank you for your correspondence requesting a rare species database review for the Southeast Tennessee Petroleum Related Brownfields Assessment projects, located at 3100 St. Elmo Avenue ( $35^{\circ} 01' 19.36''$  N,  $85^{\circ} 19' 17.14''$  W), 155 and 159 Hamm Road ( $35^{\circ} 03' 15.55''$  N,  $85^{\circ} 19' 46.72''$  W) in Chattanooga, Hamilton County, Tennessee.

We have reviewed the state's natural heritage database with regard to the project boundaries, and we find the following:

**3100 St. Elmo Avenue ( $35^{\circ} 01' 19.36''$  N,  $85^{\circ} 19' 17.14''$  W):**

The following rare species have been observed previously within one mile of the project:

Type	Scientific Name	Common Name	Global Rank	St. Rank	Fed. Prot.	St. Prot.	Habitat
Vascular Plant	<i>Aureolaria patula</i>	Spreading False-foxglove	G3	S3	--	S	Oak Woods And Edges
Vascular Plant	<i>Gelsemium sempervirens</i>	Yellow Jessamine	G5	S1S2	--	S	Dry Openings
Vascular Plant	<i>Lilium philadelphicum</i>	Wood Lily	G5	S1	--	E	Dry Openings, Powerlines
Vascular Plant	<i>Lonicera flava</i>	Yellow Honeysuckle	G5?	S1	--	T	Rocky Woods And Thickets

Type	Scientific Name	Common Name	Global Rank	St. Rank	Fed. Prot.	St. Prot.	Habitat
Vascular Plant	Trillium lancifolium	Narrow-leaved Trillium	G3	S1	--	E	Alluvial Woods And Moist Ravines
Vertebrate Animal	Aimophila aestivalis	Bachman's Sparrow	G3	S1B	--	E	Dry open pine or oak woods; nests on the ground in dense cover.
Vertebrate Animal	Aneides aeneus	Green Salamander	G3G4	S3S4	--	Rare, Not State Listed	Damp crevices in shaded rock outcrops and ledges; beneath loose bark and cracks of trees and sometimes in/or under logs.
Vertebrate Animal	Gyrinophilus palleucus	Tennessee Cave Salamander	G2G3	S2	--	T	Aquatic cave obligate; cave streams & rimstone pools; Central Basin, Eastern Highland Rim, & Cumberland Plateau.

#### 155 and 159 Hamm Road (35° 03' 15.55" N, 85° 19' 46.72" W):

The following rare species have been observed previously within one mile of the project:

Type	Scientific Name	Common Name	Global Rank	St. Rank	Fed. Prot.	St. Prot.	Habitat
Invertebrate Animal	Dromus dromas	Dromedary Pearlmussel	G1	S1	LE	E	Medium-large rivers with riffles and shoals w/ relatively firm rubble, gravel, and stable substrates; Tennessee & Cumberland systems.
Invertebrate Animal	Plethobasus cooperianus	Orangefoot Pimpleback	G1	S1	LE	E	Large rivers in sand-gravel-cobble substrates in riffles and shoals in deep flowing water; Cumberland & Tennessee river systems.
Invertebrate Animal	Quadrula intermedia	Cumberland Monkeyface	G1	S1	LE	E	Shallow riffle and shoal areas of headwater streams and bigger rivers, in coarse sand/gravel substrates; Tennessee River system.

Because the activity is focused on redevelopment of brownfield sites, we do not have a particular expectation that any of these taxa will be present. However, please note that Bachman's sparrow was recorded from Moccasin Bend near the psychiatric hospital. And, as part of a potential investigation of burrowing crayfish species in the southern Ridge & Valley, we would appreciate any information about the presence of crayfish burrows or chimneys if present on the project sites. While the forested ridge and slope adjacent to the Hamm Road parcel could potentially provide suitable habitat for the federally-listed threatened plant, Large-flowered Skullcap (*Scutellaria montana*), we do not anticipate any occurrences within the parcel boundaries.

Should suitable habitat exist on or immediately downstream of the site, we ask that project plans provide for the protection of the species indicated in the above table. We ask that you coordinate this project with the Tennessee Wildlife Resources Agency (Rob Todd, [rob.todd@tn.gov](mailto:rob.todd@tn.gov), 615-781-6577) to ensure that legal requirements for protection of state listed rare animals are addressed. Additionally, we ask that you contact

the U.S. Fish and Wildlife Service Field Office, Cookeville, Tennessee (931-525-4970) for comments regarding federally listed species.

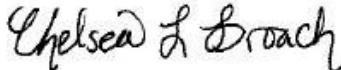
For stabilization of disturbed areas, the Tennessee Natural Heritage Program advocates the use of native trees, shrubs, and warm season grasses, where practicable. Care should be taken to prevent re-vegetation of disturbed areas with plants listed by the Tennessee Exotic Pest Plant Council as harmful exotic plants:  
<http://www.tnepc.org/>

Please keep in mind that not all of Tennessee has been surveyed and that a lack of records for any particular area should not be construed to mean that rare species necessarily are absent. For information regarding species protection status and ranks, please visit <http://www.tn.gov/environment/na/pdf>Status&Ranks.pdf>.

In order to better assist with determining whether rare species are located on a given development site, the Tennessee Natural Heritage Program has implemented a publicly accessible website where rare species data lists by county, quadrangle, watershed, and MS4 boundaries can be obtained: [http://environment-online.state.tn.us:8080/pls/enf\\_reports/f?p=9014:3:3875605994273657](http://environment-online.state.tn.us:8080/pls/enf_reports/f?p=9014:3:3875605994273657).

Thank you for considering Tennessee's rare species throughout the planning of this project. Should you have any questions, please do not hesitate to contact David at (615) 532-0441 or [david.withers@tn.gov](mailto:david.withers@tn.gov).

Sincerely,



Chelsea L. Broach  
Interim Data Manager



David Ian Withers  
Natural Heritage Zoologist

## **APPENDIX C**

National Historic Preservation Act Correspondence

**CHATTANOOGA AREA REGIONAL COUNCIL OF GOVERNMENTS  
SOUTHEAST TENNESSEE DEVELOPMENT DISTRICT**



**D. Gary Davis**  
Chairman

**Bobby Collier**  
Secretary

**Ron Littlefield**  
Vice-Chairman

**John Gentry**  
Treasurer

September 20, 2011

Joseph Y. Garrison  
Review and Compliance Coordinator  
Tennessee Historical Commission  
2941 Lebanon Road  
Nashville, Tennessee 37243-0442

**Re: EPA; Brownfields Assessment Phase I, City of Chattanooga (155 and 159 Hamm Road),  
Hamilton County, Tennessee**

Dear Dr. Garrison:

Enclosed for your review are location maps and photographs for the above-referenced project, which involves the City of Chattanooga using EPA funds for a phase I environmental assessment of the properties located at 155 and 159 Hamm Road between the base of Stringer's Ridge and the Tennessee River in Chattanooga, TN. The properties may be subject to future redevelopment. The parcels of property total approximately 12.25 acres.

Based on an environmental study conducted by Terracon Consulting Engineers and Scientists., the property at 159 Hamm Road contains a garage building that was used as a mechanical repair facility for tractor trailers and owned by Fox Transport Inc. The property at 155 Hamm Road is vacant and undeveloped. Although located near the National Register-listed Moccasin Bend Archaeological District, the affected properties are located in a historically industrial area. The proposed project sites do not contain any National Register listed or eligible properties.

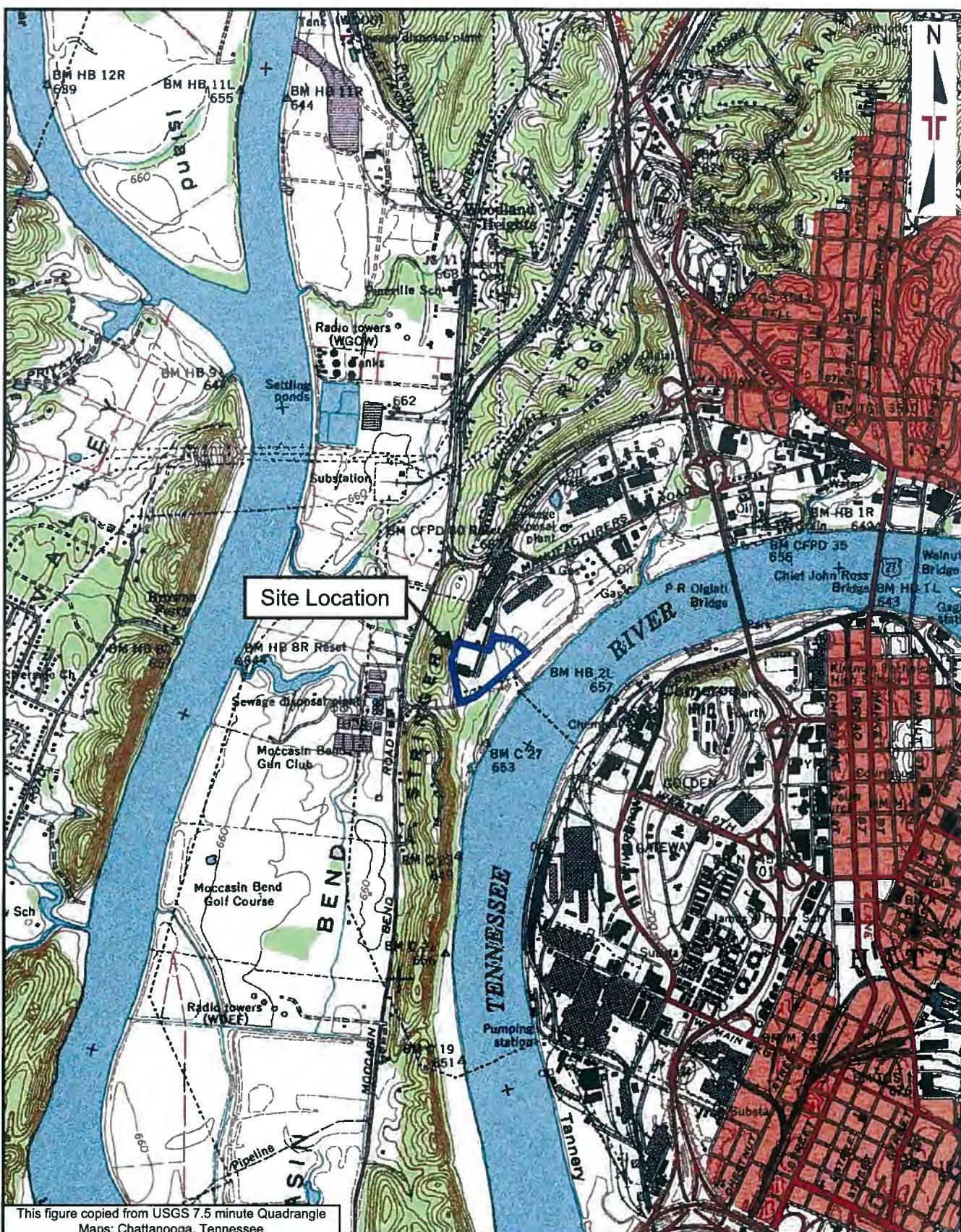
If you have any questions, I may be reached by telephone at (423) 424-4266 or by electronic mail at [parchamb@sedev.org](mailto:parchamb@sedev.org).

Sincerely,

Paul Archambault  
Historic Preservation Planner

enclosures

cc: Yuen Lee, Chattanooga/Hamilton County Regional Planning Agency



This figure copied from USGS 7.5 minute Quadrangle Maps: Chattanooga, Tennessee

**Project Manager:** AMH  
**Drawn By:** JIM  
**Checked By:** AMH  
**Approved By:** DEW

**Project No.**  
E2107081  
**Scale:**  
1" = 2,000'  
**File Name:**  
N:\Projects\2010  
**Date:**  
6/6/11



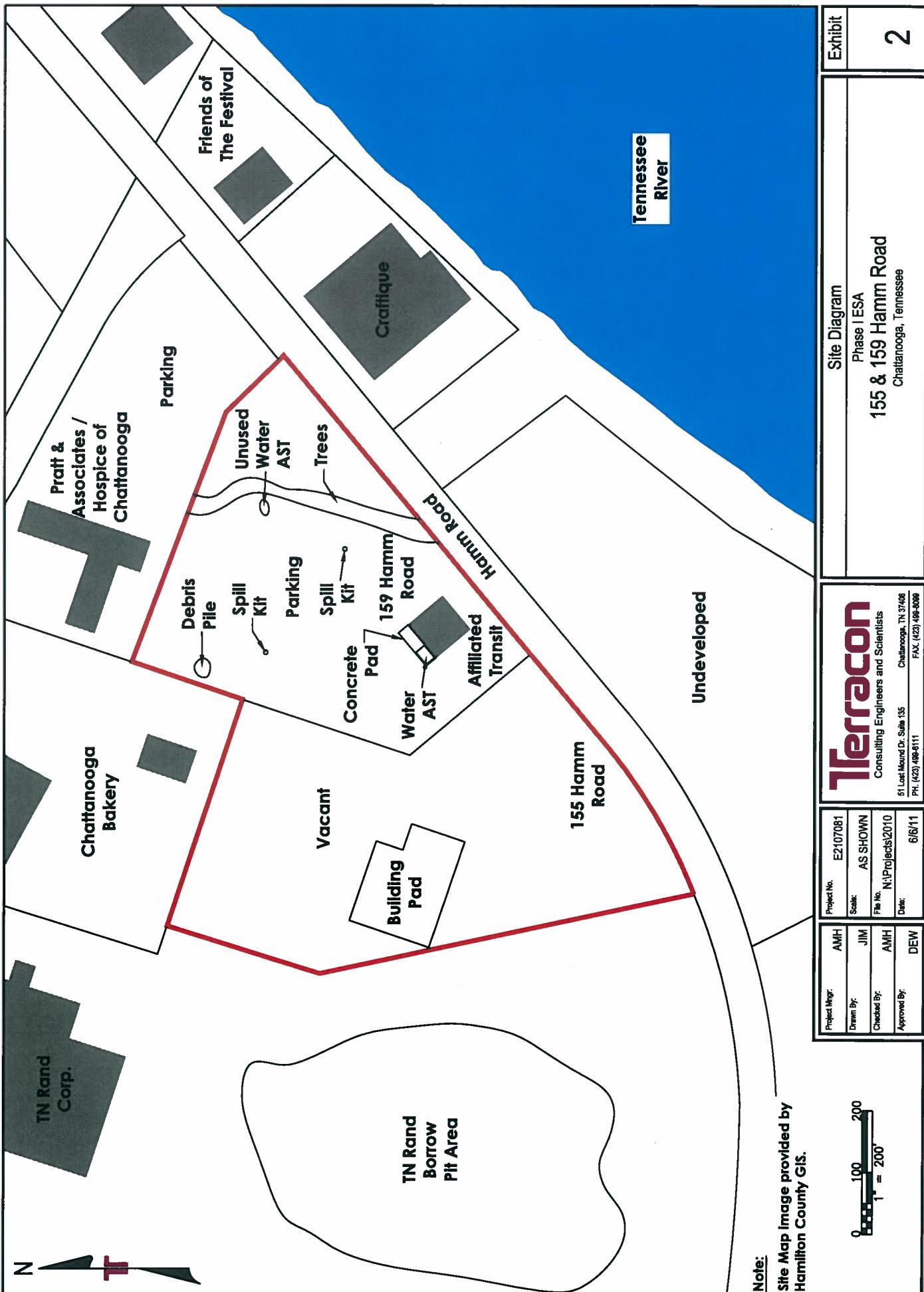
**51 Lost Mound Drive, Suite 135      Chattanooga, TN 37408**  
**PH. (423) 499-6111      FAX. (423) 499-8099**

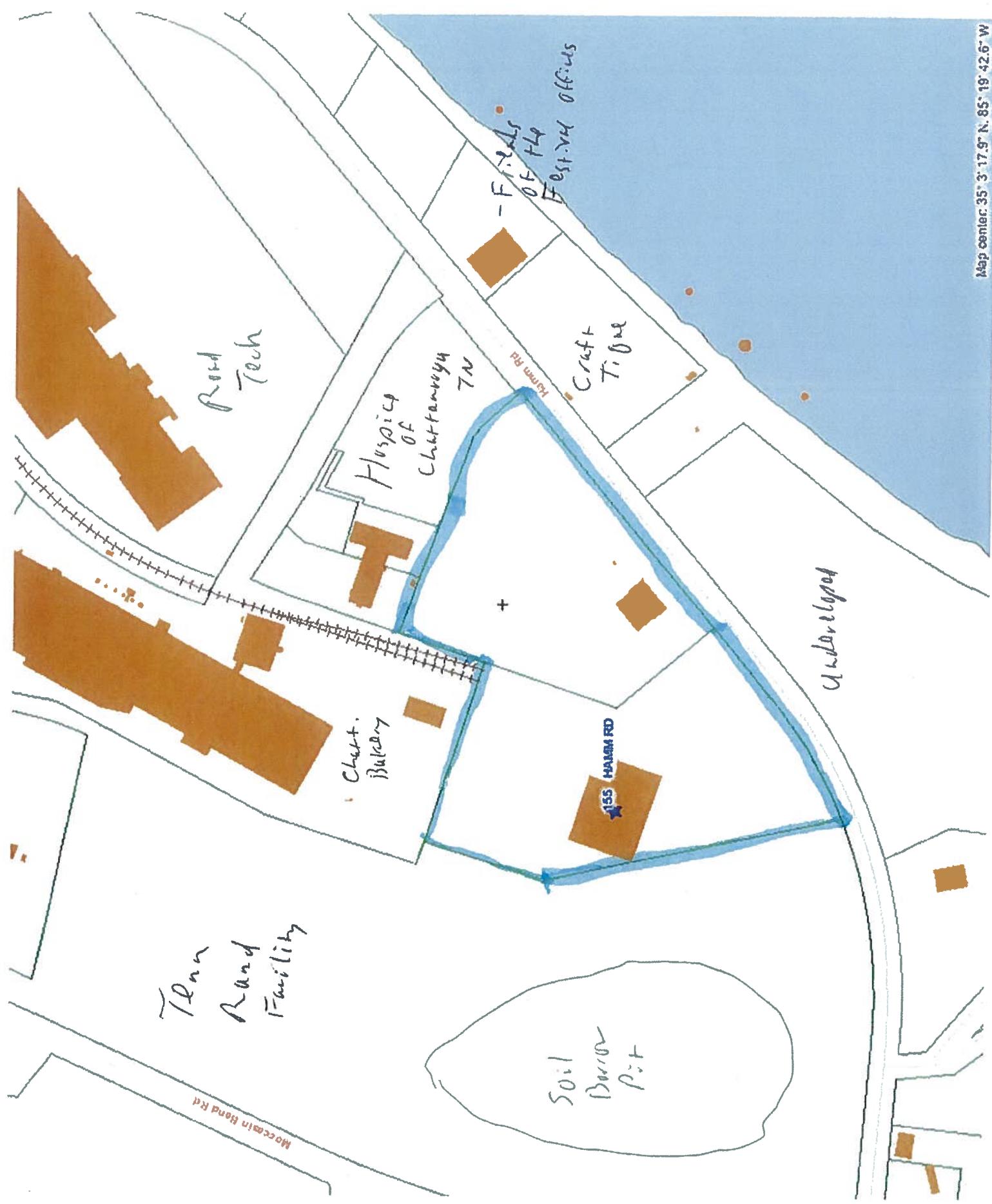
## Site Location Map

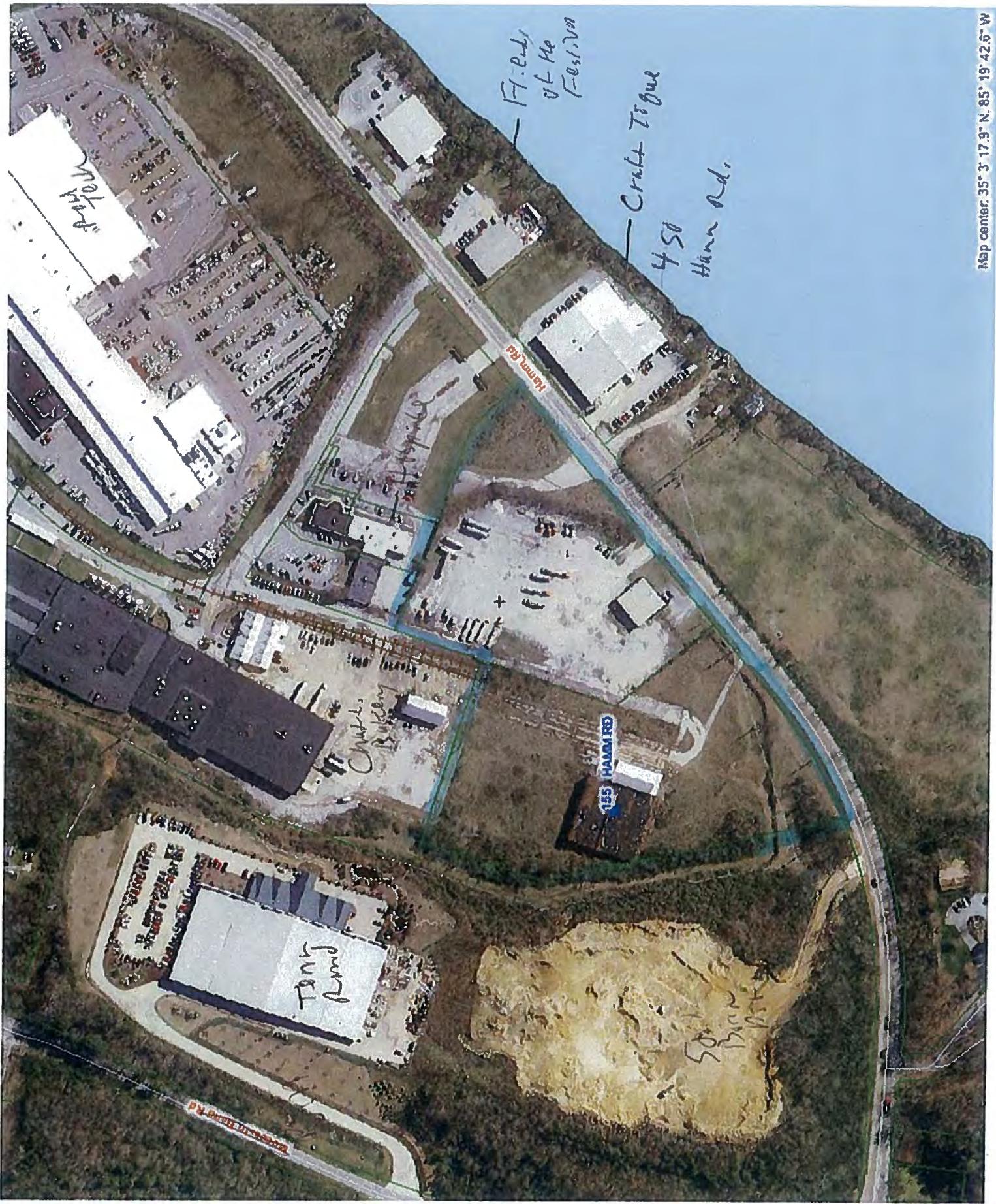
Phase I ESA  
**155 & 159 Hamm Road**  
Chattanooga, Tennessee

## Exhibit

1







**155 and 159 Hamm Road Phase I ESA**  
155 and 159 Hamm Road ■ Chattanooga, TN  
June 2011 ■ Terracon Project No. E2107081



**Photo #1** View of the site looking across 155 Hamm Road toward 159 Ham Road.



**Photo #2** View of the onsite garage located at 159 Hamm Road.



**Photo #3** View of the used oil AST and various drums located inside of the garage at 159 Hamm Road.



**Photo #4** View of the new oil AST located inside of the garage at 159 Hamm Road.



**Photo #5** View of new grease drum and various drums located inside of the garage at 159 Hamm Road.



**Photo #6** View of the parts washing station located inside of the garage at 159 Hamm Road.

**155 and 159 Hamm Road Phase I ESA**  
155 and 159 Hamm Road ■ Chattanooga, TN  
June 2011 ■ Terracon Project No. E2107081



**Photo #7** View of the unused water AST located at 159 Hamm Road.



**Photo #8** View of the active water AST located at 159 Hamm Road.



**Photo #9** View of a pole mounted electrical transformer located at the site along Hamm Road.



**Photo #10** View of one of the silt and vegetation mounds located at 159 Hamm Road.



**Photo #11** View of one of the emergency spill kits located in the truck parking area at 159 Hamm road.



**Photo #12** View of the building pad located at 155 Hamm Road.

**155 and 159 Hamm Road Phase I ESA**  
155 and 159 Hamm Road ■ Chattanooga, TN  
June 2011 ■ Terracon Project No. E2107081



**Photo #13** View of the building pad and the Chattanooga Bakery property located adjacent to the north.



**Photo #14** View of the retaining wall and channel drain located at the W. boundary of 155 Hamm Rd.



**Photo #15** View of the building pad located at 155 Hamm Rd. and other adjacent properties to the north of the site.



**Photo #16** View of the undeveloped property located adjacent to the west of the site.



**Photo #17** View of the properties located to the east of the site.



**Photo #18** View of the undeveloped property located south of the site across Hamm Road.



RECEIVED  
OCT 03 2011  
BY: Paul

**TENNESSEE HISTORICAL COMMISSION**  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
2941 LEBANON ROAD  
NASHVILLE, TN 37243-0442  
(615) 532-1550

September 29, 2011

Mr. Paul Archambault  
Southeast Tennessee Development District  
Post Office Box 4757  
Chattanooga, Tennessee 37405-0757

**RE: EPA, BROWNFIELDS/155 AND 159 HAMM ROAD, CHATTANOOGA,  
HAMILTON COUNTY**

Dear Mr. Archambault:

The Tennessee State Historic Preservation Office has reviewed the above-referenced undertaking received on Wednesday, September 21, 2011 for compliance by the participating federal agency or applicant for federal assistance with Section 106 of the National Historic Preservation Act. The Procedures for implementing Section 106 of the Act are codified at 36 CFR 800 (Federal Register, December 12, 2000, 77698-77739).

After considering the documentation submitted, it is our opinion that there are no National Register of Historic Places listed or eligible properties affected by this undertaking. This determination is made either because of the location, scope and/or nature of the undertaking, and/or because of the size of the area of potential effect; or because no listed or eligible properties exist in the area of potential effect; or because the undertaking will not alter any characteristics of an identified eligible or listed property that qualify the property for listing in the National Register or alter such property's location, setting or use. Therefore, this office has no objections to your proceeding with the project.

If your agency proposes any modifications in current project plans or discovers any archaeological remains during the ground disturbance or construction phase, please contact this office to determine what further action, if any, will be necessary to comply with Section 106 of the National Historic Preservation Act. If you are applying for federal funds, license or permit, you should submit this letter as evidence of consultation under Section 106 to the appropriate federal agency, which, in turn, should contact us as required by 36 CFR 800. If you represent a federal agency, you should submit a formal determination of eligibility and effect to us for comment. You may direct questions or comments to Jennifer M. Barnett (615) 741-1588, ext. 105. This office appreciates your cooperation.

Sincerely,

E. Patrick McIntyre, Jr.  
Executive Director and  
State Historic Preservation Officer

## **APPENDIX D**

Well Installation Logs

PROJECT: 155 & 159 Hamm Road  
155 & 159 Hamm Road  
Chattanooga, Tennessee

**CLIENT:** City of Chattanooga  
Chattanooga, TN

## **SOIL BORING LOG**

No. HR-1

SHEET 1 OF 1

PROJECT: E2107081

DATE: 8/8/12

DRILLER: C. Penton

GEOLOGIST: P. Davis

**Ferracan**

PROJECT: 155 & 159 Hamm Road  
155 & 159 Hamm Road  
Chattanooga, Tennessee

**CLIENT:** City of Chattanooga  
Chattanooga, TN

## **SOIL BORING LOG**

No. HR-2

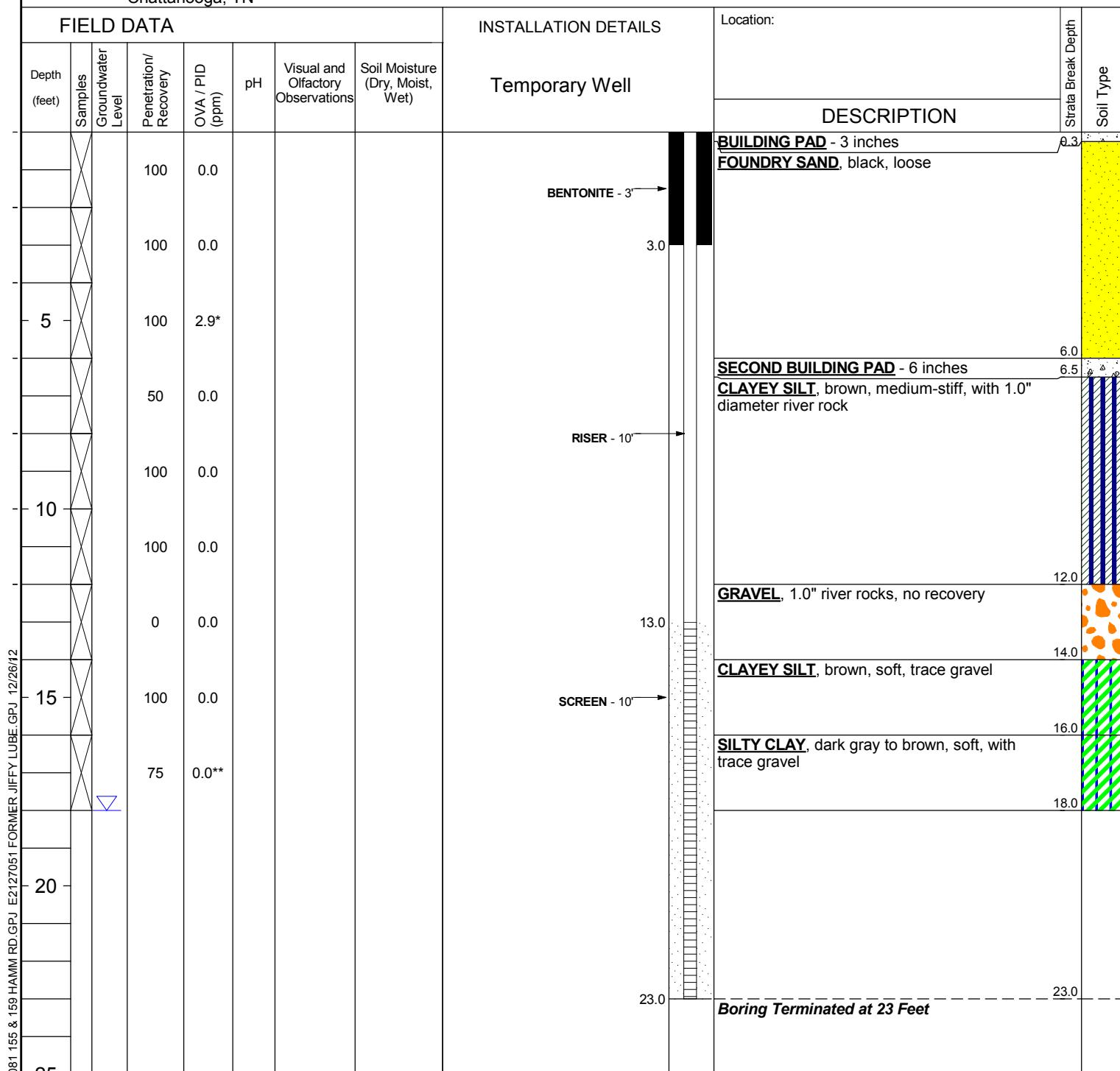
SHEET 1 OF 1

PROJECT: E2107081

DATE: 8/8/12

DRILLER: C. Penton

GEOLOGIST: P. Davis



## Groundwater Level Data

## Advancement Method

## Notes

### Initially Observed

## 0-23' Hollow Stem Auger

\*Sample taken at 4'-6' for laboratory testing

\*\*Sample taken at 16'-18' for laboratory testing

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Well Construction Notes

## Set 2" Monitoring Well

# Terracon

PROJECT: 155 & 159 Hamm Road  
155 & 159 Hamm Road  
Chattanooga, Tennessee

**CLIENT:** City of Chattanooga  
Chattanooga, TN

## **SOIL BORING LOG**

No. HR-3

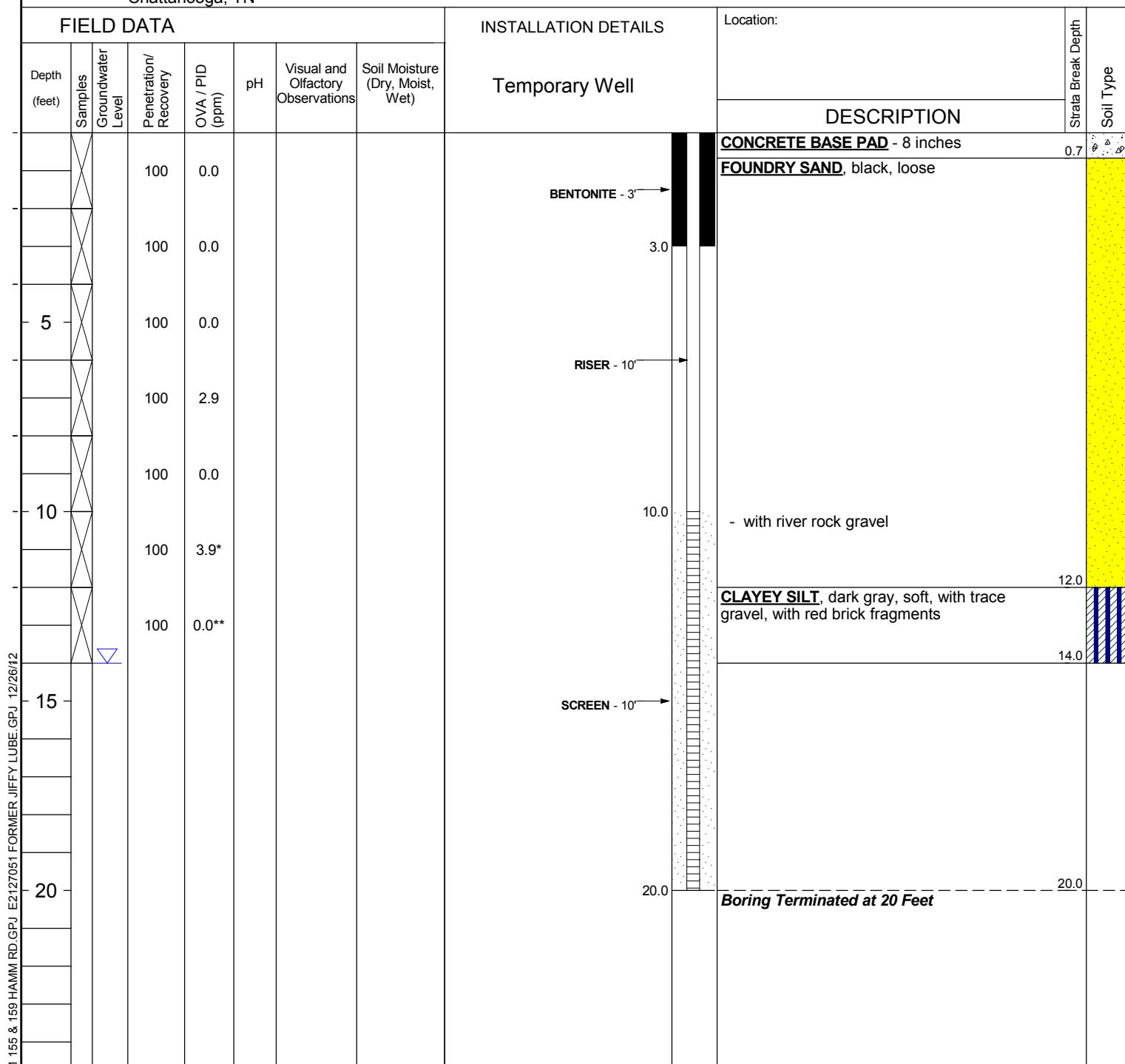
SHEET 1 OF 1

PROJECT: E2107081

DATE: 8/8/12

DRILLER: C. Penton

GEOLOGIST: P. Davis



Groundwater Level Data

#### Advancement Method

## Notes

*STRATA BOUNDARIES MAY NOT BE EXACT*

### Initially Observed

## 0-20' Hollow Stem Auger

\*Sample taken at 10'-12' for laboratory testing  
\*\*Sample taken at 12'-14' for laboratory testing

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Well Construction Notes

## Set 2" Monitoring Well

**Terracon**

PROJECT: 155 & 159 Hamm Road  
155 & 159 Hamm Road  
Chattanooga, Tennessee

**CLIENT:** City of Chattanooga  
Chattanooga, TN

## **SOIL BORING LOG**

No. HR-4

SHEET 1 OF 1

PROJECT: E2107081

DATE: 8/8/12

DRILLER: C. Penton

GEOLOGIST: P. Davis

**Terracon**

PROJECT: 155 & 159 Hamm Road  
155 & 159 Hamm Road  
Chattanooga, Tennessee

**CLIENT:** City of Chattanooga  
Chattanooga, TN

## **SOIL BORING LOG**

No. HR-5

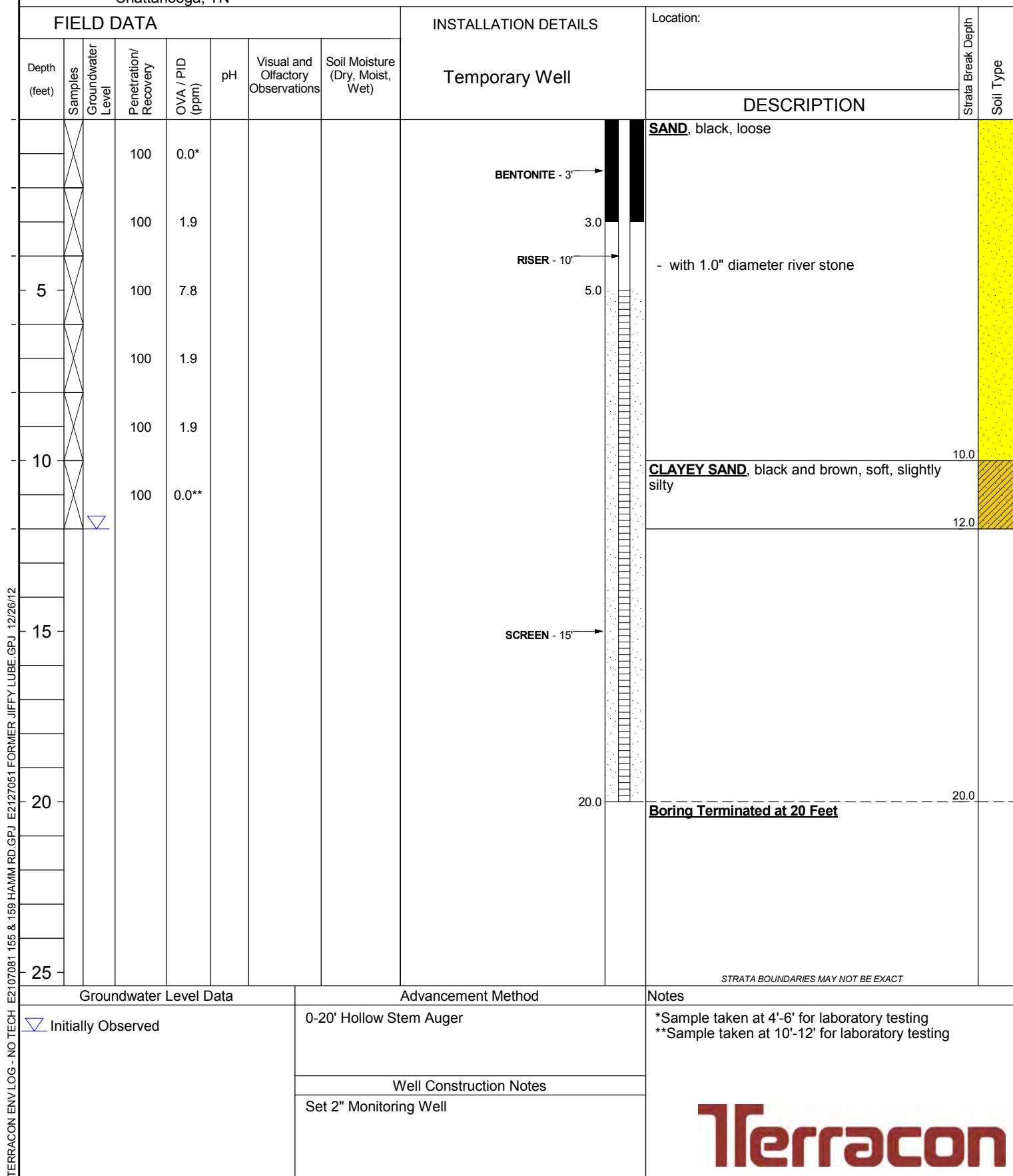
SHEET 1 OF 1

PROJECT: E2107081

DATE: 8/8/12

DRILLER: C. Penton

GEOLOGIST: P. Davis



**Terracon**

PROJECT: 155 & 159 Hamm Road  
155 & 159 Hamm Road  
Chattanooga, Tennessee

CLIENT: City of Chattanooga  
Chattanooga, TN

## SOIL BORING LOG

No. HR-6

SHEET 1 OF 1

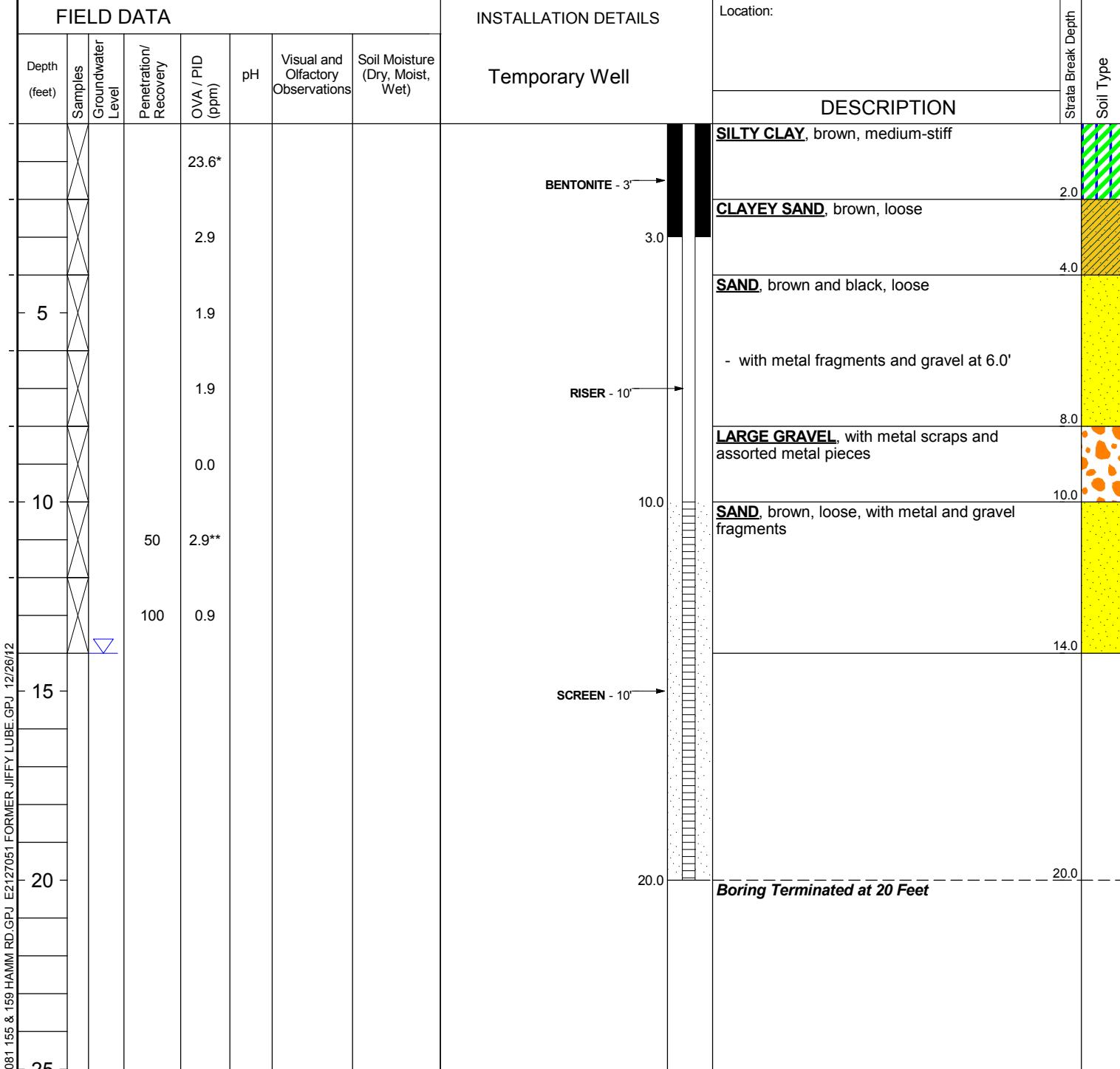
PROJECT: E2107081

DATE: 8/8/12

DRILLER: C. Penton

GEOLOGIST: P. Davis

### FIELD DATA



STRATA BOUNDARIES MAY NOT BE EXACT

Groundwater Level Data		Advancement Method		Notes
 Initially Observed		0-20' Hollow Stem Auger		*Sample taken at 0'-2' for laboratory testing **Sample taken at 10'-12' for laboratory testing
		Well Construction Notes		
		Set 2" Monitoring Well		

**Terracon**

## **APPENDIX E**

- Table 1: Soil Analytical Summary – GRO, EPH, RCRA 8 Metals & PCBs
- Table 2: Soil Analytical Summary – SVOCs
- Table 3: Soil Analytical Summary – VOCs
- Table 4: Soil Analytical Summary – Pesticides and Herbicides
- Table 5: Potentiometric Data Summary
- Table 6: Groundwater Analytical Summary – GRO, EPH, RCRA 8 Metals & PCBs
- Table 7: Groundwater Analytical Summary – VOCs
- Table 8: Groundwater Analytical Summary – SVOCs
- Table 9: Groundwater Analytical Summary – Pesticides and Herbicides

Table 1

 Soil Analytical Data Summary - GRO, EPH, RCRA 8 Metals & PCBs  
 155 & 159 Hamm Road - Limited Site Assessment  
 155 & 159 Hamm Road Chattanooga, Tennessee

Site ID			HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR
Sample ID			HR-MW-1	Duplicate	HR-MW-1	HR-MW-2	HR-MW-2	HR-MW-3	HR-MW-3	HR-MW-4	HR-MW-4	HR-MW-5	HR-MW-5	HR-MW-6	HR-MW-6	Rinseate
Sample Depth			10'-12'	NA	12'-14'	4'-6'	16'-18'	10'-12'	12'-14'	4'-6'	10'-12'	4'-6'	10'-12'	0'-2'	10'-12'	NA
Sample Date			8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/9/2012	8/9/2012	8/9/2012	8/9/2012	8/9/2012	8/8/2012	8/8/2012	8/9/2012
TPH-GRO	Industrial Soil Action Levels	Residential Soil Action Levels														
TPH-GRO	100*	100*	73.0	41	43.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	12.0	<0.50	<0.10
EPH	Industrial Soil Action Levels	Residential Soil Action Levels														
EPH	100*	100*	1800	17000	6400	<4.0	4.0	<4.0	6.7	240	9.6	<80	190	53.0	120.0	<0.10
Metals	Industrial Soil Action Levels	Residential Soil Action Levels														
Arsenic	10*	10*	11.0	9.6	11.0	2.3	7.4	6.1	4.1	10	8.5	7.8	6.20	5.5	11.0	<0.020
Barium	190,000**	15,000**	63.0	67.0	73.0	24.0	64.0	52.0	57.0	140.0	130.0	110.0	180.0	8.00	220.00	<0.0050
Cadmium	800**	70**	0.29	<0.25	0.3	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.0050
Chromium	1,500,000**	120,000**	6.4	7.6	8.4	11.0	14.0	9.00	6.6	19.0	16	19.0	11.0	61.00	30.00	<0.010
Lead	800**	400**	14.0	13	14.0	8.6	15.0	15.0	11.0	31.0	39.0	38.0	44.0	8.60	15.00	<0.0050
Selenium	5,100**	390**	<1.0	<1.0	<1.0	<1.0	8.30	<5.0	5.30	<1.0	<1.0	1.4	<1.0	<1.0	5.10	<0.020
Silver	5,100**	390**	<0.50	<1.0	<1.0	<0.50	<1.0	<2.5	<1.0	<2.5	<2.5	<2.5	<0.50	<1.0	<0.010	
Mercury	34**	5.6**	0.087	0.094	0.093	0.021	0.068	0.020	<0.02	<0.020	<0.020	<0.020	<0.020	0.067	<0.020	<0.00020
PCBs	Industrial Soil Action Levels	Residential Soil Action Levels														
PCB-1016	21	3.90	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.005	
PCB-1221	0.54	0.14	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.005	
PCB-1232	0.54	0.14	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.005	
PCB-1242	0.74	0.22	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.005	
PCB-1248	0.74	0.22	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.005	
PCB-1254	0.74	0.22	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.005	
PCB-1260	0.74	0.22	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.005	

NOTE: \*Background concentration as established by TDEC

\*\*Regional Screening Levels as established by EPA and published April 2012

\*\*\*EPA Region 9 Primary Remediation Goal

-Compounds with Laboratory PQLs above action level

NA - Not Analyzed

Table 2  
 Soil Analytical Data Summary - SVOCs  
 155 & 159 Hamm Road - Limited Site Assessment  
 155 & 159 Hamm Road Chattanooga, Tennessee

Site ID			HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR
Sample ID			HR-MW-1	Duplicate	HR-MW-1	HR-MW-2	HR-MW-2	HR-MW-3	HR-MW-3	HR-MW-4	HR-MW-4	HR-MW-5	HR-MW-5	HR-MW-6	HR-MW-6	Rinseate
Sample Depth			10'-12'	NA	12'-14'	4'-6'	16'-18'	10'-12'	12'-14'	4'-6'	10'-12'	4'-6'	10'-12'	0'-2'	10'-12'	NA
Sample Date			8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/9/2012	8/9/2012	8/9/2012	8/9/2012	8/8/2012	8/8/2012	8/9/2012
SVOCs	Industrial Soil Action Levels	Residential Soil Action Levels														
Acenaphthene	33,000**	3,400**	38	39.0	41	<0.033	<0.033	<0.033	<0.033	1.2	0.092	<0.33	9.3	0.35	<0.33	<0.001
Acenaphthylene	NE	NE	8	6.3	9.1	<0.033	<0.033	<0.033	<0.033	1	0.081	<0.33	8.3	0.1	0.58	<0.001
Anthracene	170,000**	17,000**	63	63	78	<0.033	0.04	0.04	<0.033	3.7	0.28	0.79	26	0.67	1.2	<0.001
Benzidine	0.0075**	0.0005**	<170	<170	<170	<0.33	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01
Benzo(a)-anthracene	2.1**	0.15**	85	92	110	0.065	0.062	0.13	<0.033	5.9	0.76	1.8	42	0.94	2.60	<0.001
Benzo(b)-fluoranthene	2.1**	0.15**	93	92	110	0.11	0.067	0.17	<0.033	6.8	0.83	2.5	39	1	3	<0.001
Benzo(k)-fluoranthene	21**	1.5**	28	28	37	0.04	<0.033	0.054	<0.033	2	0.3	0.8	15	0.42	0.9	<0.001
Benzo(g,h,i) perylene	NE	NE	19	20	25	0.077	<0.033	0.089	<0.033	1.5	0.36	0.6	4.5	0.18	0.71	<0.001
Benzo(a)pyrene	0.21**	0.015*	63	64	80	0.08	0.049	0.12	<0.033	4.6	0.67	1.7	27	0.75	2	<0.001
Bis(2-chloroethoxy)methane	1800**	180**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01
Bis(2-chloroethyl)ether	1**	0.21**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01
Bis(2-chloroisopropyl)ether	NE	NE	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01
4-Bromophenyl phenyl ether	NE	NE	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01
2-Chloronaphthalene	NE	NE	<0.66	<0.66	<0.66	<0.033	<0.033	<0.033	<0.033	<0.33	<0.33	<0.33	<0.66	<0.033	<0.33	<0.001
4-Chlorophenyl phenyl ether	NE	NE	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01
Chrysene	210**	15*	91	88	117	0.074	0.061	0.13	<0.033	5.4	0.73	1.8	32	0.84	2.2	<0.001
Dibenz (a,h) anthracene	0.21**	0.015*	<16	<16	<16	<0.033	<0.033	<0.033	<0.033	0.69	0.15	<0.33	3.2	0.11	0.38	<0.001
3,3-Dicichlorobenzidine	3.8**	1.1**	<170	<170	<170	<0.33	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01
2,4-Dinitrotoluene	5.5**	1.6**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01
2,6-Dinitrotoluene	5.5**	61**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01
Fluoranthene	22,000**	2,300*	210.0	210.0	260	0.095	0.13	0.34	0.04	14	1.5	4	100	2.6	5	<0.001
Fluorene	22,000**	2,300**	64.0	74.0	88	<0.033	0.041	<0.033	<0.033	3.5	0.21	0.5	32	0.64	1.1	<0.001
Hexachlorobenzene	1.1**	0.3**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.001
Hexachloro-1,3-butadiene	NE	NE	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01
Hexachlorocyclopentadiene	3700**	370**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01
Hexachloroethane	120**	35**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.010
Indeno (1,2,3-cd)pyrene	2.1**	0.15**	20	22	25	0.063	<0.033	0.082	<0.033	1.5	0.35	0.57	5.3	0.2	0.74	<0.001
Isophorone	1800**	510**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01
Naphthalene	403*	135*	150	170	180	0.034	0.036	<0.033	<0.033	1.2	0.17	<0.33	62	0.66	0.61	<0.001
Nitrobenzene	24**	4.8**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01
N-Nitrosodimethylamine	340**	2300**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01
N-Nitrosodiphenylamine	350**	99**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01
N-Nitrosodi-n-propylamine	0.25**	0.069**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01

All results in parts-per-million (ppm)

Table 2  
 Soil Analytical Data Summary - SVOCs  
 155 & 159 Hamm Road - Limited Site Assessment  
 155 & 159 Hamm Road Chattanooga, Tennessee

Site ID			HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR
Sample ID			HR-MW-1	Duplicate	HR-MW-1	HR-MW-2	HR-MW-2	HR-MW-3	HR-MW-3	HR-MW-4	HR-MW-4	HR-MW-5	HR-MW-5	HR-MW-6	HR-MW-6	Rinseate
Sample Depth			10'-12'	NA	12'-14'	4'-6'	16'-18'	10'-12'	12'-14'	4'-6'	10'-12'	4'-6'	10'-12'	0'-2'	10'-12'	NA
Sample Date			8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/9/2012	8/9/2012	8/9/2012	8/9/2012	8/8/2012	8/8/2012	8/9/2012
SVOCs	Industrial Soil Action Levels	Residential Soil Action Levels														
Phenanthrene	NE	NE	240	250	290	0.062	0.15	0.17	0.037	14	1.1	3	140	3	4.7	<0.001
Benzylbutyl phthalate	NE	NE	<170	<170	<170	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.003	
Bis(2-ethylhexyl)phthalate	120**	35**	<170	<170	<170	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.003	
Di-n-butylphthalate	NE	NE	<170	<170	<170	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.003	
Diethyl phthalate	490000**	49000**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.003	
Dimethyl phthalate	NE	NE	<170	<6.7	<6.7	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.003	
Di-n-octyl phthalate	NE	NE	<170	<170	<170	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.003	
Pyrene	17,000**	1,700*	130	140	170	0.087	<0.033	0.24	<0.033	9.9	1.2	2.9	69	1.4	3.80	<0.001
1,2,4-Trichlorobenzene	99**	22**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01	
4-chloro-3-methylphenol	NE	NE	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01	
2-Chlorophenol	5100**	390**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01	
2,4-Dichlorophenol	1800**	180**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01	
2,4-Dimethylphenol	12000**	1200**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01	
4,6-Dinitro-2-methylphenol	NE	NE	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01	
2,4-Dinitrophenol	1200**	120**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01	
2-Nitrophenol	NE	NE	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01	
4-Nitrophenol	NE	NE	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01	
Pentachlorophenol	2.7**	0.89**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01	
Phenol	180000**	18000**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01	
2,4,6-Trichlorophenol	160**	44**	<6.7	<6.7	<6.7	<0.33	<0.33	<0.33	<3.3	<0.33	<3.3	<6.7	<0.33	<3.3	<0.01	

NOTE: \*Background concentration as established by TDEC

\*\*Regional Screening Levels as established by EPA and published April 2012

-Compounds with Laboratory PQMs above action level

NA - Not Analyzed



**Table 3**  
**Soil Analytical Data Summary - VOCs**  
**155 & 159 Hamm Road - Limited Site Assessment**  
**155 & 159 Hamm Road Chattanooga, Tennessee**

Site ID			HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR
Sample ID			HR-MW-1	Duplicate	HR-MW-1	HR-MW-2	HR-MW-2	HR-MW-3	HR-MW-3	HR-MW-4	HR-MW-4	HR-MW-5	HR-MW-5	HR-MW-6	HR-MW-6	Rinseate	
Sample Depth			10'-12'	NA	12'-14'	4'-6'	16'-18'	10'-12'	12'-14'	4'-6'	10'-12'	4'-6'	10'-12'	0'-2'	10'-12'	NA	
Sample Date			8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/9/2012	8/9/2012	8/9/2012	8/9/2012	8/9/2012	8/8/2012	8/8/2012	8/9/2012	
VOCs	Industrial Soil Action Levels	Residential Soil Action Levels															
Acetone	630,000**	61,000**	<25	<0.25	<25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<2.5	<0.25	<0.25	<0.05		
Acrolein	0.65**	0.15**	NM	NM	NM	NA	<0.05										
Acrylonitrile	1.2**	0.24**	<5.0	<0.05	<5.0	<0.050	<0.050	<0.05	<0.05	<0.05	<0.050	<0.05	<0.5	<0.05	<0.05	<0.01	
Benzene	3.80*	0.0729*	<0.5	0.19	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
Bromobenzene	1800**	300**	<0.5	<0.005	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
Bromodichloromethane	1.4**	0.27**	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
Bromoform	220**	62**	<0.5	<0.005	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
Bromomethane	32**	7.3**	<2.5	<0.025	<2.5	<0.025	<0.25	<0.025	<0.025	<0.025	<0.025	<0.25	<0.025	<0.025	<0.025	<0.005	
n-Butylbenzene	51000**	3900**	<0.5	<0.005	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
sec-Butylbenzene	NE	NE	<0.5	<0.005	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	0.021	<0.005	<0.005	<0.001	
tert-Butylbenzene	NE	NE	<0.5	<0.005	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
Carbon Tetrachloride	3.0**	0.61**	<0.5	<0.005	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
Chlorobenzene	1400**	290**	<0.5	<0.005	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
Chlorodibromomethane	NE	NE	<0.5	<0.005	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
Chloroethane	NE	NE	<2.5	<0.025	<2.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.25	<0.025	<0.025	<0.025	<0.005	
2-chloroethyl vinyl ether	NE	NE	<25	<0.25	<25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<2.5	<0.25	<0.25	<0.25	<0.05	
Chloroform	1.5**	0.29**	<2.5	<0.025	<2.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.25	<0.025	<0.025	<0.025	<0.005	
Chloromethane	500**	120**	<1.2	<0.012	<1.2	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.12	<0.012	<0.012	<0.012	<0.0025	
2-Chlorotoluene	NE	NE	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
4-Chlorotoluene	NE	NE	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
1,2-Dibromo-3-chloropropane	0.069***	0.0054**	<2.5	<0.025	<2.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.25	<0.025	<0.025	<0.025	<0.005	
1,2-Dibromoethane (EDB)	0.17**	0.034**	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
Dibromomethane	110**	250**	<0.5	<0.005	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
1,2-Dichlorobenzene	9800**	1900**	<0.5	<0.005	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
1,3-Dichlorobenzene	9800**	NE	<0.5	<0.005	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
1,4-Dichlorobenzene	120**	2.4**	<0.5	<0.005	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
Dichlorodifluoromethane	400**	94**	<2.5	<0.025	<2.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.25	<0.025	<0.025	<0.025	<0.005	
1,1-Dichloroethane	17**	3.3**	<0.5	<0.005	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
1,2-Dichloroethane	2.2**	0.43**	<0.5	<0.005	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
1,1-Dichloroethene	1100**	240**	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
cis-1,2-Dichloroethene	2000**	160**	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
trans-1,2-Dichloroethene	690**	150**	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
1,2-Dichloropropane	4.7**	0.94**	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
1,1-Dichloropropene	NE	NE	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
1,3-Dichloropropane	20000**	1600**	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
cis-1,3-Dichloropropene	NE	NE	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
trans-1,3-Dichloropropene	NE	NE	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
2,2-Dichloropropane	NE	NE	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
Di-isopropyl ether	10000**	2400**	<0.50	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
Ethylbenzene	1310*	143*	<0.5	0.059	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	

All results in parts-per-million (ppm)

**Table 3**  
**Soil Analytical Data Summary - VOCs**  
**155 & 159 Hamm Road - Limited Site Assessment**  
**155 & 159 Hamm Road Chattanooga, Tennessee**

Site ID			HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR
Sample ID			HR-MW-1	Duplicate	HR-MW-1	HR-MW-2	HR-MW-2	HR-MW-3	HR-MW-3	HR-MW-4	HR-MW-4	HR-MW-5	HR-MW-5	HR-MW-6	HR-MW-6	Rinseate	
Sample Depth			10'-12'	NA	12'-14'	4'-6'	16'-18'	10'-12'	12'-14'	4'-6'	10'-12'	4'-6'	10'-12'	0'-2'	10'-12'	NA	
Sample Date			8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/9/2012	8/9/2012	8/9/2012	8/9/2012	8/9/2012	8/8/2012	8/8/2012	8/9/2012	
VOCs	Industrial Soil Action Levels	Residential Soil Action Levels															
Hexachloro-1,3-butadiene	NE	NE	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.001	
Isopropylbenzene	NE	NE	<0.5	0.014	<0.50	<0.0050	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	0.0091	<0.005	<0.001		
p-Isopropyltoluene	NE	NE	<0.5	0.0072	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	0.014	<0.005	<0.001		
2-Butanone (MEK)	200000	28000	<5.0	<0.050	<0.50	<0.05	<0.05	<0.050	<0.05	<0.05	<0.05	<0.50	<0.05	<0.05	<0.05	<0.010	
Methylene Chloride	960**	56**	<2.5	0.028	<2.5	<0.025	<0.025	<0.25	<0.025	<0.025	<0.025	<0.25	<0.025	<0.025	<0.025	<0.005	
4-Methyl-2-pentanone	NE	NE	<5.0	<0.05	<5.0	<0.050	<0.050	<0.05	<0.050	<0.05	<0.05	<0.50	<0.050	<0.050	<0.01		
Methyl tert-Butyl Ether	364*	39.6*	<0.5	<0.005	<0.5	<0.0050	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.001		
Naphthalene	403*	135*	<25	930	400	<0.025	<0.025	<0.025	<0.025	0.46	0.036	<0.025	2.6	0.67	0.095	<0.005	
n-Propylbenzene	NE	NE	<0.5	0.006	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	0.0096	<0.005	<0.001		
Styrene	36000**	6300**	<0.5	0.033	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.001		
1,1,1,2-Tetrachloroethane	9.3**	1.9**	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.001		
1,1,2,2-Tetrachloroethane	2.8**	0.56**	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.001		
1,1,2-Trichlorotrifluoroethane	NE	NE	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.001		
Tetrachloroethene	110**	0.22**	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.001		
Toluene	62.2*	6.78*	<2.5	0.32	<2.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.25	<0.025	<0.025	<0.005		
1,2,3-Trichlorobenzene	490	49	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.050	<0.005	<0.005	<0.001		
1,2,4-Trichlorobenzene	99**	22**	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.050	<0.005	<0.005	<0.001		
1,1,1-Trichloroethane	38000**	8700**	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.050	<0.005	<0.005	<0.001		
1,1,2-Trichloroethane	5.3**	1.1**	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.050	<0.005	<0.005	<0.001		
Trichloroethene	6.4**	0.91**	<0.5	<0.005	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.050	<0.005	<0.005	<0.001		
Trichlorofluoromethane	3400**	790**	<2.5	<0.025	<2.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.25	<0.025	<0.025	<0.005		
1,2,3-Trichloropropane	0.095**	0.005**	<1.2	<0.012	<1.2	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.12	<0.012	<0.012	<0.0025		
1,2,4-Trimethylbenzene	260**	62**	1.3	0.32	0.54	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	0.09	<0.005	<0.001		
1,2,3-Trimethylbenzene	NE	NE	<0.5	0.1	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	0.053	<0.005	<0.001		
1,3,5-Trimethylbenzene	10000**	780**	0.65	0.15	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	0.02	<0.005	<0.001		
Vinyl Chloride	1.7**	0.06**	<0.5	<0.005	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.001		
Xylenes, total	88*	9.6*	1.9	0.61	<1.5	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.15	<0.015	<0.015	<0.003		

NOTE: \*Initial Screening Levels as established by TDEC-DUST

\*\*Regional Screening Levels as established by EPA and published November 2010

\*\*\*EPA Region 9 Primary Remediation Goal

-Compounds with Laboratory PQLs above action level

NA - Not Analyzed

Table 4  
 Soil Analytical Data Summary - Pesticides and Herbicides  
 155 & 159 Hamm Road - Limited Site Assessment  
 155 & 159 Hamm Road Chattanooga, Tennessee

Site ID			HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR
Sample ID			HR-MW-1	Duplicate	HR-MW-1	HR-MW-2	HR-MW-2	HR-MW-3	HR-MW-3	HR-MW-4	HR-MW-4	HR-MW-5	HR-MW-5	HR-MW-6	HR-MW-6	Rinseate	
Sample Depth			10'-12'	NA	12'-14'	4'-6'	16'-18'	10'-12'	12'-14'	4'-6'	10'-12'	4'-6'	10'-12'	0'-2'	10'-12'	NA	
Sample Date			8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/9/2012	8/9/2012	8/9/2012	8/9/2012	8/8/2012	8/8/2012	8/9/2012	
Pesticides	Industrial Soil Action Levels	Residential Soil Action Levels															
Aldrin	0.10**	0.029**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00005	
Alpha BHC	0.27**	0.077**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00005	
Beta BHC	0.96**	0.27**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00005	
Delta BHC	NE	NE	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00005	
Gama BHC	2.1**	0.52**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00005	
Chlordane	6.5**	1.6**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.0005	
4,4-DDD	7.2**	2.0**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00005	
4,4-DDE	5.1**	1.4**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00005	
4,4-DDT	7.0**	1.7**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00005	
Dieldrin	0.11**	0.03**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00005	
Endosulfan I	3700**	370**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00005	
Endosulfan II	3700**	370**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00005	
Endosulfan Sulfate	3700**	370**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00005	
Endrin	180**	18**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00005	
Endrin aldehyde	180**	18**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00005	
Endrin ketone	180**	18**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00005	
Heptachlor	0.38**	0.11**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00005	
Heptachlor epoxide	0.19**	0.053**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00005	
Hexachlorobenzene	1.1**	0.3**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00005	
Methoxychlor	3100**	310**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00005	
Toxaphene	1.6**	0.44**	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.0005	
Herbicides	Industrial Soil Action Levels	Residential Soil Action Levels															
2,4-D	7700**	690**	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.002	
Dalapon	18000**	1800**	<0.8	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.2	
2,4-DB	18000**	490**	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.002	
Dicamba	18000**	1800**	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.002	
Dichloroprop	NE	NE	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.002	
Dinoseb	620**	61**	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.002	
MCPA	310**	31**	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<0.1	
MCPP	620**	61**	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<0.1	
2,4,5-T	6200**	610**	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.002	
2,4,5-TP (silvex)	4900**	490**	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.002	

NOTE: \*Initial Screening Levels as established by TDEC-DUST

\*\*Regional Screening Levels as established by EPA and published November 2010

\*\*\*EPA Region 9 Primary Remediation Goal

-Compounds with Laboratory PQMs above action level

NA - Not Analyzed



Table 5  
Potentiometric Data Summary  
155 & 159 Hamm Road - Limited Site Assessment  
155 & 159 Hamm Road Chattanooga, Tennessee

Well	Date	Top of Casing Elevation (TOC) (feet MSL)	Top of Screen Elevation (feet MSL)	Total Depth of Well (feet)	Bottom of Screen Elevation (feet MSL)	Depth to Free Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Potentiometric Elevation (feet MSL)	Adjusted Potentiometric Elevation (feet MSL)	Potentiometric Surface Within Screen Interval (Yes/No)
HR-MW-1	8/14/12	666.09	654.84	21.3	644.84	NA	16.25	NA	649.84	649.84	Yes
HR-MW-2	8/14/12	668.51	654.59	23.9	644.59	NA	18.3	NA	650.21	650.21	Yes
HR-MW-3	8/14/12	666.29	654.85	21.4	644.85	NA	16.28	NA	650.01	650.01	Yes
HR-MW-4	8/14/12	659.21	652.54	21.7	637.54	NA	11.87	NA	647.34	647.34	No
HR-MW-5	8/14/12	659.97	653.59	21.4	638.59	NA	10.88	NA	649.09	649.09	No
HR-MW-6	8/14/12	658.98	649.15	19.8	639.15	NA	14.37	NA	644.61	644.61	Yes

Table 6

Groundwater Analytical Data Summary - GRO, EPH, RCRA 8 Metals & PCBs  
 155 & 159 Hamm Road - Limited Site Assessment  
 155 & 159 Hamm Road Chattanooga, Tennessee

Site ID			HR							
Sample ID			HR-MW-1	HR-MW-2	HR-MW-3	HR-MW-4	Duplicate	HR-MW-5	HR-MW-6	Field Blank
Sample Date			8/14/2012	8/14/2012	8/14/2012	8/15/2012	8/15/2012	8/15/2012	8/15/2012	8/15/2012
TPH-GRO	Non Drinking Groundwater Action Levels	Drinking Water Groundwater Action Levels								
TPH-GRO	100*	100*	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPH	Non Drinking Groundwater Action Levels	Drinking Water Groundwater Action Levels								
EPH	100*	100*	3.2	<0.1	<0.1	<0.1	<0.1	<0.1	0.87	<0.1
Metals	Non Drinking Groundwater Action Levels	Drinking Water Groundwater Action Levels								
Arsenic	NE	0.010**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Barium	NE	2.0**	0.053	0.03	0.077	0.098	0.076	0.11	0.045	<0.005
Cadmium	NE	0.005*	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	NE	0.1*	<0.01	<0.01	<0.01	<0.01	<0.01	0.024	<0.01	<0.01
Lead	NE	0.015*	0.0053	<0.005	<0.005	0.0051	<0.005	0.056	<0.005	<0.005
Selenium	NE	0.050**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Silver	NE	0.1*	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	NE	2**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PCBs	Non Drinking Groundwater Action Levels	Drinking Water Groundwater Action Levels								
PCB-1016	NE	0.00096***	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PCB-1221	NE	0.0000043***	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PCB-1232	NE	0.0000043***	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PCB-1242	NE	0.000034***	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PCB-1248	NE	0.000034***	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PCB-1254	NE	0.000034***	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PCB-1260	NE	0.000034**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

NOTE: \*Background concentration as established by TDEC

\*\*Regional Screening Levels as established by EPA and published April 2012

\*\*\*EPA Region 9 Regional Screening Levels, Tap Water Standard, as established by EPA and published April 2012

NA - Not Analyzed

**Table 7**  
**Groundwater Analytical Data Summary - VOCs**  
**155 & 159 Hamm Road - Limited Site Assessment**  
**155 & 159 Hamm Road Chattanooga, Tennessee**

Site ID			HR							
Sample ID			HR-MW-1	HR-MW-2	HR-MW-3	HR-MW-4	Duplicate	HR-MW-5	HR-MW-6	Field Blank
Sample Date			8/14/2012	8/14/2012	8/14/2012	8/15/2012	8/15/2012	8/15/2012	8/15/2012	8/15/2012
VOCs	Non Drinking Groundwater Action Levels	Drinking Water Groundwater Action Levels								
Acetone	NE	12.0***	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acrolein	NE	0.000041***	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acrylonitrile	0	0.000045***	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzene	0.072*	0.005*	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromobenzene	NE	0.054**	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromodichloromethane	NE	0.080**	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromoform	NE	0.080**	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromomethane	NE	0.007***	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
n-Butylbenzene	NE	0.780***	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
sec-Butylbenzene	NE	NE	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
tert-Butylbenzene	NE	NE	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Carbon Tetrachloride	NE	0.005***	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chlorobenzene	NE	0.1***	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chlorodibromomethane	NE	NE	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroethane	NE	NE	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Chloroethyl vinyl ether	NE	NE	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chloroform	NE	0.080**	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	0.190**	<0.025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.025
2-Chlorotoluene	NE	NE	<0.01	<0.001	<0.001	<0.001	<0.0010	<0.001	<0.001	<0.001
4-Chlorotoluene	NE	NE	<0.01	<0.001	<0.001	<0.001	<0.0010	<0.001	<0.001	<0.001
1,2-Dibromo-3-chloropropane	NE	0.0002**	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dibromoethane (EDB)	NE	0.00005***	<0.01	<0.001	<0.001	<0.001	<0.0010	<0.001	<0.001	<0.001
Dibromomethane	NE	NE	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichlorobenzene	NE	0.6**	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,3-Dichlorobenzene	NE	NE	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,4-Dichlorobenzene	NE	0.075**	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dichlorodifluoromethane	NE	0.190**	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	NE	0.0024***	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane	NE	0.005**	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis-1,1-Dichloroethene	NE	NE	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis-1,2-Dichloroethene	NE	0.070**	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,2-Dichloroethene	NE	0.1**	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane	NE	0.005**	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloropropene	NE	NE	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,3-Dichloropropane	NE	0.29***	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis-1,3-Dichloropropene	NE	NE	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene	NE	NE	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2,2-Dichloropropane	NE	NE	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Di-Isopropyl ether	NE	NE	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	10.3*	0.7*	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Hexachloro-1,3-butadiene	NE	NE	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
isopropylbenzene	NE	NE	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
p-Isopropyltoluene	NE	NE	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2-Butanone	NE	4.9**	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methylene Chloride	NE	0.005**	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4-Methyl-2-pentanone	NE	NE	<0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.010
Methyl tert-Butyl Ether	175*	0.02*	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Naphthalene	9.81*	0.02*	0.59	<0.005	<0.005	<0.005	<0.005	0.0066	0.013	<0.005
n-Propylbenzene	NE	NE	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Styrene	NE	0.1**	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1,2-Tetrachloroethane	NE	0.0005**	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane	NE	0.000066***	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichlorotrifluoroethane	NE	NE	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	NE	0.005**	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	4.31*	1*	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

**Table 7**  
**Groundwater Analytical Data Summary - VOCs**  
**155 & 159 Hamm Road - Limited Site Assessment**  
**155 & 159 Hamm Road Chattanooga, Tennessee**

Site ID			HR							
Sample ID			HR-MW-1	HR-MW-2	HR-MW-3	HR-MW-4	Duplicate	HR-MW-5	HR-MW-6	Field Blank
Sample Date			8/14/2012	8/14/2012	8/14/2012	8/15/2012	8/15/2012	8/15/2012	8/15/2012	8/15/2012
VOCs	Non Drinking Groundwater Action Levels	Drinking Water Groundwater Action Levels								
1,2,3-Trichlorobenzene	NE	0.0052**	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene	NE	0.07***	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1-Trichloroethane	NE	0.2**	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane	NE	NE	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichloroethene	NE	0.005**	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichlorofluoromethane	NE	1.1**	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2,3Trichloropropane	NE	0.00000065***	<0.025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
1,2,4-Trimethylbenzene	NE	.015***	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2,3-Trimethylbenzene	NE	0.010***	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,3,5-Trimethylbenzene	NE	0.087***	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vinyl chloride	NE	0.002**	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Xylenes, total	3.57*	10.0*	<0.03	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003

NOTE: \*Initial Screening Levels as established by TDEC-DUST

\*\*Regional Screening Levels as established by EPA and published April 2012

\*\*\*EPA - Regional Screening Levels -Tap Water Standard-as established by EPA and published April 2012

NA - Not Analyzed

**Table 8**
**Groundwater Analytical Data Summary - SVOCs  
155 & 159 Hamm Road - Limited Site Assessment  
155 & 159 Hamm Road Chattanooga, Tennessee**

Site ID		HR	HR	HR	HR	HR	HR	HR	HR
Sample ID		HR-MW-1	HR-MW-2	HR-MW-3	HR-MW-4	Duplicate	HR-MW-5	HR-MW-6	Field Blank
Sample Date		8/14/2012	8/14/2012	8/14/2012	8/15/2012	8/15/2012	8/15/2012	8/15/2012	8/15/2012
SVOCs	Non Drinking Groundwater Action Levels	Drinking Water Groundwater Action Levels							
Acenaphthene	NE	0.939*	0.019	<0.001	<0.001	<0.001	<0.001	0.0027	<0.001
Acenaphthylene	NE	0.939*	0.0011	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Anthracene	NE	0.0434	0.014	<0.001	<0.001	<0.001	<0.001	0.0011	<0.001
Benzidine	NE	0.00000092***	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(a)-anthracene	NE	0.00117*	0.0097	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0010
Benzo(b)-fluoranthene	NE	0.00117*	0.0083	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0010
Benzo(k)-fluoranthene	NE	0.0008*	0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0010
Benzo(g,h,i) perylene	NE	0.0007*	0.0026	<0.001	<0.01	<0.001	<0.001	<0.001	<0.0010
Benzo(a)pyrene	NE	0.0002*	0.0055	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0010
Bis(2-chloroethoxy)methane	NE	0.047***	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Bis(2-chloroethyl)ether	NE	0.00012***	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Bis(2-chloroisopropyl)ether	NE	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4-Bromophenyl phenyl ether	NE	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-Chloronaphthalene	NE	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4-Chlorophenyl phenyl ether	NE	NE	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	NE	0.0016*	0.0087	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibenz (a,h) anthracene	NE	0.000117*	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3,3-Dicichlorobenzidine	NE	0.011***	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2,4-Dinitrotoluene	NE	0.0002***	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2,6-Dinitrotoluene	NE	0.015***	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	NE	0.206*	0.048	<0.001	<0.001	<0.001	<0.001	0.0021	<0.001
Fluorene	NE	0.626*	0.051	<0.001	<0.001	<0.001	<0.001	0.0046	<0.001
Hexachlorobenzene	NE	0.001**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Hexachloro-1,3-butadiene	NE	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001
Hexachlorocyclopentadiene	NE	0.05**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Hexachloroethane	NE	0.00079***	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno (1,2,3-cd)pyrene	NE	0.000029**	0.0023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Isophorone	NE	0.00117*	<0.01	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01
Naphthalene	9.81*	0.02*	0.0018	<0.001	<0.001	<0.001	<0.001	0.0093	<0.001
Nitrobenzene	NE	0.00012***	<0.01	<0.010	<0.01	<0.01	<0.01	<0.010	<0.01
N-Nitrosodimethylamine	NE	0.00000042***	<0.01	<0.010	<0.01	<0.01	<0.01	<0.010	<0.01
N-Nitrosodiphenylamine	NE	0.010***	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
N-Nitrosodi-n-propylamine	NE	0.0000093***	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	NE	0.469	0.074	<0.001	<0.001	<0.001	<0.001	0.0042	<0.001
Benzylbutyl phthalate	NE	NE	<0.003	<0.003	<0.003	<0.001	<0.003	<0.003	<0.003
Bis(2-ethylhexyl)phthalate	NE	0.006**	<0.003	<0.003	<0.002	<0.001	<0.003	<0.003	<0.003
Di-n-butylphthalate	NE	NE	<0.003	<0.003	0.0048	<0.001	0.0044	<0.003	<0.003
Diethyl phthalate	NE	11***	<0.003	<0.003	<0.003	<0.001	<0.003	<0.003	<0.003
Dimethyl phthalate	NE	NE	<0.03	<0.003	<0.003	<0.001	<0.003	<0.003	<0.003
Di-n-octyl phthalate	NE	NE	<0.003	<0.003	<0.003	<0.001	<0.003	<0.003	<0.003
Pyrene	NE	0.135*	0.032	<0.001	<0.001	<0.001	<0.001	0.0016	<0.001
1,2,4-Trichlorobenzene	NE	0.070**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4-chloro-3-methylphenol	NE	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-Chlorophenol	NE	0.071***	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2,4-Dichlorophenol	NE	0.035***	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2,4-Dimethylphenol	NE	0.270***	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4,6-Dinitro-2-methylphenol	NE	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2,4-Dinitrophenol	NE	0.030***	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-Nitrophenol	NE	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4-Nitrophenol	NE	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Pentachlorophenol	NE	0.001**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenol	NE	4.5**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2,4,6-Trichlorophenol	NE	0.0035***	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

NOTE: \*Initial Screening Levels as established by TDEC-DUST

\*\*Regional Screening Levels as established by EPA and published April 2012

\*\*\*EPA - Regional Screening Levels -Tap Water Standard-as established by EPA and published April 2012

NA - Not Analyzed

**Table 9**  
**Groundwater Analytical Data Summary - Pesticides and Herbicides**  
**155 & 159 Hamm Road - Limited Site Assessment**  
**155 & 159 Hamm Road Chattanooga, Tennessee**

Site ID			HR							
Sample ID			HR-MW-1	HR-MW-2	HR-MW-3	HR-MW-4	Duplicate	HR-MW-5	HR-MW-6	Field Blank
Sample Date			8/14/2012	8/14/2012	8/14/2012	8/15/2012	8/15/2012	8/15/2012	8/15/2012	8/15/2012
Pesticides	Industrial Soil Action Levels	Residential Soil Action Levels								
Aldrin	NE	0.21***	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Alpha BHC	NE	0.0000062***	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Beta BHC	NE	0.000022***	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Delta BHC	NE	NE	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Gama BHC	NE	0.0002**	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Chlordane	NE	0.002**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4,4-DDD	NE	0.00028***	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
4,4-DDE	NE	0.0002***	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
4,4-DDT	NE	0.0002***	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Dieldrin	NE	0.0000015***	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Endosulfan I	NE	0.078***	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Endosulfan II	NE	0.078***	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Endosulfan Sulfate	NE	0.078***	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Endrin	NE	0.002**	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Endrin aldehyde	NE	0.002**	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Endrin keytone	NE	0.002**	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Heptachlor	NE	0.0004**	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Heptachlor epoxide	NE	0.0002**	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Hexachlorobenzene	NE	0.001**	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Methoxychlor	NE	0.04**	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Toxaphene	NE	0.003**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Herbicides	Industrial Soil Action Levels	Residential Soil Action Levels								
2,4-D	NE	0.07**	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Dalapon	NE	0.2**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2,4-DB	NE	0.091***	0.014	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Dicamba	NE	0.44***	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Dichloroprop	NE	NE	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Dinoseb	NE	0.007**	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MCPA	NE	0.0057***	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
MCPP	NE	0.012***	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2,4,5-T	NE	0.12***	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
2,4,5-TP (silvex)	NE	0.05**	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

NOTE: \*Initial Screening Levels as established by TDEC-DUST

\*\*Regional Screening Levels as established by EPA and published April 2012

\*\*\*EPA - Regional Screening Levels -Tap Water Standard-as established by EPA and published April 2012

NA - Not Analyzed

## **APPENDIX F**

Soil and Groundwater Laboratory Analytical Results



YOUR LAB OF CHOICE

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
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1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

## Report Summary

Wednesday August 22, 2012

Report Number: L589405

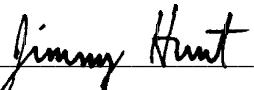
Samples Received: 08/10/12

Client Project: E2107081

Description: Hamm Road

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

  
\_\_\_\_\_  
Jimmy Hunt, ESC Representative

### Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,  
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,  
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,  
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,  
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,  
TX - T104704245-11-3, OK - 9915, PA - 68-02979

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-1 10-12 T  
Collected By : Paul Davis  
Collection Date : 08/08/12 14:05

ESC Sample # : L589405-01

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	0.087	0.020	mg/kg	7471	08/11/12	1
Arsenic	11.	1.0	mg/kg	6010B	08/12/12	1
Barium	63.	0.25	mg/kg	6010B	08/14/12	1
Cadmium	0.29	0.25	mg/kg	6010B	08/12/12	1
Chromium	6.4	0.50	mg/kg	6010B	08/12/12	1
Lead	14.	0.25	mg/kg	6010B	08/12/12	1
Selenium	BDL	1.0	mg/kg	6010B	08/12/12	1
Silver	BDL	0.50	mg/kg	6010B	08/12/12	1
TPH (GC/FID) Low Fraction GRO (C6-C10)	73.	5.0	mg/kg	TNGRO	08/14/12	50
Surrogate Recovery - % a,a,a-Trifluorotoluene(FID)	64.		% Rec.	TNGRO	08/14/12	50
Volatile Organics						
Acetone	BDL	25.	mg/kg	8260B	08/12/12	500
Acrylonitrile	BDL	5.0	mg/kg	8260B	08/12/12	500
Benzene	BDL	0.50	mg/kg	8260B	08/12/12	500
Bromobenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
Bromodichloromethane	BDL	0.50	mg/kg	8260B	08/12/12	500
Bromoform	BDL	0.50	mg/kg	8260B	08/12/12	500
Bromomethane	BDL	2.5	mg/kg	8260B	08/12/12	500
n-Butylbenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
sec-Butylbenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
tert-Butylbenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
Carbon tetrachloride	BDL	0.50	mg/kg	8260B	08/12/12	500
Chlorobenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
Chlorodibromomethane	BDL	0.50	mg/kg	8260B	08/12/12	500
Chloroethane	BDL	2.5	mg/kg	8260B	08/12/12	500
2-Chloroethyl vinyl ether	BDL	25.	mg/kg	8260B	08/12/12	500
Chloroform	BDL	2.5	mg/kg	8260B	08/12/12	500
Chloromethane	BDL	1.2	mg/kg	8260B	08/12/12	500
2-Chlorotoluene	BDL	0.50	mg/kg	8260B	08/12/12	500
4-Chlorotoluene	BDL	0.50	mg/kg	8260B	08/12/12	500
1,2-Dibromo-3-Chloropropane	BDL	2.5	mg/kg	8260B	08/12/12	500
1,2-Dibromoethane	BDL	0.50	mg/kg	8260B	08/12/12	500
Dibromomethane	BDL	0.50	mg/kg	8260B	08/12/12	500
1,2-Dichlorobenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
1,3-Dichlorobenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
1,4-Dichlorobenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
Dichlorodifluoromethane	BDL	2.5	mg/kg	8260B	08/12/12	500
1,1-Dichloroethane	BDL	0.50	mg/kg	8260B	08/12/12	500
1,2-Dichloroethane	BDL	0.50	mg/kg	8260B	08/12/12	500

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

August 22, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-1 10-12 T  
Collected By : Paul Davis  
Collection Date : 08/08/12 14:05

ESC Sample # : L589405-01

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethene	BDL	0.50	mg/kg	8260B	08/12/12	500
cis-1,2-Dichloroethene	BDL	0.50	mg/kg	8260B	08/12/12	500
trans-1,2-Dichloroethene	BDL	0.50	mg/kg	8260B	08/12/12	500
1,2-Dichloropropane	BDL	0.50	mg/kg	8260B	08/12/12	500
1,1-Dichloropropene	BDL	0.50	mg/kg	8260B	08/12/12	500
1,3-Dichloropropene	BDL	0.50	mg/kg	8260B	08/12/12	500
cis-1,3-Dichloropropene	BDL	0.50	mg/kg	8260B	08/12/12	500
trans-1,3-Dichloropropene	BDL	0.50	mg/kg	8260B	08/12/12	500
2,2-Dichloropropane	BDL	0.50	mg/kg	8260B	08/12/12	500
Di-isopropyl ether	BDL	0.50	mg/kg	8260B	08/12/12	500
Ethylbenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
Hexachloro-1,3-butadiene	BDL	0.50	mg/kg	8260B	08/12/12	500
Isopropylbenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
p-Isopropyltoluene	BDL	0.50	mg/kg	8260B	08/12/12	500
2-Butanone (MEK)	BDL	5.0	mg/kg	8260B	08/12/12	500
Methylene Chloride	BDL	2.5	mg/kg	8260B	08/12/12	500
4-Methyl-2-pentanone (MIBK)	BDL	5.0	mg/kg	8260B	08/12/12	500
Methyl tert-butyl ether	BDL	0.50	mg/kg	8260B	08/12/12	500
Naphthalene	510	25.	mg/kg	8260B	08/13/12	5000
n-Propylbenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
Styrene	BDL	0.50	mg/kg	8260B	08/12/12	500
1,1,1,2-Tetrachloroethane	BDL	0.50	mg/kg	8260B	08/12/12	500
1,1,2,2-Tetrachloroethane	BDL	0.50	mg/kg	8260B	08/12/12	500
1,1,2-Trichlorotrifluoroethane	BDL	0.50	mg/kg	8260B	08/12/12	500
Tetrachloroethene	BDL	0.50	mg/kg	8260B	08/12/12	500
Toluene	BDL	2.5	mg/kg	8260B	08/12/12	500
1,2,3-Trichlorobenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
1,2,4-Trichlorobenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
1,1,1-Trichloroethane	BDL	0.50	mg/kg	8260B	08/12/12	500
1,1,2-Trichloroethane	BDL	0.50	mg/kg	8260B	08/12/12	500
Trichloroethene	BDL	0.50	mg/kg	8260B	08/12/12	500
Trichlorofluoromethane	BDL	2.5	mg/kg	8260B	08/12/12	500
1,2,3-Trichloropropane	BDL	1.2	mg/kg	8260B	08/12/12	500
1,2,4-Trimethylbenzene	1.3	0.50	mg/kg	8260B	08/12/12	500
1,2,3-Trimethylbenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
1,3,5-Trimethylbenzene	0.65	0.50	mg/kg	8260B	08/12/12	500
Vinyl chloride	BDL	0.50	mg/kg	8260B	08/12/12	500
Xylenes, Total	1.9	1.5	mg/kg	8260B	08/12/12	500
Surrogate Recovery						
Toluene-d8	104.		% Rec.	8260B	08/12/12	500
Dibromofluoromethane	91.1		% Rec.	8260B	08/12/12	500
4-Bromofluorobenzene	110.		% Rec.	8260B	08/12/12	500
Extractable Petroleum Hydrocarb	1800	80.	mg/kg	EPH	08/14/12	20

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Description : Hamm Road  
Sample ID : HR-1 10-12 T  
Collected By : Paul Davis  
Collection Date : 08/08/12 14:05

ESC Sample # : L589405-01  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Surrogate Recovery o-Terphenyl	128.		% Rec.	EPH	08/14/12	20
Pesticide/PCBs						
Aldrin	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Alpha BHC	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Beta BHC	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Delta BHC	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Gamma BHC	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Chlordane	BDL	0.20	mg/kg	8081/8082	08/13/12	1
4,4-DDD	BDL	0.020	mg/kg	8081/8082	08/13/12	1
4,4-DDE	BDL	0.020	mg/kg	8081/8082	08/13/12	1
4,4-DDT	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Dieldrin	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Endosulfan I	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Endosulfan II	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Endosulfan sulfate	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Endrin	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Endrin aldehyde	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Endrin ketone	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Heptachlor	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Heptachlor epoxide	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Hexachlorobenzene	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Methoxychlor	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Toxaphene	BDL	0.40	mg/kg	8081/8082	08/13/12	1
PCB 1016	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1221	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1232	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1242	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1248	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1254	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1260	BDL	0.017	mg/kg	8081/8082	08/13/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	45.5		% Rec.	8081/8082	08/13/12	1
Tetrachloro-m-xylene	12.6		% Rec.	8081/8082	08/13/12	1
Herbicides						
2,4-D	BDL	0.070	mg/kg	8151	08/20/12	1
Dalapon	BDL	0.80	mg/kg	8151	08/20/12	1
2,4-DB	BDL	0.070	mg/kg	8151	08/20/12	1
Dicamba	BDL	0.070	mg/kg	8151	08/20/12	1
Dichloroprop	BDL	0.070	mg/kg	8151	08/20/12	1
Dinoseb	BDL	0.070	mg/kg	8151	08/20/12	1
MCPA	BDL	6.5	mg/kg	8151	08/20/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-1 10-12 T  
Collected By : Paul Davis  
Collection Date : 08/08/12 14:05

ESC Sample # : L589405-01  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPP	BDL	6.5	mg/kg	8151	08/20/12	1
2,4,5-T	BDL	0.070	mg/kg	8151	08/20/12	1
2,4,5-TP (Silvex)	BDL	0.070	mg/kg	8151	08/20/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	68.2		% Rec.	8151	08/20/12	1
Base/Neutral Extractables						
Acenaphthene	38.	16.	mg/kg	8270C	08/13/12	500
Acenaphthylene	8.0	0.66	mg/kg	8270C	08/12/12	20
Anthracene	63.	16.	mg/kg	8270C	08/13/12	500
Benzidine	BDL	170	mg/kg	8270C	08/13/12	500
Benzo(a)anthracene	85.	16.	mg/kg	8270C	08/13/12	500
Benzo(b)fluoranthene	93.	16.	mg/kg	8270C	08/13/12	500
Benzo(k)fluoranthene	28.	16.	mg/kg	8270C	08/13/12	500
Benzo(g,h,i)perylene	19.	16.	mg/kg	8270C	08/13/12	500
Benzo(a)pyrene	63.	16.	mg/kg	8270C	08/13/12	500
Bis(2-chlorethoxy)methane	BDL	6.7	mg/kg	8270C	08/12/12	20
Bis(2-chloroethyl)ether	BDL	6.7	mg/kg	8270C	08/12/12	20
Bis(2-chloroisopropyl)ether	BDL	6.7	mg/kg	8270C	08/12/12	20
4-Bromophenyl-phenylether	BDL	6.7	mg/kg	8270C	08/12/12	20
2-Chloronaphthalene	BDL	0.66	mg/kg	8270C	08/12/12	20
4-Chlorophenyl-phenylether	BDL	6.7	mg/kg	8270C	08/12/12	20
Chrysene	91.	16.	mg/kg	8270C	08/13/12	500
Dibenz(a,h)anthracene	BDL	16.	mg/kg	8270C	08/13/12	500
3,3-Dichlorobenzidine	BDL	170	mg/kg	8270C	08/13/12	500
2,4-Dinitrotoluene	BDL	6.7	mg/kg	8270C	08/12/12	20
2,6-Dinitrotoluene	BDL	6.7	mg/kg	8270C	08/12/12	20
Fluoranthene	210	16.	mg/kg	8270C	08/13/12	500
Fluorene	64.	16.	mg/kg	8270C	08/13/12	500
Hexachlorobenzene	BDL	6.7	mg/kg	8270C	08/12/12	20
Hexachloro-1,3-butadiene	BDL	6.7	mg/kg	8270C	08/12/12	20
Hexachlorocyclopentadiene	BDL	6.7	mg/kg	8270C	08/12/12	20
Hexachloroethane	BDL	6.7	mg/kg	8270C	08/12/12	20
Indeno(1,2,3-cd)pyrene	20.	16.	mg/kg	8270C	08/13/12	500
Isophorone	BDL	6.7	mg/kg	8270C	08/12/12	20
Naphthalene	150	16.	mg/kg	8270C	08/13/12	500
Nitrobenzene	BDL	6.7	mg/kg	8270C	08/12/12	20
n-Nitrosodimethylamine	BDL	6.7	mg/kg	8270C	08/12/12	20
n-Nitrosodiphenylamine	BDL	6.7	mg/kg	8270C	08/12/12	20
n-Nitrosodi-n-propylamine	BDL	6.7	mg/kg	8270C	08/12/12	20
Phenanthrene	240	16.	mg/kg	8270C	08/13/12	500
Benzylbutyl phthalate	BDL	170	mg/kg	8270C	08/13/12	500
Bis(2-ethylhexyl)phthalate	BDL	170	mg/kg	8270C	08/13/12	500
Di-n-butyl phthalate	BDL	170	mg/kg	8270C	08/13/12	500

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

August 22, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-1 10-12 T  
Collected By : Paul Davis  
Collection Date : 08/08/12 14:05

ESC Sample # : L589405-01

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Diethyl phthalate	BDL	6.7	mg/kg	8270C	08/12/12	20
Dimethyl phthalate	BDL	6.7	mg/kg	8270C	08/12/12	20
Di-n-octyl phthalate	BDL	170	mg/kg	8270C	08/13/12	500
Pyrene	130	16.	mg/kg	8270C	08/13/12	500
1,2,4-Trichlorobenzene	BDL	6.7	mg/kg	8270C	08/12/12	20
Acid Extractables						
4-Chloro-3-methylphenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2-Chlorophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2,4-Dichlorophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2,4-Dimethylphenol	BDL	6.7	mg/kg	8270C	08/12/12	20
4,6-Dinitro-2-methylphenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2,4-Dinitrophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2-Nitrophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
4-Nitrophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
Pentachlorophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
Phenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2,4,6-Trichlorophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
Surrogate Recovery						
2-Fluorophenol	38.7		% Rec.	8270C	08/12/12	20
Phenol-d5	37.9		% Rec.	8270C	08/12/12	20
Nitrobenzene-d5	43.5		% Rec.	8270C	08/12/12	20
2-Fluorobiphenyl	50.6		% Rec.	8270C	08/12/12	20
2,4,6-Tribromophenol	44.5		% Rec.	8270C	08/12/12	20
p-Terphenyl-d14	56.5		% Rec.	8270C	08/12/12	20

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/22/12 08:57 Revised: 08/22/12 13:13



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-1 12-14 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 14:07

ESC Sample # : L589405-02

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	0.093	0.020	mg/kg	7471	08/11/12	1
Arsenic	11.	1.0	mg/kg	6010B	08/12/12	1
Barium	73.	0.25	mg/kg	6010B	08/14/12	1
Cadmium	0.28	0.25	mg/kg	6010B	08/12/12	1
Chromium	8.4	0.50	mg/kg	6010B	08/12/12	1
Lead	14.	0.25	mg/kg	6010B	08/12/12	1
Selenium	BDL	1.0	mg/kg	6010B	08/12/12	1
Silver	BDL	1.0	mg/kg	6010B	08/13/12	2
TPH (GC/FID) Low Fraction GRO (C6-C10)	43.	5.0	mg/kg	TNGRO	08/14/12	50
Surrogate Recovery - % a,a,a-Trifluorotoluene(FID)	63.65		% Rec.	TNGRO	08/14/12	50
Volatile Organics						
Acetone	BDL	25.	mg/kg	8260B	08/12/12	500
Acrylonitrile	BDL	5.0	mg/kg	8260B	08/12/12	500
Benzene	BDL	0.50	mg/kg	8260B	08/12/12	500
Bromobenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
Bromodichloromethane	BDL	0.50	mg/kg	8260B	08/12/12	500
Bromoform	BDL	0.50	mg/kg	8260B	08/12/12	500
Bromomethane	BDL	2.5	mg/kg	8260B	08/12/12	500
n-Butylbenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
sec-Butylbenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
tert-Butylbenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
Carbon tetrachloride	BDL	0.50	mg/kg	8260B	08/12/12	500
Chlorobenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
Chlorodibromomethane	BDL	0.50	mg/kg	8260B	08/12/12	500
Chloroethane	BDL	2.5	mg/kg	8260B	08/12/12	500
2-Chloroethyl vinyl ether	BDL	25.	mg/kg	8260B	08/12/12	500
Chloroform	BDL	2.5	mg/kg	8260B	08/12/12	500
Chloromethane	BDL	1.2	mg/kg	8260B	08/12/12	500
2-Chlorotoluene	BDL	0.50	mg/kg	8260B	08/12/12	500
4-Chlorotoluene	BDL	0.50	mg/kg	8260B	08/12/12	500
1,2-Dibromo-3-Chloropropane	BDL	2.5	mg/kg	8260B	08/12/12	500
1,2-Dibromoethane	BDL	0.50	mg/kg	8260B	08/12/12	500
Dibromomethane	BDL	0.50	mg/kg	8260B	08/12/12	500
1,2-Dichlorobenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
1,3-Dichlorobenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
1,4-Dichlorobenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
Dichlorodifluoromethane	BDL	2.5	mg/kg	8260B	08/12/12	500
1,1-Dichloroethane	BDL	0.50	mg/kg	8260B	08/12/12	500
1,2-Dichloroethane	BDL	0.50	mg/kg	8260B	08/12/12	500

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

August 22, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-1 12-14 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 14:07

ESC Sample # : L589405-02  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethene	BDL	0.50	mg/kg	8260B	08/12/12	500
cis-1,2-Dichloroethene	BDL	0.50	mg/kg	8260B	08/12/12	500
trans-1,2-Dichloroethene	BDL	0.50	mg/kg	8260B	08/12/12	500
1,2-Dichloropropane	BDL	0.50	mg/kg	8260B	08/12/12	500
1,1-Dichloropropene	BDL	0.50	mg/kg	8260B	08/12/12	500
1,3-Dichloropropene	BDL	0.50	mg/kg	8260B	08/12/12	500
cis-1,3-Dichloropropene	BDL	0.50	mg/kg	8260B	08/12/12	500
trans-1,3-Dichloropropene	BDL	0.50	mg/kg	8260B	08/12/12	500
2,2-Dichloropropane	BDL	0.50	mg/kg	8260B	08/12/12	500
Di-isopropyl ether	BDL	0.50	mg/kg	8260B	08/12/12	500
Ethylbenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
Hexachloro-1,3-butadiene	BDL	0.50	mg/kg	8260B	08/12/12	500
Isopropylbenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
p-Isopropyltoluene	BDL	0.50	mg/kg	8260B	08/12/12	500
2-Butanone (MEK)	BDL	5.0	mg/kg	8260B	08/12/12	500
Methylene Chloride	BDL	2.5	mg/kg	8260B	08/12/12	500
4-Methyl-2-pentanone (MIBK)	BDL	5.0	mg/kg	8260B	08/12/12	500
Methyl tert-butyl ether	BDL	0.50	mg/kg	8260B	08/12/12	500
Naphthalene	400	25.	mg/kg	8260B	08/13/12	5000
n-Propylbenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
Styrene	BDL	0.50	mg/kg	8260B	08/12/12	500
1,1,1,2-Tetrachloroethane	BDL	0.50	mg/kg	8260B	08/12/12	500
1,1,2,2-Tetrachloroethane	BDL	0.50	mg/kg	8260B	08/12/12	500
1,1,2-Trichlorotrifluoroethane	BDL	0.50	mg/kg	8260B	08/12/12	500
Tetrachloroethene	BDL	0.50	mg/kg	8260B	08/12/12	500
Toluene	BDL	2.5	mg/kg	8260B	08/12/12	500
1,2,3-Trichlorobenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
1,2,4-Trichlorobenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
1,1,1-Trichloroethane	BDL	0.50	mg/kg	8260B	08/12/12	500
1,1,2-Trichloroethane	BDL	0.50	mg/kg	8260B	08/12/12	500
Trichloroethene	BDL	0.50	mg/kg	8260B	08/12/12	500
Trichlorofluoromethane	BDL	2.5	mg/kg	8260B	08/12/12	500
1,2,3-Trichloropropane	BDL	1.2	mg/kg	8260B	08/12/12	500
1,2,4-Trimethylbenzene	0.54	0.50	mg/kg	8260B	08/12/12	500
1,2,3-Trimethylbenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
1,3,5-Trimethylbenzene	BDL	0.50	mg/kg	8260B	08/12/12	500
Vinyl chloride	BDL	0.50	mg/kg	8260B	08/12/12	500
Xylenes, Total	BDL	1.5	mg/kg	8260B	08/12/12	500
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	08/12/12	500
Dibromofluoromethane	93.4		% Rec.	8260B	08/12/12	500
4-Bromofluorobenzene	107.		% Rec.	8260B	08/12/12	500
Extractable Petroleum Hydrocarb	6400	80.	mg/kg	EPH	08/14/12	20

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-1 12-14 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 14:07

ESC Sample # : L589405-02

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Surrogate Recovery o-Terphenyl	0.00		% Rec.	EPH	08/14/12	20
Pesticide/PCBs						
Aldrin	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Alpha BHC	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Beta BHC	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Delta BHC	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Gamma BHC	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Chlordane	BDL	0.20	mg/kg	8081/8082	08/16/12	1
4,4-DDD	BDL	0.020	mg/kg	8081/8082	08/16/12	1
4,4-DDE	BDL	0.020	mg/kg	8081/8082	08/16/12	1
4,4-DDT	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Dieldrin	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endosulfan I	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endosulfan II	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endosulfan sulfate	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endrin	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endrin aldehyde	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endrin ketone	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Heptachlor	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Heptachlor epoxide	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Hexachlorobenzene	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Methoxychlor	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Toxaphene	BDL	0.40	mg/kg	8081/8082	08/16/12	1
PCB 1016	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1221	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1232	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1242	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1248	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1254	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1260	BDL	0.017	mg/kg	8081/8082	08/16/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	29.6		% Rec.	8081/8082	08/16/12	1
Tetrachloro-m-xylene	62.3		% Rec.	8081/8082	08/16/12	1
Herbicides						
2,4-D	BDL	0.070	mg/kg	8151	08/20/12	1
Dalapon	BDL	0.80	mg/kg	8151	08/20/12	1
2,4-DB	BDL	0.070	mg/kg	8151	08/20/12	1
Dicamba	BDL	0.070	mg/kg	8151	08/20/12	1
Dichloroprop	BDL	0.070	mg/kg	8151	08/20/12	1
Dinoseb	BDL	0.070	mg/kg	8151	08/20/12	1
MCPA	BDL	6.5	mg/kg	8151	08/20/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
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Est. 1970

## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-1 12-14 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 14:07

ESC Sample # : L589405-02  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPP	BDL	6.5	mg/kg	8151	08/20/12	1
2,4,5-T	BDL	0.070	mg/kg	8151	08/20/12	1
2,4,5-TP (Silvex)	BDL	0.070	mg/kg	8151	08/20/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	66.2		% Rec.	8151	08/20/12	1
Base/Neutral Extractables						
Acenaphthene	41.	16.	mg/kg	8270C	08/13/12	500
Acenaphthylene	9.1	0.66	mg/kg	8270C	08/12/12	20
Anthracene	78.	16.	mg/kg	8270C	08/13/12	500
Benzidine	BDL	170	mg/kg	8270C	08/13/12	500
Benzo(a)anthracene	110	16.	mg/kg	8270C	08/13/12	500
Benzo(b)fluoranthene	110	16.	mg/kg	8270C	08/13/12	500
Benzo(k)fluoranthene	37.	16.	mg/kg	8270C	08/13/12	500
Benzo(g,h,i)perylene	25.	16.	mg/kg	8270C	08/13/12	500
Benzo(a)pyrene	80.	16.	mg/kg	8270C	08/13/12	500
Bis(2-chlorethoxy)methane	BDL	6.7	mg/kg	8270C	08/12/12	20
Bis(2-chloroethyl)ether	BDL	6.7	mg/kg	8270C	08/12/12	20
Bis(2-chloroisopropyl)ether	BDL	6.7	mg/kg	8270C	08/12/12	20
4-Bromophenyl-phenylether	BDL	6.7	mg/kg	8270C	08/12/12	20
2-Chloronaphthalene	BDL	0.66	mg/kg	8270C	08/12/12	20
4-Chlorophenyl-phenylether	BDL	6.7	mg/kg	8270C	08/12/12	20
Chrysene	110	16.	mg/kg	8270C	08/13/12	500
Dibenz(a,h)anthracene	BDL	16.	mg/kg	8270C	08/13/12	500
3,3-Dichlorobenzidine	BDL	170	mg/kg	8270C	08/13/12	500
2,4-Dinitrotoluene	BDL	6.7	mg/kg	8270C	08/12/12	20
2,6-Dinitrotoluene	BDL	6.7	mg/kg	8270C	08/12/12	20
Fluoranthene	260	16.	mg/kg	8270C	08/13/12	500
Fluorene	88.	16.	mg/kg	8270C	08/13/12	500
Hexachlorobenzene	BDL	6.7	mg/kg	8270C	08/12/12	20
Hexachloro-1,3-butadiene	BDL	6.7	mg/kg	8270C	08/12/12	20
Hexachlorocyclopentadiene	BDL	6.7	mg/kg	8270C	08/12/12	20
Hexachloroethane	BDL	6.7	mg/kg	8270C	08/12/12	20
Indeno(1,2,3-cd)pyrene	25.	16.	mg/kg	8270C	08/13/12	500
Isophorone	BDL	6.7	mg/kg	8270C	08/12/12	20
Naphthalene	180	16.	mg/kg	8270C	08/13/12	500
Nitrobenzene	BDL	6.7	mg/kg	8270C	08/12/12	20
n-Nitrosodimethylamine	BDL	6.7	mg/kg	8270C	08/12/12	20
n-Nitrosodiphenylamine	BDL	6.7	mg/kg	8270C	08/12/12	20
n-Nitrosodi-n-propylamine	BDL	6.7	mg/kg	8270C	08/12/12	20
Phenanthrene	290	16.	mg/kg	8270C	08/13/12	500
Benzylbutyl phthalate	BDL	170	mg/kg	8270C	08/13/12	500
Bis(2-ethylhexyl)phthalate	BDL	170	mg/kg	8270C	08/13/12	500
Di-n-butyl phthalate	BDL	170	mg/kg	8270C	08/13/12	500

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

August 22, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-1 12-14 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 14:07

ESC Sample # : L589405-02

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Diethyl phthalate	BDL	6.7	mg/kg	8270C	08/12/12	20
Dimethyl phthalate	BDL	6.7	mg/kg	8270C	08/12/12	20
Di-n-octyl phthalate	BDL	170	mg/kg	8270C	08/13/12	500
Pyrene	170	16.	mg/kg	8270C	08/13/12	500
1,2,4-Trichlorobenzene	BDL	6.7	mg/kg	8270C	08/12/12	20
Acid Extractables						
4-Chloro-3-methylphenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2-Chlorophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2,4-Dichlorophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2,4-Dimethylphenol	BDL	6.7	mg/kg	8270C	08/12/12	20
4,6-Dinitro-2-methylphenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2,4-Dinitrophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2-Nitrophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
4-Nitrophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
Pentachlorophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
Phenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2,4,6-Trichlorophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
Surrogate Recovery						
2-Fluorophenol	31.8		% Rec.	8270C	08/12/12	20
Phenol-d5	33.0		% Rec.	8270C	08/12/12	20
Nitrobenzene-d5	35.7		% Rec.	8270C	08/12/12	20
2-Fluorobiphenyl	42.4		% Rec.	8270C	08/12/12	20
2,4,6-Tribromophenol	39.2		% Rec.	8270C	08/12/12	20
p-Terphenyl-d14	75.6		% Rec.	8270C	08/12/12	20

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/22/12 08:57 Revised: 08/22/12 13:13



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-2 4-6 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 11:25

ESC Sample # : L589405-03  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	0.021	0.020	mg/kg	7471	08/11/12	1
Arsenic	2.3	1.0	mg/kg	6010B	08/12/12	1
Barium	24.	0.25	mg/kg	6010B	08/15/12	1
Cadmium	BDL	0.25	mg/kg	6010B	08/12/12	1
Chromium	11.	0.50	mg/kg	6010B	08/12/12	1
Lead	8.6	0.25	mg/kg	6010B	08/12/12	1
Selenium	BDL	1.0	mg/kg	6010B	08/12/12	1
Silver	BDL	0.50	mg/kg	6010B	08/12/12	1
TPH (GC/FID) Low Fraction GRO (C6-C10)	BDL	0.50	mg/kg	TNGRO	08/13/12	5
Surrogate Recovery - % a,a,a-Trifluorotoluene(FID)	70.67		% Rec.	TNGRO	08/13/12	5
Volatile Organics						
Acetone	BDL	0.25	mg/kg	8260B	08/12/12	5
Acrylonitrile	BDL	0.050	mg/kg	8260B	08/12/12	5
Benzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromodichloromethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromoform	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromomethane	BDL	0.025	mg/kg	8260B	08/12/12	5
n-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
sec-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
tert-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Carbon tetrachloride	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chlorodibromomethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chloroethane	BDL	0.025	mg/kg	8260B	08/12/12	5
2-Chloroethyl vinyl ether	BDL	0.25	mg/kg	8260B	08/12/12	5
Chloroform	BDL	0.025	mg/kg	8260B	08/12/12	5
Chloromethane	BDL	0.012	mg/kg	8260B	08/12/12	5
2-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
4-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dibromo-3-Chloropropane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2-Dibromoethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Dibromomethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,4-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Dichlorodifluoromethane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,1-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-2 4-6 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 11:25

ESC Sample # : L589405-03  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
cis-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
trans-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
cis-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
trans-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
2,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Di-isopropyl ether	BDL	0.0050	mg/kg	8260B	08/12/12	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Hexachloro-1,3-butadiene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Isopropylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
p-Isopropyltoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
2-Butanone (MEK)	BDL	0.050	mg/kg	8260B	08/12/12	5
Methylene Chloride	BDL	0.025	mg/kg	8260B	08/12/12	5
4-Methyl-2-pentanone (MIBK)	BDL	0.050	mg/kg	8260B	08/12/12	5
Methyl tert-butyl ether	BDL	0.0050	mg/kg	8260B	08/12/12	5
Naphthalene	BDL	0.025	mg/kg	8260B	08/12/12	5
n-Propylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Styrene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,1,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2-Trichlorotrifluoroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Tetrachloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Toluene	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2,3-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2,4-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,1-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Trichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Trichlorofluoromethane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2,3-Trichloropropane	BDL	0.012	mg/kg	8260B	08/12/12	5
1,2,4-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2,3-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3,5-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Vinyl chloride	BDL	0.0050	mg/kg	8260B	08/12/12	5
Xylenes, Total	BDL	0.015	mg/kg	8260B	08/12/12	5
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	08/12/12	5
Dibromofluoromethane	101.		% Rec.	8260B	08/12/12	5
4-Bromofluorobenzene	101.		% Rec.	8260B	08/12/12	5
Extractable Petroleum Hydrocarb	BDL	4.0	mg/kg	EPH	08/14/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-2 4-6 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 11:25

ESC Sample # : L589405-03

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Surrogate Recovery						
o-Terphenyl	63.0		% Rec.	EPH	08/14/12	1
Pesticide/PCBs						
Aldrin	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Alpha BHC	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Beta BHC	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Delta BHC	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Gamma BHC	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Chlordane	BDL	0.20	mg/kg	8081/8082	08/13/12	1
4,4-DDD	BDL	0.020	mg/kg	8081/8082	08/13/12	1
4,4-DDE	BDL	0.020	mg/kg	8081/8082	08/13/12	1
4,4-DDT	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Dieldrin	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Endosulfan I	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Endosulfan II	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Endosulfan sulfate	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Endrin	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Endrin aldehyde	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Endrin ketone	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Heptachlor	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Heptachlor epoxide	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Hexachlorobenzene	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Methoxychlor	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Toxaphene	BDL	0.40	mg/kg	8081/8082	08/13/12	1
PCB 1016	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1221	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1232	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1242	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1248	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1254	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1260	BDL	0.017	mg/kg	8081/8082	08/13/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	44.1		% Rec.	8081/8082	08/13/12	1
Tetrachloro-m-xylene	43.5		% Rec.	8081/8082	08/13/12	1
Herbicides						
2,4-D	BDL	0.070	mg/kg	8151	08/20/12	1
Dalapon	BDL	0.80	mg/kg	8151	08/20/12	1
2,4-DB	BDL	0.070	mg/kg	8151	08/20/12	1
Dicamba	BDL	0.070	mg/kg	8151	08/20/12	1
Dichloroprop	BDL	0.070	mg/kg	8151	08/20/12	1
Dinoseb	BDL	0.070	mg/kg	8151	08/20/12	1
MCPA	BDL	6.5	mg/kg	8151	08/20/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-2 4-6 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 11:25

ESC Sample # : L589405-03  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPP	BDL	6.5	mg/kg	8151	08/20/12	1
2,4,5-T	BDL	0.070	mg/kg	8151	08/20/12	1
2,4,5-TP (Silvex)	BDL	0.070	mg/kg	8151	08/20/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	63.5		% Rec.	8151	08/20/12	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.033	mg/kg	8270C	08/12/12	1
Acenaphthylene	BDL	0.033	mg/kg	8270C	08/12/12	1
Anthracene	BDL	0.033	mg/kg	8270C	08/12/12	1
Benzidine	BDL	0.33	mg/kg	8270C	08/12/12	1
Benzo(a)anthracene	0.065	0.033	mg/kg	8270C	08/12/12	1
Benzo(b)fluoranthene	0.11	0.033	mg/kg	8270C	08/12/12	1
Benzo(k)fluoranthene	0.040	0.033	mg/kg	8270C	08/12/12	1
Benzo(g,h,i)perylene	0.077	0.033	mg/kg	8270C	08/12/12	1
Benzo(a)pyrene	0.080	0.033	mg/kg	8270C	08/12/12	1
Bis(2-chlorethoxy)methane	BDL	0.33	mg/kg	8270C	08/12/12	1
Bis(2-chloroethyl)ether	BDL	0.33	mg/kg	8270C	08/12/12	1
Bis(2-chloroisopropyl)ether	BDL	0.33	mg/kg	8270C	08/12/12	1
4-Bromophenyl-phenylether	BDL	0.33	mg/kg	8270C	08/12/12	1
2-Chloronaphthalene	BDL	0.033	mg/kg	8270C	08/12/12	1
4-Chlorophenyl-phenylether	BDL	0.33	mg/kg	8270C	08/12/12	1
Chrysene	0.074	0.033	mg/kg	8270C	08/12/12	1
Dibenz(a,h)anthracene	BDL	0.033	mg/kg	8270C	08/12/12	1
3,3-Dichlorobenzidine	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dinitrotoluene	BDL	0.33	mg/kg	8270C	08/12/12	1
2,6-Dinitrotoluene	BDL	0.33	mg/kg	8270C	08/12/12	1
Fluoranthene	0.095	0.033	mg/kg	8270C	08/12/12	1
Fluorene	BDL	0.033	mg/kg	8270C	08/12/12	1
Hexachlorobenzene	BDL	0.33	mg/kg	8270C	08/12/12	1
Hexachloro-1,3-butadiene	BDL	0.33	mg/kg	8270C	08/12/12	1
Hexachlorocyclopentadiene	BDL	0.33	mg/kg	8270C	08/12/12	1
Hexachloroethane	BDL	0.33	mg/kg	8270C	08/12/12	1
Indeno(1,2,3-cd)pyrene	0.063	0.033	mg/kg	8270C	08/12/12	1
Isophorone	BDL	0.33	mg/kg	8270C	08/12/12	1
Naphthalene	0.034	0.033	mg/kg	8270C	08/12/12	1
Nitrobenzene	BDL	0.33	mg/kg	8270C	08/12/12	1
n-Nitrosodimethylamine	BDL	0.33	mg/kg	8270C	08/12/12	1
n-Nitrosodiphenylamine	BDL	0.33	mg/kg	8270C	08/12/12	1
n-Nitrosodi-n-propylamine	BDL	0.33	mg/kg	8270C	08/12/12	1
Phenanthrene	0.062	0.033	mg/kg	8270C	08/12/12	1
Benzylbutyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Bis(2-ethylhexyl)phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Di-n-butyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

August 22, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-2 4-6 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 11:25

ESC Sample # : L589405-03

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Diethyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Dimethyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Di-n-octyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Pyrene	0.087	0.033	mg/kg	8270C	08/12/12	1
1,2,4-Trichlorobenzene	BDL	0.33	mg/kg	8270C	08/12/12	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2-Chlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dichlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dimethylphenol	BDL	0.33	mg/kg	8270C	08/12/12	1
4,6-Dinitro-2-methylphenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dinitrophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2-Nitrophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
4-Nitrophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
Pentachlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
Phenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4,6-Trichlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
Surrogate Recovery						
2-Fluorophenol	70.1	% Rec.	8270C	08/12/12	1	
Phenol-d5	69.8	% Rec.	8270C	08/12/12	1	
Nitrobenzene-d5	65.7	% Rec.	8270C	08/12/12	1	
2-Fluorobiphenyl	85.3	% Rec.	8270C	08/12/12	1	
2,4,6-Tribromophenol	74.4	% Rec.	8270C	08/12/12	1	
p-Terphenyl-d14	75.4	% Rec.	8270C	08/12/12	1	

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/22/12 08:57 Revised: 08/22/12 13:13



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-2 16-18 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 12:40

ESC Sample # : L589405-04  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	0.068	0.020	mg/kg	7471	08/11/12	1
Arsenic	7.4	1.0	mg/kg	6010B	08/12/12	1
Barium	64.	0.25	mg/kg	6010B	08/14/12	1
Cadmium	BDL	0.25	mg/kg	6010B	08/12/12	1
Chromium	14.	0.50	mg/kg	6010B	08/12/12	1
Lead	15.	0.25	mg/kg	6010B	08/12/12	1
Selenium	8.3	2.0	mg/kg	6010B	08/13/12	2
Silver	BDL	1.0	mg/kg	6010B	08/13/12	2
TPH (GC/FID) Low Fraction GRO (C6-C10)	BDL	0.50	mg/kg	TNGRO	08/13/12	5
Surrogate Recovery - % a,a,a-Trifluorotoluene(FID)	70.39		% Rec.	TNGRO	08/13/12	5
Volatile Organics						
Acetone	BDL	0.25	mg/kg	8260B	08/12/12	5
Acrylonitrile	BDL	0.050	mg/kg	8260B	08/12/12	5
Benzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromodichloromethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromoform	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromomethane	BDL	0.025	mg/kg	8260B	08/12/12	5
n-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
sec-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
tert-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Carbon tetrachloride	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chlorodibromomethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chloroethane	BDL	0.025	mg/kg	8260B	08/12/12	5
2-Chloroethyl vinyl ether	BDL	0.25	mg/kg	8260B	08/12/12	5
Chloroform	BDL	0.025	mg/kg	8260B	08/12/12	5
Chloromethane	BDL	0.012	mg/kg	8260B	08/12/12	5
2-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
4-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dibromo-3-Chloropropane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2-Dibromoethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Dibromomethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,4-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Dichlorodifluoromethane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,1-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-2 16-18 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 12:40

ESC Sample # : L589405-04  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
cis-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
trans-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
cis-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
trans-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
2,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Di-isopropyl ether	BDL	0.0050	mg/kg	8260B	08/12/12	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Hexachloro-1,3-butadiene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Isopropylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
p-Isopropyltoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
2-Butanone (MEK)	BDL	0.050	mg/kg	8260B	08/12/12	5
Methylene Chloride	BDL	0.025	mg/kg	8260B	08/12/12	5
4-Methyl-2-pentanone (MIBK)	BDL	0.050	mg/kg	8260B	08/12/12	5
Methyl tert-butyl ether	BDL	0.0050	mg/kg	8260B	08/12/12	5
Naphthalene	BDL	0.025	mg/kg	8260B	08/12/12	5
n-Propylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Styrene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,1,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2-Trichlorotrifluoroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Tetrachloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Toluene	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2,3-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2,4-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,1-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Trichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Trichlorofluoromethane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2,3-Trichloropropane	BDL	0.012	mg/kg	8260B	08/12/12	5
1,2,4-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2,3-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3,5-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Vinyl chloride	BDL	0.0050	mg/kg	8260B	08/12/12	5
Xylenes, Total	BDL	0.015	mg/kg	8260B	08/12/12	5
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	08/12/12	5
Dibromofluoromethane	118.		% Rec.	8260B	08/12/12	5
4-Bromofluorobenzene	101.		% Rec.	8260B	08/12/12	5
Extractable Petroleum Hydrocarb	4.0	4.0	mg/kg	EPH	08/14/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-2 16-18 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 12:40

ESC Sample # : L589405-04

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Surrogate Recovery o-Terphenyl	69.1		% Rec.	EPH	08/14/12	1
Pesticide/PCBs						
Aldrin	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Alpha BHC	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Beta BHC	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Delta BHC	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Gamma BHC	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Chlordane	BDL	0.20	mg/kg	8081/8082	08/13/12	1
4,4-DDD	BDL	0.020	mg/kg	8081/8082	08/13/12	1
4,4-DDE	BDL	0.020	mg/kg	8081/8082	08/13/12	1
4,4-DDT	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Dieldrin	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Endosulfan I	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Endosulfan II	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Endosulfan sulfate	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Endrin	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Endrin aldehyde	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Endrin ketone	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Heptachlor	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Heptachlor epoxide	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Hexachlorobenzene	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Methoxychlor	BDL	0.020	mg/kg	8081/8082	08/13/12	1
Toxaphene	BDL	0.40	mg/kg	8081/8082	08/13/12	1
PCB 1016	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1221	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1232	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1242	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1248	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1254	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1260	BDL	0.017	mg/kg	8081/8082	08/13/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	37.5		% Rec.	8081/8082	08/13/12	1
Tetrachloro-m-xylene	35.2		% Rec.	8081/8082	08/13/12	1
Herbicides						
2,4-D	BDL	0.070	mg/kg	8151	08/20/12	1
Dalapon	BDL	0.80	mg/kg	8151	08/20/12	1
2,4-DB	BDL	0.070	mg/kg	8151	08/20/12	1
Dicamba	BDL	0.070	mg/kg	8151	08/20/12	1
Dichloroprop	BDL	0.070	mg/kg	8151	08/20/12	1
Dinoseb	BDL	0.070	mg/kg	8151	08/20/12	1
MCPA	BDL	6.5	mg/kg	8151	08/20/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-2 16-18 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 12:40

ESC Sample # : L589405-04  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPP	BDL	6.5	mg/kg	8151	08/20/12	1
2,4,5-T	BDL	0.070	mg/kg	8151	08/20/12	1
2,4,5-TP (Silvex)	BDL	0.070	mg/kg	8151	08/20/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	67.8		% Rec.	8151	08/20/12	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.033	mg/kg	8270C	08/12/12	1
Acenaphthylene	BDL	0.033	mg/kg	8270C	08/12/12	1
Anthracene	0.040	0.033	mg/kg	8270C	08/12/12	1
Benzidine	BDL	0.33	mg/kg	8270C	08/12/12	1
Benzo(a)anthracene	0.062	0.033	mg/kg	8270C	08/12/12	1
Benzo(b)fluoranthene	0.067	0.033	mg/kg	8270C	08/12/12	1
Benzo(k)fluoranthene	BDL	0.033	mg/kg	8270C	08/12/12	1
Benzo(g,h,i)perylene	BDL	0.033	mg/kg	8270C	08/12/12	1
Benzo(a)pyrene	0.049	0.033	mg/kg	8270C	08/12/12	1
Bis(2-chlorethoxy)methane	BDL	0.33	mg/kg	8270C	08/12/12	1
Bis(2-chloroethyl)ether	BDL	0.33	mg/kg	8270C	08/12/12	1
Bis(2-chloroisopropyl)ether	BDL	0.33	mg/kg	8270C	08/12/12	1
4-Bromophenyl-phenylether	BDL	0.33	mg/kg	8270C	08/12/12	1
2-Chloronaphthalene	BDL	0.033	mg/kg	8270C	08/12/12	1
4-Chlorophenyl-phenylether	BDL	0.33	mg/kg	8270C	08/12/12	1
Chrysene	0.061	0.033	mg/kg	8270C	08/12/12	1
Dibenz(a,h)anthracene	BDL	0.033	mg/kg	8270C	08/12/12	1
3,3-Dichlorobenzidine	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dinitrotoluene	BDL	0.33	mg/kg	8270C	08/12/12	1
2,6-Dinitrotoluene	BDL	0.33	mg/kg	8270C	08/12/12	1
Fluoranthene	0.13	0.033	mg/kg	8270C	08/12/12	1
Fluorene	0.041	0.033	mg/kg	8270C	08/12/12	1
Hexachlorobenzene	BDL	0.33	mg/kg	8270C	08/12/12	1
Hexachloro-1,3-butadiene	BDL	0.33	mg/kg	8270C	08/12/12	1
Hexachlorocyclopentadiene	BDL	0.33	mg/kg	8270C	08/12/12	1
Hexachloroethane	BDL	0.33	mg/kg	8270C	08/12/12	1
Indeno(1,2,3-cd)pyrene	BDL	0.033	mg/kg	8270C	08/12/12	1
Isophorone	BDL	0.33	mg/kg	8270C	08/12/12	1
Naphthalene	0.036	0.033	mg/kg	8270C	08/12/12	1
Nitrobenzene	BDL	0.33	mg/kg	8270C	08/12/12	1
n-Nitrosodimethylamine	BDL	0.33	mg/kg	8270C	08/12/12	1
n-Nitrosodiphenylamine	BDL	0.33	mg/kg	8270C	08/12/12	1
n-Nitrosodi-n-propylamine	BDL	0.33	mg/kg	8270C	08/12/12	1
Phenanthrene	0.15	0.033	mg/kg	8270C	08/12/12	1
Benzylbutyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Bis(2-ethylhexyl)phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Di-n-butyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

August 22, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-2 16-18 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 12:40

ESC Sample # : L589405-04

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Diethyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Dimethyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Di-n-octyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Pyrene	0.10	0.033	mg/kg	8270C	08/12/12	1
1,2,4-Trichlorobenzene	BDL	0.33	mg/kg	8270C	08/12/12	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2-Chlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dichlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dimethylphenol	BDL	0.33	mg/kg	8270C	08/12/12	1
4,6-Dinitro-2-methylphenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dinitrophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2-Nitrophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
4-Nitrophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
Pentachlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
Phenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4,6-Trichlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
Surrogate Recovery						
2-Fluorophenol	70.6	% Rec.	8270C	08/12/12	1	
Phenol-d5	69.9	% Rec.	8270C	08/12/12	1	
Nitrobenzene-d5	66.1	% Rec.	8270C	08/12/12	1	
2-Fluorobiphenyl	87.4	% Rec.	8270C	08/12/12	1	
2,4,6-Tribromophenol	89.2	% Rec.	8270C	08/12/12	1	
p-Terphenyl-d14	91.3	% Rec.	8270C	08/12/12	1	

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 08/22/12 08:57 Revised: 08/22/12 13:13



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-3 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 10:15

ESC Sample # : L589405-05  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.020	mg/kg	7471	08/11/12	1
Arsenic	6.1	1.0	mg/kg	6010B	08/12/12	1
Barium	52.	0.25	mg/kg	6010B	08/14/12	1
Cadmium	BDL	0.25	mg/kg	6010B	08/12/12	1
Chromium	9.0	0.50	mg/kg	6010B	08/12/12	1
Lead	15.	0.25	mg/kg	6010B	08/12/12	1
Selenium	BDL	5.0	mg/kg	6010B	08/13/12	5
Silver	BDL	2.5	mg/kg	6010B	08/13/12	5
TPH (GC/FID) Low Fraction GRO (C6-C10)	BDL	0.50	mg/kg	TNGRO	08/13/12	5
Surrogate Recovery - % a,a,a-Trifluorotoluene(FID)	70.56		% Rec.	TNGRO	08/13/12	5
Volatile Organics						
Acetone	BDL	0.25	mg/kg	8260B	08/12/12	5
Acrylonitrile	BDL	0.050	mg/kg	8260B	08/12/12	5
Benzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromodichloromethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromoform	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromomethane	BDL	0.025	mg/kg	8260B	08/12/12	5
n-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
sec-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
tert-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Carbon tetrachloride	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chlorodibromomethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chloroethane	BDL	0.025	mg/kg	8260B	08/12/12	5
2-Chloroethyl vinyl ether	BDL	0.25	mg/kg	8260B	08/12/12	5
Chloroform	BDL	0.025	mg/kg	8260B	08/12/12	5
Chloromethane	BDL	0.012	mg/kg	8260B	08/12/12	5
2-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
4-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dibromo-3-Chloropropane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2-Dibromoethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Dibromomethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,4-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Dichlorodifluoromethane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,1-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5

BDL - Below Detection Limit

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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-3 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 10:15

ESC Sample # : L589405-05  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
cis-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
trans-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
cis-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
trans-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
2,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Di-isopropyl ether	BDL	0.0050	mg/kg	8260B	08/12/12	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Hexachloro-1,3-butadiene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Isopropylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
p-Isopropyltoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
2-Butanone (MEK)	BDL	0.050	mg/kg	8260B	08/12/12	5
Methylene Chloride	BDL	0.025	mg/kg	8260B	08/12/12	5
4-Methyl-2-pentanone (MIBK)	BDL	0.050	mg/kg	8260B	08/12/12	5
Methyl tert-butyl ether	BDL	0.0050	mg/kg	8260B	08/12/12	5
Naphthalene	BDL	0.025	mg/kg	8260B	08/12/12	5
n-Propylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Styrene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,1,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2-Trichlorotrifluoroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Tetrachloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Toluene	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2,3-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2,4-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,1-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Trichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Trichlorofluoromethane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2,3-Trichloropropane	BDL	0.012	mg/kg	8260B	08/12/12	5
1,2,4-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2,3-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3,5-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Vinyl chloride	BDL	0.0050	mg/kg	8260B	08/12/12	5
Xylenes, Total	BDL	0.015	mg/kg	8260B	08/12/12	5
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	08/12/12	5
Dibromofluoromethane	95.8		% Rec.	8260B	08/12/12	5
4-Bromofluorobenzene	107.		% Rec.	8260B	08/12/12	5
Extractable Petroleum Hydrocarb	BDL	4.0	mg/kg	EPH	08/14/12	1

BDL - Below Detection Limit

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REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-3 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 10:15

ESC Sample # : L589405-05

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Surrogate Recovery o-Terphenyl	71.9		% Rec.	EPH	08/14/12	1
Pesticide/PCBs						
Aldrin	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Alpha BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Beta BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Delta BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Gamma BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Chlordane	BDL	0.20	mg/kg	8081/8082	08/14/12	1
4,4-DDD	BDL	0.020	mg/kg	8081/8082	08/14/12	1
4,4-DDE	BDL	0.020	mg/kg	8081/8082	08/14/12	1
4,4-DDT	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Dieldrin	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endosulfan I	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endosulfan II	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endosulfan sulfate	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endrin	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endrin aldehyde	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endrin ketone	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Heptachlor	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Heptachlor epoxide	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Hexachlorobenzene	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Methoxychlor	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Toxaphene	BDL	0.40	mg/kg	8081/8082	08/14/12	1
PCB 1016	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1221	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1232	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1242	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1248	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1254	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1260	BDL	0.017	mg/kg	8081/8082	08/13/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	36.6		% Rec.	8081/8082	08/13/12	1
Tetrachloro-m-xylene	45.7		% Rec.	8081/8082	08/13/12	1
Herbicides						
2,4-D	BDL	0.070	mg/kg	8151	08/20/12	1
Dalapon	BDL	0.80	mg/kg	8151	08/20/12	1
2,4-DB	BDL	0.070	mg/kg	8151	08/20/12	1
Dicamba	BDL	0.070	mg/kg	8151	08/20/12	1
Dichloroprop	BDL	0.070	mg/kg	8151	08/20/12	1
Dinoseb	BDL	0.070	mg/kg	8151	08/20/12	1
MCPA	BDL	6.5	mg/kg	8151	08/20/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-3 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 10:15

ESC Sample # : L589405-05

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPP	BDL	6.5	mg/kg	8151	08/20/12	1
2,4,5-T	BDL	0.070	mg/kg	8151	08/20/12	1
2,4,5-TP (Silvex)	BDL	0.070	mg/kg	8151	08/20/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	70.6		% Rec.	8151	08/20/12	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.033	mg/kg	8270C	08/12/12	1
Acenaphthylene	BDL	0.033	mg/kg	8270C	08/12/12	1
Anthracene	0.040	0.033	mg/kg	8270C	08/12/12	1
Benzidine	BDL	0.33	mg/kg	8270C	08/12/12	1
Benzo(a)anthracene	0.13	0.033	mg/kg	8270C	08/12/12	1
Benzo(b)fluoranthene	0.17	0.033	mg/kg	8270C	08/12/12	1
Benzo(k)fluoranthene	0.054	0.033	mg/kg	8270C	08/12/12	1
Benzo(g,h,i)perylene	0.089	0.033	mg/kg	8270C	08/12/12	1
Benzo(a)pyrene	0.12	0.033	mg/kg	8270C	08/12/12	1
Bis(2-chlorethoxy)methane	BDL	0.33	mg/kg	8270C	08/12/12	1
Bis(2-chloroethyl)ether	BDL	0.33	mg/kg	8270C	08/12/12	1
Bis(2-chloroisopropyl)ether	BDL	0.33	mg/kg	8270C	08/12/12	1
4-Bromophenyl-phenylether	BDL	0.33	mg/kg	8270C	08/12/12	1
2-Chloronaphthalene	BDL	0.033	mg/kg	8270C	08/12/12	1
4-Chlorophenyl-phenylether	BDL	0.33	mg/kg	8270C	08/12/12	1
Chrysene	0.13	0.033	mg/kg	8270C	08/12/12	1
Dibenz(a,h)anthracene	BDL	0.033	mg/kg	8270C	08/12/12	1
3,3-Dichlorobenzidine	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dinitrotoluene	BDL	0.33	mg/kg	8270C	08/12/12	1
2,6-Dinitrotoluene	BDL	0.33	mg/kg	8270C	08/12/12	1
Fluoranthene	0.34	0.033	mg/kg	8270C	08/12/12	1
Fluorene	BDL	0.033	mg/kg	8270C	08/12/12	1
Hexachlorobenzene	BDL	0.33	mg/kg	8270C	08/12/12	1
Hexachloro-1,3-butadiene	BDL	0.33	mg/kg	8270C	08/12/12	1
Hexachlorocyclopentadiene	BDL	0.33	mg/kg	8270C	08/12/12	1
Hexachloroethane	BDL	0.33	mg/kg	8270C	08/12/12	1
Indeno(1,2,3-cd)pyrene	0.082	0.033	mg/kg	8270C	08/12/12	1
Isophorone	BDL	0.33	mg/kg	8270C	08/12/12	1
Naphthalene	BDL	0.033	mg/kg	8270C	08/12/12	1
Nitrobenzene	BDL	0.33	mg/kg	8270C	08/12/12	1
n-Nitrosodimethylamine	BDL	0.33	mg/kg	8270C	08/12/12	1
n-Nitrosodiphenylamine	BDL	0.33	mg/kg	8270C	08/12/12	1
n-Nitrosodi-n-propylamine	BDL	0.33	mg/kg	8270C	08/12/12	1
Phenanthrene	0.17	0.033	mg/kg	8270C	08/12/12	1
Benzylbutyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Bis(2-ethylhexyl)phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Di-n-butyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1

BDL - Below Detection Limit

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REPORT OF ANALYSIS

August 22, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-3 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 10:15

ESC Sample # : L589405-05

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Diethyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Dimethyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Di-n-octyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Pyrene	0.24	0.033	mg/kg	8270C	08/12/12	1
1,2,4-Trichlorobenzene	BDL	0.33	mg/kg	8270C	08/12/12	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2-Chlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dichlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dimethylphenol	BDL	0.33	mg/kg	8270C	08/12/12	1
4,6-Dinitro-2-methylphenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dinitrophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2-Nitrophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
4-Nitrophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
Pentachlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
Phenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4,6-Trichlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
Surrogate Recovery						
2-Fluorophenol	72.2	% Rec.	8270C	08/12/12	1	
Phenol-d5	70.2	% Rec.	8270C	08/12/12	1	
Nitrobenzene-d5	67.1	% Rec.	8270C	08/12/12	1	
2-Fluorobiphenyl	89.0	% Rec.	8270C	08/12/12	1	
2,4,6-Tribromophenol	79.2	% Rec.	8270C	08/12/12	1	
p-Terphenyl-d14	60.5	% Rec.	8270C	08/12/12	1	

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/22/12 08:57 Revised: 08/22/12 13:14



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Est. 1970

REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-3 12-14 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 10:20

ESC Sample # : L589405-06  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.020	mg/kg	7471	08/11/12	1
Arsenic	4.1	1.0	mg/kg	6010B	08/12/12	1
Barium	57.	0.25	mg/kg	6010B	08/14/12	1
Cadmium	BDL	0.25	mg/kg	6010B	08/12/12	1
Chromium	6.6	0.50	mg/kg	6010B	08/12/12	1
Lead	11.	0.25	mg/kg	6010B	08/12/12	1
Selenium	5.3	2.0	mg/kg	6010B	08/13/12	2
Silver	BDL	1.0	mg/kg	6010B	08/13/12	2
TPH (GC/FID) Low Fraction GRO (C6-C10)	BDL	0.50	mg/kg	TNGRO	08/13/12	5
Surrogate Recovery - % a,a,a-Trifluorotoluene(FID)	70.11		% Rec.	TNGRO	08/13/12	5
Volatile Organics						
Acetone	BDL	0.25	mg/kg	8260B	08/12/12	5
Acrylonitrile	BDL	0.050	mg/kg	8260B	08/12/12	5
Benzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromodichloromethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromoform	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromomethane	BDL	0.025	mg/kg	8260B	08/12/12	5
n-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
sec-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
tert-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Carbon tetrachloride	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chlorodibromomethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chloroethane	BDL	0.025	mg/kg	8260B	08/12/12	5
2-Chloroethyl vinyl ether	BDL	0.25	mg/kg	8260B	08/12/12	5
Chloroform	BDL	0.025	mg/kg	8260B	08/12/12	5
Chloromethane	BDL	0.012	mg/kg	8260B	08/12/12	5
2-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
4-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dibromo-3-Chloropropane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2-Dibromoethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Dibromomethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,4-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Dichlorodifluoromethane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,1-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

## REPORT OF ANALYSIS

August 22, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-3 12-14 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 10:20

ESC Sample # : L589405-06  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
cis-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
trans-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
cis-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
trans-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
2,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Di-isopropyl ether	BDL	0.0050	mg/kg	8260B	08/12/12	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Hexachloro-1,3-butadiene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Isopropylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
p-Isopropyltoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
2-Butanone (MEK)	BDL	0.050	mg/kg	8260B	08/12/12	5
Methylene Chloride	BDL	0.025	mg/kg	8260B	08/12/12	5
4-Methyl-2-pentanone (MIBK)	BDL	0.050	mg/kg	8260B	08/12/12	5
Methyl tert-butyl ether	BDL	0.0050	mg/kg	8260B	08/12/12	5
Naphthalene	BDL	0.025	mg/kg	8260B	08/12/12	5
n-Propylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Styrene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,1,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2-Trichlorotrifluoroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Tetrachloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Toluene	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2,3-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2,4-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,1-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Trichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Trichlorofluoromethane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2,3-Trichloropropane	BDL	0.012	mg/kg	8260B	08/12/12	5
1,2,4-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2,3-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3,5-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Vinyl chloride	BDL	0.0050	mg/kg	8260B	08/12/12	5
Xylenes, Total	BDL	0.015	mg/kg	8260B	08/12/12	5
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	08/12/12	5
Dibromofluoromethane	101.		% Rec.	8260B	08/12/12	5
4-Bromofluorobenzene	104.		% Rec.	8260B	08/12/12	5
Extractable Petroleum Hydrocarb	6.7	4.0	mg/kg	EPH	08/14/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-3 12-14 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 10:20

ESC Sample # : L589405-06

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Surrogate Recovery						
o-Terphenyl	54.2		% Rec.	EPH	08/14/12	1
Pesticide/PCBs						
Aldrin	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Alpha BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Beta BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Delta BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Gamma BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Chlordane	BDL	0.20	mg/kg	8081/8082	08/14/12	1
4,4-DDD	BDL	0.020	mg/kg	8081/8082	08/14/12	1
4,4-DDE	BDL	0.020	mg/kg	8081/8082	08/14/12	1
4,4-DDT	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Dieldrin	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endosulfan I	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endosulfan II	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endosulfan sulfate	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endrin	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endrin aldehyde	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endrin ketone	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Heptachlor	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Heptachlor epoxide	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Hexachlorobenzene	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Methoxychlor	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Toxaphene	BDL	0.40	mg/kg	8081/8082	08/14/12	1
PCB 1016	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1221	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1232	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1242	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1248	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1254	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1260	BDL	0.017	mg/kg	8081/8082	08/13/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	41.3		% Rec.	8081/8082	08/13/12	1
Tetrachloro-m-xylene	43.7		% Rec.	8081/8082	08/13/12	1
Herbicides						
2,4-D	BDL	0.070	mg/kg	8151	08/20/12	1
Dalapon	BDL	0.80	mg/kg	8151	08/20/12	1
2,4-DB	BDL	0.070	mg/kg	8151	08/20/12	1
Dicamba	BDL	0.070	mg/kg	8151	08/20/12	1
Dichloroprop	BDL	0.070	mg/kg	8151	08/20/12	1
Dinoseb	BDL	0.070	mg/kg	8151	08/20/12	1
MCPA	BDL	6.5	mg/kg	8151	08/20/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-3 12-14 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 10:20

ESC Sample # : L589405-06  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPP	BDL	6.5	mg/kg	8151	08/20/12	1
2,4,5-T	BDL	0.070	mg/kg	8151	08/20/12	1
2,4,5-TP (Silvex)	BDL	0.070	mg/kg	8151	08/20/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	61.4		% Rec.	8151	08/20/12	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.033	mg/kg	8270C	08/12/12	1
Acenaphthylene	BDL	0.033	mg/kg	8270C	08/12/12	1
Anthracene	BDL	0.033	mg/kg	8270C	08/12/12	1
Benzidine	BDL	0.33	mg/kg	8270C	08/12/12	1
Benzo(a)anthracene	BDL	0.033	mg/kg	8270C	08/12/12	1
Benzo(b)fluoranthene	BDL	0.033	mg/kg	8270C	08/12/12	1
Benzo(k)fluoranthene	BDL	0.033	mg/kg	8270C	08/12/12	1
Benzo(g,h,i)perylene	BDL	0.033	mg/kg	8270C	08/12/12	1
Benzo(a)pyrene	BDL	0.033	mg/kg	8270C	08/12/12	1
Bis(2-chlorethoxy)methane	BDL	0.33	mg/kg	8270C	08/12/12	1
Bis(2-chloroethyl)ether	BDL	0.33	mg/kg	8270C	08/12/12	1
Bis(2-chloroisopropyl)ether	BDL	0.33	mg/kg	8270C	08/12/12	1
4-Bromophenyl-phenylether	BDL	0.33	mg/kg	8270C	08/12/12	1
2-Chloronaphthalene	BDL	0.033	mg/kg	8270C	08/12/12	1
4-Chlorophenyl-phenylether	BDL	0.33	mg/kg	8270C	08/12/12	1
Chrysene	BDL	0.033	mg/kg	8270C	08/12/12	1
Dibenz(a,h)anthracene	BDL	0.033	mg/kg	8270C	08/12/12	1
3,3-Dichlorobenzidine	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dinitrotoluene	BDL	0.33	mg/kg	8270C	08/12/12	1
2,6-Dinitrotoluene	BDL	0.33	mg/kg	8270C	08/12/12	1
Fluoranthene	0.040	0.033	mg/kg	8270C	08/12/12	1
Fluorene	BDL	0.033	mg/kg	8270C	08/12/12	1
Hexachlorobenzene	BDL	0.33	mg/kg	8270C	08/12/12	1
Hexachloro-1,3-butadiene	BDL	0.33	mg/kg	8270C	08/12/12	1
Hexachlorocyclopentadiene	BDL	0.33	mg/kg	8270C	08/12/12	1
Hexachloroethane	BDL	0.33	mg/kg	8270C	08/12/12	1
Indeno(1,2,3-cd)pyrene	BDL	0.033	mg/kg	8270C	08/12/12	1
Isophorone	BDL	0.33	mg/kg	8270C	08/12/12	1
Naphthalene	BDL	0.033	mg/kg	8270C	08/12/12	1
Nitrobenzene	BDL	0.33	mg/kg	8270C	08/12/12	1
n-Nitrosodimethylamine	BDL	0.33	mg/kg	8270C	08/12/12	1
n-Nitrosodiphenylamine	BDL	0.33	mg/kg	8270C	08/12/12	1
n-Nitrosodi-n-propylamine	BDL	0.33	mg/kg	8270C	08/12/12	1
Phenanthrene	0.037	0.033	mg/kg	8270C	08/12/12	1
Benzylbutyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Bis(2-ethylhexyl)phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Di-n-butyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

August 22, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-3 12-14 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 10:20

ESC Sample # : L589405-06

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Diethyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Dimethyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Di-n-octyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Pyrene	BDL	0.033	mg/kg	8270C	08/12/12	1
1,2,4-Trichlorobenzene	BDL	0.33	mg/kg	8270C	08/12/12	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2-Chlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dichlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dimethylphenol	BDL	0.33	mg/kg	8270C	08/12/12	1
4,6-Dinitro-2-methylphenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dinitrophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2-Nitrophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
4-Nitrophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
Pentachlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
Phenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4,6-Trichlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
Surrogate Recovery						
2-Fluorophenol	68.6		% Rec.	8270C	08/12/12	1
Phenol-d5	68.7		% Rec.	8270C	08/12/12	1
Nitrobenzene-d5	63.6		% Rec.	8270C	08/12/12	1
2-Fluorobiphenyl	82.7		% Rec.	8270C	08/12/12	1
2,4,6-Tribromophenol	96.4		% Rec.	8270C	08/12/12	1
p-Terphenyl-d14	95.0		% Rec.	8270C	08/12/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/22/12 08:57 Revised: 08/22/12 13:14



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-4 4-6 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 09:07

ESC Sample # : L589405-07  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.020	mg/kg	7471	08/11/12	1
Arsenic	10.	1.0	mg/kg	6010B	08/12/12	1
Barium	140	0.25	mg/kg	6010B	08/14/12	1
Cadmium	BDL	0.25	mg/kg	6010B	08/12/12	1
Chromium	19.	0.50	mg/kg	6010B	08/12/12	1
Lead	31.	0.25	mg/kg	6010B	08/12/12	1
Selenium	BDL	1.0	mg/kg	6010B	08/12/12	1
Silver	BDL	2.5	mg/kg	6010B	08/13/12	5
TPH (GC/FID) Low Fraction GRO (C6-C10)	BDL	0.50	mg/kg	TNGRO	08/13/12	5
Surrogate Recovery - % a,a,a-Trifluorotoluene(FID)	70.07		% Rec.	TNGRO	08/13/12	5
Volatile Organics						
Acetone	BDL	0.25	mg/kg	8260B	08/12/12	5
Acrylonitrile	BDL	0.050	mg/kg	8260B	08/12/12	5
Benzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromodichloromethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromoform	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromomethane	BDL	0.025	mg/kg	8260B	08/12/12	5
n-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
sec-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
tert-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Carbon tetrachloride	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chlorodibromomethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chloroethane	BDL	0.025	mg/kg	8260B	08/12/12	5
2-Chloroethyl vinyl ether	BDL	0.25	mg/kg	8260B	08/12/12	5
Chloroform	BDL	0.025	mg/kg	8260B	08/12/12	5
Chloromethane	BDL	0.012	mg/kg	8260B	08/12/12	5
2-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
4-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dibromo-3-Chloropropane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2-Dibromoethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Dibromomethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,4-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Dichlorodifluoromethane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,1-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

## REPORT OF ANALYSIS

August 22, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-4 4-6 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 09:07

ESC Sample # : L589405-07

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
cis-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
trans-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
cis-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
trans-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
2,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Di-isopropyl ether	BDL	0.0050	mg/kg	8260B	08/12/12	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Hexachloro-1,3-butadiene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Isopropylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
p-Isopropyltoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
2-Butanone (MEK)	BDL	0.050	mg/kg	8260B	08/12/12	5
Methylene Chloride	BDL	0.025	mg/kg	8260B	08/12/12	5
4-Methyl-2-pentanone (MIBK)	BDL	0.050	mg/kg	8260B	08/12/12	5
Methyl tert-butyl ether	BDL	0.0050	mg/kg	8260B	08/12/12	5
Naphthalene	0.46	0.025	mg/kg	8260B	08/12/12	5
n-Propylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Styrene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,1,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2-Trichlorotrifluoroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Tetrachloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Toluene	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2,3-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2,4-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,1-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Trichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Trichlorofluoromethane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2,3-Trichloropropane	BDL	0.012	mg/kg	8260B	08/12/12	5
1,2,4-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2,3-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3,5-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Vinyl chloride	BDL	0.0050	mg/kg	8260B	08/12/12	5
Xylenes, Total	BDL	0.015	mg/kg	8260B	08/12/12	5
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	08/12/12	5
Dibromofluoromethane	99.1		% Rec.	8260B	08/12/12	5
4-Bromofluorobenzene	101.		% Rec.	8260B	08/12/12	5
Extractable Petroleum Hydrocarb	240	80.	mg/kg	EPH	08/14/12	20

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-4 4-6 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 09:07

ESC Sample # : L589405-07

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Surrogate Recovery o-Terphenyl	66.3		% Rec.	EPH	08/14/12	20
Pesticide/PCBs						
Aldrin	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Alpha BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Beta BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Delta BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Gamma BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Chlordane	BDL	0.20	mg/kg	8081/8082	08/14/12	1
4,4-DDD	BDL	0.020	mg/kg	8081/8082	08/14/12	1
4,4-DDE	BDL	0.020	mg/kg	8081/8082	08/14/12	1
4,4-DDT	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Dieldrin	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endosulfan I	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endosulfan II	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endosulfan sulfate	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endrin	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endrin aldehyde	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endrin ketone	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Heptachlor	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Heptachlor epoxide	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Hexachlorobenzene	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Methoxychlor	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Toxaphene	BDL	0.40	mg/kg	8081/8082	08/14/12	1
PCB 1016	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1221	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1232	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1242	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1248	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1254	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1260	BDL	0.017	mg/kg	8081/8082	08/13/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	33.2		% Rec.	8081/8082	08/13/12	1
Tetrachloro-m-xylene	25.8		% Rec.	8081/8082	08/13/12	1
Herbicides						
2,4-D	BDL	0.070	mg/kg	8151	08/20/12	1
Dalapon	BDL	0.80	mg/kg	8151	08/20/12	1
2,4-DB	BDL	0.070	mg/kg	8151	08/20/12	1
Dicamba	BDL	0.070	mg/kg	8151	08/20/12	1
Dichloroprop	BDL	0.070	mg/kg	8151	08/20/12	1
Dinoseb	BDL	0.070	mg/kg	8151	08/20/12	1
MCPA	BDL	6.5	mg/kg	8151	08/20/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-4 4-6 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 09:07

ESC Sample # : L589405-07

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPP	BDL	6.5	mg/kg	8151	08/20/12	1
2,4,5-T	BDL	0.070	mg/kg	8151	08/20/12	1
2,4,5-TP (Silvex)	BDL	0.070	mg/kg	8151	08/20/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	72.1		% Rec.	8151	08/20/12	1
Base/Neutral Extractables						
Acenaphthene	1.2	0.33	mg/kg	8270C	08/12/12	10
Acenaphthylene	1.0	0.33	mg/kg	8270C	08/12/12	10
Anthracene	3.7	0.33	mg/kg	8270C	08/12/12	10
Benzidine	BDL	3.3	mg/kg	8270C	08/12/12	10
Benzo(a)anthracene	5.9	0.33	mg/kg	8270C	08/12/12	10
Benzo(b)fluoranthene	6.8	0.33	mg/kg	8270C	08/12/12	10
Benzo(k)fluoranthene	2.0	0.33	mg/kg	8270C	08/12/12	10
Benzo(g,h,i)perylene	1.5	0.33	mg/kg	8270C	08/12/12	10
Benzo(a)pyrene	4.6	0.33	mg/kg	8270C	08/12/12	10
Bis(2-chlorethoxy)methane	BDL	3.3	mg/kg	8270C	08/12/12	10
Bis(2-chloroethyl)ether	BDL	3.3	mg/kg	8270C	08/12/12	10
Bis(2-chloroisopropyl)ether	BDL	3.3	mg/kg	8270C	08/12/12	10
4-Bromophenyl-phenylether	BDL	3.3	mg/kg	8270C	08/12/12	10
2-Chloronaphthalene	BDL	0.33	mg/kg	8270C	08/12/12	10
4-Chlorophenyl-phenylether	BDL	3.3	mg/kg	8270C	08/12/12	10
Chrysene	5.4	0.33	mg/kg	8270C	08/12/12	10
Dibenz(a,h)anthracene	0.69	0.33	mg/kg	8270C	08/12/12	10
3,3-Dichlorobenzidine	BDL	3.3	mg/kg	8270C	08/12/12	10
2,4-Dinitrotoluene	BDL	3.3	mg/kg	8270C	08/12/12	10
2,6-Dinitrotoluene	BDL	3.3	mg/kg	8270C	08/12/12	10
Fluoranthene	14.	0.33	mg/kg	8270C	08/12/12	10
Fluorene	3.5	0.33	mg/kg	8270C	08/12/12	10
Hexachlorobenzene	BDL	3.3	mg/kg	8270C	08/12/12	10
Hexachloro-1,3-butadiene	BDL	3.3	mg/kg	8270C	08/12/12	10
Hexachlorocyclopentadiene	BDL	3.3	mg/kg	8270C	08/12/12	10
Hexachloroethane	BDL	3.3	mg/kg	8270C	08/12/12	10
Indeno(1,2,3-cd)pyrene	1.5	0.33	mg/kg	8270C	08/12/12	10
Isophorone	BDL	3.3	mg/kg	8270C	08/12/12	10
Naphthalene	1.2	0.33	mg/kg	8270C	08/12/12	10
Nitrobenzene	BDL	3.3	mg/kg	8270C	08/12/12	10
n-Nitrosodimethylamine	BDL	3.3	mg/kg	8270C	08/12/12	10
n-Nitrosodiphenylamine	BDL	3.3	mg/kg	8270C	08/12/12	10
n-Nitrosodi-n-propylamine	BDL	3.3	mg/kg	8270C	08/12/12	10
Phenanthrene	14.	0.33	mg/kg	8270C	08/12/12	10
Benzylbutyl phthalate	BDL	3.3	mg/kg	8270C	08/12/12	10
Bis(2-ethylhexyl)phthalate	BDL	3.3	mg/kg	8270C	08/12/12	10
Di-n-butyl phthalate	BDL	3.3	mg/kg	8270C	08/12/12	10

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

August 22, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-4 4-6 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 09:07

ESC Sample # : L589405-07

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Diethyl phthalate	BDL	3.3	mg/kg	8270C	08/12/12	10
Dimethyl phthalate	BDL	3.3	mg/kg	8270C	08/12/12	10
Di-n-octyl phthalate	BDL	3.3	mg/kg	8270C	08/12/12	10
Pyrene	9.9	0.33	mg/kg	8270C	08/12/12	10
1,2,4-Trichlorobenzene	BDL	3.3	mg/kg	8270C	08/12/12	10
Acid Extractables						
4-Chloro-3-methylphenol	BDL	3.3	mg/kg	8270C	08/12/12	10
2-Chlorophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
2,4-Dichlorophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
2,4-Dimethylphenol	BDL	3.3	mg/kg	8270C	08/12/12	10
4,6-Dinitro-2-methylphenol	BDL	3.3	mg/kg	8270C	08/12/12	10
2,4-Dinitrophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
2-Nitrophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
4-Nitrophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
Pentachlorophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
Phenol	BDL	3.3	mg/kg	8270C	08/12/12	10
2,4,6-Trichlorophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
Surrogate Recovery						
2-Fluorophenol	48.4	% Rec.	8270C	08/12/12	10	
Phenol-d5	45.9	% Rec.	8270C	08/12/12	10	
Nitrobenzene-d5	38.8	% Rec.	8270C	08/12/12	10	
2-Fluorobiphenyl	51.8	% Rec.	8270C	08/12/12	10	
2,4,6-Tribromophenol	43.9	% Rec.	8270C	08/12/12	10	
p-Terphenyl-d14	48.3	% Rec.	8270C	08/12/12	10	

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/22/12 08:57 Revised: 08/22/12 13:14



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-4 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 09:15

ESC Sample # : L589405-08  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.020	mg/kg	7471	08/11/12	1
Arsenic	8.5	1.0	mg/kg	6010B	08/12/12	1
Barium	130	0.25	mg/kg	6010B	08/14/12	1
Cadmium	BDL	0.25	mg/kg	6010B	08/12/12	1
Chromium	16.	0.50	mg/kg	6010B	08/12/12	1
Lead	39.	0.25	mg/kg	6010B	08/12/12	1
Selenium	BDL	1.0	mg/kg	6010B	08/12/12	1
Silver	BDL	2.5	mg/kg	6010B	08/13/12	5
TPH (GC/FID) Low Fraction GRO (C6-C10)	BDL	0.50	mg/kg	TNGRO	08/13/12	5
Surrogate Recovery - % a,a,a-Trifluorotoluene(FID)	69.19		% Rec.	TNGRO	08/13/12	5
Volatile Organics						
Acetone	BDL	0.25	mg/kg	8260B	08/12/12	5
Acrylonitrile	BDL	0.050	mg/kg	8260B	08/12/12	5
Benzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromodichloromethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromoform	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromomethane	BDL	0.025	mg/kg	8260B	08/12/12	5
n-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
sec-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
tert-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Carbon tetrachloride	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chlorodibromomethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chloroethane	BDL	0.025	mg/kg	8260B	08/12/12	5
2-Chloroethyl vinyl ether	BDL	0.25	mg/kg	8260B	08/12/12	5
Chloroform	BDL	0.025	mg/kg	8260B	08/12/12	5
Chloromethane	BDL	0.012	mg/kg	8260B	08/12/12	5
2-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
4-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dibromo-3-Chloropropane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2-Dibromoethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Dibromomethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,4-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Dichlorodifluoromethane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,1-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

Amanda Herrit  
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Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-4 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 09:15

ESC Sample # : L589405-08  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
cis-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
trans-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
cis-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
trans-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
2,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Di-isopropyl ether	BDL	0.0050	mg/kg	8260B	08/12/12	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Hexachloro-1,3-butadiene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Isopropylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
p-Isopropyltoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
2-Butanone (MEK)	BDL	0.050	mg/kg	8260B	08/12/12	5
Methylene Chloride	BDL	0.025	mg/kg	8260B	08/12/12	5
4-Methyl-2-pentanone (MIBK)	BDL	0.050	mg/kg	8260B	08/12/12	5
Methyl tert-butyl ether	BDL	0.0050	mg/kg	8260B	08/12/12	5
Naphthalene	0.036	0.025	mg/kg	8260B	08/12/12	5
n-Propylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Styrene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,1,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2-Trichlorotrifluoroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Tetrachloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Toluene	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2,3-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2,4-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,1-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Trichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Trichlorofluoromethane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2,3-Trichloropropane	BDL	0.012	mg/kg	8260B	08/12/12	5
1,2,4-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2,3-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3,5-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Vinyl chloride	BDL	0.0050	mg/kg	8260B	08/12/12	5
Xylenes, Total	BDL	0.015	mg/kg	8260B	08/12/12	5
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	08/12/12	5
Dibromofluoromethane	107.		% Rec.	8260B	08/12/12	5
4-Bromofluorobenzene	99.4		% Rec.	8260B	08/12/12	5
Extractable Petroleum Hydrocarb	9.6	4.0	mg/kg	EPH	08/14/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-4 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 09:15

ESC Sample # : L589405-08

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Surrogate Recovery o-Terphenyl	67.0		% Rec.	EPH	08/14/12	1
Pesticide/PCBs						
Aldrin	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Alpha BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Beta BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Delta BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Gamma BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Chlordane	BDL	0.20	mg/kg	8081/8082	08/14/12	1
4,4-DDD	BDL	0.020	mg/kg	8081/8082	08/14/12	1
4,4-DDE	BDL	0.020	mg/kg	8081/8082	08/14/12	1
4,4-DDT	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Dieldrin	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endosulfan I	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endosulfan II	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endosulfan sulfate	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endrin	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endrin aldehyde	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endrin ketone	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Heptachlor	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Heptachlor epoxide	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Hexachlorobenzene	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Methoxychlor	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Toxaphene	BDL	0.40	mg/kg	8081/8082	08/14/12	1
PCB 1016	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1221	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1232	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1242	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1248	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1254	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1260	BDL	0.017	mg/kg	8081/8082	08/13/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	23.2		% Rec.	8081/8082	08/13/12	1
Tetrachloro-m-xylene	20.8		% Rec.	8081/8082	08/13/12	1
Herbicides						
2,4-D	BDL	0.070	mg/kg	8151	08/20/12	1
Dalapon	BDL	0.80	mg/kg	8151	08/20/12	1
2,4-DB	BDL	0.070	mg/kg	8151	08/20/12	1
Dicamba	BDL	0.070	mg/kg	8151	08/20/12	1
Dichloroprop	BDL	0.070	mg/kg	8151	08/20/12	1
Dinoseb	BDL	0.070	mg/kg	8151	08/20/12	1
MCPA	BDL	6.5	mg/kg	8151	08/20/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-4 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 09:15

ESC Sample # : L589405-08  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPP	BDL	6.5	mg/kg	8151	08/20/12	1
2,4,5-T	BDL	0.070	mg/kg	8151	08/20/12	1
2,4,5-TP (Silvex)	BDL	0.070	mg/kg	8151	08/20/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	65.7		% Rec.	8151	08/20/12	1
Base/Neutral Extractables						
Acenaphthene	0.092	0.033	mg/kg	8270C	08/12/12	1
Acenaphthylene	0.081	0.033	mg/kg	8270C	08/12/12	1
Anthracene	0.28	0.033	mg/kg	8270C	08/12/12	1
Benzidine	BDL	0.33	mg/kg	8270C	08/12/12	1
Benzo(a)anthracene	0.76	0.033	mg/kg	8270C	08/12/12	1
Benzo(b)fluoranthene	0.83	0.033	mg/kg	8270C	08/12/12	1
Benzo(k)fluoranthene	0.30	0.033	mg/kg	8270C	08/12/12	1
Benzo(g,h,i)perylene	0.36	0.033	mg/kg	8270C	08/12/12	1
Benzo(a)pyrene	0.67	0.033	mg/kg	8270C	08/12/12	1
Bis(2-chlorethoxy)methane	BDL	0.33	mg/kg	8270C	08/12/12	1
Bis(2-chloroethyl)ether	BDL	0.33	mg/kg	8270C	08/12/12	1
Bis(2-chloroisopropyl)ether	BDL	0.33	mg/kg	8270C	08/12/12	1
4-Bromophenyl-phenylether	BDL	0.33	mg/kg	8270C	08/12/12	1
2-Chloronaphthalene	BDL	0.033	mg/kg	8270C	08/12/12	1
4-Chlorophenyl-phenylether	BDL	0.33	mg/kg	8270C	08/12/12	1
Chrysene	0.73	0.033	mg/kg	8270C	08/12/12	1
Dibenz(a,h)anthracene	0.15	0.033	mg/kg	8270C	08/12/12	1
3,3-Dichlorobenzidine	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dinitrotoluene	BDL	0.33	mg/kg	8270C	08/12/12	1
2,6-Dinitrotoluene	BDL	0.33	mg/kg	8270C	08/12/12	1
Fluoranthene	1.5	0.033	mg/kg	8270C	08/12/12	1
Fluorene	0.21	0.033	mg/kg	8270C	08/12/12	1
Hexachlorobenzene	BDL	0.33	mg/kg	8270C	08/12/12	1
Hexachloro-1,3-butadiene	BDL	0.33	mg/kg	8270C	08/12/12	1
Hexachlorocyclopentadiene	BDL	0.33	mg/kg	8270C	08/12/12	1
Hexachloroethane	BDL	0.33	mg/kg	8270C	08/12/12	1
Indeno(1,2,3-cd)pyrene	0.35	0.033	mg/kg	8270C	08/12/12	1
Isophorone	BDL	0.33	mg/kg	8270C	08/12/12	1
Naphthalene	0.17	0.033	mg/kg	8270C	08/12/12	1
Nitrobenzene	BDL	0.33	mg/kg	8270C	08/12/12	1
n-Nitrosodimethylamine	BDL	0.33	mg/kg	8270C	08/12/12	1
n-Nitrosodiphenylamine	BDL	0.33	mg/kg	8270C	08/12/12	1
n-Nitrosodi-n-propylamine	BDL	0.33	mg/kg	8270C	08/12/12	1
Phenanthrene	1.1	0.033	mg/kg	8270C	08/12/12	1
Benzylbutyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Bis(2-ethylhexyl)phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Di-n-butyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

August 22, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-4 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 09:15

ESC Sample # : L589405-08

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Diethyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Dimethyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Di-n-octyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Pyrene	1.2	0.033	mg/kg	8270C	08/12/12	1
1,2,4-Trichlorobenzene	BDL	0.33	mg/kg	8270C	08/12/12	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2-Chlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dichlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dimethylphenol	BDL	0.33	mg/kg	8270C	08/12/12	1
4,6-Dinitro-2-methylphenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dinitrophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2-Nitrophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
4-Nitrophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
Pentachlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
Phenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4,6-Trichlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
Surrogate Recovery						
2-Fluorophenol	58.2	% Rec.	8270C	08/12/12	1	
Phenol-d5	57.9	% Rec.	8270C	08/12/12	1	
Nitrobenzene-d5	43.9	% Rec.	8270C	08/12/12	1	
2-Fluorobiphenyl	66.7	% Rec.	8270C	08/12/12	1	
2,4,6-Tribromophenol	65.0	% Rec.	8270C	08/12/12	1	
p-Terphenyl-d14	61.8	% Rec.	8270C	08/12/12	1	

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/22/12 08:57 Revised: 08/22/12 13:14



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-5 4-6 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 08:00

ESC Sample # : L589405-09

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.020	mg/kg	7471	08/11/12	1
Arsenic	7.8	1.0	mg/kg	6010B	08/12/12	1
Barium	110	0.25	mg/kg	6010B	08/14/12	1
Cadmium	BDL	0.25	mg/kg	6010B	08/12/12	1
Chromium	19.	0.50	mg/kg	6010B	08/12/12	1
Lead	38.	0.25	mg/kg	6010B	08/12/12	1
Selenium	1.4	1.0	mg/kg	6010B	08/12/12	1
Silver	BDL	2.5	mg/kg	6010B	08/13/12	5
TPH (GC/FID) Low Fraction GRO (C6-C10)	BDL	0.50	mg/kg	TNGRO	08/13/12	5
Surrogate Recovery - % a,a,a-Trifluorotoluene(FID)	68.56		% Rec.	TNGRO	08/13/12	5
Volatile Organics						
Acetone	BDL	0.25	mg/kg	8260B	08/12/12	5
Acrylonitrile	BDL	0.050	mg/kg	8260B	08/12/12	5
Benzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromodichloromethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromoform	BDL	0.0050	mg/kg	8260B	08/12/12	5
Bromomethane	BDL	0.025	mg/kg	8260B	08/12/12	5
n-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
sec-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
tert-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Carbon tetrachloride	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chlorodibromomethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Chloroethane	BDL	0.025	mg/kg	8260B	08/12/12	5
2-Chloroethyl vinyl ether	BDL	0.25	mg/kg	8260B	08/12/12	5
Chloroform	BDL	0.025	mg/kg	8260B	08/12/12	5
Chloromethane	BDL	0.012	mg/kg	8260B	08/12/12	5
2-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
4-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dibromo-3-Chloropropane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2-Dibromoethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Dibromomethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,4-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Dichlorodifluoromethane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,1-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L589405-09 (EPHTN) - Dilution due to matrix



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-5 4-6 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 08:00

ESC Sample # : L589405-09  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
cis-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
trans-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
cis-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
trans-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/12/12	5
2,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Di-isopropyl ether	BDL	0.0050	mg/kg	8260B	08/12/12	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Hexachloro-1,3-butadiene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Isopropylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
p-Isopropyltoluene	BDL	0.0050	mg/kg	8260B	08/12/12	5
2-Butanone (MEK)	BDL	0.050	mg/kg	8260B	08/12/12	5
Methylene Chloride	BDL	0.025	mg/kg	8260B	08/12/12	5
4-Methyl-2-pentanone (MIBK)	BDL	0.050	mg/kg	8260B	08/12/12	5
Methyl tert-butyl ether	BDL	0.0050	mg/kg	8260B	08/12/12	5
Naphthalene	BDL	0.025	mg/kg	8260B	08/12/12	5
n-Propylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Styrene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,1,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2-Trichlorotrifluoroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Tetrachloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Toluene	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2,3-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2,4-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,1-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,1,2-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/12/12	5
Trichloroethene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Trichlorofluoromethane	BDL	0.025	mg/kg	8260B	08/12/12	5
1,2,3-Trichloropropane	BDL	0.012	mg/kg	8260B	08/12/12	5
1,2,4-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,2,3-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
1,3,5-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/12/12	5
Vinyl chloride	BDL	0.0050	mg/kg	8260B	08/12/12	5
Xylenes, Total	BDL	0.015	mg/kg	8260B	08/12/12	5
Surrogate Recovery						
Toluene-d8	97.3		% Rec.	8260B	08/12/12	5
Dibromofluoromethane	103.		% Rec.	8260B	08/12/12	5
4-Bromofluorobenzene	93.1		% Rec.	8260B	08/12/12	5
Extractable Petroleum Hydrocarb	BDL	80.	mg/kg	EPH	08/14/12	20

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L589405-09 (EPHTN) - Dilution due to matrix



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Est. 1970

REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-5 4-6 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 08:00

ESC Sample # : L589405-09

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Surrogate Recovery o-Terphenyl	74.8		% Rec.	EPH	08/14/12	20
Pesticide/PCBs						
Aldrin	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Alpha BHC	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Beta BHC	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Delta BHC	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Gamma BHC	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Chlordane	BDL	0.20	mg/kg	8081/8082	08/16/12	1
4,4-DDD	BDL	0.020	mg/kg	8081/8082	08/16/12	1
4,4-DDE	BDL	0.020	mg/kg	8081/8082	08/16/12	1
4,4-DDT	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Dieldrin	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endosulfan I	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endosulfan II	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endosulfan sulfate	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endrin	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endrin aldehyde	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endrin ketone	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Heptachlor	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Heptachlor epoxide	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Hexachlorobenzene	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Methoxychlor	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Toxaphene	BDL	0.40	mg/kg	8081/8082	08/16/12	1
PCB 1016	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1221	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1232	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1242	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1248	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1254	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1260	BDL	0.017	mg/kg	8081/8082	08/16/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	108.		% Rec.	8081/8082	08/16/12	1
Tetrachloro-m-xylene	93.5		% Rec.	8081/8082	08/16/12	1
Herbicides						
2,4-D	BDL	0.070	mg/kg	8151	08/20/12	1
Dalapon	BDL	0.80	mg/kg	8151	08/20/12	1
2,4-DB	BDL	0.070	mg/kg	8151	08/20/12	1
Dicamba	BDL	0.070	mg/kg	8151	08/20/12	1
Dichloroprop	BDL	0.070	mg/kg	8151	08/20/12	1
Dinoseb	BDL	0.070	mg/kg	8151	08/20/12	1
MCPA	BDL	6.5	mg/kg	8151	08/20/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L589405-09 (EPHTN) - Dilution due to matrix



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Est. 1970

## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-5 4-6 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 08:00

ESC Sample # : L589405-09  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPP	BDL	6.5	mg/kg	8151	08/20/12	1
2,4,5-T	BDL	0.070	mg/kg	8151	08/20/12	1
2,4,5-TP (Silvex)	BDL	0.070	mg/kg	8151	08/20/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	63.2		% Rec.	8151	08/20/12	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.33	mg/kg	8270C	08/12/12	10
Acenaphthylene	BDL	0.33	mg/kg	8270C	08/12/12	10
Anthracene	0.79	0.33	mg/kg	8270C	08/12/12	10
Benzidine	BDL	3.3	mg/kg	8270C	08/12/12	10
Benzo(a)anthracene	1.8	0.33	mg/kg	8270C	08/12/12	10
Benzo(b)fluoranthene	2.5	0.33	mg/kg	8270C	08/12/12	10
Benzo(k)fluoranthene	0.80	0.33	mg/kg	8270C	08/12/12	10
Benzo(g,h,i)perylene	0.60	0.33	mg/kg	8270C	08/12/12	10
Benzo(a)pyrene	1.7	0.33	mg/kg	8270C	08/12/12	10
Bis(2-chlorethoxy)methane	BDL	3.3	mg/kg	8270C	08/12/12	10
Bis(2-chloroethyl)ether	BDL	3.3	mg/kg	8270C	08/12/12	10
Bis(2-chloroisopropyl)ether	BDL	3.3	mg/kg	8270C	08/12/12	10
4-Bromophenyl-phenylether	BDL	3.3	mg/kg	8270C	08/12/12	10
2-Chloronaphthalene	BDL	0.33	mg/kg	8270C	08/12/12	10
4-Chlorophenyl-phenylether	BDL	3.3	mg/kg	8270C	08/12/12	10
Chrysene	1.8	0.33	mg/kg	8270C	08/12/12	10
Dibenz(a,h)anthracene	BDL	0.33	mg/kg	8270C	08/12/12	10
3,3-Dichlorobenzidine	BDL	3.3	mg/kg	8270C	08/12/12	10
2,4-Dinitrotoluene	BDL	3.3	mg/kg	8270C	08/12/12	10
2,6-Dinitrotoluene	BDL	3.3	mg/kg	8270C	08/12/12	10
Fluoranthene	4.0	0.33	mg/kg	8270C	08/12/12	10
Fluorene	0.48	0.33	mg/kg	8270C	08/12/12	10
Hexachlorobenzene	BDL	3.3	mg/kg	8270C	08/12/12	10
Hexachloro-1,3-butadiene	BDL	3.3	mg/kg	8270C	08/12/12	10
Hexachlorocyclopentadiene	BDL	3.3	mg/kg	8270C	08/12/12	10
Hexachloroethane	BDL	3.3	mg/kg	8270C	08/12/12	10
Indeno(1,2,3-cd)pyrene	0.57	0.33	mg/kg	8270C	08/12/12	10
Isophorone	BDL	3.3	mg/kg	8270C	08/12/12	10
Naphthalene	BDL	0.33	mg/kg	8270C	08/12/12	10
Nitrobenzene	BDL	3.3	mg/kg	8270C	08/12/12	10
n-Nitrosodimethylamine	BDL	3.3	mg/kg	8270C	08/12/12	10
n-Nitrosodiphenylamine	BDL	3.3	mg/kg	8270C	08/12/12	10
n-Nitrosodi-n-propylamine	BDL	3.3	mg/kg	8270C	08/12/12	10
Phenanthrene	3.0	0.33	mg/kg	8270C	08/12/12	10
Benzylbutyl phthalate	BDL	3.3	mg/kg	8270C	08/12/12	10
Bis(2-ethylhexyl)phthalate	BDL	3.3	mg/kg	8270C	08/12/12	10
Di-n-butyl phthalate	BDL	3.3	mg/kg	8270C	08/12/12	10

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L589405-09 (EPHTN) - Dilution due to matrix



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REPORT OF ANALYSIS

August 22, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-5 4-6 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 08:00

ESC Sample # : L589405-09

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Diethyl phthalate	BDL	3.3	mg/kg	8270C	08/12/12	10
Dimethyl phthalate	BDL	3.3	mg/kg	8270C	08/12/12	10
Di-n-octyl phthalate	BDL	3.3	mg/kg	8270C	08/12/12	10
Pyrene	2.9	0.33	mg/kg	8270C	08/12/12	10
1,2,4-Trichlorobenzene	BDL	3.3	mg/kg	8270C	08/12/12	10
Acid Extractables						
4-Chloro-3-methylphenol	BDL	3.3	mg/kg	8270C	08/12/12	10
2-Chlorophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
2,4-Dichlorophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
2,4-Dimethylphenol	BDL	3.3	mg/kg	8270C	08/12/12	10
4,6-Dinitro-2-methylphenol	BDL	3.3	mg/kg	8270C	08/12/12	10
2,4-Dinitrophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
2-Nitrophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
4-Nitrophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
Pentachlorophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
Phenol	BDL	3.3	mg/kg	8270C	08/12/12	10
2,4,6-Trichlorophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
Surrogate Recovery						
2-Fluorophenol	51.7		% Rec.	8270C	08/12/12	10
Phenol-d5	59.9		% Rec.	8270C	08/12/12	10
Nitrobenzene-d5	51.3		% Rec.	8270C	08/12/12	10
2-Fluorobiphenyl	69.5		% Rec.	8270C	08/12/12	10
2,4,6-Tribromophenol	62.8		% Rec.	8270C	08/12/12	10
p-Terphenyl-d14	49.1		% Rec.	8270C	08/12/12	10

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/22/12 08:57 Revised: 08/22/12 13:14  
L589405-09 (EPHTN) - Dilution due to matrix



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-5 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 08:05

ESC Sample # : L589405-10  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.020	mg/kg	7471	08/11/12	1
Arsenic	6.2	1.0	mg/kg	6010B	08/12/12	1
Barium	180	0.25	mg/kg	6010B	08/14/12	1
Cadmium	BDL	0.25	mg/kg	6010B	08/12/12	1
Chromium	11.	0.50	mg/kg	6010B	08/12/12	1
Lead	44.	0.25	mg/kg	6010B	08/12/12	1
Selenium	BDL	1.0	mg/kg	6010B	08/12/12	1
Silver	BDL	2.5	mg/kg	6010B	08/13/12	5
TPH (GC/FID) Low Fraction GRO (C6-C10)	BDL	0.50	mg/kg	TNGRO	08/14/12	5
Surrogate Recovery - % a,a,a-Trifluorotoluene(FID)	64.21		% Rec.	TNGRO	08/14/12	5
Volatile Organics						
Acetone	BDL	2.5	mg/kg	8260B	08/12/12	50
Acrylonitrile	BDL	0.50	mg/kg	8260B	08/12/12	50
Benzene	BDL	0.050	mg/kg	8260B	08/12/12	50
Bromobenzene	BDL	0.050	mg/kg	8260B	08/12/12	50
Bromodichloromethane	BDL	0.050	mg/kg	8260B	08/12/12	50
Bromoform	BDL	0.050	mg/kg	8260B	08/12/12	50
Bromomethane	BDL	0.25	mg/kg	8260B	08/12/12	50
n-Butylbenzene	BDL	0.050	mg/kg	8260B	08/12/12	50
sec-Butylbenzene	BDL	0.050	mg/kg	8260B	08/12/12	50
tert-Butylbenzene	BDL	0.050	mg/kg	8260B	08/12/12	50
Carbon tetrachloride	BDL	0.050	mg/kg	8260B	08/12/12	50
Chlorobenzene	BDL	0.050	mg/kg	8260B	08/12/12	50
Chlorodibromomethane	BDL	0.050	mg/kg	8260B	08/12/12	50
Chloroethane	BDL	0.25	mg/kg	8260B	08/12/12	50
2-Chloroethyl vinyl ether	BDL	2.5	mg/kg	8260B	08/12/12	50
Chloroform	BDL	0.25	mg/kg	8260B	08/12/12	50
Chloromethane	BDL	0.12	mg/kg	8260B	08/12/12	50
2-Chlorotoluene	BDL	0.050	mg/kg	8260B	08/12/12	50
4-Chlorotoluene	BDL	0.050	mg/kg	8260B	08/12/12	50
1,2-Dibromo-3-Chloropropane	BDL	0.25	mg/kg	8260B	08/12/12	50
1,2-Dibromoethane	BDL	0.050	mg/kg	8260B	08/12/12	50
Dibromomethane	BDL	0.050	mg/kg	8260B	08/12/12	50
1,2-Dichlorobenzene	BDL	0.050	mg/kg	8260B	08/12/12	50
1,3-Dichlorobenzene	BDL	0.050	mg/kg	8260B	08/12/12	50
1,4-Dichlorobenzene	BDL	0.050	mg/kg	8260B	08/12/12	50
Dichlorodifluoromethane	BDL	0.25	mg/kg	8260B	08/12/12	50
1,1-Dichloroethane	BDL	0.050	mg/kg	8260B	08/12/12	50
1,2-Dichloroethane	BDL	0.050	mg/kg	8260B	08/12/12	50

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-5 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 08:05

ESC Sample # : L589405-10  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethene	BDL	0.050	mg/kg	8260B	08/12/12	50
cis-1,2-Dichloroethene	BDL	0.050	mg/kg	8260B	08/12/12	50
trans-1,2-Dichloroethene	BDL	0.050	mg/kg	8260B	08/12/12	50
1,2-Dichloropropane	BDL	0.050	mg/kg	8260B	08/12/12	50
1,1-Dichloropropene	BDL	0.050	mg/kg	8260B	08/12/12	50
1,3-Dichloropropene	BDL	0.050	mg/kg	8260B	08/12/12	50
cis-1,3-Dichloropropene	BDL	0.050	mg/kg	8260B	08/12/12	50
trans-1,3-Dichloropropene	BDL	0.050	mg/kg	8260B	08/12/12	50
2,2-Dichloropropane	BDL	0.050	mg/kg	8260B	08/12/12	50
Di-isopropyl ether	BDL	0.050	mg/kg	8260B	08/12/12	50
Ethylbenzene	BDL	0.050	mg/kg	8260B	08/12/12	50
Hexachloro-1,3-butadiene	BDL	0.050	mg/kg	8260B	08/12/12	50
Isopropylbenzene	BDL	0.050	mg/kg	8260B	08/12/12	50
p-Isopropyltoluene	BDL	0.050	mg/kg	8260B	08/12/12	50
2-Butanone (MEK)	BDL	0.50	mg/kg	8260B	08/12/12	50
Methylene Chloride	BDL	0.25	mg/kg	8260B	08/12/12	50
4-Methyl-2-pentanone (MIBK)	BDL	0.50	mg/kg	8260B	08/12/12	50
Methyl tert-butyl ether	BDL	0.050	mg/kg	8260B	08/12/12	50
Naphthalene	2.6	0.25	mg/kg	8260B	08/12/12	50
n-Propylbenzene	BDL	0.050	mg/kg	8260B	08/12/12	50
Styrene	BDL	0.050	mg/kg	8260B	08/12/12	50
1,1,1,2-Tetrachloroethane	BDL	0.050	mg/kg	8260B	08/12/12	50
1,1,2,2-Tetrachloroethane	BDL	0.050	mg/kg	8260B	08/12/12	50
1,1,2-Trichlorotrifluoroethane	BDL	0.050	mg/kg	8260B	08/12/12	50
Tetrachloroethene	BDL	0.050	mg/kg	8260B	08/12/12	50
Toluene	BDL	0.25	mg/kg	8260B	08/12/12	50
1,2,3-Trichlorobenzene	BDL	0.050	mg/kg	8260B	08/12/12	50
1,2,4-Trichlorobenzene	BDL	0.050	mg/kg	8260B	08/12/12	50
1,1,1-Trichloroethane	BDL	0.050	mg/kg	8260B	08/12/12	50
1,1,2-Trichloroethane	BDL	0.050	mg/kg	8260B	08/12/12	50
Trichloroethene	BDL	0.050	mg/kg	8260B	08/12/12	50
Trichlorofluoromethane	BDL	0.25	mg/kg	8260B	08/12/12	50
1,2,3-Trichloropropane	BDL	0.12	mg/kg	8260B	08/12/12	50
1,2,4-Trimethylbenzene	BDL	0.050	mg/kg	8260B	08/12/12	50
1,2,3-Trimethylbenzene	BDL	0.050	mg/kg	8260B	08/12/12	50
1,3,5-Trimethylbenzene	BDL	0.050	mg/kg	8260B	08/12/12	50
Vinyl chloride	BDL	0.050	mg/kg	8260B	08/12/12	50
Xylenes, Total	BDL	0.15	mg/kg	8260B	08/12/12	50
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	08/12/12	50
Dibromofluoromethane	93.7		% Rec.	8260B	08/12/12	50
4-Bromofluorobenzene	101.		% Rec.	8260B	08/12/12	50
Extractable Petroleum Hydrocarb	190	80.	mg/kg	EPH	08/14/12	20

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-5 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 08:05

ESC Sample # : L589405-10  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Surrogate Recovery o-Terphenyl	0.00		% Rec.	EPH	08/14/12	20
Pesticide/PCBs						
Aldrin	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Alpha BHC	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Beta BHC	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Delta BHC	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Gamma BHC	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Chlordane	BDL	0.20	mg/kg	8081/8082	08/16/12	1
4,4-DDD	BDL	0.020	mg/kg	8081/8082	08/16/12	1
4,4-DDE	BDL	0.020	mg/kg	8081/8082	08/16/12	1
4,4-DDT	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Dieldrin	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endosulfan I	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endosulfan II	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endosulfan sulfate	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endrin	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endrin aldehyde	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endrin ketone	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Heptachlor	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Heptachlor epoxide	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Hexachlorobenzene	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Methoxychlor	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Toxaphene	BDL	0.40	mg/kg	8081/8082	08/16/12	1
PCB 1016	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1221	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1232	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1242	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1248	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1254	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1260	BDL	0.017	mg/kg	8081/8082	08/16/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	110.		% Rec.	8081/8082	08/16/12	1
Tetrachloro-m-xylene	77.4		% Rec.	8081/8082	08/16/12	1
Herbicides						
2,4-D	BDL	0.070	mg/kg	8151	08/20/12	1
Dalapon	BDL	0.80	mg/kg	8151	08/20/12	1
2,4-DB	BDL	0.070	mg/kg	8151	08/20/12	1
Dicamba	BDL	0.070	mg/kg	8151	08/20/12	1
Dichloroprop	BDL	0.070	mg/kg	8151	08/20/12	1
Dinoseb	BDL	0.070	mg/kg	8151	08/20/12	1
MCPA	BDL	6.5	mg/kg	8151	08/20/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-5 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 08:05

ESC Sample # : L589405-10  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPP	BDL	6.5	mg/kg	8151	08/20/12	1
2,4,5-T	BDL	0.070	mg/kg	8151	08/20/12	1
2,4,5-TP (Silvex)	BDL	0.070	mg/kg	8151	08/20/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	59.5		% Rec.	8151	08/20/12	1
Base/Neutral Extractables						
Acenaphthene	9.3	0.66	mg/kg	8270C	08/12/12	20
Acenaphthylene	8.3	0.66	mg/kg	8270C	08/12/12	20
Anthracene	26.	0.66	mg/kg	8270C	08/12/12	20
Benzidine	BDL	6.7	mg/kg	8270C	08/12/12	20
Benzo(a)anthracene	42.	16.	mg/kg	8270C	08/13/12	500
Benzo(b)fluoranthene	39.	16.	mg/kg	8270C	08/13/12	500
Benzo(k)fluoranthene	15.	0.66	mg/kg	8270C	08/12/12	20
Benzo(g,h,i)perylene	4.5	0.66	mg/kg	8270C	08/12/12	20
Benzo(a)pyrene	27.	0.66	mg/kg	8270C	08/12/12	20
Bis(2-chlorethoxy)methane	BDL	6.7	mg/kg	8270C	08/12/12	20
Bis(2-chloroethyl)ether	BDL	6.7	mg/kg	8270C	08/12/12	20
Bis(2-chloroisopropyl)ether	BDL	6.7	mg/kg	8270C	08/12/12	20
4-Bromophenyl-phenylether	BDL	6.7	mg/kg	8270C	08/12/12	20
2-Chloronaphthalene	BDL	0.66	mg/kg	8270C	08/12/12	20
4-Chlorophenyl-phenylether	BDL	6.7	mg/kg	8270C	08/12/12	20
Chrysene	32.	0.66	mg/kg	8270C	08/12/12	20
Dibenz(a,h)anthracene	3.2	0.66	mg/kg	8270C	08/12/12	20
3,3-Dichlorobenzidine	BDL	6.7	mg/kg	8270C	08/12/12	20
2,4-Dinitrotoluene	BDL	6.7	mg/kg	8270C	08/12/12	20
2,6-Dinitrotoluene	BDL	6.7	mg/kg	8270C	08/12/12	20
Fluoranthene	100	16.	mg/kg	8270C	08/13/12	500
Fluorene	32.	0.66	mg/kg	8270C	08/12/12	20
Hexachlorobenzene	BDL	6.7	mg/kg	8270C	08/12/12	20
Hexachloro-1,3-butadiene	BDL	6.7	mg/kg	8270C	08/12/12	20
Hexachlorocyclopentadiene	BDL	6.7	mg/kg	8270C	08/12/12	20
Hexachloroethane	BDL	6.7	mg/kg	8270C	08/12/12	20
Indeno(1,2,3-cd)pyrene	5.3	0.66	mg/kg	8270C	08/12/12	20
Isophorone	BDL	6.7	mg/kg	8270C	08/12/12	20
Naphthalene	62.	16.	mg/kg	8270C	08/13/12	500
Nitrobenzene	BDL	6.7	mg/kg	8270C	08/12/12	20
n-Nitrosodimethylamine	BDL	6.7	mg/kg	8270C	08/12/12	20
n-Nitrosodiphenylamine	BDL	6.7	mg/kg	8270C	08/12/12	20
n-Nitrosodi-n-propylamine	BDL	6.7	mg/kg	8270C	08/12/12	20
Phenanthrene	140	16.	mg/kg	8270C	08/13/12	500
Benzylbutyl phthalate	BDL	6.7	mg/kg	8270C	08/12/12	20
Bis(2-ethylhexyl)phthalate	BDL	6.7	mg/kg	8270C	08/12/12	20
Di-n-butyl phthalate	BDL	6.7	mg/kg	8270C	08/12/12	20

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

August 22, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-5 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/09/12 08:05

ESC Sample # : L589405-10

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Diethyl phthalate	BDL	6.7	mg/kg	8270C	08/12/12	20
Dimethyl phthalate	BDL	6.7	mg/kg	8270C	08/12/12	20
Di-n-octyl phthalate	BDL	6.7	mg/kg	8270C	08/12/12	20
Pyrene	69.	16.	mg/kg	8270C	08/13/12	500
1,2,4-Trichlorobenzene	BDL	6.7	mg/kg	8270C	08/12/12	20
Acid Extractables						
4-Chloro-3-methylphenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2-Chlorophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2,4-Dichlorophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2,4-Dimethylphenol	BDL	6.7	mg/kg	8270C	08/12/12	20
4,6-Dinitro-2-methylphenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2,4-Dinitrophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2-Nitrophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
4-Nitrophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
Pentachlorophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
Phenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2,4,6-Trichlorophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
Surrogate Recovery						
2-Fluorophenol	33.6		% Rec.	8270C	08/12/12	20
Phenol-d5	34.0		% Rec.	8270C	08/12/12	20
Nitrobenzene-d5	38.5		% Rec.	8270C	08/12/12	20
2-Fluorobiphenyl	38.0		% Rec.	8270C	08/12/12	20
2,4,6-Tribromophenol	40.5		% Rec.	8270C	08/12/12	20
p-Terphenyl-d14	47.6		% Rec.	8270C	08/12/12	20

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/22/12 08:57 Revised: 08/22/12 13:14



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-6 0-2 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 15:10

ESC Sample # : L589405-11

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	0.067	0.020	mg/kg	7471	08/11/12	1
Arsenic	5.4	1.0	mg/kg	6010B	08/12/12	1
Barium	80.	0.25	mg/kg	6010B	08/14/12	1
Cadmium	BDL	0.25	mg/kg	6010B	08/12/12	1
Chromium	61.	0.50	mg/kg	6010B	08/12/12	1
Lead	8.6	0.25	mg/kg	6010B	08/12/12	1
Selenium	BDL	1.0	mg/kg	6010B	08/12/12	1
Silver	BDL	0.50	mg/kg	6010B	08/12/12	1
TPH (GC/FID) Low Fraction GRO (C6-C10)	12.	5.0	mg/kg	TNGRO	08/13/12	50
Surrogate Recovery - % a,a,a-Trifluorotoluene(FID)	70.01		% Rec.	TNGRO	08/13/12	50
Volatile Organics						
Acetone	BDL	0.25	mg/kg	8260B	08/11/12	5
Acrylonitrile	BDL	0.050	mg/kg	8260B	08/11/12	5
Benzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Bromobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Bromodichloromethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
Bromoform	BDL	0.0050	mg/kg	8260B	08/11/12	5
Bromomethane	BDL	0.025	mg/kg	8260B	08/11/12	5
n-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
sec-Butylbenzene	0.021	0.0050	mg/kg	8260B	08/11/12	5
tert-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Carbon tetrachloride	BDL	0.0050	mg/kg	8260B	08/11/12	5
Chlorobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Chlorodibromomethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
Chloroethane	BDL	0.025	mg/kg	8260B	08/11/12	5
2-Chloroethyl vinyl ether	BDL	0.25	mg/kg	8260B	08/11/12	5
Chloroform	BDL	0.025	mg/kg	8260B	08/11/12	5
Chloromethane	BDL	0.012	mg/kg	8260B	08/11/12	5
2-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/11/12	5
4-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,2-Dibromo-3-Chloropropane	BDL	0.025	mg/kg	8260B	08/11/12	5
1,2-Dibromoethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
Dibromomethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,2-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,3-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,4-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Dichlorodifluoromethane	BDL	0.025	mg/kg	8260B	08/11/12	5
1,1-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,2-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L589405-11 (EPHTN) - Previous run also had low IS/SURR recovery. Matrix effect.



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-6 0-2 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 15:10

ESC Sample # : L589405-11  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/11/12	5
cis-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/11/12	5
trans-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,1-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/11/12	5
cis-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/11/12	5
trans-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/11/12	5
2,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/11/12	5
Di-isopropyl ether	BDL	0.0050	mg/kg	8260B	08/11/12	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Hexachloro-1,3-butadiene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Isopropylbenzene	0.0091	0.0050	mg/kg	8260B	08/11/12	5
p-Isopropyltoluene	0.014	0.0050	mg/kg	8260B	08/11/12	5
2-Butanone (MEK)	BDL	0.050	mg/kg	8260B	08/11/12	5
Methylene Chloride	BDL	0.025	mg/kg	8260B	08/11/12	5
4-Methyl-2-pentanone (MIBK)	BDL	0.050	mg/kg	8260B	08/11/12	5
Methyl tert-butyl ether	BDL	0.0050	mg/kg	8260B	08/11/12	5
Naphthalene	0.67	0.025	mg/kg	8260B	08/11/12	5
n-Propylbenzene	0.0096	0.0050	mg/kg	8260B	08/11/12	5
Styrene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,1,1,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,1,2,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,1,2-Trichlorotrifluoroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
Tetrachloroethene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Toluene	BDL	0.025	mg/kg	8260B	08/11/12	5
1,2,3-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,2,4-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,1,1-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,1,2-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
Trichloroethene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Trichlorofluoromethane	BDL	0.025	mg/kg	8260B	08/11/12	5
1,2,3-Trichloropropane	BDL	0.012	mg/kg	8260B	08/11/12	5
1,2,4-Trimethylbenzene	0.090	0.0050	mg/kg	8260B	08/11/12	5
1,2,3-Trimethylbenzene	0.053	0.0050	mg/kg	8260B	08/11/12	5
1,3,5-Trimethylbenzene	0.020	0.0050	mg/kg	8260B	08/11/12	5
Vinyl chloride	BDL	0.0050	mg/kg	8260B	08/11/12	5
Xylenes, Total	BDL	0.015	mg/kg	8260B	08/11/12	5
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	08/11/12	5
Dibromofluoromethane	104.		% Rec.	8260B	08/11/12	5
4-Bromofluorobenzene	108.		% Rec.	8260B	08/11/12	5
Extractable Petroleum Hydrocarb	53.	4.0	mg/kg	EPH	08/17/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L589405-11 (EPHTN) - Previous run also had low IS/SURR recovery. Matrix effect.



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REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-6 0-2 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 15:10

ESC Sample # : L589405-11

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Surrogate Recovery						
o-Terphenyl	12.1		% Rec.	EPH	08/17/12	1
Pesticide/PCBs						
Aldrin	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Alpha BHC	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Beta BHC	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Delta BHC	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Gamma BHC	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Chlordane	BDL	0.20	mg/kg	8081/8082	08/16/12	1
4,4-DDD	BDL	0.020	mg/kg	8081/8082	08/16/12	1
4,4-DDE	BDL	0.020	mg/kg	8081/8082	08/16/12	1
4,4-DDT	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Dieldrin	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endosulfan I	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endosulfan II	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endosulfan sulfate	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endrin	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endrin aldehyde	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Endrin ketone	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Heptachlor	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Heptachlor epoxide	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Hexachlorobenzene	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Methoxychlor	BDL	0.020	mg/kg	8081/8082	08/16/12	1
Toxaphene	BDL	0.40	mg/kg	8081/8082	08/16/12	1
PCB 1016	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1221	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1232	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1242	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1248	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1254	BDL	0.017	mg/kg	8081/8082	08/16/12	1
PCB 1260	BDL	0.017	mg/kg	8081/8082	08/16/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	79.3		% Rec.	8081/8082	08/16/12	1
Tetrachloro-m-xylene	75.6		% Rec.	8081/8082	08/16/12	1
Herbicides						
2,4-D	BDL	0.070	mg/kg	8151	08/20/12	1
Dalapon	BDL	0.80	mg/kg	8151	08/20/12	1
2,4-DB	BDL	0.070	mg/kg	8151	08/20/12	1
Dicamba	BDL	0.070	mg/kg	8151	08/20/12	1
Dichloroprop	BDL	0.070	mg/kg	8151	08/20/12	1
Dinoseb	BDL	0.070	mg/kg	8151	08/20/12	1
MCPA	BDL	6.5	mg/kg	8151	08/20/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L589405-11 (EPHTN) - Previous run also had low IS/SURR recovery. Matrix effect.



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Tax I.D. 62-0814289

Est. 1970

## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-6 0-2 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 15:10

ESC Sample # : L589405-11  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPP	BDL	6.5	mg/kg	8151	08/20/12	1
2,4,5-T	BDL	0.070	mg/kg	8151	08/20/12	1
2,4,5-TP (Silvex)	BDL	0.070	mg/kg	8151	08/20/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	85.2		% Rec.	8151	08/20/12	1
Base/Neutral Extractables						
Acenaphthene	0.35	0.033	mg/kg	8270C	08/12/12	1
Acenaphthylene	0.10	0.033	mg/kg	8270C	08/12/12	1
Anthracene	0.67	0.033	mg/kg	8270C	08/12/12	1
Benzidine	BDL	0.33	mg/kg	8270C	08/12/12	1
Benzo(a)anthracene	0.94	0.033	mg/kg	8270C	08/12/12	1
Benzo(b)fluoranthene	1.0	0.033	mg/kg	8270C	08/12/12	1
Benzo(k)fluoranthene	0.42	0.033	mg/kg	8270C	08/12/12	1
Benzo(g,h,i)perylene	0.18	0.033	mg/kg	8270C	08/12/12	1
Benzo(a)pyrene	0.75	0.033	mg/kg	8270C	08/12/12	1
Bis(2-chlorethoxy)methane	BDL	0.33	mg/kg	8270C	08/12/12	1
Bis(2-chloroethyl)ether	BDL	0.33	mg/kg	8270C	08/12/12	1
Bis(2-chloroisopropyl)ether	BDL	0.33	mg/kg	8270C	08/12/12	1
4-Bromophenyl-phenylether	BDL	0.33	mg/kg	8270C	08/12/12	1
2-Chloronaphthalene	BDL	0.033	mg/kg	8270C	08/12/12	1
4-Chlorophenyl-phenylether	BDL	0.33	mg/kg	8270C	08/12/12	1
Chrysene	0.84	0.033	mg/kg	8270C	08/12/12	1
Dibenz(a,h)anthracene	0.11	0.033	mg/kg	8270C	08/12/12	1
3,3-Dichlorobenzidine	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dinitrotoluene	BDL	0.33	mg/kg	8270C	08/12/12	1
2,6-Dinitrotoluene	BDL	0.33	mg/kg	8270C	08/12/12	1
Fluoranthene	2.6	0.16	mg/kg	8270C	08/13/12	5
Fluorene	0.64	0.033	mg/kg	8270C	08/12/12	1
Hexachlorobenzene	BDL	0.33	mg/kg	8270C	08/12/12	1
Hexachloro-1,3-butadiene	BDL	0.33	mg/kg	8270C	08/12/12	1
Hexachlorocyclopentadiene	BDL	0.33	mg/kg	8270C	08/12/12	1
Hexachloroethane	BDL	0.33	mg/kg	8270C	08/12/12	1
Indeno(1,2,3-cd)pyrene	0.20	0.033	mg/kg	8270C	08/12/12	1
Isophorone	BDL	0.33	mg/kg	8270C	08/12/12	1
Naphthalene	0.66	0.033	mg/kg	8270C	08/12/12	1
Nitrobenzene	BDL	0.33	mg/kg	8270C	08/12/12	1
n-Nitrosodimethylamine	BDL	0.33	mg/kg	8270C	08/12/12	1
n-Nitrosodiphenylamine	BDL	0.33	mg/kg	8270C	08/12/12	1
n-Nitrosodi-n-propylamine	BDL	0.33	mg/kg	8270C	08/12/12	1
Phenanthrene	3.0	0.16	mg/kg	8270C	08/13/12	5
Benzylbutyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Bis(2-ethylhexyl)phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Di-n-butyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L589405-11 (EPHTN) - Previous run also had low IS/SURR recovery. Matrix effect.



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Est. 1970

## REPORT OF ANALYSIS

August 22, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-6 0-2 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 15:10

ESC Sample # : L589405-11

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Diethyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Dimethyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Di-n-octyl phthalate	BDL	0.33	mg/kg	8270C	08/12/12	1
Pyrene	1.4	0.033	mg/kg	8270C	08/12/12	1
1,2,4-Trichlorobenzene	BDL	0.33	mg/kg	8270C	08/12/12	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2-Chlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dichlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dimethylphenol	BDL	0.33	mg/kg	8270C	08/12/12	1
4,6-Dinitro-2-methylphenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4-Dinitrophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2-Nitrophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
4-Nitrophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
Pentachlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
Phenol	BDL	0.33	mg/kg	8270C	08/12/12	1
2,4,6-Trichlorophenol	BDL	0.33	mg/kg	8270C	08/12/12	1
Surrogate Recovery						
2-Fluorophenol	61.2		% Rec.	8270C	08/12/12	1
Phenol-d5	63.3		% Rec.	8270C	08/12/12	1
Nitrobenzene-d5	66.1		% Rec.	8270C	08/12/12	1
2-Fluorobiphenyl	75.1		% Rec.	8270C	08/12/12	1
2,4,6-Tribromophenol	81.2		% Rec.	8270C	08/12/12	1
p-Terphenyl-d14	61.3		% Rec.	8270C	08/12/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/22/12 08:57 Revised: 08/22/12 13:14  
L589405-11 (EPHTN) - Previous run also had low IS/SURR recovery. Matrix effect.



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-6 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 15:32

ESC Sample # : L589405-12  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.020	mg/kg	7471	08/11/12	1
Arsenic	11.	1.0	mg/kg	6010B	08/12/12	1
Barium	220	0.25	mg/kg	6010B	08/14/12	1
Cadmium	BDL	0.25	mg/kg	6010B	08/12/12	1
Chromium	30.	0.50	mg/kg	6010B	08/12/12	1
Lead	15.	0.25	mg/kg	6010B	08/12/12	1
Selenium	5.1	1.0	mg/kg	6010B	08/12/12	1
Silver	BDL	1.0	mg/kg	6010B	08/13/12	2
TPH (GC/FID) Low Fraction GRO (C6-C10)	BDL	0.50	mg/kg	TNGRO	08/13/12	5
Surrogate Recovery - % a,a,a-Trifluorotoluene(FID)	68.71		% Rec.	TNGRO	08/13/12	5
Volatile Organics						
Acetone	BDL	0.25	mg/kg	8260B	08/11/12	5
Acrylonitrile	BDL	0.050	mg/kg	8260B	08/11/12	5
Benzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Bromobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Bromodichloromethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
Bromoform	BDL	0.0050	mg/kg	8260B	08/11/12	5
Bromomethane	BDL	0.025	mg/kg	8260B	08/11/12	5
n-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
sec-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
tert-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Carbon tetrachloride	BDL	0.0050	mg/kg	8260B	08/11/12	5
Chlorobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Chlorodibromomethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
Chloroethane	BDL	0.025	mg/kg	8260B	08/11/12	5
2-Chloroethyl vinyl ether	BDL	0.25	mg/kg	8260B	08/11/12	5
Chloroform	BDL	0.025	mg/kg	8260B	08/11/12	5
Chloromethane	BDL	0.012	mg/kg	8260B	08/11/12	5
2-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/11/12	5
4-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,2-Dibromo-3-Chloropropane	BDL	0.025	mg/kg	8260B	08/11/12	5
1,2-Dibromoethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
Dibromomethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,2-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,3-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,4-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Dichlorodifluoromethane	BDL	0.025	mg/kg	8260B	08/11/12	5
1,1-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,2-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-6 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 15:32

ESC Sample # : L589405-12  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/11/12	5
cis-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/11/12	5
trans-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,1-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/11/12	5
cis-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/11/12	5
trans-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/11/12	5
2,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/11/12	5
Di-isopropyl ether	BDL	0.0050	mg/kg	8260B	08/11/12	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Hexachloro-1,3-butadiene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Isopropylbenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
p-Isopropyltoluene	BDL	0.0050	mg/kg	8260B	08/11/12	5
2-Butanone (MEK)	BDL	0.050	mg/kg	8260B	08/11/12	5
Methylene Chloride	BDL	0.025	mg/kg	8260B	08/11/12	5
4-Methyl-2-pentanone (MIBK)	BDL	0.050	mg/kg	8260B	08/11/12	5
Methyl tert-butyl ether	BDL	0.0050	mg/kg	8260B	08/11/12	5
Naphthalene	0.095	0.025	mg/kg	8260B	08/11/12	5
n-Propylbenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Styrene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,1,1,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,1,2,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,1,2-Trichlorotrifluoroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
Tetrachloroethene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Toluene	BDL	0.025	mg/kg	8260B	08/11/12	5
1,2,3-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,2,4-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,1,1-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,1,2-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
Trichloroethene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Trichlorofluoromethane	BDL	0.025	mg/kg	8260B	08/11/12	5
1,2,3-Trichloropropane	BDL	0.012	mg/kg	8260B	08/11/12	5
1,2,4-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,2,3-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,3,5-Trimethylbenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Vinyl chloride	BDL	0.0050	mg/kg	8260B	08/11/12	5
Xylenes, Total	BDL	0.015	mg/kg	8260B	08/11/12	5
Surrogate Recovery						
Toluene-d8	104.		% Rec.	8260B	08/11/12	5
Dibromofluoromethane	103.		% Rec.	8260B	08/11/12	5
4-Bromofluorobenzene	103.		% Rec.	8260B	08/11/12	5
Extractable Petroleum Hydrocarb	120	40.	mg/kg	EPH	08/15/12	10

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-6 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 15:32

ESC Sample # : L589405-12  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Surrogate Recovery o-Terphenyl	51.3		% Rec.	EPH	08/15/12	10
Pesticide/PCBs						
Aldrin	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Alpha BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Beta BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Delta BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Gamma BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Chlordane	BDL	0.20	mg/kg	8081/8082	08/14/12	1
4,4-DDD	BDL	0.020	mg/kg	8081/8082	08/14/12	1
4,4-DDE	BDL	0.020	mg/kg	8081/8082	08/14/12	1
4,4-DDT	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Dieldrin	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endosulfan I	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endosulfan II	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endosulfan sulfate	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endrin	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endrin aldehyde	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endrin ketone	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Heptachlor	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Heptachlor epoxide	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Hexachlorobenzene	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Methoxychlor	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Toxaphene	BDL	0.40	mg/kg	8081/8082	08/14/12	1
PCB 1016	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1221	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1232	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1242	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1248	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1254	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1260	BDL	0.017	mg/kg	8081/8082	08/13/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	26.0		% Rec.	8081/8082	08/13/12	1
Tetrachloro-m-xylene	30.2		% Rec.	8081/8082	08/13/12	1
Herbicides						
2,4-D	BDL	0.070	mg/kg	8151	08/20/12	1
Dalapon	BDL	0.80	mg/kg	8151	08/20/12	1
2,4-DB	BDL	0.070	mg/kg	8151	08/20/12	1
Dicamba	BDL	0.070	mg/kg	8151	08/20/12	1
Dichloroprop	BDL	0.070	mg/kg	8151	08/20/12	1
Dinoseb	BDL	0.070	mg/kg	8151	08/20/12	1
MCPA	BDL	6.5	mg/kg	8151	08/20/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-6 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 15:32

ESC Sample # : L589405-12  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPP	BDL	6.5	mg/kg	8151	08/20/12	1
2,4,5-T	BDL	0.070	mg/kg	8151	08/20/12	1
2,4,5-TP (Silvex)	BDL	0.070	mg/kg	8151	08/20/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	66.5		% Rec.	8151	08/20/12	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.33	mg/kg	8270C	08/12/12	10
Acenaphthylene	0.58	0.33	mg/kg	8270C	08/12/12	10
Anthracene	1.2	0.33	mg/kg	8270C	08/12/12	10
Benzidine	BDL	3.3	mg/kg	8270C	08/12/12	10
Benzo(a)anthracene	2.6	0.33	mg/kg	8270C	08/12/12	10
Benzo(b)fluoranthene	3.0	0.33	mg/kg	8270C	08/12/12	10
Benzo(k)fluoranthene	0.90	0.33	mg/kg	8270C	08/12/12	10
Benzo(g,h,i)perylene	0.71	0.33	mg/kg	8270C	08/12/12	10
Benzo(a)pyrene	2.0	0.33	mg/kg	8270C	08/12/12	10
Bis(2-chlorethoxy)methane	BDL	3.3	mg/kg	8270C	08/12/12	10
Bis(2-chloroethyl)ether	BDL	3.3	mg/kg	8270C	08/12/12	10
Bis(2-chloroisopropyl)ether	BDL	3.3	mg/kg	8270C	08/12/12	10
4-Bromophenyl-phenylether	BDL	3.3	mg/kg	8270C	08/12/12	10
2-Chloronaphthalene	BDL	0.33	mg/kg	8270C	08/12/12	10
4-Chlorophenyl-phenylether	BDL	3.3	mg/kg	8270C	08/12/12	10
Chrysene	2.2	0.33	mg/kg	8270C	08/12/12	10
Dibenz(a,h)anthracene	0.38	0.33	mg/kg	8270C	08/12/12	10
3,3-Dichlorobenzidine	BDL	3.3	mg/kg	8270C	08/12/12	10
2,4-Dinitrotoluene	BDL	3.3	mg/kg	8270C	08/12/12	10
2,6-Dinitrotoluene	BDL	3.3	mg/kg	8270C	08/12/12	10
Fluoranthene	5.0	0.33	mg/kg	8270C	08/12/12	10
Fluorene	1.1	0.33	mg/kg	8270C	08/12/12	10
Hexachlorobenzene	BDL	3.3	mg/kg	8270C	08/12/12	10
Hexachloro-1,3-butadiene	BDL	3.3	mg/kg	8270C	08/12/12	10
Hexachlorocyclopentadiene	BDL	3.3	mg/kg	8270C	08/12/12	10
Hexachloroethane	BDL	3.3	mg/kg	8270C	08/12/12	10
Indeno(1,2,3-cd)pyrene	0.74	0.33	mg/kg	8270C	08/12/12	10
Isophorone	BDL	3.3	mg/kg	8270C	08/12/12	10
Naphthalene	0.61	0.33	mg/kg	8270C	08/12/12	10
Nitrobenzene	BDL	3.3	mg/kg	8270C	08/12/12	10
n-Nitrosodimethylamine	BDL	3.3	mg/kg	8270C	08/12/12	10
n-Nitrosodiphenylamine	BDL	3.3	mg/kg	8270C	08/12/12	10
n-Nitrosodi-n-propylamine	BDL	3.3	mg/kg	8270C	08/12/12	10
Phenanthrene	4.7	0.33	mg/kg	8270C	08/12/12	10
Benzylbutyl phthalate	BDL	3.3	mg/kg	8270C	08/12/12	10
Bis(2-ethylhexyl)phthalate	BDL	3.3	mg/kg	8270C	08/12/12	10
Di-n-butyl phthalate	BDL	3.3	mg/kg	8270C	08/12/12	10

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

August 22, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : HR-6 10-12 FT  
Collected By : Paul Davis  
Collection Date : 08/08/12 15:32

ESC Sample # : L589405-12

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Diethyl phthalate	BDL	3.3	mg/kg	8270C	08/12/12	10
Dimethyl phthalate	BDL	3.3	mg/kg	8270C	08/12/12	10
Di-n-octyl phthalate	BDL	3.3	mg/kg	8270C	08/12/12	10
Pyrene	3.8	0.33	mg/kg	8270C	08/12/12	10
1,2,4-Trichlorobenzene	BDL	3.3	mg/kg	8270C	08/12/12	10
Acid Extractables						
4-Chloro-3-methylphenol	BDL	3.3	mg/kg	8270C	08/12/12	10
2-Chlorophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
2,4-Dichlorophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
2,4-Dimethylphenol	BDL	3.3	mg/kg	8270C	08/12/12	10
4,6-Dinitro-2-methylphenol	BDL	3.3	mg/kg	8270C	08/12/12	10
2,4-Dinitrophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
2-Nitrophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
4-Nitrophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
Pentachlorophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
Phenol	BDL	3.3	mg/kg	8270C	08/12/12	10
2,4,6-Trichlorophenol	BDL	3.3	mg/kg	8270C	08/12/12	10
Surrogate Recovery						
2-Fluorophenol	53.1	% Rec.	8270C	08/12/12	10	
Phenol-d5	54.1	% Rec.	8270C	08/12/12	10	
Nitrobenzene-d5	51.3	% Rec.	8270C	08/12/12	10	
2-Fluorobiphenyl	64.2	% Rec.	8270C	08/12/12	10	
2,4,6-Tribromophenol	60.3	% Rec.	8270C	08/12/12	10	
p-Terphenyl-d14	59.8	% Rec.	8270C	08/12/12	10	

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/22/12 08:57 Revised: 08/22/12 13:14



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REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : DUP  
Collected By : Paul Davis  
Collection Date : 08/08/12 00:00

ESC Sample # : L589405-13  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	0.094	0.020	mg/kg	7471	08/11/12	1
Arsenic	9.6	1.0	mg/kg	6010B	08/12/12	1
Barium	67.	0.25	mg/kg	6010B	08/14/12	1
Cadmium	BDL	0.25	mg/kg	6010B	08/12/12	1
Chromium	7.6	0.50	mg/kg	6010B	08/12/12	1
Lead	13.	0.25	mg/kg	6010B	08/12/12	1
Selenium	BDL	1.0	mg/kg	6010B	08/12/12	1
Silver	BDL	1.0	mg/kg	6010B	08/13/12	2
TPH (GC/FID) Low Fraction GRO (C6-C10)	41.	10.	mg/kg	TNGRO	08/14/12	100
Surrogate Recovery - % a,a,a-Trifluorotoluene(FID)	67.99		% Rec.	TNGRO	08/14/12	100
Volatile Organics						
Acetone	BDL	0.25	mg/kg	8260B	08/11/12	5
Acrylonitrile	BDL	0.050	mg/kg	8260B	08/11/12	5
Benzene	0.19	0.0050	mg/kg	8260B	08/11/12	5
Bromobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Bromodichloromethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
Bromoform	BDL	0.0050	mg/kg	8260B	08/11/12	5
Bromomethane	BDL	0.025	mg/kg	8260B	08/11/12	5
n-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
sec-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
tert-Butylbenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Carbon tetrachloride	BDL	0.0050	mg/kg	8260B	08/11/12	5
Chlorobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Chlorodibromomethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
Chloroethane	BDL	0.025	mg/kg	8260B	08/11/12	5
2-Chloroethyl vinyl ether	BDL	0.25	mg/kg	8260B	08/11/12	5
Chloroform	BDL	0.025	mg/kg	8260B	08/11/12	5
Chloromethane	BDL	0.012	mg/kg	8260B	08/11/12	5
2-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/11/12	5
4-Chlorotoluene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,2-Dibromo-3-Chloropropane	BDL	0.025	mg/kg	8260B	08/11/12	5
1,2-Dibromoethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
Dibromomethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,2-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,3-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,4-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Dichlorodifluoromethane	BDL	0.025	mg/kg	8260B	08/11/12	5
1,1-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,2-Dichloroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : DUP  
Collected By : Paul Davis  
Collection Date : 08/08/12 00:00

ESC Sample # : L589405-13  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/11/12	5
cis-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/11/12	5
trans-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,1-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/11/12	5
cis-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/11/12	5
trans-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	08/11/12	5
2,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	08/11/12	5
Di-isopropyl ether	BDL	0.0050	mg/kg	8260B	08/11/12	5
Ethylbenzene	0.059	0.0050	mg/kg	8260B	08/11/12	5
Hexachloro-1,3-butadiene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Isopropylbenzene	0.014	0.0050	mg/kg	8260B	08/11/12	5
p-Isopropyltoluene	0.0072	0.0050	mg/kg	8260B	08/11/12	5
2-Butanone (MEK)	BDL	0.050	mg/kg	8260B	08/11/12	5
Methylene Chloride	0.028	0.025	mg/kg	8260B	08/11/12	5
4-Methyl-2-pentanone (MIBK)	BDL	0.050	mg/kg	8260B	08/11/12	5
Methyl tert-butyl ether	BDL	0.0050	mg/kg	8260B	08/11/12	5
Naphthalene	930	25.	mg/kg	8260B	08/15/12	5000
n-Propylbenzene	0.0060	0.0050	mg/kg	8260B	08/11/12	5
Styrene	0.033	0.0050	mg/kg	8260B	08/11/12	5
1,1,1,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,1,2,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,1,2-Trichlorotrifluoroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
Tetrachloroethene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Toluene	0.32	0.025	mg/kg	8260B	08/11/12	5
1,2,3-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,2,4-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,1,1-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
1,1,2-Trichloroethane	BDL	0.0050	mg/kg	8260B	08/11/12	5
Trichloroethene	BDL	0.0050	mg/kg	8260B	08/11/12	5
Trichlorofluoromethane	BDL	0.025	mg/kg	8260B	08/11/12	5
1,2,3-Trichloropropane	BDL	0.012	mg/kg	8260B	08/11/12	5
1,2,4-Trimethylbenzene	0.32	0.0050	mg/kg	8260B	08/11/12	5
1,2,3-Trimethylbenzene	0.10	0.0050	mg/kg	8260B	08/11/12	5
1,3,5-Trimethylbenzene	0.15	0.0050	mg/kg	8260B	08/11/12	5
Vinyl chloride	BDL	0.0050	mg/kg	8260B	08/11/12	5
Xylenes, Total	0.61	0.015	mg/kg	8260B	08/11/12	5
Surrogate Recovery						
Toluene-d8	104.		% Rec.	8260B	08/11/12	5
Dibromofluoromethane	106.		% Rec.	8260B	08/11/12	5
4-Bromofluorobenzene	107.		% Rec.	8260B	08/11/12	5
Extractable Petroleum Hydrocarb	17000	400	mg/kg	EPH	08/15/12	100

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : DUP  
Collected By : Paul Davis  
Collection Date : 08/08/12 00:00

ESC Sample # : L589405-13  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Surrogate Recovery o-Terphenyl	0.00		% Rec.	EPH	08/15/12	100
Pesticide/PCBs						
Aldrin	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Alpha BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Beta BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Delta BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Gamma BHC	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Chlordane	BDL	0.20	mg/kg	8081/8082	08/14/12	1
4,4-DDD	BDL	0.020	mg/kg	8081/8082	08/14/12	1
4,4-DDE	BDL	0.020	mg/kg	8081/8082	08/14/12	1
4,4-DDT	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Dieldrin	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endosulfan I	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endosulfan II	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endosulfan sulfate	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endrin	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endrin aldehyde	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Endrin ketone	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Heptachlor	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Heptachlor epoxide	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Hexachlorobenzene	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Methoxychlor	BDL	0.020	mg/kg	8081/8082	08/14/12	1
Toxaphene	BDL	0.40	mg/kg	8081/8082	08/14/12	1
PCB 1016	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1221	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1232	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1242	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1248	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1254	BDL	0.017	mg/kg	8081/8082	08/13/12	1
PCB 1260	BDL	0.017	mg/kg	8081/8082	08/13/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	45.6		% Rec.	8081/8082	08/13/12	1
Tetrachloro-m-xylene	13.0		% Rec.	8081/8082	08/13/12	1
Herbicides						
2,4-D	BDL	0.070	mg/kg	8151	08/20/12	1
Dalapon	BDL	0.80	mg/kg	8151	08/20/12	1
2,4-DB	BDL	0.070	mg/kg	8151	08/20/12	1
Dicamba	BDL	0.070	mg/kg	8151	08/20/12	1
Dichloroprop	BDL	0.070	mg/kg	8151	08/20/12	1
Dinoseb	BDL	0.070	mg/kg	8151	08/20/12	1
MCPA	BDL	6.5	mg/kg	8151	08/20/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : DUP  
Collected By : Paul Davis  
Collection Date : 08/08/12 00:00

ESC Sample # : L589405-13  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPP	BDL	6.5	mg/kg	8151	08/20/12	1
2,4,5-T	BDL	0.070	mg/kg	8151	08/20/12	1
2,4,5-TP (Silvex)	BDL	0.070	mg/kg	8151	08/20/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	59.3		% Rec.	8151	08/20/12	1
Base/Neutral Extractables						
Acenaphthene	39.	16.	mg/kg	8270C	08/13/12	500
Acenaphthylene	6.3	0.66	mg/kg	8270C	08/12/12	20
Anthracene	63.	16.	mg/kg	8270C	08/13/12	500
Benzidine	BDL	170	mg/kg	8270C	08/13/12	500
Benzo(a)anthracene	92.	16.	mg/kg	8270C	08/13/12	500
Benzo(b)fluoranthene	92.	16.	mg/kg	8270C	08/13/12	500
Benzo(k)fluoranthene	28.	16.	mg/kg	8270C	08/13/12	500
Benzo(g,h,i)perylene	20.	16.	mg/kg	8270C	08/13/12	500
Benzo(a)pyrene	64.	16.	mg/kg	8270C	08/13/12	500
Bis(2-chlorethoxy)methane	BDL	6.7	mg/kg	8270C	08/12/12	20
Bis(2-chloroethyl)ether	BDL	6.7	mg/kg	8270C	08/12/12	20
Bis(2-chloroisopropyl)ether	BDL	6.7	mg/kg	8270C	08/12/12	20
4-Bromophenyl-phenylether	BDL	6.7	mg/kg	8270C	08/12/12	20
2-Chloronaphthalene	BDL	0.66	mg/kg	8270C	08/12/12	20
4-Chlorophenyl-phenylether	BDL	6.7	mg/kg	8270C	08/12/12	20
Chrysene	88.	16.	mg/kg	8270C	08/13/12	500
Dibenz(a,h)anthracene	BDL	16.	mg/kg	8270C	08/13/12	500
3,3-Dichlorobenzidine	BDL	170	mg/kg	8270C	08/13/12	500
2,4-Dinitrotoluene	BDL	6.7	mg/kg	8270C	08/12/12	20
2,6-Dinitrotoluene	BDL	6.7	mg/kg	8270C	08/12/12	20
Fluoranthene	210	16.	mg/kg	8270C	08/13/12	500
Fluorene	74.	16.	mg/kg	8270C	08/13/12	500
Hexachlorobenzene	BDL	6.7	mg/kg	8270C	08/12/12	20
Hexachloro-1,3-butadiene	BDL	6.7	mg/kg	8270C	08/12/12	20
Hexachlorocyclopentadiene	BDL	6.7	mg/kg	8270C	08/12/12	20
Hexachloroethane	BDL	6.7	mg/kg	8270C	08/12/12	20
Indeno(1,2,3-cd)pyrene	22.	16.	mg/kg	8270C	08/13/12	500
Isophorone	BDL	6.7	mg/kg	8270C	08/12/12	20
Naphthalene	170	16.	mg/kg	8270C	08/13/12	500
Nitrobenzene	BDL	6.7	mg/kg	8270C	08/12/12	20
n-Nitrosodimethylamine	BDL	6.7	mg/kg	8270C	08/12/12	20
n-Nitrosodiphenylamine	BDL	6.7	mg/kg	8270C	08/12/12	20
n-Nitrosodi-n-propylamine	BDL	6.7	mg/kg	8270C	08/12/12	20
Phenanthrene	250	16.	mg/kg	8270C	08/13/12	500
Benzylbutyl phthalate	BDL	170	mg/kg	8270C	08/13/12	500
Bis(2-ethylhexyl)phthalate	BDL	170	mg/kg	8270C	08/13/12	500
Di-n-butyl phthalate	BDL	170	mg/kg	8270C	08/13/12	500

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

August 22, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : DUP  
Collected By : Paul Davis  
Collection Date : 08/08/12 00:00

ESC Sample # : L589405-13

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Diethyl phthalate	BDL	6.7	mg/kg	8270C	08/12/12	20
Dimethyl phthalate	BDL	6.7	mg/kg	8270C	08/12/12	20
Di-n-octyl phthalate	BDL	170	mg/kg	8270C	08/13/12	500
Pyrene	140	16.	mg/kg	8270C	08/13/12	500
1,2,4-Trichlorobenzene	BDL	6.7	mg/kg	8270C	08/12/12	20
Acid Extractables						
4-Chloro-3-methylphenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2-Chlorophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2,4-Dichlorophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2,4-Dimethylphenol	BDL	6.7	mg/kg	8270C	08/12/12	20
4,6-Dinitro-2-methylphenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2,4-Dinitrophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2-Nitrophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
4-Nitrophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
Pentachlorophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
Phenol	BDL	6.7	mg/kg	8270C	08/12/12	20
2,4,6-Trichlorophenol	BDL	6.7	mg/kg	8270C	08/12/12	20
Surrogate Recovery						
2-Fluorophenol	31.7		% Rec.	8270C	08/12/12	20
Phenol-d5	30.6		% Rec.	8270C	08/12/12	20
Nitrobenzene-d5	31.7		% Rec.	8270C	08/12/12	20
2-Fluorobiphenyl	37.0		% Rec.	8270C	08/12/12	20
2,4,6-Tribromophenol	32.1		% Rec.	8270C	08/12/12	20
p-Terphenyl-d14	63.0		% Rec.	8270C	08/12/12	20

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/22/12 08:57 Revised: 08/22/12 13:14



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : RINSATE  
Collected By : Paul Davis  
Collection Date : 08/07/12 12:00

ESC Sample # : L589405-14

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.00020	mg/l	7470A	08/11/12	1
Arsenic	BDL	0.020	mg/l	6010B	08/14/12	1
Barium	BDL	0.0050	mg/l	6010B	08/14/12	1
Cadmium	BDL	0.0050	mg/l	6010B	08/14/12	1
Chromium	BDL	0.010	mg/l	6010B	08/14/12	1
Lead	BDL	0.0050	mg/l	6010B	08/14/12	1
Selenium	BDL	0.020	mg/l	6010B	08/14/12	1
Silver	BDL	0.010	mg/l	6010B	08/14/12	1
TPH (GC/FID) Low Fraction GRO (C6-C10)	BDL	0.10	mg/l	8015D	08/14/12	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	64.1		% Rec.	8015D	08/14/12	1
Volatile Organics						
Acetone	BDL	0.050	mg/l	8260B	08/11/12	1
Acrolein	BDL	0.050	mg/l	8260B	08/11/12	1
Acrylonitrile	BDL	0.010	mg/l	8260B	08/11/12	1
Benzene	BDL	0.0010	mg/l	8260B	08/11/12	1
Bromobenzene	BDL	0.0010	mg/l	8260B	08/11/12	1
Bromodichloromethane	BDL	0.0010	mg/l	8260B	08/11/12	1
Bromoform	BDL	0.0010	mg/l	8260B	08/11/12	1
Bromomethane	BDL	0.0050	mg/l	8260B	08/11/12	1
n-Butylbenzene	BDL	0.0010	mg/l	8260B	08/11/12	1
sec-Butylbenzene	BDL	0.0010	mg/l	8260B	08/11/12	1
tert-Butylbenzene	BDL	0.0010	mg/l	8260B	08/11/12	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260B	08/11/12	1
Chlorobenzene	BDL	0.0010	mg/l	8260B	08/11/12	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260B	08/11/12	1
Chloroethane	BDL	0.0050	mg/l	8260B	08/11/12	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/l	8260B	08/11/12	1
Chloroform	BDL	0.0050	mg/l	8260B	08/11/12	1
Chloromethane	BDL	0.0025	mg/l	8260B	08/11/12	1
2-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/11/12	1
4-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/11/12	1
1,2-Dibromo-3-Chloropropane	BDL	0.0050	mg/l	8260B	08/11/12	1
1,2-Dibromoethane	BDL	0.0010	mg/l	8260B	08/11/12	1
Dibromomethane	BDL	0.0010	mg/l	8260B	08/11/12	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/11/12	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/11/12	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/11/12	1
Dichlorodifluoromethane	BDL	0.0050	mg/l	8260B	08/11/12	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260B	08/11/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : RINSATE  
Collected By : Paul Davis  
Collection Date : 08/07/12 12:00

ESC Sample # : L589405-14  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2-Dichloroethane	BDL	0.0010	mg/l	8260B	08/11/12	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260B	08/11/12	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/13/12	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/11/12	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/11/12	1
1,1-Dichloropropene	BDL	0.0010	mg/l	8260B	08/11/12	1
1,3-Dichloropropane	BDL	0.0010	mg/l	8260B	08/11/12	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/11/12	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/11/12	1
2,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/11/12	1
Di-isopropyl ether	BDL	0.0010	mg/l	8260B	08/11/12	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	08/11/12	1
Hexachloro-1,3-butadiene	BDL	0.0010	mg/l	8260B	08/11/12	1
Isopropylbenzene	BDL	0.0010	mg/l	8260B	08/11/12	1
p-Isopropyltoluene	BDL	0.0010	mg/l	8260B	08/11/12	1
2-Butanone (MEK)	BDL	0.010	mg/l	8260B	08/11/12	1
Methylene Chloride	BDL	0.0050	mg/l	8260B	08/11/12	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/l	8260B	08/11/12	1
Methyl tert-butyl ether	BDL	0.0010	mg/l	8260B	08/11/12	1
Naphthalene	BDL	0.0050	mg/l	8260B	08/11/12	1
n-Propylbenzene	BDL	0.0010	mg/l	8260B	08/11/12	1
Styrene	BDL	0.0010	mg/l	8260B	08/11/12	1
1,1,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/11/12	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/11/12	1
1,1,2-Trichlorotrifluoroethane	BDL	0.0010	mg/l	8260B	08/11/12	1
Tetrachloroethene	BDL	0.0010	mg/l	8260B	08/11/12	1
Toluene	BDL	0.0050	mg/l	8260B	08/11/12	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/11/12	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/11/12	1
1,1,1-Trichloroethane	BDL	0.0010	mg/l	8260B	08/11/12	1
1,1,2-Trichloroethane	BDL	0.0010	mg/l	8260B	08/11/12	1
Trichloroethene	BDL	0.0010	mg/l	8260B	08/13/12	1
Trichlorofluoromethane	BDL	0.0050	mg/l	8260B	08/11/12	1
1,2,3-Trichloropropane	BDL	0.0025	mg/l	8260B	08/11/12	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/11/12	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/11/12	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/11/12	1
Vinyl chloride	BDL	0.0010	mg/l	8260B	08/11/12	1
Xylenes, Total	BDL	0.0030	mg/l	8260B	08/11/12	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	08/11/12	1
Dibromofluoromethane	101.		% Rec.	8260B	08/11/12	1
4-Bromofluorobenzene	101.		% Rec.	8260B	08/11/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : RINSATE  
Collected By : Paul Davis  
Collection Date : 08/07/12 12:00

ESC Sample # : L589405-14  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Extractable Petroleum Hydrocarb Surrogate Recovery	BDL	0.10	mg/l	EPH	08/14/12	1
o-Terphenyl	65.4		% Rec.	EPH	08/14/12	1
Pesticide/PCBs						
Aldrin	BDL	0.000050	mg/l	8081A/8082	08/13/12	1
Alpha BHC	BDL	0.000050	mg/l	8081A/8082	08/13/12	1
Beta BHC	BDL	0.000050	mg/l	8081A/8082	08/13/12	1
Delta BHC	BDL	0.000050	mg/l	8081A/8082	08/13/12	1
Gamma BHC	BDL	0.000050	mg/l	8081A/8082	08/13/12	1
Chlordane	BDL	0.00050	mg/l	8081A/8082	08/13/12	1
4,4-DDD	BDL	0.000050	mg/l	8081A/8082	08/13/12	1
4,4-DDE	BDL	0.000050	mg/l	8081A/8082	08/13/12	1
4,4-DDT	BDL	0.000050	mg/l	8081A/8082	08/13/12	1
Dieldrin	BDL	0.000050	mg/l	8081A/8082	08/13/12	1
Endosulfan I	BDL	0.000050	mg/l	8081A/8082	08/13/12	1
Endosulfan II	BDL	0.000050	mg/l	8081A/8082	08/13/12	1
Endosulfan sulfate	BDL	0.000050	mg/l	8081A/8082	08/13/12	1
Endrin	BDL	0.000050	mg/l	8081A/8082	08/13/12	1
Endrin aldehyde	BDL	0.000050	mg/l	8081A/8082	08/13/12	1
Endrin ketone	BDL	0.000050	mg/l	8081A/8082	08/13/12	1
Heptachlor	BDL	0.000050	mg/l	8081A/8082	08/13/12	1
Heptachlor epoxide	BDL	0.000050	mg/l	8081A/8082	08/13/12	1
Hexachlorobenzene	BDL	0.000050	mg/l	8081A/8082	08/13/12	1
Methoxychlor	BDL	0.000050	mg/l	8081A/8082	08/13/12	1
Toxaphene	BDL	0.00050	mg/l	8081A/8082	08/13/12	1
PCB 1016	BDL	0.00050	mg/l	8081A/8082	08/13/12	1
PCB 1221	BDL	0.00050	mg/l	8081A/8082	08/13/12	1
PCB 1232	BDL	0.00050	mg/l	8081A/8082	08/13/12	1
PCB 1242	BDL	0.00050	mg/l	8081A/8082	08/13/12	1
PCB 1248	BDL	0.00050	mg/l	8081A/8082	08/13/12	1
PCB 1254	BDL	0.00050	mg/l	8081A/8082	08/13/12	1
PCB 1260	BDL	0.00050	mg/l	8081A/8082	08/13/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	74.9		% Rec.	8081A/8082	08/13/12	1
Tetrachloro-m-xylene	72.3		% Rec.	8081A/8082	08/13/12	1
Herbicides						
2,4-D	BDL	0.0020	mg/l	8151	08/14/12	1
Dalapon	BDL	0.20	mg/l	8151	08/14/12	1
2,4-DB	BDL	0.0020	mg/l	8151	08/14/12	1
Dicamba	BDL	0.0020	mg/l	8151	08/14/12	1
Dichloroprop	BDL	0.0020	mg/l	8151	08/14/12	1
Dinoseb	BDL	0.0020	mg/l	8151	08/14/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : RINSATE  
Collected By : Paul Davis  
Collection Date : 08/07/12 12:00

ESC Sample # : L589405-14  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPA	BDL	0.10	mg/l	8151	08/14/12	1
MCPP	BDL	0.10	mg/l	8151	08/14/12	1
2,4,5-T	BDL	0.0020	mg/l	8151	08/14/12	1
2,4,5-TP (Silvex)	BDL	0.0020	mg/l	8151	08/14/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	67.2		% Rec.	8151	08/14/12	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.0010	mg/l	8270 C	08/14/12	1
Acenaphthylene	BDL	0.0010	mg/l	8270 C	08/14/12	1
Anthracene	BDL	0.0010	mg/l	8270 C	08/14/12	1
Benzidine	BDL	0.010	mg/l	8270 C	08/14/12	1
Benzo(a)anthracene	BDL	0.0010	mg/l	8270 C	08/14/12	1
Benzo(b)fluoranthene	BDL	0.0010	mg/l	8270 C	08/14/12	1
Benzo(k)fluoranthene	BDL	0.0010	mg/l	8270 C	08/14/12	1
Benzo(g,h,i)perylene	BDL	0.0010	mg/l	8270 C	08/14/12	1
Benzo(a)pyrene	BDL	0.0010	mg/l	8270 C	08/14/12	1
Bis(2-chlorethoxy)methane	BDL	0.010	mg/l	8270 C	08/14/12	1
Bis(2-chloroethyl)ether	BDL	0.010	mg/l	8270 C	08/14/12	1
Bis(2-chloroisopropyl)ether	BDL	0.010	mg/l	8270 C	08/14/12	1
4-Bromophenyl-phenylether	BDL	0.010	mg/l	8270 C	08/14/12	1
2-Chloronaphthalene	BDL	0.0010	mg/l	8270 C	08/14/12	1
4-Chlorophenyl-phenylether	BDL	0.010	mg/l	8270 C	08/14/12	1
Chrysene	BDL	0.0010	mg/l	8270 C	08/14/12	1
Dibenz(a,h)anthracene	BDL	0.0010	mg/l	8270 C	08/14/12	1
3,3-Dichlorobenzidine	BDL	0.010	mg/l	8270 C	08/14/12	1
2,4-Dinitrotoluene	BDL	0.010	mg/l	8270 C	08/14/12	1
2,6-Dinitrotoluene	BDL	0.010	mg/l	8270 C	08/14/12	1
Fluoranthene	BDL	0.0010	mg/l	8270 C	08/14/12	1
Fluorene	BDL	0.0010	mg/l	8270 C	08/14/12	1
Hexachlorobenzene	BDL	0.0010	mg/l	8270 C	08/14/12	1
Hexachloro-1,3-butadiene	BDL	0.010	mg/l	8270 C	08/14/12	1
Hexachlorocyclopentadiene	BDL	0.010	mg/l	8270 C	08/14/12	1
Hexachloroethane	BDL	0.010	mg/l	8270 C	08/14/12	1
Indeno(1,2,3-cd)pyrene	BDL	0.0010	mg/l	8270 C	08/14/12	1
Isophorone	BDL	0.010	mg/l	8270 C	08/14/12	1
Naphthalene	BDL	0.0010	mg/l	8270 C	08/14/12	1
Nitrobenzene	BDL	0.010	mg/l	8270 C	08/14/12	1
n-Nitrosodimethylamine	BDL	0.010	mg/l	8270 C	08/14/12	1
n-Nitrosodiphenylamine	BDL	0.010	mg/l	8270 C	08/14/12	1
n-Nitrosodi-n-propylamine	BDL	0.010	mg/l	8270 C	08/14/12	1
Phenanthrene	BDL	0.0010	mg/l	8270 C	08/14/12	1
Benzylbutyl phthalate	BDL	0.0030	mg/l	8270 C	08/14/12	1
Bis(2-ethylhexyl)phthalate	BDL	0.0030	mg/l	8270 C	08/14/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

August 22, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : RINSATE  
Collected By : Paul Davis  
Collection Date : 08/07/12 12:00

ESC Sample # : L589405-14

Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Di-n-butyl phthalate	BDL	0.0030	mg/l	8270 C	08/14/12	1
Diethyl phthalate	BDL	0.0030	mg/l	8270 C	08/14/12	1
Dimethyl phthalate	BDL	0.0030	mg/l	8270 C	08/14/12	1
Di-n-octyl phthalate	BDL	0.0030	mg/l	8270 C	08/14/12	1
Pyrene	BDL	0.0010	mg/l	8270 C	08/14/12	1
1,2,4-Trichlorobenzene	BDL	0.010	mg/l	8270 C	08/14/12	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.010	mg/l	8270 C	08/14/12	1
2-Chlorophenol	BDL	0.010	mg/l	8270 C	08/14/12	1
2,4-Dichlorophenol	BDL	0.010	mg/l	8270 C	08/14/12	1
2,4-Dimethylphenol	BDL	0.010	mg/l	8270 C	08/14/12	1
4,6-Dinitro-2-methylphenol	BDL	0.010	mg/l	8270 C	08/14/12	1
2,4-Dinitrophenol	BDL	0.010	mg/l	8270 C	08/14/12	1
2-Nitrophenol	BDL	0.010	mg/l	8270 C	08/14/12	1
4-Nitrophenol	BDL	0.010	mg/l	8270 C	08/14/12	1
Pentachlorophenol	BDL	0.010	mg/l	8270 C	08/14/12	1
Phenol	BDL	0.010	mg/l	8270 C	08/14/12	1
2,4,6-Trichlorophenol	BDL	0.010	mg/l	8270 C	08/14/12	1
Surrogate Recovery						
2-Fluorophenol	55.5	% Rec.	8270 C	08/14/12	1	
Phenol-d5	37.4	% Rec.	8270 C	08/14/12	1	
Nitrobenzene-d5	98.9	% Rec.	8270 C	08/14/12	1	
2-Fluorobiphenyl	105.	% Rec.	8270 C	08/14/12	1	
2,4,6-Tribromophenol	95.4	% Rec.	8270 C	08/14/12	1	
p-Terphenyl-d14	98.4	% Rec.	8270 C	08/14/12	1	

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 08/22/12 08:57 Revised: 08/22/12 13:14



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Tax I.D. 62-0814289

Est. 1970

## REPORT OF ANALYSIS

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

August 22, 2012

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : TRIP BLANK  
Collected By : Paul Davis  
Collection Date : 08/07/12 12:00

ESC Sample # : L589405-15  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Volatile Organics</b>						
Acetone	BDL	0.050	mg/l	8260B	08/21/12	1
Acrolein	BDL	0.050	mg/l	8260B	08/21/12	1
Acrylonitrile	BDL	0.010	mg/l	8260B	08/21/12	1
Benzene	BDL	0.0010	mg/l	8260B	08/21/12	1
Bromobenzene	BDL	0.0010	mg/l	8260B	08/21/12	1
Bromodichloromethane	BDL	0.0010	mg/l	8260B	08/21/12	1
Bromoform	BDL	0.0010	mg/l	8260B	08/21/12	1
Bromomethane	BDL	0.0050	mg/l	8260B	08/21/12	1
n-Butylbenzene	BDL	0.0010	mg/l	8260B	08/21/12	1
sec-Butylbenzene	BDL	0.0010	mg/l	8260B	08/21/12	1
tert-Butylbenzene	BDL	0.0010	mg/l	8260B	08/21/12	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260B	08/21/12	1
Chlorobenzene	BDL	0.0010	mg/l	8260B	08/21/12	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260B	08/21/12	1
Chloroethane	BDL	0.0050	mg/l	8260B	08/21/12	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/l	8260B	08/21/12	1
Chloroform	BDL	0.0050	mg/l	8260B	08/21/12	1
Chloromethane	BDL	0.0025	mg/l	8260B	08/21/12	1
2-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/21/12	1
4-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/21/12	1
1,2-Dibromo-3-Chloropropane	BDL	0.0050	mg/l	8260B	08/21/12	1
1,2-Dibromoethane	BDL	0.0010	mg/l	8260B	08/21/12	1
Dibromomethane	BDL	0.0010	mg/l	8260B	08/21/12	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/21/12	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/21/12	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/21/12	1
Dichlorodifluoromethane	BDL	0.0050	mg/l	8260B	08/21/12	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260B	08/21/12	1
1,2-Dichloroethane	BDL	0.0010	mg/l	8260B	08/21/12	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260B	08/21/12	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/21/12	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/21/12	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/21/12	1
1,1-Dichloropropene	BDL	0.0010	mg/l	8260B	08/21/12	1
1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/21/12	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/21/12	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/21/12	1
2,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/21/12	1
Di-isopropyl ether	BDL	0.0010	mg/l	8260B	08/21/12	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	08/21/12	1
Hexachloro-1,3-butadiene	BDL	0.0010	mg/l	8260B	08/21/12	1
Isopropylbenzene	BDL	0.0010	mg/l	8260B	08/21/12	1
p-Isopropyltoluene	BDL	0.0010	mg/l	8260B	08/21/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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## REPORT OF ANALYSIS

August 22, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 10, 2012  
Description : Hamm Road  
Sample ID : TRIP BLANK  
Collected By : Paul Davis  
Collection Date : 08/07/12 12:00

ESC Sample # : L589405-15  
Site ID : CHATTANOOGA, TN  
Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	0.010	mg/l	8260B	08/21/12	1
Methylene Chloride	BDL	0.0050	mg/l	8260B	08/21/12	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/l	8260B	08/21/12	1
Methyl tert-butyl ether	BDL	0.0010	mg/l	8260B	08/21/12	1
Naphthalene	BDL	0.0050	mg/l	8260B	08/21/12	1
n-Propylbenzene	BDL	0.0010	mg/l	8260B	08/21/12	1
Styrene	BDL	0.0010	mg/l	8260B	08/21/12	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/21/12	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/21/12	1
1,1,2-Trichlorotrifluoroethane	BDL	0.0010	mg/l	8260B	08/21/12	1
Tetrachloroethene	BDL	0.0010	mg/l	8260B	08/21/12	1
Toluene	BDL	0.0050	mg/l	8260B	08/21/12	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/21/12	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/21/12	1
1,1,1-Trichloroethane	BDL	0.0010	mg/l	8260B	08/21/12	1
1,1,2-Trichloroethane	BDL	0.0010	mg/l	8260B	08/21/12	1
Trichloroethene	BDL	0.0010	mg/l	8260B	08/21/12	1
Trichlorofluoromethane	BDL	0.0050	mg/l	8260B	08/21/12	1
1,2,3-Trichloropropane	BDL	0.0025	mg/l	8260B	08/21/12	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/21/12	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/21/12	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/21/12	1
Vinyl chloride	BDL	0.0010	mg/l	8260B	08/21/12	1
Xylenes, Total	BDL	0.0030	mg/l	8260B	08/21/12	1
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	08/21/12	1
Dibromofluoromethane	101.		% Rec.	8260B	08/21/12	1
4-Bromofluorobenzene	107.		% Rec.	8260B	08/21/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L589405-01		WG607288	SAMP Benzidine	R2299442	J4
		WG607288	SAMP 2-Fluorophenol	R2299442	J7
		WG607288	SAMP Phenol-d5	R2299442	J7
		WG607288	SAMP Nitrobenzene-d5	R2299442	J7
		WG607288	SAMP 2-Fluorobiphenyl	R2299442	J7
		WG607288	SAMP 2,4,6-Tribromophenol	R2299442	J7
		WG607288	SAMP p-Terphenyl-d14	R2299442	J7
		WG607287	SAMP Tetrachloro-m-xylene	R2301033	J2
		WG607181	SAMP Lead	R2300221	B
		WG607251	SAMP Chloroethane	R2299056	J3
		WG607251	SAMP 1,1,2-Trichlorotrifluoroethane	R2299056	J3
		WG607251	SAMP 1,1,1-Trichloroethane	R2299056	J3
		WG607251	SAMP Trichlorofluoromethane	R2299056	J3
		WG607282	SAMP o-Terphenyl	R2300856	J7
L589405-02		WG607288	SAMP Benzidine	R2299442	J4
		WG607288	SAMP 2-Fluorophenol	R2299442	J7
		WG607288	SAMP Phenol-d5	R2299442	J7
		WG607288	SAMP Nitrobenzene-d5	R2299442	J7
		WG607288	SAMP 2-Fluorobiphenyl	R2299442	J7
		WG607288	SAMP 2,4,6-Tribromophenol	R2299442	J7
		WG607288	SAMP p-Terphenyl-d14	R2299442	J7
		WG607701	SAMP PCB 1016	R2304753	J3
		WG607181	SAMP Lead	R2300221	B
		WG607181	SAMP Silver	R2300221	O
		WG607251	SAMP Chloroethane	R2299056	J3
		WG607251	SAMP 1,1,2-Trichlorotrifluoroethane	R2299056	J3
		WG607251	SAMP 1,1,1-Trichloroethane	R2299056	J3
		WG607251	SAMP Trichlorofluoromethane	R2299056	J3
		WG607282	SAMP o-Terphenyl	R2300856	J7
L589405-03		WG607288	SAMP Benzidine	R2299442	J4
		WG607181	SAMP Lead	R2300221	B
		WG607251	SAMP Chloroethane	R2299056	J3
		WG607251	SAMP 1,1,2-Trichlorotrifluoroethane	R2299056	J3
		WG607251	SAMP 1,1,1-Trichloroethane	R2299056	J3
L589405-04		WG607251	SAMP Trichlorofluoromethane	R2299056	J3
		WG607288	SAMP Benzidine	R2299442	J4J6J3
		WG607181	SAMP Lead	R2300221	B
		WG607181	SAMP Silver	R2300221	O
		WG607251	SAMP Chloroethane	R2299056	J3
		WG607251	SAMP 1,1,2-Trichlorotrifluoroethane	R2299056	J3
		WG607251	SAMP 1,1,1-Trichloroethane	R2299056	J3
		WG607251	SAMP Trichlorofluoromethane	R2299056	J3
L589405-05		WG607288	SAMP Benzidine	R2299442	J4
		WG607181	SAMP Lead	R2300221	B
		WG607181	SAMP Selenium	R2300221	O
		WG607181	SAMP Silver	R2300221	O
		WG607251	SAMP Chloroethane	R2299056	J3
		WG607251	SAMP 1,1,2-Trichlorotrifluoroethane	R2299056	J3
		WG607251	SAMP 1,1,1-Trichloroethane	R2299056	J3
		WG607251	SAMP Trichlorofluoromethane	R2299056	J3
L589405-06		WG607288	SAMP Benzidine	R2299442	J4
		WG607181	SAMP Lead	R2300221	B
		WG607181	SAMP Silver	R2300221	O
		WG607251	SAMP Chloroethane	R2299056	J3
		WG607251	SAMP 1,1,2-Trichlorotrifluoroethane	R2299056	J3
		WG607251	SAMP 1,1,1-Trichloroethane	R2299056	J3
		WG607251	SAMP Trichlorofluoromethane	R2299056	J3
L589405-07		WG607288	SAMP Benzidine	R2299442	J4
		WG607287	SAMP Tetrachloro-m-xylene	R2301033	J2
		WG607181	SAMP Lead	R2300221	B
		WG607181	SAMP Silver	R2300221	O
		WG607251	SAMP Chloroethane	R2299056	J3
		WG607251	SAMP 1,1,2-Trichlorotrifluoroethane	R2299056	J3
		WG607251	SAMP 1,1,1-Trichloroethane	R2299056	J3
		WG607251	SAMP Trichlorofluoromethane	R2299056	J3
L589405-08		WG607288	SAMP Benzidine	R2299442	J4
		WG607287	SAMP Tetrachloro-m-xylene	R2301033	J2
		WG607181	SAMP Lead	R2300221	B
		WG607181	SAMP Silver	R2300221	O
		WG607251	SAMP Chloroethane	R2299056	J3
		WG607251	SAMP 1,1,2-Trichlorotrifluoroethane	R2299056	J3
		WG607251	SAMP 1,1,1-Trichloroethane	R2299056	J3
		WG607251	SAMP Trichlorofluoromethane	R2299056	J3
		WG607282	SAMP o-Terphenyl	R2300856	J7
		WG607288	SAMP Benzidine	R2299442	J4
		WG607287	SAMP Tetrachloro-m-xylene	R2301033	J2
		WG607181	SAMP Lead	R2300221	B

**Attachment A**  
**List of Analytes with QC Qualifiers**

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L589405-09	WG607181	SAMP	Silver	R2300221	O
	WG607251	SAMP	Chloroethane	R2299056	J3
	WG607251	SAMP	1,1,2-Trichlorotrifluoroethane	R2299056	J3
	WG607251	SAMP	1,1,1-Trichloroethane	R2299056	J3
	WG607251	SAMP	Trichlorofluoromethane	R2299056	J3
	WG607288	SAMP	Benzidine	R2299442	J4
	WG607701	SAMP	PCB 1016	R2304753	J3
	WG607181	SAMP	Arsenic	R2300221	J6J3
	WG607181	SAMP	Cadmium	R2300221	J6
	WG607181	SAMP	Chromium	R2300221	J6J3
	WG607181	SAMP	Lead	R2300221	BJ6J3
	WG607181	SAMP	Selenium	R2300221	J6J3
	WG607181	SAMP	Silver	R2300221	O
	WG607251	SAMP	Chloroethane	R2299056	J3
	WG607251	SAMP	1,1,2-Trichlorotrifluoroethane	R2299056	J3
	WG607251	SAMP	1,1,1-Trichloroethane	R2299056	J3
	WG607251	SAMP	Trichlorofluoromethane	R2299056	J3
	WG607282	SAMP	Extractable Petroleum Hydrocarbon	R2300856	O
L589405-10	WG607282	SAMP	o-Terphenyl	R2300856	J7
	WG607288	SAMP	Benzidine	R2299442	J4
	WG607288	SAMP	2-Fluorophenol	R2299442	J7
	WG607288	SAMP	Phenol-d5	R2299442	J7
	WG607288	SAMP	Nitrobenzene-d5	R2299442	J7
	WG607288	SAMP	2-Fluorobiphenyl	R2299442	J7
	WG607288	SAMP	2,4,6-Tribromophenol	R2299442	J7
	WG607288	SAMP	p-Terphenyl-d14	R2299442	J7
	WG607701	SAMP	PCB 1016	R2304753	J3
	WG607181	SAMP	Lead	R2300221	B
	WG607181	SAMP	Silver	R2300221	O
	WG607251	SAMP	Chloroethane	R2299056	J3
	WG607251	SAMP	1,1,2-Trichlorotrifluoroethane	R2299056	J3
	WG607251	SAMP	1,1,1-Trichloroethane	R2299056	J3
	WG607251	SAMP	Trichlorofluoromethane	R2299056	J3
	WG607282	SAMP	o-Terphenyl	R2300856	J7
L589405-11	WG607288	SAMP	Benzidine	R2299442	J4
	WG607181	SAMP	Lead	R2300221	B
L589405-12	WG608107	SAMP	o-Terphenyl	R2307234	J2
	WG607288	SAMP	Benzidine	R2299442	J4
	WG607287	SAMP	Tetrachloro-m-xylene	R2301033	J2
	WG607181	SAMP	Lead	R2300221	B
L589405-13	WG607181	SAMP	Silver	R2300221	O
	WG607288	SAMP	Benzidine	R2299442	J4
	WG607288	SAMP	2-Fluorophenol	R2299442	J7
	WG607288	SAMP	Phenol-d5	R2299442	J7
	WG607288	SAMP	Nitrobenzene-d5	R2299442	J7
	WG607288	SAMP	2-Fluorobiphenyl	R2299442	J7
	WG607288	SAMP	2,4,6-Tribromophenol	R2299442	J7
	WG607288	SAMP	p-Terphenyl-d14	R2299442	J7
	WG607287	SAMP	Tetrachloro-m-xylene	R2301033	J2
	WG607181	SAMP	Lead	R2300221	B
	WG607181	SAMP	Silver	R2300221	O
	WG607172	SAMP	o-Terphenyl	R2300855	J7
L589405-14	WG607420	SAMP	4,4-DDD	R2299955	J3
	WG607420	SAMP	4,4-DDE	R2299955	J3
	WG607420	SAMP	4,4-DDT	R2299955	J3L1
	WG607420	SAMP	Dieldrin	R2299955	J3
	WG607420	SAMP	Endosulfan I	R2299955	J3
	WG607420	SAMP	Endosulfan II	R2299955	J3
	WG607420	SAMP	Endosulfan sulfate	R2299955	J3
	WG607420	SAMP	Endrin	R2299955	J3
	WG607420	SAMP	Endrin aldehyde	R2299955	L1J3
	WG607420	SAMP	Endrin ketone	R2299955	J3
	WG607420	SAMP	Heptachlor epoxide	R2299955	J3
	WG607420	SAMP	Methoxychlor	R2299955	J3L1
	WG607069	SAMP	n-Nitrosodimethylamine	R2300595	J3
L589405-15	WG607601	SAMP	Dinoseb	R2303553	J3
	WG608731	SAMP	Acetone	R2311093	J4Q
	WG608731	SAMP	Acrolein	R2311093	Q
	WG608731	SAMP	Acrylonitrile	R2311093	Q
	WG608731	SAMP	Benzene	R2311093	Q

**Attachment A**  
**List of Analytes with QC Qualifiers**

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
WG608731	SAMP	Bromobenzene	R2311093	J4Q	
WG608731	SAMP	Bromodichloromethane	R2311093	Q	
WG608731	SAMP	Bromoform	R2311093	Q	
WG608731	SAMP	Bromomethane	R2311093	Q	
WG608731	SAMP	n-Butylbenzene	R2311093	Q	
WG608731	SAMP	sec-Butylbenzene	R2311093	Q	
WG608731	SAMP	tert-Butylbenzene	R2311093	Q	
WG608731	SAMP	Carbon tetrachloride	R2311093	Q	
WG608731	SAMP	Chlorobenzene	R2311093	Q	
WG608731	SAMP	Chlorodibromomethane	R2311093	J4Q	
WG608731	SAMP	Chloroethane	R2311093	Q	
WG608731	SAMP	2-Chloroethyl vinyl ether	R2311093	Q	
WG608731	SAMP	Chloroform	R2311093	Q	
WG608731	SAMP	Chloromethane	R2311093	Q	
WG608731	SAMP	2-Chlorotoluene	R2311093	Q	
WG608731	SAMP	4-Chlorotoluene	R2311093	Q	
WG608731	SAMP	1,2-Dibromo-3-Chloropropane	R2311093	Q	
WG608731	SAMP	1,2-Dibromoethane	R2311093	Q	
WG608731	SAMP	Dibromomethane	R2311093	Q	
WG608731	SAMP	1,2-Dichlorobenzene	R2311093	Q	
WG608731	SAMP	1,3-Dichlorobenzene	R2311093	Q	
WG608731	SAMP	1,4-Dichlorobenzene	R2311093	Q	
WG608731	SAMP	Dichlorodifluoromethane	R2311093	Q	
WG608731	SAMP	1,1-Dichloroethane	R2311093	Q	
WG608731	SAMP	1,2-Dichloroethane	R2311093	Q	
WG608731	SAMP	1,1-Dichloroethene	R2311093	Q	
WG608731	SAMP	cis-1,2-Dichloroethene	R2311093	Q	
WG608731	SAMP	trans-1,2-Dichloroethene	R2311093	Q	
WG608731	SAMP	1,2-Dichloropropane	R2311093	Q	
WG608731	SAMP	1,1-Dichloropropene	R2311093	Q	
WG608731	SAMP	1,3-Dichloropropane	R2311093	Q	
WG608731	SAMP	cis-1,3-Dichloropropene	R2311093	Q	
WG608731	SAMP	trans-1,3-Dichloropropene	R2311093	Q	
WG608731	SAMP	2,2-Dichloropropane	R2311093	Q	
WG608731	SAMP	Di-isopropyl ether	R2311093	Q	
WG608731	SAMP	Ethylbenzene	R2311093	Q	
WG608731	SAMP	Hexachloro-1,3-butadiene	R2311093	Q	
WG608731	SAMP	Isopropylbenzene	R2311093	Q	
WG608731	SAMP	p-Isopropyltoluene	R2311093	Q	
WG608731	SAMP	2-Butanone (MEK)	R2311093	Q	
WG608731	SAMP	Methylene Chloride	R2311093	Q	
WG608731	SAMP	4-Methyl-2-pentanone (MIBK)	R2311093	Q	
WG608731	SAMP	Methyl tert-butyl ether	R2311093	Q	
WG608731	SAMP	Naphthalene	R2311093	Q	
WG608731	SAMP	n-Propylbenzene	R2311093	Q	
WG608731	SAMP	Styrene	R2311093	Q	
WG608731	SAMP	1,1,1,2-Tetrachloroethane	R2311093	Q	
WG608731	SAMP	1,1,2,2-Tetrachloroethane	R2311093	Q	
WG608731	SAMP	1,1,2-Trichlorotrifluoroethane	R2311093	Q	
WG608731	SAMP	Tetrachloroethene	R2311093	Q	
WG608731	SAMP	Toluene	R2311093	Q	
WG608731	SAMP	1,2,3-Trichlorobenzene	R2311093	Q	
WG608731	SAMP	1,2,4-Trichlorobenzene	R2311093	Q	
WG608731	SAMP	1,1,1-Trichloroethane	R2311093	Q	
WG608731	SAMP	1,1,2-Trichloroethane	R2311093	Q	
WG608731	SAMP	Trichloroethene	R2311093	Q	
WG608731	SAMP	Trichlorofluoromethane	R2311093	Q	
WG608731	SAMP	1,2,3-Trichloropropane	R2311093	Q	
WG608731	SAMP	1,2,4-Trimethylbenzene	R2311093	Q	
WG608731	SAMP	1,2,3-Trimethylbenzene	R2311093	Q	
WG608731	SAMP	1,3,5-Trimethylbenzene	R2311093	Q	
WG608731	SAMP	Vinyl chloride	R2311093	Q	
WG608731	SAMP	Xylenes, Total	R2311093	Q	

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
B	(EPA) - The indicated compound was found in the associated method blank as well as the laboratory sample.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
L1	(ESC) The associated batch LCS exceeded the upper control limit, which indicates a high bias; The sample analyte was "not detected" and is therefore unaffected.
O	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.
Q	(ESC) Sample held beyond the accepted holding time.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed  
08/22/12 at 13:14:54

TSR Signing Reports: 350  
R5 - Desired TAT

Sample: L589405-01 Account: GALLETCTN Received: 08/10/12 09:00 Due Date: 08/24/12 00:00 RPT Date: 08/22/12 08:57  
Include detailed case narrative with report  
Sample: L589405-02 Account: GALLETCTN Received: 08/10/12 09:00 Due Date: 08/24/12 00:00 RPT Date: 08/22/12 08:57  
Include detailed case narrative with report  
Sample: L589405-03 Account: GALLETCTN Received: 08/10/12 09:00 Due Date: 08/24/12 00:00 RPT Date: 08/22/12 08:57  
Include detailed case narrative with report  
Sample: L589405-04 Account: GALLETCTN Received: 08/10/12 09:00 Due Date: 08/24/12 00:00 RPT Date: 08/22/12 08:57  
Include detailed case narrative with report  
Sample: L589405-05 Account: GALLETCTN Received: 08/10/12 09:00 Due Date: 08/24/12 00:00 RPT Date: 08/22/12 08:57  
Include detailed case narrative with report  
Sample: L589405-06 Account: GALLETCTN Received: 08/10/12 09:00 Due Date: 08/24/12 00:00 RPT Date: 08/22/12 08:57  
Include detailed case narrative with report  
Sample: L589405-07 Account: GALLETCTN Received: 08/10/12 09:00 Due Date: 08/24/12 00:00 RPT Date: 08/22/12 08:57  
Include detailed case narrative with report  
Sample: L589405-08 Account: GALLETCTN Received: 08/10/12 09:00 Due Date: 08/24/12 00:00 RPT Date: 08/22/12 08:57  
Include detailed case narrative with report  
Sample: L589405-09 Account: GALLETCTN Received: 08/10/12 09:00 Due Date: 08/24/12 00:00 RPT Date: 08/22/12 08:57  
Include detailed case narrative with report  
Sample: L589405-10 Account: GALLETCTN Received: 08/10/12 09:00 Due Date: 08/24/12 00:00 RPT Date: 08/22/12 08:57  
Include detailed case narrative with report  
Sample: L589405-11 Account: GALLETCTN Received: 08/10/12 09:00 Due Date: 08/24/12 00:00 RPT Date: 08/22/12 08:57  
Include detailed case narrative with report  
Sample: L589405-12 Account: GALLETCTN Received: 08/10/12 09:00 Due Date: 08/24/12 00:00 RPT Date: 08/22/12 08:57  
Include detailed case narrative with report  
Sample: L589405-13 Account: GALLETCTN Received: 08/10/12 09:00 Due Date: 08/24/12 00:00 RPT Date: 08/22/12 08:57  
Include detailed case narrative with report  
Sample: L589405-14 Account: GALLETCTN Received: 08/10/12 09:00 Due Date: 08/24/12 00:00 RPT Date: 08/22/12 08:57  
Include detailed case narrative with report  
Sample: L589405-15 Account: GALLETCTN Received: 08/10/12 09:00 Due Date: 08/24/12 00:00 RPT Date: 08/22/12 08:57  
added per JH - run from TripBlank vial labeled as -14



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Tax I.D. 62-0814289

Est. 1970

August 22, 2012

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
1,1,1,2-Tetrachloroethane	< .001	mg/kg			WG607251	08/11/12 21:14
1,1,1-Trichloroethane	< .001	mg/kg			WG607251	08/11/12 21:14
1,1,2,2-Tetrachloroethane	< .001	mg/kg			WG607251	08/11/12 21:14
1,1,2-Trichloroethane	< .001	mg/kg			WG607251	08/11/12 21:14
1,1,2-Trichlorotrifluoroethane	< .001	mg/kg			WG607251	08/11/12 21:14
1,1-Dichloroethane	< .001	mg/kg			WG607251	08/11/12 21:14
1,1-Dichloroethene	< .001	mg/kg			WG607251	08/11/12 21:14
1,1-Dichloropropene	< .001	mg/kg			WG607251	08/11/12 21:14
1,2,3-Trichlorobenzene	< .001	mg/kg			WG607251	08/11/12 21:14
1,2,3-Trichloropropane	< .0025	mg/kg			WG607251	08/11/12 21:14
1,2,3-Trimethylbenzene	< .001	mg/kg			WG607251	08/11/12 21:14
1,2,4-Trichlorobenzene	< .001	mg/kg			WG607251	08/11/12 21:14
1,2,4-Trimethylbenzene	< .001	mg/kg			WG607251	08/11/12 21:14
1,2-Dibromo-3-Chloropropane	< .005	mg/kg			WG607251	08/11/12 21:14
1,2-Dibromoethane	< .001	mg/kg			WG607251	08/11/12 21:14
1,2-Dichlorobenzene	< .001	mg/kg			WG607251	08/11/12 21:14
1,2-Dichloroethane	< .001	mg/kg			WG607251	08/11/12 21:14
1,2-Dichloropropane	< .001	mg/kg			WG607251	08/11/12 21:14
1,3,5-Trimethylbenzene	< .001	mg/kg			WG607251	08/11/12 21:14
1,3-Dichlorobenzene	< .001	mg/kg			WG607251	08/11/12 21:14
1,3-Dichloropropane	< .001	mg/kg			WG607251	08/11/12 21:14
1,4-Dichlorobenzene	< .001	mg/kg			WG607251	08/11/12 21:14
2,2-Dichloropropane	< .001	mg/kg			WG607251	08/11/12 21:14
2-Butanone (MEK)	< .01	mg/kg			WG607251	08/11/12 21:14
2-Chloroethyl vinyl ether	< .05	mg/kg			WG607251	08/11/12 21:14
2-Chlorotoluene	< .001	mg/kg			WG607251	08/11/12 21:14
4-Chlorotoluene	< .001	mg/kg			WG607251	08/11/12 21:14
4-Methyl-2-pentanone (MIBK)	< .01	mg/kg			WG607251	08/11/12 21:14
Acetone	< .05	mg/kg			WG607251	08/11/12 21:14
Acrylonitrile	< .01	mg/kg			WG607251	08/11/12 21:14
Benzene	< .001	mg/kg			WG607251	08/11/12 21:14
Bromobenzene	< .001	mg/kg			WG607251	08/11/12 21:14
Bromodichloromethane	< .001	mg/kg			WG607251	08/11/12 21:14
Bromoform	< .001	mg/kg			WG607251	08/11/12 21:14
Bromomethane	< .005	mg/kg			WG607251	08/11/12 21:14
Carbon tetrachloride	< .001	mg/kg			WG607251	08/11/12 21:14
Chlorobenzene	< .001	mg/kg			WG607251	08/11/12 21:14
Chlorodibromomethane	< .001	mg/kg			WG607251	08/11/12 21:14
Chloroethane	< .005	mg/kg			WG607251	08/11/12 21:14
Chloroform	< .005	mg/kg			WG607251	08/11/12 21:14
Chloromethane	< .0025	mg/kg			WG607251	08/11/12 21:14
cis-1,2-Dichloroethene	< .001	mg/kg			WG607251	08/11/12 21:14
cis-1,3-Dichloropropene	< .001	mg/kg			WG607251	08/11/12 21:14
Di-isopropyl ether	< .001	mg/kg			WG607251	08/11/12 21:14
Dibromomethane	< .001	mg/kg			WG607251	08/11/12 21:14
Dichlorodifluoromethane	< .005	mg/kg			WG607251	08/11/12 21:14
Ethylbenzene	< .001	mg/kg			WG607251	08/11/12 21:14
Hexachloro-1,3-butadiene	< .001	mg/kg			WG607251	08/11/12 21:14
Isopropylbenzene	< .001	mg/kg			WG607251	08/11/12 21:14
Methyl tert-butyl ether	< .001	mg/kg			WG607251	08/11/12 21:14
Methylene Chloride	< .005	mg/kg			WG607251	08/11/12 21:14
n-Butylbenzene	< .001	mg/kg			WG607251	08/11/12 21:14
n-Propylbenzene	< .001	mg/kg			WG607251	08/11/12 21:14
Naphthalene	< .005	mg/kg			WG607251	08/11/12 21:14
p-Isopropyltoluene	< .001	mg/kg			WG607251	08/11/12 21:14
sec-Butylbenzene	< .001	mg/kg			WG607251	08/11/12 21:14
Styrene	< .001	mg/kg			WG607251	08/11/12 21:14
tert-Butylbenzene	< .001	mg/kg			WG607251	08/11/12 21:14
Tetrachloroethene	< .001	mg/kg			WG607251	08/11/12 21:14

\* Performance of this Analyte is outside of established criteria.

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Tax I.D. 62-0814289

Est. 1970

August 22, 2012

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
Toluene	< .005	mg/kg			WG607251	08/11/12 21:14
trans-1,2-Dichloroethene	< .001	mg/kg			WG607251	08/11/12 21:14
trans-1,3-Dichloropropene	< .001	mg/kg			WG607251	08/11/12 21:14
Trichloroethene	< .001	mg/kg			WG607251	08/11/12 21:14
Trichlorofluoromethane	< .005	mg/kg			WG607251	08/11/12 21:14
Vinyl chloride	< .001	mg/kg			WG607251	08/11/12 21:14
Xylenes, Total	< .003	mg/kg			WG607251	08/11/12 21:14
4-Bromofluorobenzene		% Rec.	105.4	67-133	WG607251	08/11/12 21:14
Dibromofluoromethane		% Rec.	95.77	72-135	WG607251	08/11/12 21:14
Toluene-d8		% Rec.	102.5	90-113	WG607251	08/11/12 21:14
1,2,4-Trichlorobenzene	< .333	mg/kg			WG607288	08/12/12 10:40
2,4,6-Trichlorophenol	< .333	mg/kg			WG607288	08/12/12 10:40
2,1-Dichlorophenol	< .333	mg/kg			WG607288	08/12/12 10:40
2,4-Dimethylphenol	< .333	mg/kg			WG607288	08/12/12 10:40
2,4-Dinitrophenol	< .333	mg/kg			WG607288	08/12/12 10:40
2,4-Dinitrotoluene	< .333	mg/kg			WG607288	08/12/12 10:40
2,6-Dinitrotoluene	< .333	mg/kg			WG607288	08/12/12 10:40
2-Chloronaphthalene	< .033	mg/kg			WG607288	08/12/12 10:40
2-Chlorophenol	< .333	mg/kg			WG607288	08/12/12 10:40
2-Nitrophenol	< .333	mg/kg			WG607288	08/12/12 10:40
3,3-Dichlorobenzidine	< .333	mg/kg			WG607288	08/12/12 10:40
4,6-Dinitro-2-methylphenol	< .333	mg/kg			WG607288	08/12/12 10:40
4-Bromophenyl-phenylether	< .333	mg/kg			WG607288	08/12/12 10:40
4-Chloro-3-methylphenol	< .333	mg/kg			WG607288	08/12/12 10:40
4-Chlorophenyl-phenylether	< .333	mg/kg			WG607288	08/12/12 10:40
4-Nitrophenol	< .333	mg/kg			WG607288	08/12/12 10:40
Acenaphthene	< .033	mg/kg			WG607288	08/12/12 10:40
Acenaphthylene	< .033	mg/kg			WG607288	08/12/12 10:40
Anthracene	< .033	mg/kg			WG607288	08/12/12 10:40
Benzidine	< .333	mg/kg			WG607288	08/12/12 10:40
Benzo(a)anthracene	< .033	mg/kg			WG607288	08/12/12 10:40
Benzo(a)pyrene	< .033	mg/kg			WG607288	08/12/12 10:40
Benzo(b)fluoranthene	< .033	mg/kg			WG607288	08/12/12 10:40
Benzo(g,h,i)perylene	< .033	mg/kg			WG607288	08/12/12 10:40
Benzo(k)fluoranthene	< .033	mg/kg			WG607288	08/12/12 10:40
Benzylbutyl phthalate	< .333	mg/kg			WG607288	08/12/12 10:40
Bis(2-chlorethoxy)methane	< .333	mg/kg			WG607288	08/12/12 10:40
Bis(2-chloroethyl)ether	< .333	mg/kg			WG607288	08/12/12 10:40
Bis(2-chloroisopropyl)ether	< .333	mg/kg			WG607288	08/12/12 10:40
Bis(2-ethylhexyl)phthalate	< .333	mg/kg			WG607288	08/12/12 10:40
Chrysene	< .033	mg/kg			WG607288	08/12/12 10:40
Di-n-butyl phthalate	< .333	mg/kg			WG607288	08/12/12 10:40
Di-n-octyl phthalate	< .333	mg/kg			WG607288	08/12/12 10:40
Dibenz(a,h)anthracene	< .033	mg/kg			WG607288	08/12/12 10:40
Diethyl phthalate	< .333	mg/kg			WG607288	08/12/12 10:40
Dimethyl phthalate	< .333	mg/kg			WG607288	08/12/12 10:40
Fluoranthene	< .033	mg/kg			WG607288	08/12/12 10:40
Fluorene	< .033	mg/kg			WG607288	08/12/12 10:40
Hexachloro-1,3-butadiene	< .333	mg/kg			WG607288	08/12/12 10:40
Hexachlorobenzene	< .333	mg/kg			WG607288	08/12/12 10:40
Hexachlorocyclopentadiene	< .333	mg/kg			WG607288	08/12/12 10:40
Hexachloroethane	< .333	mg/kg			WG607288	08/12/12 10:40
Indeno(1,2,3-cd)pyrene	< .033	mg/kg			WG607288	08/12/12 10:40
Isophorone	< .333	mg/kg			WG607288	08/12/12 10:40
n-Nitrosodi-n-propylamine	< .333	mg/kg			WG607288	08/12/12 10:40
n-Nitrosodimethylamine	< .333	mg/kg			WG607288	08/12/12 10:40
n-Nitrosodiphenylamine	< .333	mg/kg			WG607288	08/12/12 10:40

\* Performance of this Analyte is outside of established criteria.

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Tax I.D. 62-0814289

Est. 1970

August 22, 2012

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
Naphthalene	< .033	mg/kg			WG607288	08/12/12 10:40
Nitrobenzene	< .333	mg/kg			WG607288	08/12/12 10:40
Pentachlorophenol	< .333	mg/kg			WG607288	08/12/12 10:40
Phenanthrene	< .033	mg/kg			WG607288	08/12/12 10:40
Phenol	< .333	mg/kg			WG607288	08/12/12 10:40
Pyrene	< .033	mg/kg			WG607288	08/12/12 10:40
2,4,6-Tribromophenol		% Rec.	71.57	16-136	WG607288	08/12/12 10:40
2-Fluorobiphenyl		% Rec.	78.81	37-119	WG607288	08/12/12 10:40
2-Fluorophenol		% Rec.	68.67	22-114	WG607288	08/12/12 10:40
Nitrobenzene-d5		% Rec.	63.21	20-114	WG607288	08/12/12 10:40
Phenol-d5		% Rec.	71.04	26-127	WG607288	08/12/12 10:40
p-Terphenyl-d14		% Rec.	79.13	15-174	WG607288	08/12/12 10:40
Mercury	< .0002	mg/l			WG607220	08/11/12 10:36
Mercury	< .02	mg/kg			WG607211	08/11/12 13:12
PCB 1016	< .0005	mg/l			WG607420	08/13/12 11:31
PCB 1221	< .0005	mg/l			WG607420	08/13/12 11:31
PCB 1232	< .0005	mg/l			WG607420	08/13/12 11:31
PCB 1242	< .0005	mg/l			WG607420	08/13/12 11:31
PCB 1248	< .0005	mg/l			WG607420	08/13/12 11:31
PCB 1254	< .0005	mg/l			WG607420	08/13/12 11:31
PCB 1260	< .0005	mg/l			WG607420	08/13/12 11:31
Decachlorobiphenyl		% Rec.	83.97	10-122.6	WG607420	08/13/12 11:31
Tetrachloro-m-xylene		% Rec.	77.60	15.3-114.2	WG607420	08/13/12 11:31
Arsenic	< 1	mg/kg			WG607181	08/12/12 17:03
Cadmium	< .25	mg/kg			WG607181	08/12/12 17:03
Chromium	< .5	mg/kg			WG607181	08/12/12 17:03
Lead	0.251	mg/kg			WG607181	08/12/12 17:03
Selenium	< 1	mg/kg			WG607181	08/12/12 17:03
Silver	< .5	mg/kg			WG607181	08/12/12 17:03
1,1,1,2-Tetrachloroethane	< .001	mg/l			WG607206	08/10/12 21:45
1,1,1-Trichloroethane	< .001	mg/l			WG607206	08/10/12 21:45
1,1,2,2-Tetrachloroethane	< .001	mg/l			WG607206	08/10/12 21:45
1,1,2-Trichloroethane	< .001	mg/l			WG607206	08/10/12 21:45
1,1,2-Trichlorotrifluoroethane	< .001	mg/l			WG607206	08/10/12 21:45
1,1-Dichloroethane	< .001	mg/l			WG607206	08/10/12 21:45
1,1-Dichloroethene	< .001	mg/l			WG607206	08/10/12 21:45
1,1-Dichloropropene	< .001	mg/l			WG607206	08/10/12 21:45
1,2,3-Trichlorobenzene	< .001	mg/l			WG607206	08/10/12 21:45
1,2,3-Trichloropropane	< .001	mg/l			WG607206	08/10/12 21:45
1,2,3-Trimethylbenzene	< .001	mg/l			WG607206	08/10/12 21:45
1,2,4-Trichlorobenzene	< .001	mg/l			WG607206	08/10/12 21:45
1,2,4-Trimethylbenzene	< .001	mg/l			WG607206	08/10/12 21:45
1,2-Dibromo-3-Chloropropane	< .005	mg/l			WG607206	08/10/12 21:45
1,2-Dibromoethane	< .001	mg/l			WG607206	08/10/12 21:45
1,2-Dichlorobenzene	< .001	mg/l			WG607206	08/10/12 21:45
1,2-Dichloroethane	< .001	mg/l			WG607206	08/10/12 21:45
1,2-Dichloropropane	< .001	mg/l			WG607206	08/10/12 21:45
1,3,5-Trimethylbenzene	< .001	mg/l			WG607206	08/10/12 21:45
1,3-Dichlorobenzene	< .001	mg/l			WG607206	08/10/12 21:45

\* Performance of this Analyte is outside of established criteria.

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YOUR LAB OF CHOICE

Terracon Consulting Inc.  
Amanda Herrit  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Quality Assurance Report  
Level II

L589405

12065 Lebanon Rd.  
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(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

August 22, 2012

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
1,3-Dichloropropane	< .001	mg/l			WG607206	08/10/12 21:45
1,4-Dichlorobenzene	< .001	mg/l			WG607206	08/10/12 21:45
2,2-Dichloropropane	< .001	mg/l			WG607206	08/10/12 21:45
2-Butanone (MEK)	< .01	mg/l			WG607206	08/10/12 21:45
2-Chloroethyl vinyl ether	< .05	mg/l			WG607206	08/10/12 21:45
2-Chlorotoluene	< .001	mg/l			WG607206	08/10/12 21:45
4-Chlorotoluene	< .001	mg/l			WG607206	08/10/12 21:45
4-Methyl-2-pentanone (MIBK)	< .01	mg/l			WG607206	08/10/12 21:45
Acetone	< .05	mg/l			WG607206	08/10/12 21:45
Acrolein	< .025	mg/l			WG607206	08/10/12 21:45
Acrylonitrile	< .01	mg/l			WG607206	08/10/12 21:45
Benzene	< .001	mg/l			WG607206	08/10/12 21:45
Bromobenzene	< .001	mg/l			WG607206	08/10/12 21:45
Bromodichloromethane	< .001	mg/l			WG607206	08/10/12 21:45
Bromoform	< .001	mg/l			WG607206	08/10/12 21:45
Bromomethane	< .005	mg/l			WG607206	08/10/12 21:45
Carbon tetrachloride	< .001	mg/l			WG607206	08/10/12 21:45
Chlorobenzene	< .001	mg/l			WG607206	08/10/12 21:45
Chlorodibromomethane	< .001	mg/l			WG607206	08/10/12 21:45
Chloroethane	< .005	mg/l			WG607206	08/10/12 21:45
Chloroform	< .005	mg/l			WG607206	08/10/12 21:45
Chloromethane	< .0025	mg/l			WG607206	08/10/12 21:45
cis-1,3-Dichloropropene	< .001	mg/l			WG607206	08/10/12 21:45
Di-isopropyl ether	< .001	mg/l			WG607206	08/10/12 21:45
Dibromomethane	< .001	mg/l			WG607206	08/10/12 21:45
Dichlorodifluoromethane	< .005	mg/l			WG607206	08/10/12 21:45
Ethylbenzene	< .001	mg/l			WG607206	08/10/12 21:45
Hexachloro-1,3-butadiene	< .001	mg/l			WG607206	08/10/12 21:45
Isopropylbenzene	< .001	mg/l			WG607206	08/10/12 21:45
Methyl tert-butyl ether	< .001	mg/l			WG607206	08/10/12 21:45
Methylene Chloride	< .005	mg/l			WG607206	08/10/12 21:45
n-Butylbenzene	< .001	mg/l			WG607206	08/10/12 21:45
n-Propylbenzene	< .001	mg/l			WG607206	08/10/12 21:45
Naphthalene	< .005	mg/l			WG607206	08/10/12 21:45
p-Isopropyltoluene	< .001	mg/l			WG607206	08/10/12 21:45
sec-Butylbenzene	< .001	mg/l			WG607206	08/10/12 21:45
Styrene	< .001	mg/l			WG607206	08/10/12 21:45
tert-Butylbenzene	< .001	mg/l			WG607206	08/10/12 21:45
Tetrachloroethene	< .001	mg/l			WG607206	08/10/12 21:45
Toluene	< .005	mg/l			WG607206	08/10/12 21:45
trans-1,2-Dichloroethene	< .001	mg/l			WG607206	08/10/12 21:45
trans-1,3-Dichloropropene	< .001	mg/l			WG607206	08/10/12 21:45
Trichlorofluoromethane	< .005	mg/l			WG607206	08/10/12 21:45
Vinyl chloride	< .001	mg/l			WG607206	08/10/12 21:45
Xylenes, Total	< .003	mg/l			WG607206	08/10/12 21:45
4-Bromofluorobenzene		% Rec.	105.5	82-120	WG607206	08/10/12 21:45
Dibromofluoromethane		% Rec.	99.55	82-126	WG607206	08/10/12 21:45
Toluene-d8		% Rec.	99.81	92-112	WG607206	08/10/12 21:45
Naphthalene	< .005	mg/kg			WG607441	08/13/12 12:30
4-Bromofluorobenzene		% Rec.	94.81	67-133	WG607441	08/13/12 12:30
Dibromofluoromethane		% Rec.	101.8	72-135	WG607441	08/13/12 12:30
Toluene-d8		% Rec.	98.55	90-113	WG607441	08/13/12 12:30
1,2,4-Trichlorobenzene	< .01	mg/l			WG607069	08/13/12 13:10
2,4,6-Trichlorophenol	< .01	mg/l			WG607069	08/13/12 13:10
2,4-Dichlorophenol	< .01	mg/l			WG607069	08/13/12 13:10

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Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
2,4-Dimethylphenol	< .01	mg/l			WG607069	08/13/12 13:10
2,4-Dinitrophenol	< .01	mg/l			WG607069	08/13/12 13:10
2,4-Dinitrotoluene	< .01	mg/l			WG607069	08/13/12 13:10
2,6-Dinitrotoluene	< .01	mg/l			WG607069	08/13/12 13:10
2-Chloronaphthalene	< .001	mg/l			WG607069	08/13/12 13:10
2-Chlorophenol	< .01	mg/l			WG607069	08/13/12 13:10
2-Nitrophenol	< .01	mg/l			WG607069	08/13/12 13:10
3,3-Dichlorobenzidine	< .01	mg/l			WG607069	08/13/12 13:10
4,6-Dinitro-2-methylphenol	< .01	mg/l			WG607069	08/13/12 13:10
4-Bromophenyl-phenylether	< .01	mg/l			WG607069	08/13/12 13:10
4-Chloro-3-methylphenol	< .01	mg/l			WG607069	08/13/12 13:10
4-Chlorophenyl-phenylether	< .01	mg/l			WG607069	08/13/12 13:10
4-Nitrophenol	< .01	mg/l			WG607069	08/13/12 13:10
Acenaphthene	< .001	mg/l			WG607069	08/13/12 13:10
Acenaphthylene	< .001	mg/l			WG607069	08/13/12 13:10
Anthracene	< .001	mg/l			WG607069	08/13/12 13:10
Benzidine	< .01	mg/l			WG607069	08/13/12 13:10
Benzo(a)anthracene	< .001	mg/l			WG607069	08/13/12 13:10
Benzo(a)pyrene	< .001	mg/l			WG607069	08/13/12 13:10
Benzo(b)fluoranthene	< .001	mg/l			WG607069	08/13/12 13:10
Benzo(g,h,i)perylene	< .001	mg/l			WG607069	08/13/12 13:10
Benzo(k)fluoranthene	< .001	mg/l			WG607069	08/13/12 13:10
Benzylbutyl phthalate	< .003	mg/l			WG607069	08/13/12 13:10
Bis(2-chlorethoxy)methane	< .01	mg/l			WG607069	08/13/12 13:10
Bis(2-chloroethyl)ether	< .01	mg/l			WG607069	08/13/12 13:10
Bis(2-chloroisopropyl)ether	< .01	mg/l			WG607069	08/13/12 13:10
Bis(2-ethylhexyl)phthalate	< .003	mg/l			WG607069	08/13/12 13:10
Chrysene	< .001	mg/l			WG607069	08/13/12 13:10
Di-n-butyl phthalate	< .003	mg/l			WG607069	08/13/12 13:10
Di-n-octyl phthalate	< .003	mg/l			WG607069	08/13/12 13:10
Dibenz(a,h)anthracene	< .001	mg/l			WG607069	08/13/12 13:10
Diethyl phthalate	< .003	mg/l			WG607069	08/13/12 13:10
Dimethyl phthalate	< .003	mg/l			WG607069	08/13/12 13:10
Fluoranthene	< .001	mg/l			WG607069	08/13/12 13:10
Fluorene	< .001	mg/l			WG607069	08/13/12 13:10
Hexachloro-1,3-butadiene	< .01	mg/l			WG607069	08/13/12 13:10
Hexachlorobenzene	< .001	mg/l			WG607069	08/13/12 13:10
Hexachlorocyclopentadiene	< .01	mg/l			WG607069	08/13/12 13:10
Hexachloroethane	< .01	mg/l			WG607069	08/13/12 13:10
Indeno(1,2,3-cd)pyrene	< .001	mg/l			WG607069	08/13/12 13:10
Isophorone	< .01	mg/l			WG607069	08/13/12 13:10
n-Nitrosodi-n-propylamine	< .01	mg/l			WG607069	08/13/12 13:10
n-Nitrosodimethylamine	< .01	mg/l			WG607069	08/13/12 13:10
n-Nitrosodiphenylamine	< .01	mg/l			WG607069	08/13/12 13:10
Naphthalene	< .001	mg/l			WG607069	08/13/12 13:10
Nitrobenzene	< .01	mg/l			WG607069	08/13/12 13:10
Pentachlorophenol	< .001	mg/l			WG607069	08/13/12 13:10
Phenanthrene	< .001	mg/l			WG607069	08/13/12 13:10
Phenol	< .01	mg/l			WG607069	08/13/12 13:10
Pyrene	< .001	mg/l			WG607069	08/13/12 13:10
2,4,6-Tribromophenol		% Rec.	77.25	16-147	WG607069	08/13/12 13:10
2-Fluorobiphenyl		% Rec.	80.19	29-127	WG607069	08/13/12 13:10
2-Fluorophenol		% Rec.	49.62	10-75	WG607069	08/13/12 13:10
Nitrobenzene-d5		% Rec.	76.35	17-119	WG607069	08/13/12 13:10
Phenol-d5		% Rec.	34.48	10-63	WG607069	08/13/12 13:10
p-Terphenyl-d14		% Rec.	83.90	40-174	WG607069	08/13/12 13:10

Extractable Petroleum Hydrocarbon < 4 ppm

WG607172 08/13/12 14:36

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Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
o-Terphenyl		% Rec.	76.89	50-150		08/13/12 14:36
Extractable Petroleum Hydrocarbon	< 4	ppm			WG607282	08/13/12 15:10
o-Terphenyl		% Rec.	72.30	50-150	WG607282	08/13/12 15:10
PCB 1016	< .017	mg/kg			WG607287	08/13/12 12:56
PCB 1221	< .017	mg/kg			WG607287	08/13/12 12:56
PCB 1232	< .017	mg/kg			WG607287	08/13/12 12:56
PCB 1242	< .017	mg/kg			WG607287	08/13/12 12:56
PCB 1248	< .017	mg/kg			WG607287	08/13/12 12:56
PCB 1254	< .017	mg/kg			WG607287	08/13/12 12:56
PCB 1260	< .017	mg/kg			WG607287	08/13/12 12:56
Decachlorobiphenyl		% Rec.	89.18	18.9-115.8	WG607287	08/13/12 12:56
Tetrachloro-m-xylene		% Rec.	80.28	31.8-115.7	WG607287	08/13/12 12:56
cis-1,2-Dichloroethene	< .001	mg/l			WG607572	08/13/12 17:09
Trichloroethene	< .001	mg/l			WG607572	08/13/12 17:09
4-Bromofluorobenzene		% Rec.	103.5	82-120	WG607572	08/13/12 17:09
Dibromofluoromethane		% Rec.	101.7	82-126	WG607572	08/13/12 17:09
Toluene-d8		% Rec.	99.99	92-112	WG607572	08/13/12 17:09
1,1,1,2-Tetrachloroethane	< .001	mg/kg			WG607252	08/11/12 15:29
1,1,1-Trichloroethane	< .001	mg/kg			WG607252	08/11/12 15:29
1,1,2,2-Tetrachloroethane	< .001	mg/kg			WG607252	08/11/12 15:29
1,1,2-Trichloroethane	< .001	mg/kg			WG607252	08/11/12 15:29
1,1,2-Trichlorotrifluoroethane	< .001	mg/kg			WG607252	08/11/12 15:29
1,1-Dichloroethane	< .001	mg/kg			WG607252	08/11/12 15:29
1,1-Dichloroethene	< .001	mg/kg			WG607252	08/11/12 15:29
1,1-Dichloropropene	< .001	mg/kg			WG607252	08/11/12 15:29
1,2,3-Trichlorobenzene	< .001	mg/kg			WG607252	08/11/12 15:29
1,2,3-Trichloropropane	< .0025	mg/kg			WG607252	08/11/12 15:29
1,2,3-Trimethylbenzene	< .001	mg/kg			WG607252	08/11/12 15:29
1,2,4-Trichlorobenzene	< .001	mg/kg			WG607252	08/11/12 15:29
1,2,4-Trimethylbenzene	< .001	mg/kg			WG607252	08/11/12 15:29
1,2-Dibromo-3-Chloropropane	< .005	mg/kg			WG607252	08/11/12 15:29
1,2-Dibromoethane	< .001	mg/kg			WG607252	08/11/12 15:29
1,2-Dichlorobenzene	< .001	mg/kg			WG607252	08/11/12 15:29
1,2-Dichloroethane	< .001	mg/kg			WG607252	08/11/12 15:29
1,2-Dichloropropane	< .001	mg/kg			WG607252	08/11/12 15:29
1,3,5-Trimethylbenzene	< .001	mg/kg			WG607252	08/11/12 15:29
1,3-Dichlorobenzene	< .001	mg/kg			WG607252	08/11/12 15:29
1,3-Dichloropropane	< .001	mg/kg			WG607252	08/11/12 15:29
1,4-Dichlorobenzene	< .001	mg/kg			WG607252	08/11/12 15:29
2,2-Dichloropropane	< .001	mg/kg			WG607252	08/11/12 15:29
2-Butanone (MEK)	< .01	mg/kg			WG607252	08/11/12 15:29
2-Chloroethyl vinyl ether	< .05	mg/kg			WG607252	08/11/12 15:29
2-Chlorotoluene	< .001	mg/kg			WG607252	08/11/12 15:29
4-Chlorotoluene	< .001	mg/kg			WG607252	08/11/12 15:29
4-Methyl-2-pentanone (MIBK)	< .01	mg/kg			WG607252	08/11/12 15:29
Acetone	< .05	mg/kg			WG607252	08/11/12 15:29
Acrylonitrile	< .01	mg/kg			WG607252	08/11/12 15:29
Benzene	< .001	mg/kg			WG607252	08/11/12 15:29
Bromobenzene	< .001	mg/kg			WG607252	08/11/12 15:29
Bromodichloromethane	< .001	mg/kg			WG607252	08/11/12 15:29
Bromoform	< .001	mg/kg			WG607252	08/11/12 15:29
Bromomethane	< .005	mg/kg			WG607252	08/11/12 15:29
Carbon tetrachloride	< .001	mg/kg			WG607252	08/11/12 15:29

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Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
Chlorobenzene	< .001	mg/kg			WG607252	08/11/12 15:29
Chlorodibromomethane	< .001	mg/kg			WG607252	08/11/12 15:29
Chloroethane	< .005	mg/kg			WG607252	08/11/12 15:29
Chloroform	< .005	mg/kg			WG607252	08/11/12 15:29
Chloromethane	< .0025	mg/kg			WG607252	08/11/12 15:29
cis-1,2-Dichloroethene	< .001	mg/kg			WG607252	08/11/12 15:29
cis-1,3-Dichloropropene	< .001	mg/kg			WG607252	08/11/12 15:29
Di-isopropyl ether	< .001	mg/kg			WG607252	08/11/12 15:29
Dibromomethane	< .001	mg/kg			WG607252	08/11/12 15:29
Dichlorodifluoromethane	< .005	mg/kg			WG607252	08/11/12 15:29
Ethylbenzene	< .001	mg/kg			WG607252	08/11/12 15:29
Hexachloro-1,3-butadiene	< .001	mg/kg			WG607252	08/11/12 15:29
Isopropylbenzene	< .001	mg/kg			WG607252	08/11/12 15:29
Methyl tert-butyl ether	< .001	mg/kg			WG607252	08/11/12 15:29
Methylene Chloride	< .005	mg/kg			WG607252	08/11/12 15:29
n-Butylbenzene	< .001	mg/kg			WG607252	08/11/12 15:29
n-Propylbenzene	< .001	mg/kg			WG607252	08/11/12 15:29
Naphthalene	< .005	mg/kg			WG607252	08/11/12 15:29
p-Isopropyltoluene	< .001	mg/kg			WG607252	08/11/12 15:29
sec-Butylbenzene	< .001	mg/kg			WG607252	08/11/12 15:29
Styrene	< .001	mg/kg			WG607252	08/11/12 15:29
tert-Butylbenzene	< .001	mg/kg			WG607252	08/11/12 15:29
Tetrachloroethene	< .001	mg/kg			WG607252	08/11/12 15:29
Toluene	< .005	mg/kg			WG607252	08/11/12 15:29
trans-1,2-Dichloroethene	< .001	mg/kg			WG607252	08/11/12 15:29
trans-1,3-Dichloropropene	< .001	mg/kg			WG607252	08/11/12 15:29
Trichloroethene	< .001	mg/kg			WG607252	08/11/12 15:29
Trichlorofluoromethane	< .005	mg/kg			WG607252	08/11/12 15:29
Vinyl chloride	< .001	mg/kg			WG607252	08/11/12 15:29
Xylenes, Total	< .003	mg/kg			WG607252	08/11/12 15:29
4-Bromofluorobenzene	% Rec.	102.7		67-133	WG607252	08/11/12 15:29
Dibromofluoromethane	% Rec.	102.9		72-135	WG607252	08/11/12 15:29
Toluene-d8	% Rec.	102.7		90-113	WG607252	08/11/12 15:29
GRO (C6-C10)	< .1	mg/kg			WG607186	08/13/12 14:55
a,a,a-Trifluorotoluene(FID)		% Rec.	71.76	50-150	WG607186	08/13/12 14:55
4,4-DDD	< .00005	mg/l			WG607420	08/13/12 16:52
4,4-DDE	< .00005	mg/l			WG607420	08/13/12 16:52
4,4-DDT	< .00005	mg/l			WG607420	08/13/12 16:52
Aldrin	< .00005	mg/l			WG607420	08/13/12 16:52
Alpha BHC	< .00005	mg/l			WG607420	08/13/12 16:52
Beta BHC	< .00005	mg/l			WG607420	08/13/12 16:52
Chlordane	< .0005	mg/l			WG607420	08/13/12 16:52
Delta BHC	< .00005	mg/l			WG607420	08/13/12 16:52
Dieldrin	< .00005	mg/l			WG607420	08/13/12 16:52
Endosulfan I	< .00005	mg/l			WG607420	08/13/12 16:52
Endosulfan II	< .00005	mg/l			WG607420	08/13/12 16:52
Endosulfan sulfate	< .00005	mg/l			WG607420	08/13/12 16:52
Endrin	< .00005	mg/l			WG607420	08/13/12 16:52
Endrin aldehyde	< .00005	mg/l			WG607420	08/13/12 16:52
Endrin ketone	< .00005	mg/l			WG607420	08/13/12 16:52
Gamma BHC	< .00005	mg/l			WG607420	08/13/12 16:52
Heptachlor	< .00005	mg/l			WG607420	08/13/12 16:52
Heptachlor epoxide	< .00005	mg/l			WG607420	08/13/12 16:52
Hexachlorobenzene	< .00005	mg/l			WG607420	08/13/12 16:52
Methoxychlor	< .00005	mg/l			WG607420	08/13/12 16:52

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Est. 1970

August 22, 2012

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
Toxaphene	< .0005	mg/l			WG6072420	08/13/12 16:52
Decachlorobiphenyl		% Rec.	82.64	10-122.6	WG6072420	08/13/12 16:52
Tetrachloro-m-xylene		% Rec.	78.06	15.3-114.2	WG6072420	08/13/12 16:52
4,4-DDD	< .02	mg/kg			WG607287	08/13/12 11:48
4,4-DDE	< .02	mg/kg			WG607287	08/13/12 11:48
4,4-DDT	< .02	mg/kg			WG607287	08/13/12 11:48
Aldrin	< .02	mg/kg			WG607287	08/13/12 11:48
Alpha BHC	< .02	mg/kg			WG607287	08/13/12 11:48
Beta BHC	< .02	mg/kg			WG607287	08/13/12 11:48
Chlordane	< .2	mg/kg			WG607287	08/13/12 11:48
Delta BHC	< .02	mg/kg			WG607287	08/13/12 11:48
Dieldrin	< .02	mg/kg			WG607287	08/13/12 11:48
Endosulfan I	< .02	mg/kg			WG607287	08/13/12 11:48
Endosulfan II	< .02	mg/kg			WG607287	08/13/12 11:48
Endosulfan sulfate	< .02	mg/kg			WG607287	08/13/12 11:48
Endrin	< .02	mg/kg			WG607287	08/13/12 11:48
Endrin aldehyde	< .02	mg/kg			WG607287	08/13/12 11:48
Endrin ketone	< .02	mg/kg			WG607287	08/13/12 11:48
Gamma BHC	< .02	mg/kg			WG607287	08/13/12 11:48
Heptachlor	< .02	mg/kg			WG607287	08/13/12 11:48
Heptachlor epoxide	< .02	mg/kg			WG607287	08/13/12 11:48
Hexachlorobenzene	< .02	mg/kg			WG607287	08/13/12 11:48
Methoxychlor	< .02	mg/kg			WG607287	08/13/12 11:48
Toxaphene	< .4	mg/kg			WG607287	08/13/12 11:48
Decachlorobiphenyl		% Rec.	95.23	18.9-115.8	WG607287	08/13/12 11:48
Tetrachloro-m-xylene		% Rec.	81.65	31.8-115.7	WG607287	08/13/12 11:48
Barium	< .25	mg/kg			WG607432	08/14/12 14:17
Extractable Petroleum Hydrocarbon	< 4	ppm			WG607708	08/15/12 04:16
o-Terphenyl		% Rec.	90.49	50-150	WG607708	08/15/12 04:16
Arsenic	< .02	mg/l			WG607273	08/14/12 13:00
Barium	< .005	mg/l			WG607273	08/14/12 13:00
Cadmium	< .005	mg/l			WG607273	08/14/12 13:00
Chromium	< .01	mg/l			WG607273	08/14/12 13:00
Lead	< .005	mg/l			WG607273	08/14/12 13:00
Selenium	< .02	mg/l			WG607273	08/14/12 13:00
Silver	< .01	mg/l			WG607273	08/14/12 13:00
GRO (C6-C10)	< .1	mg/kg			WG607608	08/14/12 13:03
a,a,a-Trifluorotoluene(FID)		% Rec.	64.12	50-150	WG607608	08/14/12 13:03
GRO (C6-C10)	< .1	mg/l			WG607679	08/14/12 20:40
a,a,a-Trifluorotoluene(FID)		% Rec.	64.01	50-150	WG607679	08/14/12 20:40
2,4,5-T	< .002	mg/l			WG607601	08/14/12 19:53
2,4,5-TP (Silvex)	< .002	mg/l			WG607601	08/14/12 19:53
2,4-D	< .002	mg/l			WG607601	08/14/12 19:53
2,4-DB	< .002	mg/l			WG607601	08/14/12 19:53
Dalapon	< .002	mg/l			WG607601	08/14/12 19:53

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Est. 1970

Quality Assurance Report  
Level II

L589405

August 22, 2012

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
Dicamba	< .002	mg/l			WG607601	08/14/12 19:53
Dichloroprop	< .002	mg/l			WG607601	08/14/12 19:53
Dinoseb	< .002	mg/l			WG607601	08/14/12 19:53
MCPA	< .1	mg/l			WG607601	08/14/12 19:53
MCPP	< .1	mg/l			WG607601	08/14/12 19:53
2,4-Dichlorophenyl Acetic Acid		%	71.80	42-112	WG607601	08/14/12 19:53
Barium	< .25	mg/kg			WG607517	08/15/12 14:16
PCB 1016	< .017	mg/kg			WG607701	08/16/12 11:21
PCB 1221	< .017	mg/kg			WG607701	08/16/12 11:21
PCB 1232	< .017	mg/kg			WG607701	08/16/12 11:21
PCB 1242	< .017	mg/kg			WG607701	08/16/12 11:21
PCB 1248	< .017	mg/kg			WG607701	08/16/12 11:21
PCB 1254	< .017	mg/kg			WG607701	08/16/12 11:21
PCB 1260	< .017	mg/kg			WG607701	08/16/12 11:21
Decachlorobiphenyl		% Rec.	98.58	18.9-115.8	WG607701	08/16/12 11:21
Tetrachloro-m-xylene		% Rec.	110.6	31.8-115.7	WG607701	08/16/12 11:21
Naphthalene	< .005	mg/kg			WG607858	08/15/12 12:50
4-Bromofluorobenzene		% Rec.	102.0	67-133	WG607858	08/15/12 12:50
Dibromofluoromethane		% Rec.	105.0	72-135	WG607858	08/15/12 12:50
Toluene-d8		% Rec.	98.18	90-113	WG607858	08/15/12 12:50
Extractable Petroleum Hydrocarbon	< .1	ppm			WG607482	08/14/12 11:38
o-Terphenyl		% Rec.	64.38	50-150	WG607482	08/14/12 11:38
4,4-DDD	< .02	mg/kg			WG607701	08/16/12 11:19
4,4-DDE	< .02	mg/kg			WG607701	08/16/12 11:19
4,4-DDT	< .02	mg/kg			WG607701	08/16/12 11:19
Aldrin	< .02	mg/kg			WG607701	08/16/12 11:19
Alpha BHC	< .02	mg/kg			WG607701	08/16/12 11:19
Beta BHC	< .02	mg/kg			WG607701	08/16/12 11:19
Chlordane	< .2	mg/kg			WG607701	08/16/12 11:19
Delta BHC	< .02	mg/kg			WG607701	08/16/12 11:19
Dieldrin	< .02	mg/kg			WG607701	08/16/12 11:19
Endosulfan I	< .02	mg/kg			WG607701	08/16/12 11:19
Endosulfan II	< .02	mg/kg			WG607701	08/16/12 11:19
Endosulfan sulfate	< .02	mg/kg			WG607701	08/16/12 11:19
Endrin	< .02	mg/kg			WG607701	08/16/12 11:19
Endrin aldehyde	< .02	mg/kg			WG607701	08/16/12 11:19
Endrin ketone	< .02	mg/kg			WG607701	08/16/12 11:19
Gamma BHC	< .02	mg/kg			WG607701	08/16/12 11:19
Heptachlor	< .02	mg/kg			WG607701	08/16/12 11:19
Heptachlor epoxide	< .02	mg/kg			WG607701	08/16/12 11:19
Hexachlorobenzene	< .02	mg/kg			WG607701	08/16/12 11:19
Methoxychlor	< .02	mg/kg			WG607701	08/16/12 11:19
Toxaphene	< .4	mg/kg			WG607701	08/16/12 11:19
Decachlorobiphenyl		% Rec.	106.9	18.9-115.8	WG607701	08/16/12 11:19
Tetrachloro-m-xylene		% Rec.	102.7	31.8-115.7	WG607701	08/16/12 11:19
Extractable Petroleum Hydrocarbon	< 4	ppm			WG608107	08/17/12 17:11
o-Terphenyl		% Rec.	78.54	50-150	WG608107	08/17/12 17:11

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Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
2,4,5-T	< .07	mg/kg			WG607777	08/20/12 18:46
2,4,5-TP (Silvex)	< .07	mg/kg			WG607777	08/20/12 18:46
2,4-D	< .07	mg/kg			WG607777	08/20/12 18:46
2,4-DB	< .07	mg/kg			WG607777	08/20/12 18:46
Dalapon	< .8	mg/kg			WG607777	08/20/12 18:46
Dicamba	< .07	mg/kg			WG607777	08/20/12 18:46
Dichloroprop	< .07	mg/kg			WG607777	08/20/12 18:46
Dinoseb	< .07	mg/kg			WG607777	08/20/12 18:46
MCPA	< .68602	mg/kg			WG607777	08/20/12 18:46
MCPP	< 6.5	mg/kg			WG607777	08/20/12 18:46
2,4-Dichlorophenyl Acetic Acid		%	83.35	37-99	WG607777	08/20/12 18:46
1,1,1,2-Tetrachloroethane	< .001	mg/l			WG608731	08/21/12 15:19
1,1,1-Trichloroethane	< .001	mg/l			WG608731	08/21/12 15:19
1,1,2,2-Tetrachloroethane	< .001	mg/l			WG608731	08/21/12 15:19
1,1,2-Trichloroethane	< .001	mg/l			WG608731	08/21/12 15:19
1,1,2-Trichlorotrifluoroethane	< .001	mg/l			WG608731	08/21/12 15:19
1,1-Dichloroethane	< .001	mg/l			WG608731	08/21/12 15:19
1,1-Dichloroethene	< .001	mg/l			WG608731	08/21/12 15:19
1,1-Dichloropropene	< .001	mg/l			WG608731	08/21/12 15:19
1,2,3-Trichlorobenzene	< .001	mg/l			WG608731	08/21/12 15:19
1,2,3-Trichloropropane	< .001	mg/l			WG608731	08/21/12 15:19
1,2,3-Trimethylbenzene	< .001	mg/l			WG608731	08/21/12 15:19
1,2,4-Trichlorobenzene	< .001	mg/l			WG608731	08/21/12 15:19
1,2,4-Trimethylbenzene	< .001	mg/l			WG608731	08/21/12 15:19
1,2-Dibromo-3-Chloropropane	< .005	mg/l			WG608731	08/21/12 15:19
1,2-Dibromoethane	< .001	mg/l			WG608731	08/21/12 15:19
1,2-Dichlorobenzene	< .001	mg/l			WG608731	08/21/12 15:19
1,2-Dichloroethane	< .001	mg/l			WG608731	08/21/12 15:19
1,2-Dichloropropane	< .001	mg/l			WG608731	08/21/12 15:19
1,3,5-Trimethylbenzene	< .001	mg/l			WG608731	08/21/12 15:19
1,3-Dichlorobenzene	< .001	mg/l			WG608731	08/21/12 15:19
1,3-Dichloropropane	< .001	mg/l			WG608731	08/21/12 15:19
1,4-Dichlorobenzene	< .001	mg/l			WG608731	08/21/12 15:19
2,2-Dichloropropane	< .001	mg/l			WG608731	08/21/12 15:19
2-Butanone (MEK)	< .01	mg/l			WG608731	08/21/12 15:19
2-Chloroethyl vinyl ether	< .05	mg/l			WG608731	08/21/12 15:19
2-Chlorotoluene	< .001	mg/l			WG608731	08/21/12 15:19
4-Chlorotoluene	< .001	mg/l			WG608731	08/21/12 15:19
4-Methyl-2-pentanone (MIBK)	< .01	mg/l			WG608731	08/21/12 15:19
Acetone	< .05	mg/l			WG608731	08/21/12 15:19
Acrolein	< .025	mg/l			WG608731	08/21/12 15:19
Acrylonitrile	< .01	mg/l			WG608731	08/21/12 15:19
Benzene	< .001	mg/l			WG608731	08/21/12 15:19
Bromobenzene	< .001	mg/l			WG608731	08/21/12 15:19
Bromodichloromethane	< .001	mg/l			WG608731	08/21/12 15:19
Bromoform	< .001	mg/l			WG608731	08/21/12 15:19
Bromomethane	< .005	mg/l			WG608731	08/21/12 15:19
Carbon tetrachloride	< .001	mg/l			WG608731	08/21/12 15:19
Chlorobenzene	< .001	mg/l			WG608731	08/21/12 15:19
Chlorodibromomethane	< .001	mg/l			WG608731	08/21/12 15:19
Chloroethane	< .005	mg/l			WG608731	08/21/12 15:19
Chloroform	< .005	mg/l			WG608731	08/21/12 15:19
Chloromethane	< .0025	mg/l			WG608731	08/21/12 15:19
cis-1,2-Dichloroethene	< .001	mg/l			WG608731	08/21/12 15:19
cis-1,3-Dichloropropene	< .001	mg/l			WG608731	08/21/12 15:19
Di-isopropyl ether	< .001	mg/l			WG608731	08/21/12 15:19
Dibromomethane	< .001	mg/l			WG608731	08/21/12 15:19

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Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
Dichlorodifluoromethane	< .005	mg/l			WG608731	08/21/12 15:19
Ethylbenzene	< .001	mg/l			WG608731	08/21/12 15:19
Hexachloro-1,3-butadiene	< .001	mg/l			WG608731	08/21/12 15:19
Isopropylbenzene	< .001	mg/l			WG608731	08/21/12 15:19
Methyl tert-butyl ether	< .001	mg/l			WG608731	08/21/12 15:19
Methylene Chloride	< .005	mg/l			WG608731	08/21/12 15:19
n-Butylbenzene	< .001	mg/l			WG608731	08/21/12 15:19
n-Propylbenzene	< .001	mg/l			WG608731	08/21/12 15:19
Naphthalene	< .005	mg/l			WG608731	08/21/12 15:19
p-Isopropyltoluene	< .001	mg/l			WG608731	08/21/12 15:19
sec-Butylbenzene	< .001	mg/l			WG608731	08/21/12 15:19
Styrene	< .001	mg/l			WG608731	08/21/12 15:19
tert-Butylbenzene	< .001	mg/l			WG608731	08/21/12 15:19
Tetrachloroethene	< .001	mg/l			WG608731	08/21/12 15:19
Toluene	< .005	mg/l			WG608731	08/21/12 15:19
trans-1,2-Dichloroethene	< .001	mg/l			WG608731	08/21/12 15:19
trans-1,3-Dichloropropene	< .001	mg/l			WG608731	08/21/12 15:19
Trichloroethene	< .001	mg/l			WG608731	08/21/12 15:19
Trichlorofluoromethane	< .005	mg/l			WG608731	08/21/12 15:19
Vinyl chloride	< .001	mg/l			WG608731	08/21/12 15:19
Xylenes, Total	< .003	mg/l			WG608731	08/21/12 15:19
4-Bromofluorobenzene	% Rec.	103.1		82-120	WG608731	08/21/12 15:19
Dibromofluoromethane	% Rec.	95.57		82-126	WG608731	08/21/12 15:19
Toluene-d8	% Rec.	106.6		92-112	WG608731	08/21/12 15:19

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
			Duplicate				
Mercury	mg/l	0	0	0	20	L589235-01	WG607220
Mercury	mg/kg	0.0200	0.0210	4.88	20	L589265-01	WG607211
Arsenic	mg/kg	16.0	7.80	70.5*	20	L589405-09	WG607181
Cadmium	mg/kg	0	0	0	20	L589405-09	WG607181
Chromium	mg/kg	13.0	19.0	37.5*	20	L589405-09	WG607181
Lead	mg/kg	26.0	38.0	39.4*	20	L589405-09	WG607181
Selenium	mg/kg	0	1.40	NA	20	L589405-09	WG607181
Silver	mg/kg	0	0	0	20	L589405-09	WG607181
Barium	mg/kg	8.60	11.0	25.1*	20	L588827-03	WG607432
Arsenic	mg/l	0	0	0	20	L589456-04	WG607273
Barium	mg/l	0.0820	0.0840	1.92	20	L589456-04	WG607273
Cadmium	mg/l	0	0	0	20	L589456-04	WG607273
Chromium	mg/l	0	0	0	20	L589456-04	WG607273
Lead	mg/l	0	0	0	20	L589456-04	WG607273
Selenium	mg/l	0.0410	0.0360	13.0	20	L589456-04	WG607273
Silver	mg/l	0.0100	0	NA	20	L589456-04	WG607273
Barium	mg/kg	79.0	60.8	26.5*	20	L589638-04	WG607517

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Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
1,1,1,2-Tetrachloroethane	mg/kg	.025	0.0266	106.	77-129	WG607251
1,1,1-Trichloroethane	mg/kg	.025	0.0247	98.7	70-127	WG607251
1,1,2,2-Tetrachloroethane	mg/kg	.025	0.0261	104.	76-133	WG607251
1,1,2-Trichloroethane	mg/kg	.025	0.0259	104.	79-123	WG607251
1,1,2-Trichlorotrifluoroethane	mg/kg	.025	0.0235	93.9	52-145	WG607251
1,1-Dichloroethane	mg/kg	.025	0.0241	96.4	74-121	WG607251
1,1-Dichloroethene	mg/kg	.025	0.0226	90.6	53-135	WG607251
1,1-Dichloropropene	mg/kg	.025	0.0231	92.6	67-127	WG607251
1,2,3-Trichlorobenzene	mg/kg	.025	0.0300	120.	74-131	WG607251
1,2,3-Trichloropropane	mg/kg	.025	0.0286	114.	75-135	WG607251
1,2,3-Trimethylbenzene	mg/kg	.025	0.0240	96.1	76-128	WG607251
1,2,4-Trichlorobenzene	mg/kg	.025	0.0318	127.	72-130	WG607251
1,2,4-Trimethylbenzene	mg/kg	.025	0.0261	104.	75-131	WG607251
1,2-Dibromo-3-Chloropropane	mg/kg	.025	0.0239	95.7	55-142	WG607251
1,2-Dibromoethane	mg/kg	.025	0.0257	103.	77-126	WG607251
1,2-Dichlorobenzene	mg/kg	.025	0.0254	102.	80-123	WG607251
1,2-Dichloroethane	mg/kg	.025	0.0248	99.0	70-128	WG607251
1,2-Dichloropropane	mg/kg	.025	0.0241	96.3	74-125	WG607251
1,3,5-Trimethylbenzene	mg/kg	.025	0.0269	108.	77-129	WG607251
1,3-Dichlorobenzene	mg/kg	.025	0.0275	110.	76-128	WG607251
1,3-Dichloropropane	mg/kg	.025	0.0254	102.	77-118	WG607251
1,4-Dichlorobenzene	mg/kg	.025	0.0249	99.4	77-119	WG607251
2,2-Dichloropropane	mg/kg	.025	0.0238	95.3	60-132	WG607251
2-Butanone (MEK)	mg/kg	.125	0.127	102.	56-146	WG607251
2-Chloroethyl vinyl ether	mg/kg	.125	0.122	97.6	17-179	WG607251
2-Chlorotoluene	mg/kg	.025	0.0258	103.	76-125	WG607251
4-Chlorotoluene	mg/kg	.025	0.0251	101.	76-125	WG607251
4-Methyl-2-pentanone (MIBK)	mg/kg	.125	0.134	107.	55-148	WG607251
Acetone	mg/kg	.125	0.143	114.	47-155	WG607251
Acrylonitrile	mg/kg	.125	0.121	97.2	50-155	WG607251
Benzene	mg/kg	.025	0.0229	91.8	72-120	WG607251
Bromobenzene	mg/kg	.025	0.0279	112.	74-122	WG607251
Bromodichloromethane	mg/kg	.025	0.0246	98.4	74-128	WG607251
Bromoform	mg/kg	.025	0.0266	106.	62-137	WG607251
Bromomethane	mg/kg	.025	0.0223	89.4	38-180	WG607251
Carbon tetrachloride	mg/kg	.025	0.0231	92.5	62-130	WG607251
Chlorobenzene	mg/kg	.025	0.0255	102.	77-124	WG607251
Chlorodibromomethane	mg/kg	.025	0.0260	104.	74-128	WG607251
Chloroethane	mg/kg	.025	0.0235	94.0	46-173	WG607251
Chloroform	mg/kg	.025	0.0248	99.3	76-122	WG607251
Chloromethane	mg/kg	.025	0.0213	85.3	49-143	WG607251
cis-1,2-Dichloroethene	mg/kg	.025	0.0238	95.3	73-123	WG607251
cis-1,3-Dichloropropene	mg/kg	.025	0.0247	98.9	73-126	WG607251
Di-isopropyl ether	mg/kg	.025	0.0240	95.9	64-131	WG607251
Dibromomethane	mg/kg	.025	0.0252	101.	75-127	WG607251
Dichlorodifluoromethane	mg/kg	.025	0.0231	92.4	30-177	WG607251
Ethylbenzene	mg/kg	.025	0.0254	102.	76-126	WG607251
Hexachloro-1,3-butadiene	mg/kg	.025	0.0236	94.3	71-134	WG607251
Isopropylbenzene	mg/kg	.025	0.0272	109.	70-128	WG607251
Methyl tert-butyl ether	mg/kg	.025	0.0236	94.5	66-127	WG607251
Methylene Chloride	mg/kg	.025	0.0228	91.1	67-124	WG607251
n-Butylbenzene	mg/kg	.025	0.0252	101.	71-133	WG607251
n-Propylbenzene	mg/kg	.025	0.0255	102.	76-126	WG607251
Naphthalene	mg/kg	.025	0.0254	101.	68-136	WG607251
p-Isopropyltoluene	mg/kg	.025	0.0279	112.	75-134	WG607251
sec-Butylbenzene	mg/kg	.025	0.0278	111.	75-132	WG607251
Styrene	mg/kg	.025	0.0257	103.	68-148	WG607251
tert-Butylbenzene	mg/kg	.025	0.0281	112.	75-132	WG607251
Tetrachloroethene	mg/kg	.025	0.0251	100.	70-131	WG607251
Toluene	mg/kg	.025	0.0239	95.8	74-155	WG607251

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Quality Assurance Report  
Level II

L589405

August 22, 2012

Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
trans-1,2-Dichloroethene	mg/kg	.025	0.0233	93.4	63-126	WG607251
trans-1,3-Dichloropropene	mg/kg	.025	0.0245	98.0	68-126	WG607251
Trichloroethene	mg/kg	.025	0.0253	101.	75-121	WG607251
Trichlorofluoromethane	mg/kg	.025	0.0258	103.	48-170	WG607251
Vinyl chloride	mg/kg	.025	0.0224	89.8	54-144	WG607251
Xylenes, Total	mg/kg	.075	0.0736	98.1	76-126	WG607251
4-Bromofluorobenzene				96.30	67-133	WG607251
Dibromofluoromethane				104.9	72-135	WG607251
Toluene-d8				101.1	90-113	WG607251
1,2,4-Trichlorobenzene	mg/kg	.333	0.211	63.5	48-87	WG607288
2,4,6-Trichlorophenol	mg/kg	.333	0.252	75.7	50-98	WG607288
2,4-Dichlorophenol	mg/kg	.333	0.246	74.0	56-96	WG607288
2,4-Dimethylphenol	mg/kg	.333	0.245	73.5	52-101	WG607288
2,4-Dinitrophenol	mg/kg	.333	0.244	73.3	10-109	WG607288
2,4-Dinitrotoluene	mg/kg	.333	0.275	82.7	54-103	WG607288
2,6-Dinitrotoluene	mg/kg	.333	0.268	80.4	53-99	WG607288
2-Chloronaphthalene	mg/kg	.333	0.244	73.3	55-96	WG607288
2-Chlorophenol	mg/kg	.333	0.220	66.2	52-88	WG607288
2-Nitrophenol	mg/kg	.333	0.260	78.1	55-106	WG607288
3,3-Dichlorobenzidine	mg/kg	.333	0.261	78.5	36-84	WG607288
4,6-Dinitro-2-methylphenol	mg/kg	.333	0.281	84.4	24-98	WG607288
4-Bromophenyl-phenylether	mg/kg	.333	0.267	80.3	58-111	WG607288
4-Chloro-3-methylphenol	mg/kg	.333	0.263	78.9	58-98	WG607288
4-Chlorophenyl-phenylether	mg/kg	.333	0.255	76.5	59-103	WG607288
4-Nitrophenol	mg/kg	.333	0.265	79.6	34-101	WG607288
Acenaphthene	mg/kg	.333	0.272	81.5	55-96	WG607288
Acenaphthylene	mg/kg	.333	0.261	78.3	61-107	WG607288
Anthracene	mg/kg	.333	0.273	82.0	58-105	WG607288
Benzidine	mg/kg	.333	0.0218	6.54*	10-21	WG607288
Benzo(a)anthracene	mg/kg	.333	0.270	81.0	56-103	WG607288
Benzo(a)pyrene	mg/kg	.333	0.270	81.1	57-103	WG607288
Benzo(b)fluoranthene	mg/kg	.333	0.267	80.2	52-106	WG607288
Benzo(g,h,i)perylene	mg/kg	.333	0.268	80.5	47-112	WG607288
Benzo(k)fluoranthene	mg/kg	.333	0.272	81.8	53-104	WG607288
Benzylbutyl phthalate	mg/kg	.333	0.287	86.1	61-118	WG607288
Bis(2-chlorethoxy)methane	mg/kg	.333	0.245	73.6	58-104	WG607288
Bis(2-chloroethyl)ether	mg/kg	.333	0.214	64.2	51-103	WG607288
Bis(2-chloroisopropyl)ether	mg/kg	.333	0.213	63.9	56-95	WG607288
Bis(2-ethylhexyl)phthalate	mg/kg	.333	0.290	87.0	56-120	WG607288
Chrysene	mg/kg	.333	0.279	83.7	55-102	WG607288
Di-n-butyl phthalate	mg/kg	.333	0.271	81.4	59-114	WG607288
Di-n-octyl phthalate	mg/kg	.333	0.289	86.8	51-119	WG607288
Dibenz(a,h)anthracene	mg/kg	.333	0.271	81.4	49-111	WG607288
Diethyl phthalate	mg/kg	.333	0.271	81.3	61-105	WG607288
Dimethyl phthalate	mg/kg	.333	0.268	80.5	60-106	WG607288
Fluoranthene	mg/kg	.333	0.273	81.9	59-108	WG607288
Fluorene	mg/kg	.333	0.263	79.1	59-100	WG607288
Hexachloro-1,3-butadiene	mg/kg	.333	0.224	67.2	53-106	WG607288
Hexachlorobenzene	mg/kg	.333	0.236	70.8	50-108	WG607288
Hexachlorocyclopentadiene	mg/kg	.333	0.269	80.9	36-117	WG607288
Hexachloroethane	mg/kg	.333	0.209	62.7	45-83	WG607288
Indeno(1,2,3-cd)pyrene	mg/kg	.333	0.270	81.1	50-110	WG607288
Isophorone	mg/kg	.333	0.211	63.4	51-99	WG607288
n-Nitrosodi-n-propylamine	mg/kg	.333	0.236	71.0	52-103	WG607288
n-Nitrosodimethylamine	mg/kg	.333	0.198	59.4	31-107	WG607288
n-Nitrosodiphenylamine	mg/kg	.333	0.265	79.5	57-121	WG607288
Naphthalene	mg/kg	.333	0.236	70.8	55-91	WG607288

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Nitrobenzene	mg/kg	.333	0.229	68.7	47-92	WG607288
Pentachlorophenol	mg/kg	.333	0.218	65.4	10-89	WG607288
Phenanthrene	mg/kg	.333	0.264	79.3	55-103	WG607288
Phenol	mg/kg	.333	0.228	68.6	49-99	WG607288
Pyrene	mg/kg	.333	0.274	82.2	54-104	WG607288
2,4,6-Tribromophenol				81.64	16-136	WG607288
2-Fluorobiphenyl				79.78	37-119	WG607288
2-Fluorophenol				67.36	22-114	WG607288
Nitrobenzene-d5				71.46	20-114	WG607288
Phenol-d5				70.07	26-127	WG607288
p-Terphenyl-d14				77.38	15-174	WG607288
Mercury	mg/l	.003	0.00301	100.	85-115	WG607220
Mercury	mg/kg	12.4	15.6	126.	71.6-128	WG607211
PCB 1016	mg/l	.0005	0.000392	78.3	32-126	WG607420
PCB 1260	mg/l	.0005	0.000414	82.8	58-128	WG607420
Decachlorobiphenyl				80.81	10-122.6	WG607420
Tetrachloro-m-xylene				71.57	15.3-114.2	WG607420
Arsenic	mg/kg	237	264.	111.	83.1-117	WG607181
Cadmium	mg/kg	191	215.	113.	83.2-117	WG607181
Chromium	mg/kg	128	147.	115.	81.3-118	WG607181
Lead	mg/kg	103	116.	113.	83.1-117	WG607181
Selenium	mg/kg	110	122.	111.	78.7-122	WG607181
Silver	mg/kg	47.3	55.0	116.	66.2-134	WG607181
1,1,1,2-Tetrachloroethane	mg/l	.025	0.0255	102.	77-128	WG607206
1,1,1-Trichloroethane	mg/l	.025	0.0250	100.	71-126	WG607206
1,1,2,2-Tetrachloroethane	mg/l	.025	0.0243	97.4	78-130	WG607206
1,1,2-Trichloroethane	mg/l	.025	0.0244	97.6	81-121	WG607206
1,1,2-Trichlorotrifluoroethane	mg/l	.025	0.0273	109.	53-143	WG607206
1,1-Dichloroethane	mg/l	.025	0.0278	111.	73-123	WG607206
1,1-Dichloroethene	mg/l	.025	0.0277	111.	54-134	WG607206
1,1-Dichloropropene	mg/l	.025	0.0277	111.	67-127	WG607206
1,2,3-Trichlorobenzene	mg/l	.025	0.0260	104.	77-130	WG607206
1,2,3-Trichloropropane	mg/l	.025	0.0255	102.	68-130	WG607206
1,2,3-Trimethylbenzene	mg/l	.025	0.0237	94.7	77-126	WG607206
1,2,4-Trichlorobenzene	mg/l	.025	0.0265	106.	76-127	WG607206
1,2,4-Trimethylbenzene	mg/l	.025	0.0253	101.	77-129	WG607206
1,2-Dibromo-3-Chloropropane	mg/l	.025	0.0229	91.5	55-142	WG607206
1,2-Dibromoethane	mg/l	.025	0.0264	106.	78-124	WG607206
1,2-Dichlorobenzene	mg/l	.025	0.0244	97.5	82-121	WG607206
1,2-Dichloroethane	mg/l	.025	0.0268	107.	69-128	WG607206
1,2-Dichloropropane	mg/l	.025	0.0270	108.	77-121	WG607206
1,3,5-Trimethylbenzene	mg/l	.025	0.0248	99.3	78-127	WG607206
1,3-Dichlorobenzene	mg/l	.025	0.0261	105.	77-127	WG607206
1,3-Dichloropropane	mg/l	.025	0.0261	104.	78-117	WG607206
1,4-Dichlorobenzene	mg/l	.025	0.0247	98.9	79-117	WG607206
2,2-Dichloropropane	mg/l	.025	0.0254	102.	63-130	WG607206
2-Butanone (MEK)	mg/l	.125	0.132	106.	58-144	WG607206
2-Chloroethyl vinyl ether	mg/l	.125	0.114	91.3	26-172	WG607206
2-Chlorotoluene	mg/l	.025	0.0248	99.2	78-123	WG607206

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Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
4-Chlorotoluene	mg/l	.025	0.0254	102.	78-122	WG607206
4-Methyl-2-pentanone (MIBK)	mg/l	.125	0.123	98.5	58-147	WG607206
Acetone	mg/l	.125	0.125	99.8	49-153	WG607206
Acrolein	mg/l	.125	0.131	105.	10-181	WG607206
Acrylonitrile	mg/l	.125	0.137	110.	53-153	WG607206
Benzene	mg/l	.025	0.0270	108.	72-119	WG607206
Bromobenzene	mg/l	.025	0.0246	98.2	76-121	WG607206
Bromodichloromethane	mg/l	.025	0.0240	95.9	75-127	WG607206
Bromoform	mg/l	.025	0.0259	104.	61-136	WG607206
Bromomethane	mg/l	.025	0.0267	107.	42-172	WG607206
Carbon tetrachloride	mg/l	.025	0.0264	106.	63-129	WG607206
Chlorobenzene	mg/l	.025	0.0263	105.	78-123	WG607206
Chlorodibromomethane	mg/l	.025	0.0254	102.	73-128	WG607206
Chloroethane	mg/l	.025	0.0238	95.4	52-164	WG607206
Chloroform	mg/l	.025	0.0251	100.	76-122	WG607206
Chloromethane	mg/l	.025	0.0236	94.4	50-141	WG607206
cis-1,3-Dichloropropene	mg/l	.025	0.0263	105.	74-124	WG607206
Di-isopropyl ether	mg/l	.025	0.0273	109.	66-129	WG607206
Dibromomethane	mg/l	.025	0.0251	100.	77-124	WG607206
Dichlorodifluoromethane	mg/l	.025	0.0231	92.3	33-173	WG607206
Ethylbenzene	mg/l	.025	0.0259	104.	77-124	WG607206
Hexachloro-1,3-butadiene	mg/l	.025	0.0245	98.1	71-134	WG607206
Isopropylbenzene	mg/l	.025	0.0251	100.	74-126	WG607206
Methyl tert-butyl ether	mg/l	.025	0.0259	103.	67-127	WG607206
Methylene Chloride	mg/l	.025	0.0262	105.	67-122	WG607206
n-Butylbenzene	mg/l	.025	0.0245	97.8	74-130	WG607206
n-Propylbenzene	mg/l	.025	0.0253	101.	77-125	WG607206
Naphthalene	mg/l	.025	0.0257	103.	70-134	WG607206
p-Isopropyltoluene	mg/l	.025	0.0259	104.	77-132	WG607206
sec-Butylbenzene	mg/l	.025	0.0256	102.	77-130	WG607206
Styrene	mg/l	.025	0.0266	106.	69-145	WG607206
tert-Butylbenzene	mg/l	.025	0.0259	104.	76-131	WG607206
Tetrachloroethene	mg/l	.025	0.0262	105.	69-131	WG607206
Toluene	mg/l	.025	0.0239	95.5	75-114	WG607206
trans-1,2-Dichloroethene	mg/l	.025	0.0263	105.	63-127	WG607206
trans-1,3-Dichloropropene	mg/l	.025	0.0257	103.	69-124	WG607206
Trichlorofluoromethane	mg/l	.025	0.0253	101.	53-161	WG607206
Vinyl chloride	mg/l	.025	0.0249	99.5	55-142	WG607206
Xylenes, Total	mg/l	.075	0.0780	104.	77-123	WG607206
4-Bromofluorobenzene				104.0	82-120	WG607206
Dibromofluoromethane				103.1	82-126	WG607206
Toluene-d8				101.2	92-112	WG607206
Naphthalene	mg/kg	.025	0.0212	84.8	68-136	WG607441
4-Bromofluorobenzene				89.90	67-133	WG607441
Dibromofluoromethane				101.4	72-135	WG607441
Toluene-d8				97.98	90-113	WG607441
1,2,4-Trichlorobenzene	mg/l	.01	0.00470	47.0	18-130	WG607069
2,4,6-Trichlorophenol	mg/l	.01	0.00608	60.8	12-147	WG607069
2,4-Dichlorophenol	mg/l	.01	0.00550	55.0	10-157	WG607069
2,4-Dimethylphenol	mg/l	.01	0.00582	58.3	19-160	WG607069
2,4-Dinitrophenol	mg/l	.01	0.00817	81.7	10-135	WG607069
2,4-Dinitrotoluene	mg/l	.01	0.00567	56.7	30-168	WG607069
2,6-Dinitrotoluene	mg/l	.01	0.00557	55.7	32-163	WG607069
2-Chloronaphthalene	mg/l	.01	0.00573	57.3	29-149	WG607069
2-Chlorophenol	mg/l	.01	0.00471	47.1	16-129	WG607069

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2-Nitrophenol	mg/l	.01	0.00554	55.4	14-158	WG607069
3,3-Dichlorobenzidine	mg/l	.01	0.00641	64.1	42-150	WG607069
4,6-Dinitro-2-methylphenol	mg/l	.01	0.00893	89.3	10-164	WG607069
4-Bromophenyl-phenylether	mg/l	.01	0.00624	62.4	40-166	WG607069
4-Chloro-3-methylphenol	mg/l	.01	0.00573	57.3	14-158	WG607069
4-Chlorophenyl-phenylether	mg/l	.01	0.00636	63.6	39-155	WG607069
4-Nitrophenol	mg/l	.01	0.00238	23.8	10-61	WG607069
Acenaphthene	mg/l	.01	0.00570	57.0	37-159	WG607069
Acenaphthylene	mg/l	.01	0.00585	58.5	34-162	WG607069
Anthracene	mg/l	.01	0.00638	63.8	48-167	WG607069
Benzidine	mg/l	.01	0.00388	38.8	10-86	WG607069
Benzo(a)anthracene	mg/l	.01	0.00692	69.2	46-167	WG607069
Benzo(a)pyrene	mg/l	.01	0.00650	65.0	39-167	WG607069
Benzo(b)fluoranthene	mg/l	.01	0.00683	68.3	39-173	WG607069
Benzo(g,h,i)perylene	mg/l	.01	0.00697	69.7	42-181	WG607069
Benzo(k)fluoranthene	mg/l	.01	0.00644	64.4	42-178	WG607069
Benzylbutyl phthalate	mg/l	.01	0.00610	61.0	10-178	WG607069
Bis(2-chlorethoxy)methane	mg/l	.01	0.00589	58.9	34-155	WG607069
Bis(2-chloroethyl)ether	mg/l	.01	0.00470	47.0	22-149	WG607069
Bis(2-chloroisopropyl)ether	mg/l	.01	0.00488	48.8	26-149	WG607069
Bis(2-ethylhexyl)phthalate	mg/l	.01	0.00785	78.5	42-191	WG607069
Chrysene	mg/l	.01	0.00733	73.3	46-170	WG607069
Di-n-butyl phthalate	mg/l	.01	0.00655	65.5	33-175	WG607069
Di-n-octyl phthalate	mg/l	.01	0.00660	66.0	40-170	WG607069
Dibenz(a,h)anthracene	mg/l	.01	0.00715	71.5	43-187	WG607069
Diethyl phthalate	mg/l	.01	0.00670	67.0	10-182	WG607069
Dimethyl phthalate	mg/l	.01	0.00671	67.1	10-165	WG607069
Fluoranthene	mg/l	.01	0.00665	66.5	46-171	WG607069
Fluorene	mg/l	.01	0.00619	61.9	39-163	WG607069
Hexachloro-1,3-butadiene	mg/l	.01	0.00448	44.8	18-136	WG607069
Hexachlorobenzene	mg/l	.01	0.00602	60.2	38-163	WG607069
Hexachlorocyclopentadiene	mg/l	.01	0.00781	78.1	10-142	WG607069
Hexachloroethane	mg/l	.01	0.00378	37.8	10-130	WG607069
Indeno(1,2,3-cd)pyrene	mg/l	.01	0.00707	70.7	42-184	WG607069
Isophorone	mg/l	.01	0.00616	61.6	36-166	WG607069
n-Nitrosodi-n-propylamine	mg/l	.01	0.00567	56.7	27-157	WG607069
n-Nitrosodimethylamine	mg/l	.01	0.00262	26.2	10-96	WG607069
n-Nitrosodiphenylamine	mg/l	.01	0.00645	64.5	41-168	WG607069
Naphthalene	mg/l	.01	0.00503	50.3	26-147	WG607069
Nitrobenzene	mg/l	.01	0.00579	57.9	22-154	WG607069
Pentachlorophenol	mg/l	.01	0.00442	44.2	10-128	WG607069
Phenanthrene	mg/l	.01	0.00656	65.6	46-163	WG607069
Phenol	mg/l	.01	0.00295	29.5	10-69	WG607069
Pyrene	mg/l	.01	0.00656	65.6	45-176	WG607069
2,4,6-Tribromophenol				72.44	16-147	WG607069
2-Fluorobiphenyl				68.97	29-127	WG607069
2-Fluorophenol				40.59	10-75	WG607069
Nitrobenzene-d5				60.82	17-119	WG607069
Phenol-d5				27.46	10-63	WG607069
p-Terphenyl-d14				67.36	40-174	WG607069
Extractable Petroleum Hydrocarbon	mg/kg	60	46.1	76.9	50-100	WG607172
				70.99	50-150	WG607172
Extractable Petroleum Hydrocarbon	mg/kg	60	47.0	78.3	50-100	WG607282
o-Terphenyl				73.83	50-150	WG607282

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Quality Assurance Report  
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Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
cis-1,2-Dichloroethene	mg/l	.025	0.0253	101.	75-121	WG607572
Trichloroethene	mg/l	.025	0.0242	96.7	69-131	WG607572
4-Bromofluorobenzene				100.4	82-120	WG607572
Dibromofluoromethane				103.1	82-126	WG607572
Toluene-d8				100.7	92-112	WG607572
PCB 1016	mg/kg	.167	0.152	90.8	64-120	WG607287
PCB 1260	mg/kg	.167	0.181	108.	72-130	WG607287
Decachlorobiphenyl				94.28	18.9-115.8	WG607287
Tetrachloro-m-xylene				81.07	31.8-115.7	WG607287
1,1,1,2-Tetrachloroethane	mg/kg	.025	0.0263	105.	77-129	WG607252
1,1,1-Trichloroethane	mg/kg	.025	0.0249	99.5	70-127	WG607252
1,1,2,2-Tetrachloroethane	mg/kg	.025	0.0263	105.	76-133	WG607252
1,1,2-Trichloroethane	mg/kg	.025	0.0257	103.	79-123	WG607252
1,1,2-Trichlorotrifluoroethane	mg/kg	.025	0.0215	85.9	52-145	WG607252
1,1-Dichloroethane	mg/kg	.025	0.0266	106.	74-121	WG607252
1,1-Dichloroethene	mg/kg	.025	0.0219	87.6	53-135	WG607252
1,1-Dichloropropene	mg/kg	.025	0.0266	106.	67-127	WG607252
1,2,3-Trichlorobenzene	mg/kg	.025	0.0266	107.	74-131	WG607252
1,2,3-Trichloropropane	mg/kg	.025	0.0260	104.	75-135	WG607252
1,2,3-Trimethylbenzene	mg/kg	.025	0.0268	107.	76-128	WG607252
1,2,4-Trichlorobenzene	mg/kg	.025	0.0264	106.	72-130	WG607252
1,2,4-Trimethylbenzene	mg/kg	.025	0.0266	107.	75-131	WG607252
1,2-Dibromo-3-Chloropropane	mg/kg	.025	0.0231	92.3	55-142	WG607252
1,2-Dibromoethane	mg/kg	.025	0.0256	102.	77-126	WG607252
1,2-Dichlorobenzene	mg/kg	.025	0.0262	105.	80-123	WG607252
1,2-Dichloroethane	mg/kg	.025	0.0263	105.	70-128	WG607252
1,2-Dichloropropane	mg/kg	.025	0.0282	113.	74-125	WG607252
1,3,5-Trimethylbenzene	mg/kg	.025	0.0267	107.	77-129	WG607252
1,3-Dichlorobenzene	mg/kg	.025	0.0265	106.	76-128	WG607252
1,3-Dichloropropane	mg/kg	.025	0.0269	108.	77-118	WG607252
1,4-Dichlorobenzene	mg/kg	.025	0.0256	103.	77-119	WG607252
2,2-Dichloropropane	mg/kg	.025	0.0266	107.	60-132	WG607252
2-Butanone (MEK)	mg/kg	.125	0.102	81.6	56-146	WG607252
2-Chloroethyl vinyl ether	mg/kg	.125	0.136	109.	17-179	WG607252
2-Chlorotoluene	mg/kg	.025	0.0274	110.	76-125	WG607252
4-Chlorotoluene	mg/kg	.025	0.0276	110.	76-125	WG607252
4-Methyl-2-pentanone (MIBK)	mg/kg	.125	0.125	100.	55-148	WG607252
Acetone	mg/kg	.125	0.109	87.3	47-155	WG607252
Acrylonitrile	mg/kg	.125	0.128	103.	50-155	WG607252
Benzene	mg/kg	.025	0.0263	105.	72-120	WG607252
Bromobenzene	mg/kg	.025	0.0271	108.	74-122	WG607252
Bromodichloromethane	mg/kg	.025	0.0260	104.	74-128	WG607252
Bromoform	mg/kg	.025	0.0246	98.2	62-137	WG607252
Bromomethane	mg/kg	.025	0.0238	95.4	38-180	WG607252
Carbon tetrachloride	mg/kg	.025	0.0246	98.3	62-130	WG607252
Chlorobenzene	mg/kg	.025	0.0276	111.	77-124	WG607252
Chlorodibromomethane	mg/kg	.025	0.0260	104.	74-128	WG607252
Chloroethane	mg/kg	.025	0.0240	96.0	46-173	WG607252
Chloroform	mg/kg	.025	0.0265	106.	76-122	WG607252
Chloromethane	mg/kg	.025	0.0268	107.	49-143	WG607252
cis-1,2-Dichloroethene	mg/kg	.025	0.0252	101.	73-123	WG607252
cis-1,3-Dichloropropene	mg/kg	.025	0.0277	111.	73-126	WG607252
Di-isopropyl ether	mg/kg	.025	0.0273	109.	64-131	WG607252
Dibromomethane	mg/kg	.025	0.0257	103.	75-127	WG607252

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Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
Dichlorodifluoromethane	mg/kg	.025	0.0246	98.3	30-177	WG607252
Ethylbenzene	mg/kg	.025	0.0265	106.	76-126	WG607252
Hexachloro-1,3-butadiene	mg/kg	.025	0.0284	114.	71-134	WG607252
Isopropylbenzene	mg/kg	.025	0.0260	104.	70-128	WG607252
Methyl tert-butyl ether	mg/kg	.025	0.0242	96.9	66-127	WG607252
Methylene Chloride	mg/kg	.025	0.0259	103.	67-124	WG607252
n-Butylbenzene	mg/kg	.025	0.0271	108.	71-133	WG607252
n-Propylbenzene	mg/kg	.025	0.0269	108.	76-126	WG607252
Naphthalene	mg/kg	.025	0.0257	103.	68-136	WG607252
p-Isopropyltoluene	mg/kg	.025	0.0270	108.	75-134	WG607252
sec-Butylbenzene	mg/kg	.025	0.0274	109.	75-132	WG607252
Styrene	mg/kg	.025	0.0272	109.	68-148	WG607252
tert-Butylbenzene	mg/kg	.025	0.0270	108.	75-132	WG607252
Tetrachloroethene	mg/kg	.025	0.0254	102.	70-131	WG607252
Toluene	mg/kg	.025	0.0269	108.	74-155	WG607252
trans-1,2-Dichloroethene	mg/kg	.025	0.0247	98.9	63-126	WG607252
trans-1,3-Dichloropropene	mg/kg	.025	0.0268	107.	68-126	WG607252
Trichloroethene	mg/kg	.025	0.0258	103.	75-121	WG607252
Trichlorofluoromethane	mg/kg	.025	0.0248	99.4	48-170	WG607252
Vinyl chloride	mg/kg	.025	0.0255	102.	54-144	WG607252
Xylenes, Total	mg/kg	.075	0.0786	105.	76-126	WG607252
4-Bromofluorobenzene				103.6	67-133	WG607252
Dibromofluoromethane				102.5	72-135	WG607252
Toluene-d8				104.8	90-113	WG607252
GRO (C6-C10)	mg/kg	1	0.928	92.8	50-100	WG607186
a,a,a-Trifluorotoluene(FID)				75.62	50-150	WG607186
4,4-DDD	mg/l	.0002	0.000206	103.	60-123	WG607420
4,4-DDE	mg/l	.0002	0.000201	100.	50-120	WG607420
4,4-DDT	mg/l	.0002	0.000278	139.*	61-121	WG607420
Aldrin	mg/l	.0002	0.000126	62.8	10-136	WG607420
Alpha BHC	mg/l	.0002	0.000188	94.1	58-114	WG607420
Beta BHC	mg/l	.0002	0.000197	98.3	61-120	WG607420
Delta BHC	mg/l	.0002	0.000184	91.9	57-120	WG607420
Dieldrin	mg/l	.0002	0.000207	103.	62-123	WG607420
Endosulfan I	mg/l	.0002	0.000203	102.	63-123	WG607420
Endosulfan II	mg/l	.0002	0.000206	103.	63-124	WG607420
Endosulfan sulfate	mg/l	.0002	0.000210	105.	59-125	WG607420
Endrin	mg/l	.0002	0.000215	108.	60-123	WG607420
Endrin aldehyde	mg/l	.0002	0.000192	96.1*	42-92	WG607420
Endrin ketone	mg/l	.0002	0.000213	106.	60-117	WG607420
Gamma BHC	mg/l	.0002	0.000191	95.5	59-116	WG607420
Heptachlor	mg/l	.0002	0.000164	81.8	10-131	WG607420
Heptachlor epoxide	mg/l	.0002	0.000201	101.	61-118	WG607420
Hexachlorobenzene	mg/l	.0002	0.000135	67.6	28-116	WG607420
Methoxychlor	mg/l	.0002	0.000285	143.*	66-122	WG607420
Decachlorobiphenyl				97.82	10-122.6	WG607420
Tetrachloro-m-xylene				88.28	15.3-114.2	WG607420
4,4-DDD	mg/kg	.0667	0.0578	86.6	74-114	WG607287
4,4-DDE	mg/kg	.0667	0.0599	89.8	74-115	WG607287
4,4-DDT	mg/kg	.0667	0.0635	95.3	62-124	WG607287
Aldrin	mg/kg	.0667	0.0566	84.9	69-110	WG607287
Alpha BHC	mg/kg	.0667	0.0536	80.3	68-111	WG607287
Beta BHC	mg/kg	.0667	0.0575	86.2	74-112	WG607287

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Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
Delta BHC	mg/kg	.0667	0.0560	84.0	71-110	WG607287
Dieldrin	mg/kg	.0667	0.0592	88.8	76-115	WG607287
Endosulfan I	mg/kg	.0667	0.0606	90.9	76-119	WG607287
Endosulfan II	mg/kg	.0667	0.0607	90.9	75-116	WG607287
Endosulfan sulfate	mg/kg	.0667	0.0570	85.4	70-118	WG607287
Endrin	mg/kg	.0667	0.0578	86.7	68-115	WG607287
Endrin aldehyde	mg/kg	.0667	0.0591	88.6	48-92	WG607287
Endrin ketone	mg/kg	.0667	0.0597	89.6	70-112	WG607287
Gamma BHC	mg/kg	.0667	0.0559	83.8	70-112	WG607287
Heptachlor	mg/kg	.0667	0.0589	88.3	69-111	WG607287
Heptachlor epoxide	mg/kg	.0667	0.0596	89.3	72-115	WG607287
Hexachlorobenzene	mg/kg	.0667	0.0485	72.8	64-111	WG607287
Methoxychlor	mg/kg	.0667	0.0640	95.9	65-123	WG607287
Decachlorobiphenyl				100.5	18.9-115.8	WG607287
Tetrachloro-m-xylene				86.16	31.8-115.7	WG607287
Barium	mg/kg	252	249.	98.8	84.1-116	WG607432
Extractable Petroleum Hydrocarbon	mg/kg	60	52.1	86.8	50-150	WG607708
o-Terphenyl				88.88	50-150	WG607708
Arsenic	mg/l	1.13	1.11	98.2	85-115	WG607273
Barium	mg/l	1.13	1.17	104.	85-115	WG607273
Cadmium	mg/l	1.13	1.16	103.	85-115	WG607273
Chromium	mg/l	1.13	1.22	108.	85-115	WG607273
Lead	mg/l	1.13	1.16	103.	85-115	WG607273
Selenium	mg/l	1.13	1.08	95.6	85-115	WG607273
Silver	mg/l	1.13	1.14	101.	85-115	WG607273
GRO (C6-C10)	mg/kg	1	0.780	78.0	50-100	WG607608
a,a,a-Trifluorotoluene(FID)				70.01	50-150	WG607608
GRO (C6-C10)	mg/l	1	0.807	80.7	50-100	WG607679
a,a,a-Trifluorotoluene(FID)				67.44	50-150	WG607679
2,4,5-T	mg/l	.005	0.00448	89.7	47-120	WG607601
2,4,5-TP (Silvex)	mg/l	.005	0.00422	84.3	46-125	WG607601
2,4-D	mg/l	.005	0.00365	73.1	39-112	WG607601
2,4-DB	mg/l	.005	0.00314	62.8	29-133	WG607601
Dalapon	mg/l	.005	0.00415	83.1	34-97	WG607601
Dicamba	mg/l	.005	0.00470	93.9	47-119	WG607601
Dichloroprop	mg/l	.005	0.00459	91.7	35-110	WG607601
Dinoseb	mg/l	.005	0.00352	70.4	29-111	WG607601
MCPA	mg/l	.5	0.585	117.	34-120	WG607601
CPP	mg/l	.5	0.603	121.	16-189	WG607601
2,4-Dichlorophenyl Acetic Acid				88.30	42-112	WG607601
Barium	mg/kg	252	262.	104.	84.1-116	WG607517
PCB 1016	mg/kg	.167	0.171	102.	64-120	WG607701
PCB 1260	mg/kg	.167	0.201	120.	72-130	WG607701

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Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
Decachlorobiphenyl				98.61	18.9-115.8	
Tetrachloro-m-xylene				112.2	31.8-115.7	
Naphthalene	mg/kg	.025	0.0230	92.0	68-136	WG607858
4-Bromofluorobenzene				96.22	67-133	WG607858
Dibromofluoromethane				103.7	72-135	WG607858
Toluene-d8				101.5	90-113	WG607858
Extractable Petroleum Hydrocarbon	ppm	1.5	1.15	76.5	50-100	WG607482
o-Terphenyl				64.63	50-150	WG607482
Extractable Petroleum Hydrocarbon	mg/kg	60	47.8	79.7	50-150	WG608107
o-Terphenyl				77.75	50-150	WG608107
2,4,5-T	mg/kg	.167	0.135	80.8	32.9-103	WG607777
2,4,5-TP (Silvex)	mg/kg	.167	0.141	84.2	30-123	WG607777
2,4-D	mg/kg	.167	0.125	75.1	40.5-114	WG607777
2,4-DB	mg/kg	.167	0.156	93.4	28.9-108	WG607777
Dalapon	mg/kg	.167	0.120	71.8	18.4-113	WG607777
Dicamba	mg/kg	.167	0.148	88.5	37.2-119	WG607777
Dichloroprop	mg/kg	.167	0.154	92.4	40.5-114	WG607777
Dinoseb	mg/kg	.167	0.135	80.8	10-98	WG607777
MCPA	mg/kg	16.7	12.5	75.0	15.5-110	WG607777
MCPP	mg/kg	16.7	22.6	135.	40.1-177	WG607777
2,4-Dichlorophenyl Acetic Acid				78.57	37-99	WG607777
1,1,1,2-Tetrachloroethane	mg/l	.025	0.0310	124.	77-128	WG608731
1,1,1-Trichloroethane	mg/l	.025	0.0270	108.	71-126	WG608731
1,1,2,2-Tetrachloroethane	mg/l	.025	0.0279	112.	78-130	WG608731
1,1,2-Trichloroethane	mg/l	.025	0.0295	118.	81-121	WG608731
1,1,2-Trichlorotrifluoroethane	mg/l	.025	0.0240	95.9	53-143	WG608731
1,1-Dichloroethane	mg/l	.025	0.0274	109.	73-123	WG608731
1,1-Dichloroethene	mg/l	.025	0.0236	94.5	54-134	WG608731
1,1-Dichloropropene	mg/l	.025	0.0256	102.	67-127	WG608731
1,2,3-Trichlorobenzene	mg/l	.025	0.0296	119.	77-130	WG608731
1,2,3-Trichloropropane	mg/l	.025	0.0296	119.	68-130	WG608731
1,2,3-Trimethylbenzene	mg/l	.025	0.0258	103.	77-126	WG608731
1,2,4-Trichlorobenzene	mg/l	.025	0.0300	120.	76-127	WG608731
1,2,4-Trimethylbenzene	mg/l	.025	0.0287	115.	77-129	WG608731
1,2-Dibromo-3-Chloropropane	mg/l	.025	0.0338	135.	55-142	WG608731
1,2-Dibromoethane	mg/l	.025	0.0297	119.	78-124	WG608731
1,2-Dichlorobenzene	mg/l	.025	0.0276	110.	82-121	WG608731
1,2-Dichloroethane	mg/l	.025	0.0268	107.	69-128	WG608731
1,2-Dichloropropane	mg/l	.025	0.0274	109.	77-121	WG608731
1,3,5-Trimethylbenzene	mg/l	.025	0.0282	113.	78-127	WG608731
1,3-Dichlorobenzene	mg/l	.025	0.0295	118.	77-127	WG608731
1,3-Dichloropropane	mg/l	.025	0.0290	116.	78-117	WG608731
1,4-Dichlorobenzene	mg/l	.025	0.0270	108.	79-117	WG608731
2,2-Dichloropropane	mg/l	.025	0.0250	100.	63-130	WG608731
2-Butanone (MEK)	mg/l	.125	0.163	130.	58-144	WG608731
2-Chloroethyl vinyl ether	mg/l	.125	0.145	116.	26-172	WG608731
2-Chlorotoluene	mg/l	.025	0.0277	111.	78-123	WG608731
4-Chlorotoluene	mg/l	.025	0.0282	113.	78-122	WG608731
4-Methyl-2-pentanone (MIBK)	mg/l	.125	0.156	125.	58-147	WG608731
Acetone	mg/l	.125	0.185	148.	49-153	WG608731
Acrolein	mg/l	.125	0.0820	65.6	10-181	WG608731

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Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
Acrylonitrile	mg/l	.125	0.150	120.	53-153	WG608731
Benzene	mg/l	.025	0.0268	107.	72-119	WG608731
Bromobenzene	mg/l	.025	0.0303	121.*	76-121	WG608731
Bromodichloromethane	mg/l	.025	0.0282	113.	75-127	WG608731
Bromoform	mg/l	.025	0.0339	135.	61-136	WG608731
Bromomethane	mg/l	.025	0.0279	112.	42-172	WG608731
Carbon tetrachloride	mg/l	.025	0.0271	108.	63-129	WG608731
Chlorobenzene	mg/l	.025	0.0294	118.	78-123	WG608731
Chlorodibromomethane	mg/l	.025	0.0327	131.*	73-128	WG608731
Chloroethane	mg/l	.025	0.0240	96.2	52-164	WG608731
Chloroform	mg/l	.025	0.0278	111.	76-122	WG608731
Chloromethane	mg/l	.025	0.0264	106.	50-141	WG608731
cis-1,2-Dichloroethene	mg/l	.025	0.0287	115.	75-121	WG608731
cis-1,3-Dichloropropene	mg/l	.025	0.0284	114.	74-124	WG608731
Di-isopropyl ether	mg/l	.025	0.0289	116.	66-129	WG608731
Dibromomethane	mg/l	.025	0.0282	113.	77-124	WG608731
Dichlorodifluoromethane	mg/l	.025	0.0233	93.4	33-173	WG608731
Ethylbenzene	mg/l	.025	0.0285	114.	77-124	WG608731
Hexachloro-1,3-butadiene	mg/l	.025	0.0276	111.	71-134	WG608731
Isopropylbenzene	mg/l	.025	0.0296	118.	74-126	WG608731
Methyl tert-butyl ether	mg/l	.025	0.0287	115.	67-127	WG608731
Methylene Chloride	mg/l	.025	0.0277	111.	67-122	WG608731
n-Butylbenzene	mg/l	.025	0.0248	99.3	74-130	WG608731
n-Propylbenzene	mg/l	.025	0.0278	111.	77-125	WG608731
Naphthalene	mg/l	.025	0.0296	118.	70-134	WG608731
p-Isopropyltoluene	mg/l	.025	0.0293	117.	77-132	WG608731
sec-Butylbenzene	mg/l	.025	0.0281	112.	77-130	WG608731
Styrene	mg/l	.025	0.0291	116.	69-145	WG608731
tert-Butylbenzene	mg/l	.025	0.0289	115.	76-131	WG608731
Tetrachloroethene	mg/l	.025	0.0298	119.	69-131	WG608731
Toluene	mg/l	.025	0.0270	108.	75-114	WG608731
trans-1,2-Dichloroethene	mg/l	.025	0.0272	109.	63-127	WG608731
trans-1,3-Dichloropropene	mg/l	.025	0.0281	112.	69-124	WG608731
Trichloroethene	mg/l	.025	0.0280	112.	69-131	WG608731
Trichlorofluoromethane	mg/l	.025	0.0254	102.	53-161	WG608731
Vinyl chloride	mg/l	.025	0.0236	94.3	55-142	WG608731
Xylenes, Total	mg/l	.075	0.0860	115.	77-123	WG608731
4-Bromofluorobenzene				106.4	82-120	WG608731
Dibromofluoromethane				102.4	82-126	WG608731
Toluene-d8				104.5	92-112	WG608731

Analyte	Units	Laboratory Control Result	Control Ref	Sample %Rec	Duplicate Limit	RPD	Limit	Batch
1,1,1,2-Tetrachloroethane	mg/kg	0.0251	0.0266	100.	77-129	5.88	20	WG607251
1,1,1-Trichloroethane	mg/kg	0.0198	0.0247	79.0	70-127	22.1*	20	WG607251
1,1,2,2-Tetrachloroethane	mg/kg	0.0253	0.0261	101.	76-133	3.21	20	WG607251
1,1,2-Trichloroethane	mg/kg	0.0253	0.0259	101.	79-123	2.32	20	WG607251
1,1,2-Trichlorotrifluoroethane	mg/kg	0.0156	0.0235	62.0	52-145	40.2*	20	WG607251
1,1-Dichloroethane	mg/kg	0.0206	0.0241	82.0	74-121	15.6	20	WG607251
1,1-Dichloroethene	mg/kg	0.0188	0.0226	75.0	53-135	18.6	20	WG607251
1,1-Dichloropropene	mg/kg	0.0198	0.0231	79.0	67-127	15.4	20	WG607251
1,2,3-Trichlorobenzene	mg/kg	0.0273	0.0300	109.	74-131	9.43	20	WG607251
1,2,3-Trichloropropane	mg/kg	0.0274	0.0286	110.	75-135	4.20	20	WG607251
1,2,3-Trimethylbenzene	mg/kg	0.0217	0.0240	87.0	76-128	10.2	20	WG607251
1,2,4-Trichlorobenzene	mg/kg	0.0277	0.0318	111.	72-130	13.7	20	WG607251
1,2,4-Trimethylbenzene	mg/kg	0.0246	0.0261	98.0	75-131	5.66	20	WG607251
1,2-Dibromo-3-Chloropropane	mg/kg	0.0254	0.0239	102.	55-142	5.92	20	WG607251
1,2-Dibromoethane	mg/kg	0.0255	0.0257	102.	77-126	0.750	20	WG607251

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Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report  
Level II

L589405

August 22, 2012

Analyte	Units	Laboratory		%Rec	Limit	RPD	Limit	Batch
		Result	Control Ref					
1,2-Dichlorobenzene	mg/kg	0.0234	0.0254	93.0	80-123	8.36	20	WG607251
1,2-Dichloroethane	mg/kg	0.0232	0.0248	93.0	70-128	6.48	20	WG607251
1,2-Dichloropropane	mg/kg	0.0219	0.0241	88.0	74-125	9.45	20	WG607251
1,3,5-Trimethylbenzene	mg/kg	0.0253	0.0269	101.	77-129	6.30	20	WG607251
1,3-Dichlorobenzene	mg/kg	0.0268	0.0275	107.	76-128	2.53	20	WG607251
1,3-Dichloropropane	mg/kg	0.0239	0.0254	96.0	77-118	6.20	20	WG607251
1,4-Dichlorobenzene	mg/kg	0.0223	0.0249	89.0	77-119	10.8	20	WG607251
2,2-Dichloropropane	mg/kg	0.0202	0.0238	81.0	60-132	16.3	20	WG607251
2-Butanone (MEK)	mg/kg	0.117	0.127	94.0	56-146	8.24	20	WG607251
2-Chloroethyl vinyl ether	mg/kg	0.116	0.122	92.0	17-179	5.34	22	WG607251
2-Chlorotoluene	mg/kg	0.0248	0.0258	99.0	76-125	3.89	20	WG607251
4-Chlorotoluene	mg/kg	0.0245	0.0251	98.0	76-125	2.66	20	WG607251
4-Methyl-2-pentanone (MIBK)	mg/kg	0.128	0.134	102.	55-148	4.23	20	WG607251
Acetone	mg/kg	0.134	0.143	107.	47-155	6.04	22	WG607251
Acrylonitrile	mg/kg	0.111	0.121	89.0	50-155	8.91	20	WG607251
Benzene	mg/kg	0.0205	0.0229	82.0	72-120	11.4	20	WG607251
Bromobenzene	mg/kg	0.0265	0.0279	106.	74-122	5.07	20	WG607251
Bromodichloromethane	mg/kg	0.0230	0.0246	92.0	74-128	6.91	20	WG607251
Bromoform	mg/kg	0.0265	0.0266	106.	62-137	0.170	20	WG607251
Bromomethane	mg/kg	0.0202	0.0223	81.0	38-180	9.98	20	WG607251
Carbon tetrachloride	mg/kg	0.0207	0.0231	83.0	62-130	10.8	20	WG607251
Chlorobenzene	mg/kg	0.0240	0.0255	96.0	77-124	6.27	20	WG607251
Chlorodibromomethane	mg/kg	0.0258	0.0260	103.	74-128	0.680	20	WG607251
Chloroethane	mg/kg	0.0189	0.0235	76.0	46-173	21.7*	20	WG607251
Chloroform	mg/kg	0.0215	0.0248	86.0	76-122	14.5	20	WG607251
Chloromethane	mg/kg	0.0186	0.0213	74.0	49-143	13.5	20	WG607251
cis-1,2-Dichloroethene	mg/kg	0.0208	0.0238	83.0	73-123	13.8	20	WG607251
cis-1,3-Dichloropropene	mg/kg	0.0231	0.0247	92.0	73-126	6.87	20	WG607251
Di-isopropyl ether	mg/kg	0.0213	0.0240	85.0	64-131	11.6	20	WG607251
Dibromomethane	mg/kg	0.0233	0.0252	93.0	75-127	8.08	20	WG607251
Dichlorodifluoromethane	mg/kg	0.0203	0.0231	81.0	30-177	13.0	20	WG607251
Ethylbenzene	mg/kg	0.0248	0.0254	99.0	76-126	2.27	20	WG607251
Hexachloro-1,3-butadiene	mg/kg	0.0206	0.0236	82.0	71-134	13.4	20	WG607251
Isopropylbenzene	mg/kg	0.0253	0.0272	101.	70-128	7.41	20	WG607251
Methyl tert-butyl ether	mg/kg	0.0208	0.0236	83.0	66-127	12.5	20	WG607251
Methylene Chloride	mg/kg	0.0205	0.0228	82.0	67-124	10.6	20	WG607251
n-Butylbenzene	mg/kg	0.0223	0.0252	89.0	71-133	11.9	20	WG607251
n-Propylbenzene	mg/kg	0.0235	0.0255	94.0	76-126	8.10	20	WG607251
Naphthalene	mg/kg	0.0246	0.0254	98.0	68-136	3.05	20	WG607251
p-Isopropyltoluene	mg/kg	0.0257	0.0279	103.	75-134	8.12	20	WG607251
sec-Butylbenzene	mg/kg	0.0257	0.0278	103.	75-132	7.64	20	WG607251
Styrene	mg/kg	0.0244	0.0257	98.0	68-148	4.93	20	WG607251
tert-Butylbenzene	mg/kg	0.0253	0.0281	101.	75-132	10.2	20	WG607251
Tetrachloroethene	mg/kg	0.0232	0.0251	93.0	70-131	7.95	20	WG607251
Toluene	mg/kg	0.0219	0.0239	87.0	74-155	9.11	20	WG607251
trans-1,2-Dichloroethene	mg/kg	0.0209	0.0233	84.0	63-126	11.1	20	WG607251
trans-1,3-Dichloropropene	mg/kg	0.0231	0.0245	92.0	68-126	6.11	20	WG607251
Trichloroethene	mg/kg	0.0242	0.0253	97.0	75-121	4.11	20	WG607251
Trichlorofluoromethane	mg/kg	0.0195	0.0258	78.0	48-170	27.8*	20	WG607251
Vinyl chloride	mg/kg	0.0199	0.0224	80.0	54-144	12.1	20	WG607251
Xylenes, Total	mg/kg	0.0703	0.0736	94.0	76-126	4.60	20	WG607251
4-Bromofluorobenzene				106.0	67-133			WG607251
Dibromofluoromethane				97.51	72-135			WG607251
Toluene-d8				100.4	90-113			WG607251
1,2,4-Trichlorobenzene	mg/kg	0.229	0.211	69.0	48-87	7.86	20	WG607288
2,4,6-Trichlorophenol	mg/kg	0.269	0.252	81.0	50-98	6.51	20	WG607288
2,4-Dichlorophenol	mg/kg	0.263	0.246	79.0	56-96	6.59	20	WG607288

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Tax I.D. 62-0814289

Est. 1970

August 22, 2012

Analyte	Units	Laboratory Result	Control Ref	Sample %Rec	Duplicate Limit	RPD	Limit	Batch
2,4-Dimethylphenol	mg/kg	0.258	0.245	78.0	52-101	5.39	20	WG607288
2,4-Dinitrophenol	mg/kg	0.229	0.244	69.0	10-109	6.48	39	WG607288
2,4-Dinitrotoluene	mg/kg	0.288	0.275	86.0	54-103	4.45	20	WG607288
2,6-Dinitrotoluene	mg/kg	0.279	0.268	84.0	53-99	4.18	20	WG607288
2-Chloronaphthalene	mg/kg	0.262	0.244	79.0	55-96	7.04	20	WG607288
2-Chlorophenol	mg/kg	0.233	0.220	70.0	52-88	5.68	20	WG607288
2-Nitrophenol	mg/kg	0.276	0.260	83.0	55-106	6.11	20	WG607288
3,3-Dichlorobenzidine	mg/kg	0.275	0.261	83.0	36-84	5.24	20	WG607288
4,6-Dinitro-2-methylphenol	mg/kg	0.280	0.281	84.0	24-98	0.387	32	WG607288
4-Bromophenyl-phenylether	mg/kg	0.274	0.267	82.0	58-111	2.32	20	WG607288
4-Chloro-3-methylphenol	mg/kg	0.275	0.263	83.0	58-98	4.61	20	WG607288
4-Chlorophenyl-phenylether	mg/kg	0.266	0.255	80.0	59-103	4.38	20	WG607288
4-Nitrophenol	mg/kg	0.276	0.265	83.0	34-101	4.16	26	WG607288
Acenaphthene	mg/kg	0.274	0.272	82.0	55-96	1.08	20	WG607288
Acenaphthylene	mg/kg	0.278	0.261	84.0	61-107	6.43	20	WG607288
Anthracene	mg/kg	0.284	0.273	85.0	58-105	4.04	20	WG607288
Benzidine	mg/kg	0.0284	0.0218	8*	10-21	26.3	40	WG607288
Benzo(a)anthracene	mg/kg	0.274	0.270	82.0	56-103	1.41	20	WG607288
Benzo(a)pyrene	mg/kg	0.272	0.270	82.0	57-103	0.855	20	WG607288
Benzo(b)fluoranthene	mg/kg	0.266	0.267	80.0	52-106	0.561	20	WG607288
Benzo(g,h,i)perylene	mg/kg	0.273	0.268	82.0	47-112	2.01	20	WG607288
Benzo(k)fluoranthene	mg/kg	0.278	0.272	83.0	53-104	2.01	20	WG607288
Benzylbutyl phthalate	mg/kg	0.284	0.287	85.0	61-118	0.828	20	WG607288
Bis(2-chlorethoxy)methane	mg/kg	0.260	0.245	78.0	58-104	6.07	20	WG607288
Bis(2-chloroethyl)ether	mg/kg	0.223	0.214	67.0	51-103	4.29	20	WG607288
Bis(2-chloroisopropyl)ether	mg/kg	0.217	0.213	65.0	56-95	1.98	20	WG607288
Bis(2-ethylhexyl)phthalate	mg/kg	0.294	0.290	88.0	56-120	1.29	20	WG607288
Chrysene	mg/kg	0.276	0.279	83.0	55-102	1.03	20	WG607288
Di-n-butyl phthalate	mg/kg	0.280	0.271	84.0	59-114	3.25	20	WG607288
Di-n-octyl phthalate	mg/kg	0.299	0.289	90.0	51-119	3.41	22	WG607288
Dibenz(a,h)anthracene	mg/kg	0.273	0.271	82.0	49-111	0.633	20	WG607288
Diethyl phthalate	mg/kg	0.272	0.271	82.0	61-105	0.603	20	WG607288
Dimethyl phthalate	mg/kg	0.274	0.268	82.0	60-106	2.03	20	WG607288
Fluoranthene	mg/kg	0.277	0.273	83.0	59-108	1.61	20	WG607288
Fluorene	mg/kg	0.272	0.263	82.0	59-100	3.25	20	WG607288
Hexachloro-1,3-butadiene	mg/kg	0.242	0.224	72.0	53-106	7.67	20	WG607288
Hexachlorobenzene	mg/kg	0.245	0.236	73.0	50-108	3.67	20	WG607288
Hexachlorocyclopentadiene	mg/kg	0.281	0.269	84.0	36-117	4.24	20	WG607288
Hexachloroethane	mg/kg	0.224	0.209	67.0	45-83	7.00	20	WG607288
Indeno(1,2,3-cd)pyrene	mg/kg	0.272	0.270	82.0	50-110	0.814	20	WG607288
Isophorone	mg/kg	0.215	0.211	65.0	51-99	2.08	20	WG607288
n-Nitrosodi-n-propylamine	mg/kg	0.241	0.236	72.0	52-103	2.19	20	WG607288
n-Nitrosodimethylamine	mg/kg	0.204	0.198	61.0	31-107	2.81	23	WG607288
n-Nitrosodiphenylamine	mg/kg	0.275	0.265	83.0	57-121	3.92	20	WG607288
Naphthalene	mg/kg	0.248	0.236	74.0	55-91	5.14	20	WG607288
Nitrobenzene	mg/kg	0.254	0.229	76.0	47-92	10.7	20	WG607288
Pentachlorophenol	mg/kg	0.217	0.218	65.0	10-89	0.331	28	WG607288
Phenanthrene	mg/kg	0.274	0.264	82.0	55-103	3.81	20	WG607288
Phenol	mg/kg	0.239	0.228	72.0	49-99	4.44	20	WG607288
Pyrene	mg/kg	0.274	0.274	82.0	54-104	0.0502	20	WG607288
2,4,6-Tribromophenol				86.77	16-136			WG607288
2-Fluorobiphenyl				83.99	37-119			WG607288
2-Fluorophenol				73.16	22-114			WG607288
Nitrobenzene-d5				76.73	20-114			WG607288
Phenol-d5				72.92	26-127			WG607288
p-Terphenyl-d14				80.02	15-174			WG607288
PCB 1016	mg/l	0.000475	0.000392	95.0	32-126	19.1	22	WG607420

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Tax I.D. 62-0814289

Est. 1970

August 22, 2012

Analyte	Units	Laboratory Result	Control Ref	%Rec	Sample Limit	Duplicate RPD	Limit	Batch
PCB 1260	mg/l	0.000470	0.000414	94.0	58-128	12.7	20	WG607420
Decachlorobiphenyl				90.77	10-122.6			WG607420
Tetrachloro-m-xylene				89.42	15.3-114.2			WG607420
1,1,1,2-Tetrachloroethane	mg/l	0.0241	0.0255	96.0	77-128	5.47	20	WG607206
1,1,1-Trichloroethane	mg/l	0.0244	0.0250	97.0	71-126	2.70	20	WG607206
1,1,2,2-Tetrachloroethane	mg/l	0.0228	0.0243	91.0	78-130	6.52	20	WG607206
1,1,2-Trichloroethane	mg/l	0.0233	0.0244	93.0	81-121	4.80	20	WG607206
1,1,2-Trichlorotrifluoroethane	mg/l	0.0266	0.0273	106.	53-143	2.73	20	WG607206
1,1-Dichloroethane	mg/l	0.0269	0.0278	108.	73-123	3.26	20	WG607206
1,1-Dichloroethene	mg/l	0.0266	0.0277	106.	54-134	4.09	20	WG607206
1,1-Dichloropropene	mg/l	0.0268	0.0277	107.	67-127	3.37	20	WG607206
1,2,3-Trichlorobenzene	mg/l	0.0269	0.0260	108.	77-130	3.43	20	WG607206
1,2,3-Trichloropropane	mg/l	0.0239	0.0255	96.0	68-130	6.29	20	WG607206
1,2,3-Trimethylbenzene	mg/l	0.0237	0.0237	95.0	77-126	0.150	20	WG607206
1,2,4-Trichlorobenzene	mg/l	0.0269	0.0265	108.	76-127	1.50	20	WG607206
1,2,4-Trimethylbenzene	mg/l	0.0242	0.0253	97.0	77-129	4.43	20	WG607206
1,2-Dibromo-3-Chloropropane	mg/l	0.0228	0.0229	91.0	55-142	0.440	20	WG607206
1,2-Dibromoethane	mg/l	0.0252	0.0264	101.	78-124	4.71	20	WG607206
1,2-Dichlorobenzene	mg/l	0.0245	0.0244	98.0	82-121	0.730	20	WG607206
1,2-Dichloroethane	mg/l	0.0266	0.0268	106.	69-128	0.800	20	WG607206
1,2-Dichloropropene	mg/l	0.0262	0.0270	105.	77-121	2.87	20	WG607206
1,3,5-Trimethylbenzene	mg/l	0.0237	0.0248	95.0	78-127	4.43	20	WG607206
1,3-Dichlorobenzene	mg/l	0.0251	0.0261	100.	77-127	4.21	20	WG607206
1,3-Dichloropropane	mg/l	0.0252	0.0261	101.	78-117	3.17	20	WG607206
1,4-Dichlorobenzene	mg/l	0.0249	0.0247	100.	79-117	0.910	20	WG607206
2,2-Dichloropropane	mg/l	0.0248	0.0254	99.0	63-130	2.49	20	WG607206
2-Butanone (MEK)	mg/l	0.129	0.132	104.	58-144	1.96	20	WG607206
2-Chloroethyl vinyl ether	mg/l	0.104	0.114	83.0	26-172	9.66	22	WG607206
2-Chlorotoluene	mg/l	0.0240	0.0248	96.0	78-123	3.15	20	WG607206
4-Chlorotoluene	mg/l	0.0243	0.0254	97.0	78-122	4.72	20	WG607206
4-Methyl-2-pentanone (MIBK)	mg/l	0.120	0.123	96.0	58-147	2.26	20	WG607206
Acetone	mg/l	0.118	0.125	94.0	49-153	5.56	21	WG607206
Acrolein	mg/l	0.127	0.131	101.	10-181	3.51	30	WG607206
Acrylonitrile	mg/l	0.135	0.137	108.	53-153	1.85	20	WG607206
Benzene	mg/l	0.0263	0.0270	105.	72-119	2.77	20	WG607206
Bromobenzene	mg/l	0.0237	0.0246	95.0	76-121	3.76	20	WG607206
Bromodichloromethane	mg/l	0.0234	0.0240	94.0	75-127	2.29	20	WG607206
Bromoform	mg/l	0.0247	0.0259	99.0	61-136	4.84	20	WG607206
Bromomethane	mg/l	0.0254	0.0267	102.	42-172	5.04	20	WG607206
Carbon tetrachloride	mg/l	0.0255	0.0264	102.	63-129	3.53	20	WG607206
Chlorobenzene	mg/l	0.0252	0.0263	101.	78-123	4.18	20	WG607206
Chlorodibromomethane	mg/l	0.0240	0.0254	96.0	73-128	5.76	20	WG607206
Chloroethane	mg/l	0.0234	0.0238	94.0	52-164	1.87	20	WG607206
Chloroform	mg/l	0.0245	0.0251	98.0	76-122	2.19	20	WG607206
Chloromethane	mg/l	0.0233	0.0236	93.0	50-141	1.28	20	WG607206
cis-1,3-Dichloropropene	mg/l	0.0255	0.0263	102.	74-124	2.71	20	WG607206
Di-isopropyl ether	mg/l	0.0263	0.0273	105.	66-129	3.47	20	WG607206
Dibromomethane	mg/l	0.0244	0.0251	98.0	77-124	2.93	20	WG607206
Dichlorodifluoromethane	mg/l	0.0227	0.0231	91.0	33-173	1.79	20	WG607206
Ethylbenzene	mg/l	0.0246	0.0259	98.0	77-124	5.29	20	WG607206
Hexachloro-1,3-butadiene	mg/l	0.0247	0.0245	99.0	71-134	0.850	20	WG607206
Isopropylbenzene	mg/l	0.0239	0.0251	96.0	74-126	4.62	20	WG607206
Methyl tert-butyl ether	mg/l	0.0255	0.0259	102.	67-127	1.27	20	WG607206
Methylene Chloride	mg/l	0.0259	0.0262	104.	67-122	1.28	20	WG607206
n-Butylbenzene	mg/l	0.0246	0.0245	98.0	74-130	0.530	20	WG607206
n-Propylbenzene	mg/l	0.0242	0.0253	97.0	77-125	4.62	20	WG607206
Naphthalene	mg/l	0.0261	0.0257	104.	70-134	1.64	20	WG607206

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Level II

L589405

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Tax I.D. 62-0814289

Est. 1970

August 22, 2012

Analyte	Units	Laboratory Result	Control Ref	Sample %Rec	Duplicate Limit	RPD	Limit	Batch
p-Isopropyltoluene	mg/l	0.0249	0.0259	100.	77-132	4.03	20	WG607206
sec-Butylbenzene	mg/l	0.0243	0.0256	97.0	77-130	4.93	20	WG607206
Styrene	mg/l	0.0256	0.0266	102.	69-145	3.95	20	WG607206
tert-Butylbenzene	mg/l	0.0244	0.0259	98.0	76-131	5.81	20	WG607206
Tetrachloroethene	mg/l	0.0251	0.0262	100.	69-131	4.50	20	WG607206
Toluene	mg/l	0.0237	0.0239	95.0	75-114	0.820	20	WG607206
trans-1,2-Dichloroethene	mg/l	0.0257	0.0263	103.	63-127	2.35	20	WG607206
trans-1,3-Dichloropropene	mg/l	0.0249	0.0257	100.	69-124	3.06	20	WG607206
Trichlorofluoromethane	mg/l	0.0242	0.0253	97.0	53-161	4.55	20	WG607206
Vinyl chloride	mg/l	0.0241	0.0249	96.0	55-142	3.08	20	WG607206
Xylenes, Total	mg/l	0.0744	0.0780	99.0	77-123	4.81	20	WG607206
4-Bromofluorobenzene				100.1	82-120			WG607206
Dibromofluoromethane				100.4	82-126			WG607206
Toluene-d8				100.6	92-112			WG607206
Naphthalene	mg/kg	0.0219	0.0212	87.0	68-136	3.04	20	WG607441
4-Bromofluorobenzene				92.59	67-133			WG607441
Dibromofluoromethane				106.5	72-135			WG607441
Toluene-d8				99.01	90-113			WG607441
1,2,4-Trichlorobenzene	mg/l	0.00629	0.00470	63.0	18-130	28.8	32	WG607069
2,4,6-Trichlorophenol	mg/l	0.00677	0.00608	68.0	12-147	10.7	40	WG607069
2,4-Dichlorophenol	mg/l	0.00640	0.00550	64.0	10-157	15.1	40	WG607069
2,4-Dimethylphenol	mg/l	0.00678	0.00582	68.0	19-160	15.1	40	WG607069
2,4-Dinitrophenol	mg/l	0.00796	0.00817	80.0	10-135	2.57	40	WG607069
2,4-Dinitrotoluene	mg/l	0.00647	0.00567	65.0	30-168	13.2	32	WG607069
2,6-Dinitrotoluene	mg/l	0.00614	0.00557	61.0	32-163	9.74	30	WG607069
2-Chloronaphthalene	mg/l	0.00674	0.00573	67.0	29-149	16.2	34	WG607069
2-Chlorophenol	mg/l	0.00592	0.00471	59.0	16-129	22.9	40	WG607069
2-Nitrophenol	mg/l	0.00663	0.00554	66.0	14-158	18.0	40	WG607069
3,3-Dichlorobenzidine	mg/l	0.00746	0.00641	74.0	42-150	15.1	29	WG607069
4,6-Dinitro-2-methylphenol	mg/l	0.00895	0.00893	90.0	10-164	0.241	40	WG607069
4-Bromophenyl-phenylether	mg/l	0.00782	0.00624	78.0	40-166	22.5	36	WG607069
4-Chloro-3-methylphenol	mg/l	0.00644	0.00573	64.0	14-158	11.6	40	WG607069
4-Chlorophenyl-phenylether	mg/l	0.00733	0.00636	73.0	39-155	14.1	33	WG607069
4-Nitrophenol	mg/l	0.00202	0.00238	20.0	10-61	16.4	40	WG607069
Acenaphthene	mg/l	0.00715	0.00570	71.0	37-159	22.6	30	WG607069
Acenaphthylene	mg/l	0.00684	0.00585	68.0	34-162	15.7	31	WG607069
Anthracene	mg/l	0.00713	0.00638	71.0	48-167	11.0	26	WG607069
Benzidine	mg/l	0.00391	0.00388	39.0	10-86	0.805	40	WG607069
Benzo(a)anthracene	mg/l	0.00772	0.00692	77.0	46-167	10.9	29	WG607069
Benzo(a)pyrene	mg/l	0.00709	0.00650	71.0	39-167	8.76	29	WG607069
Benzo(b)fluoranthene	mg/l	0.00785	0.00683	78.0	39-173	13.8	32	WG607069
Benzo(g,h,i)perylene	mg/l	0.00847	0.00697	85.0	42-181	19.4	30	WG607069
Benzo(k)fluoranthene	mg/l	0.00750	0.00644	75.0	42-178	15.2	33	WG607069
Benzylbutyl phthalate	mg/l	0.00713	0.00610	71.0	10-178	15.5	40	WG607069
Bis(2-chlorethoxy)methane	mg/l	0.00767	0.00589	77.0	34-155	26.3	31	WG607069
Bis(2-chloroethyl)ether	mg/l	0.00582	0.00470	58.0	22-149	21.2	38	WG607069
Bis(2-chloroisopropyl)ether	mg/l	0.00647	0.00488	65.0	26-149	28.0	34	WG607069
Bis(2-ethylhexyl)phthalate	mg/l	0.00850	0.00785	85.0	42-191	8.00	33	WG607069
Chrysene	mg/l	0.00800	0.00733	80.0	46-170	8.73	30	WG607069
Di-n-butyl phthalate	mg/l	0.00723	0.00655	72.0	33-175	9.82	39	WG607069
Di-n-octyl phthalate	mg/l	0.00775	0.00660	77.0	40-170	16.1	28	WG607069
Dibenz(a,h)anthracene	mg/l	0.00827	0.00715	83.0	43-187	14.4	31	WG607069
Diethyl phthalate	mg/l	0.00795	0.00670	80.0	10-182	17.2	35	WG607069
Dimethyl phthalate	mg/l	0.00787	0.00671	79.0	10-165	15.8	37	WG607069
Fluoranthene	mg/l	0.00739	0.00665	74.0	46-171	10.7	37	WG607069

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Level II

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Analyte	Units	Laboratory Result	Control Ref	Sample %Rec	Duplicate Limit	RPD	Limit	Batch
Fluorene	mg/l	0.00722	0.00619	72.0	39-163	15.3	36	WG607069
Hexachloro-1,3-butadiene	mg/l	0.00579	0.00448	58.0	18-136	25.4	30	WG607069
Hexachlorobenzene	mg/l	0.00738	0.00602	74.0	38-163	20.3	35	WG607069
Hexachlorocyclopentadiene	mg/l	0.00886	0.00781	88.0	10-142	12.6	40	WG607069
Hexachloroethane	mg/l	0.00478	0.00378	48.0	10-130	23.2	39	WG607069
Indeno(1,2,3-cd)pyrene	mg/l	0.00830	0.00707	83.0	42-184	16.0	32	WG607069
Isophorone	mg/l	0.00725	0.00616	72.0	36-166	16.3	35	WG607069
n-Nitrosodi-n-propylamine	mg/l	0.00670	0.00567	67.0	27-157	16.6	31	WG607069
n-Nitrosodimethylamine	mg/l	0.00416	0.00262	42.0	10-96	45.2*	36	WG607069
n-Nitrosodiphenylamine	mg/l	0.00756	0.00645	76.0	41-168	15.7	37	WG607069
Naphthalene	mg/l	0.00648	0.00503	65.0	26-147	25.3	31	WG607069
Nitrobenzene	mg/l	0.00723	0.00579	72.0	22-154	22.2	37	WG607069
Pentachlorophenol	mg/l	0.00446	0.00442	45.0	10-128	1.02	40	WG607069
Phenanthrene	mg/l	0.00732	0.00656	73.0	46-163	11.1	29	WG607069
Phenol	mg/l	0.00299	0.00295	30.0	10-69	1.66	40	WG607069
Pyrene	mg/l	0.00722	0.00656	72.0	45-176	9.56	28	WG607069
2,4,6-Tribromophenol				76.18	16-147			WG607069
2-Fluorobiphenyl				82.75	29-127			WG607069
2-Fluorophenol				42.98	10-75			WG607069
Nitrobenzene-d5				75.69	17-119			WG607069
Phenol-d5				29.78	10-63			WG607069
p-Terphenyl-d14				75.93	40-174			WG607069
Extractable Petroleum Hydrocarbon	mg/kg	54.7	46.1	91.0	50-100	17.0	20	WG607172
				81.37	50-150			WG607172
Extractable Petroleum Hydrocarbon	mg/kg	44.3	47.0	74.0	50-100	5.96	20	WG607282
o-Terphenyl				69.30	50-150			WG607282
cis-1,2-Dichloroethene	mg/l	0.0242	0.0253	97.0	75-121	4.15	20	WG607572
Trichloroethene	mg/l	0.0244	0.0242	98.0	69-131	1.14	20	WG607572
4-Bromofluorobenzene				101.9	82-120			WG607572
Dibromofluoromethane				100.2	82-126			WG607572
Toluene-d8				100.5	92-112			WG607572
PCB 1016	mg/kg	0.164	0.152	98.0	64-120	8.15	20	WG607287
PCB 1260	mg/kg	0.188	0.181	112.	72-130	3.77	20	WG607287
Decachlorobiphenyl				99.27	18.9-115.8			WG607287
Tetrachloro-m-xylene				89.20	31.8-115.7			WG607287
1,1,1,2-Tetrachloroethane	mg/kg	0.0260	0.0263	104.	77-129	1.14	20	WG607252
1,1,1-Trichloroethane	mg/kg	0.0243	0.0249	97.0	70-127	2.42	20	WG607252
1,1,2,2-Tetrachloroethane	mg/kg	0.0246	0.0263	98.0	76-133	6.44	20	WG607252
1,1,2-Trichloroethane	mg/kg	0.0250	0.0257	100.	79-123	2.60	20	WG607252
1,1,2-Trichlorotrifluoroethane	mg/kg	0.0204	0.0215	82.0	52-145	5.18	20	WG607252
1,1-Dichloroethane	mg/kg	0.0260	0.0266	104.	74-121	2.44	20	WG607252
1,1-Dichloroethene	mg/kg	0.0209	0.0219	84.0	53-135	4.71	20	WG607252
1,1-Dichloropropene	mg/kg	0.0258	0.0266	103.	67-127	3.07	20	WG607252
1,2,3-Trichlorobenzene	mg/kg	0.0251	0.0266	100.	74-131	5.76	20	WG607252
1,2,3-Trichloropropane	mg/kg	0.0243	0.0260	97.0	75-135	6.74	20	WG607252
1,2,3-Trimethylbenzene	mg/kg	0.0264	0.0268	105.	76-128	1.74	20	WG607252
1,2,4-Trichlorobenzene	mg/kg	0.0261	0.0264	104.	72-130	1.22	20	WG607252
1,2,4-Trimethylbenzene	mg/kg	0.0264	0.0266	106.	75-131	0.840	20	WG607252
1,2-Dibromo-3-Chloropropane	mg/kg	0.0210	0.0231	84.0	55-142	9.53	20	WG607252

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Analyte	Units	Laboratory Result	Control Ref	Sample %Rec	Duplicate Limit	RPD	Limit	Batch
1,2-Dibromoethane	mg/kg	0.0242	0.0256	97.0	77-126	5.67	20	WG607252
1,2-Dichlorobenzene	mg/kg	0.0253	0.0262	101.	80-123	3.82	20	WG607252
1,2-Dichloroethane	mg/kg	0.0246	0.0263	98.0	70-128	6.62	20	WG607252
1,2-Dichloropropane	mg/kg	0.0269	0.0282	107.	74-125	4.91	20	WG607252
1,3,5-Trimethylbenzene	mg/kg	0.0264	0.0267	106.	77-129	1.08	20	WG607252
1,3-Dichlorobenzene	mg/kg	0.0263	0.0265	105.	76-128	0.880	20	WG607252
1,3-Dichloropropane	mg/kg	0.0257	0.0269	103.	77-118	4.60	20	WG607252
1,4-Dichlorobenzene	mg/kg	0.0250	0.0256	100.	77-119	2.30	20	WG607252
2,2-Dichloropropane	mg/kg	0.0262	0.0266	105.	60-132	1.46	20	WG607252
2-Butanone (MEK)	mg/kg	0.0930	0.102	74.0	56-146	9.30	20	WG607252
2-Chloroethyl vinyl ether	mg/kg	0.125	0.136	100.	17-179	8.49	22	WG607252
2-Chlorotoluene	mg/kg	0.0270	0.0274	108.	76-125	1.29	20	WG607252
4-Chlorotoluene	mg/kg	0.0272	0.0276	109.	76-125	1.41	20	WG607252
4-Methyl-2-pentanone (MIBK)	mg/kg	0.112	0.125	90.0	55-148	11.0	20	WG607252
Acetone	mg/kg	0.0965	0.109	77.0	47-155	12.3	22	WG607252
Acrylonitrile	mg/kg	0.116	0.128	93.0	50-155	9.79	20	WG607252
Benzene	mg/kg	0.0254	0.0263	101.	72-120	3.53	20	WG607252
Bromobenzene	mg/kg	0.0274	0.0271	110.	74-122	1.25	20	WG607252
Bromodichloromethane	mg/kg	0.0250	0.0260	100.	74-128	3.90	20	WG607252
Bromoform	mg/kg	0.0231	0.0246	92.0	62-137	6.23	20	WG607252
Bromomethane	mg/kg	0.0234	0.0238	94.0	38-180	1.76	20	WG607252
Carbon tetrachloride	mg/kg	0.0239	0.0246	96.0	62-130	2.83	20	WG607252
Chlorobenzene	mg/kg	0.0271	0.0276	108.	77-124	1.77	20	WG607252
Chlorodibromomethane	mg/kg	0.0251	0.0260	100.	74-128	3.82	20	WG607252
Chloroethane	mg/kg	0.0231	0.0240	92.0	46-173	3.97	20	WG607252
Chloroform	mg/kg	0.0257	0.0265	103.	76-122	2.94	20	WG607252
Chloromethane	mg/kg	0.0268	0.0268	107.	49-143	0.260	20	WG607252
cis-1,2-Dichloroethene	mg/kg	0.0243	0.0252	97.0	73-123	3.39	20	WG607252
cis-1,3-Dichloropropene	mg/kg	0.0263	0.0277	105.	73-126	5.41	20	WG607252
Di-isopropyl ether	mg/kg	0.0260	0.0273	104.	64-131	4.67	20	WG607252
Dibromomethane	mg/kg	0.0241	0.0257	96.0	75-127	6.22	20	WG607252
Dichlorodifluoromethane	mg/kg	0.0236	0.0246	94.0	30-177	3.96	20	WG607252
Ethylbenzene	mg/kg	0.0267	0.0265	107.	76-126	0.610	20	WG607252
Hexachloro-1,3-butadiene	mg/kg	0.0275	0.0284	110.	71-134	3.40	20	WG607252
Isopropylbenzene	mg/kg	0.0259	0.0260	104.	70-128	0.580	20	WG607252
Methyl tert-butyl ether	mg/kg	0.0221	0.0242	88.0	66-127	9.35	20	WG607252
Methylene Chloride	mg/kg	0.0249	0.0259	99.0	67-124	3.96	20	WG607252
n-Butylbenzene	mg/kg	0.0266	0.0271	106.	71-133	1.66	20	WG607252
n-Propylbenzene	mg/kg	0.0267	0.0269	107.	76-126	0.610	20	WG607252
Naphthalene	mg/kg	0.0240	0.0257	96.0	68-136	6.95	20	WG607252
p-Isopropyltoluene	mg/kg	0.0269	0.0270	108.	75-134	0.500	20	WG607252
sec-Butylbenzene	mg/kg	0.0272	0.0274	109.	75-132	0.580	20	WG607252
Styrene	mg/kg	0.0265	0.0272	106.	68-148	2.56	20	WG607252
tert-Butylbenzene	mg/kg	0.0268	0.0270	107.	75-132	0.790	20	WG607252
Tetrachloroethene	mg/kg	0.0254	0.0254	102.	70-131	0.0700	20	WG607252
Toluene	mg/kg	0.0259	0.0269	104.	74-155	3.58	20	WG607252
trans-1,2-Dichloroethene	mg/kg	0.0242	0.0247	97.0	63-126	2.00	20	WG607252
trans-1,3-Dichloropropene	mg/kg	0.0253	0.0268	101.	68-126	5.88	20	WG607252
Trichloroethene	mg/kg	0.0253	0.0258	101.	75-121	1.94	20	WG607252
Trichlorofluoromethane	mg/kg	0.0243	0.0248	97.0	48-170	2.24	20	WG607252
Vinyl chloride	mg/kg	0.0250	0.0255	100.	54-144	2.10	20	WG607252
Xylenes, Total	mg/kg	0.0781	0.0786	104.	76-126	0.600	20	WG607252
4-Bromofluorobenzene				103.1	67-133			WG607252
Dibromofluoromethane				102.5	72-135			WG607252
Toluene-d8				103.4	90-113			WG607252
GRO (C6-C10)	mg/kg	0.932	0.928	93.0	50-100	0.480	20	WG607186
a,a,a-Trifluorotoluene(FID)				70.58	50-150			WG607186

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Amanda Herrit  
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Chattanooga, TN 37406

Quality Assurance Report  
Level II

L589405

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(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

August 22, 2012

Analyte	Units	Laboratory Result	Control Ref	Sample %Rec	Duplicate Limit	RPD	Limit	Batch
4,4-DDD	mg/l	0.000152	0.000206	76.0	60-123	30.0*	20	WG607420
4,4-DDE	mg/l	0.000152	0.000201	76.0	50-120	27.6*	22	WG607420
4,4-DDT	mg/l	0.000201	0.000278	101.	61-121	32.0*	20	WG607420
Aldrin	mg/l	0.000116	0.000126	58.0	10-136	7.59	33	WG607420
Alpha BHC	mg/l	0.000164	0.000188	82.0	58-114	13.7	21	WG607420
Beta BHC	mg/l	0.000167	0.000197	84.0	61-120	16.2	20	WG607420
Delta BHC	mg/l	0.000156	0.000184	78.0	57-120	16.2	21	WG607420
Dieldrin	mg/l	0.000162	0.000207	81.0	62-123	23.9*	20	WG607420
Endosulfan I	mg/l	0.000162	0.000203	81.0	63-123	22.3*	20	WG607420
Endosulfan II	mg/l	0.000157	0.000206	78.0	63-124	27.3*	20	WG607420
Endosulfan sulfate	mg/l	0.000154	0.000210	77.0	59-125	31.1*	21	WG607420
Endrin	mg/l	0.000168	0.000215	84.0	60-123	25.0*	20	WG607420
Endrin aldehyde	mg/l	0.000153	0.000192	76.0	42-92	22.7*	21	WG607420
Endrin ketone	mg/l	0.000157	0.000213	78.0	60-117	30.3*	20	WG607420
Gamma BHC	mg/l	0.000166	0.000191	83.0	59-116	14.3	20	WG607420
Heptachlor	mg/l	0.000147	0.000164	73.0	10-131	11.0	28	WG607420
Heptachlor epoxide	mg/l	0.000164	0.000201	82.0	61-118	20.2*	20	WG607420
Hexachlorobenzene	mg/l	0.000129	0.000135	64.0	28-116	4.92	27	WG607420
Methoxychlor	mg/l	0.000210	0.000285	105.	66-122	30.4*	20	WG607420
Decachlorobiphenyl				77.56	10-122.6			WG607420
Tetrachloro-m-xylene				78.94	15.3-114.2			WG607420
4,4-DDD	mg/kg	0.0588	0.0578	88.0	74-114	1.82	20	WG607287
4,4-DDE	mg/kg	0.0606	0.0599	91.0	74-115	1.15	20	WG607287
4,4-DDT	mg/kg	0.0641	0.0635	96.0	62-124	0.828	20	WG607287
Aldrin	mg/kg	0.0564	0.0566	85.0	69-110	0.275	20	WG607287
Alpha BHC	mg/kg	0.0532	0.0536	80.0	68-111	0.657	20	WG607287
Beta BHC	mg/kg	0.0578	0.0575	87.0	74-112	0.577	20	WG607287
Delta BHC	mg/kg	0.0571	0.0560	86.0	71-110	1.81	20	WG607287
Dieldrin	mg/kg	0.0603	0.0592	90.0	76-115	1.81	20	WG607287
Endosulfan I	mg/kg	0.0613	0.0606	92.0	76-119	1.08	20	WG607287
Endosulfan II	mg/kg	0.0610	0.0607	91.0	75-116	0.611	20	WG607287
Endosulfan sulfate	mg/kg	0.0575	0.0570	86.0	70-118	0.817	20	WG607287
Endrin	mg/kg	0.0585	0.0578	88.0	68-115	1.18	20	WG607287
Endrin aldehyde	mg/kg	0.0592	0.0591	89.0	48-92	0.160	20	WG607287
Endrin ketone	mg/kg	0.0603	0.0597	90.0	70-112	0.879	20	WG607287
Gamma BHC	mg/kg	0.0563	0.0559	84.0	70-112	0.796	20	WG607287
Heptachlor	mg/kg	0.0587	0.0589	88.0	69-111	0.373	20	WG607287
Heptachlor epoxide	mg/kg	0.0607	0.0596	91.0	72-115	1.82	20	WG607287
Hexachlorobenzene	mg/kg	0.0475	0.0485	71.0	64-111	2.25	20	WG607287
Methoxychlor	mg/kg	0.0636	0.0640	95.0	65-123	0.594	20	WG607287
Decachlorobiphenyl				94.24	18.9-115.8			WG607287
Tetrachloro-m-xylene				81.28	31.8-115.7			WG607287
Extractable Petroleum Hydrocarbon	mg/kg	53.0	52.1	88.0	50-150	1.82	25	WG607708
				89.05	50-150			WG607708
GRO (C6-C10)	mg/kg	0.834	0.780	83.0	50-100	6.63	20	WG607608
a,a,a-Trifluorotoluene(FID)				70.08	50-150			WG607608
GRO (C6-C10)	mg/l	0.863	0.807	86.0	50-100	6.71	20	WG607679
a,a,a-Trifluorotoluene(FID)				67.70	50-150			WG607679
2,4,5-T	mg/l	0.00468	0.00448	94.0	47-120	4.37	22	WG607601

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Analyte	Units	Laboratory Result	Control Ref	%Rec	Duplicate Limit	RPD	Limit	Batch
2,4,5-TP (Silvex)	mg/l	0.00445	0.00422	89.0	46-125	5.51	25	WG607601
2,4-D	mg/l	0.00378	0.00365	76.0	39-112	3.40	23	WG607601
2,4-DB	mg/l	0.00340	0.00314	68.0	29-133	8.01	34	WG607601
Dalapon	mg/l	0.00449	0.00415	90.0	34-97	7.84	35	WG607601
Dicamba	mg/l	0.00481	0.00470	96.0	47-119	2.47	22	WG607601
Dichloroprop	mg/l	0.00474	0.00459	95.0	35-110	3.29	23	WG607601
Dinoseb	mg/l	0.00265	0.00352	53.0	29-111	28.1*	27	WG607601
MCPA	mg/l	0.593	0.585	118.	34-120	1.29	31	WG607601
MCPP	mg/l	0.615	0.603	123.	16-189	2.10	31	WG607601
2,4-Dichlorophenyl Acetic Acid				90.09	42-112			WG607601
PCB 1016	mg/kg	0.137	0.171	82.0	64-120	22.2*	20	WG607701
PCB 1260	mg/kg	0.168	0.201	100.	72-130	17.7	20	WG607701
Decachlorobiphenyl				106.8	18.9-115.8			WG607701
Tetrachloro-m-xylene				106.9	31.8-115.7			WG607701
Naphthalene	mg/kg	0.0256	0.0230	102.	68-136	10.5	20	WG607858
4-Bromofluorobenzene				106.8	67-133			WG607858
Dibromofluoromethane				107.2	72-135			WG607858
Toluene-d8				103.9	90-113			WG607858
Extractable Petroleum Hydrocarbon	ppm	1.19	1.15	80.0	50-100	4.01	20	WG607482
o-Terphenyl				65.82	50-150			WG607482
Extractable Petroleum Hydrocarbon	mg/kg	52.3	47.8	87.0	50-150	8.87	25	WG608107
o-Terphenyl				82.39	50-150			WG608107
2,4,5-T	mg/kg	0.132	0.135	79.0	32.9-103	2.09	22	WG607777
2,4,5-TP (Silvex)	mg/kg	0.142	0.141	85.0	30-123	0.869	28	WG607777
2,4-D	mg/kg	0.123	0.125	74.0	40.5-114	1.99	24	WG607777
2,4-DB	mg/kg	0.150	0.156	90.0	28.9-108	4.10	32	WG607777
Dalapon	mg/kg	0.116	0.120	69.0	18.4-113	3.40	23	WG607777
Dicamba	mg/kg	0.150	0.148	90.0	37.2-119	1.32	20	WG607777
Dichloroprop	mg/kg	0.153	0.154	91.0	40.5-114	1.15	24	WG607777
Dinoseb	mg/kg	0.104	0.135	62.0	10-98	26.3	40	WG607777
MCPA	mg/kg	11.8	12.5	71.0	15.5-110	5.68	37	WG607777
MCPP	mg/kg	21.7	22.6	130.	40.1-177	3.71	31	WG607777
2,4-Dichlorophenyl Acetic Acid				77.54	37-99			WG607777
1,1,1,2-Tetrachloroethane	mg/l	0.0302	0.0310	121.	77-128	2.73	20	WG608731
1,1,1-Trichloroethane	mg/l	0.0277	0.0270	111.	71-126	2.49	20	WG608731
1,1,2,2-Tetrachloroethane	mg/l	0.0264	0.0279	105.	78-130	5.60	20	WG608731
1,1,2-Trichloroethane	mg/l	0.0281	0.0295	112.	81-121	4.72	20	WG608731
1,1,2-Trichlorotrifluoroethane	mg/l	0.0255	0.0240	102.	53-143	6.04	20	WG608731
1,1-Dichloroethane	mg/l	0.0278	0.0274	111.	73-123	1.51	20	WG608731
1,1-Dichloroethene	mg/l	0.0256	0.0236	102.	54-134	8.15	20	WG608731
1,1-Dichloropropene	mg/l	0.0272	0.0256	109.	67-127	5.94	20	WG608731
1,2,3-Trichlorobenzene	mg/l	0.0292	0.0296	117.	77-130	1.57	20	WG608731
1,2,3-Trichloropropane	mg/l	0.0283	0.0296	113.	68-130	4.65	20	WG608731
1,2,3-Trimethylbenzene	mg/l	0.0244	0.0258	98.0	77-126	5.64	20	WG608731
1,2,4-Trichlorobenzene	mg/l	0.0292	0.0300	117.	76-127	2.61	20	WG608731
1,2,4-Trimethylbenzene	mg/l	0.0271	0.0287	108.	77-129	5.47	20	WG608731
1,2-Dibromo-3-Chloropropane	mg/l	0.0296	0.0338	118.	55-142	13.4	20	WG608731

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Analyte	Units	Laboratory Result	Control Ref	Sample %Rec	Duplicate Limit	RPD	Limit	Batch
1,2-Dibromoethane	mg/l	0.0287	0.0297	115.	78-124	3.64	20	WG608731
1,2-Dichlorobenzene	mg/l	0.0259	0.0276	104.	82-121	6.39	20	WG608731
1,2-Dichloroethane	mg/l	0.0273	0.0268	109.	69-128	1.69	20	WG608731
1,2-Dichloropropane	mg/l	0.0277	0.0274	111.	77-121	1.28	20	WG608731
1,3,5-Trimethylbenzene	mg/l	0.0278	0.0282	111.	78-127	1.46	20	WG608731
1,3-Dichlorobenzene	mg/l	0.0285	0.0295	114.	77-127	3.17	20	WG608731
1,3-Dichloropropane	mg/l	0.0270	0.0290	108.	78-117	7.17	20	WG608731
1,4-Dichlorobenzene	mg/l	0.0253	0.0270	101.	79-117	6.40	20	WG608731
2,2-Dichloropropane	mg/l	0.0255	0.0250	102.	63-130	2.19	20	WG608731
2-Butanone (MEK)	mg/l	0.166	0.163	133.	58-144	2.24	20	WG608731
2-Chloroethyl vinyl ether	mg/l	0.146	0.145	117.	26-172	1.00	22	WG608731
2-Chlorotoluene	mg/l	0.0270	0.0277	108.	78-123	2.69	20	WG608731
4-Chlorotoluene	mg/l	0.0267	0.0282	107.	78-122	5.44	20	WG608731
4-Methyl-2-pentanone (MIBK)	mg/l	0.153	0.156	122.	58-147	2.38	20	WG608731
Acetone	mg/l	0.197	0.185	157*	49-153	5.96	21	WG608731
Acrolein	mg/l	0.0784	0.0820	63.0	10-181	4.43	30	WG608731
Acrylonitrile	mg/l	0.148	0.150	119.	53-153	1.08	20	WG608731
Benzene	mg/l	0.0275	0.0268	110.	72-119	2.57	20	WG608731
Bromobenzene	mg/l	0.0286	0.0303	114.	76-121	5.85	20	WG608731
Bromodichloromethane	mg/l	0.0286	0.0282	114.	75-127	1.22	20	WG608731
Bromoform	mg/l	0.0325	0.0339	130.	61-136	4.15	20	WG608731
Bromomethane	mg/l	0.0290	0.0279	116.	42-172	3.80	20	WG608731
Carbon tetrachloride	mg/l	0.0296	0.0271	118.	63-129	8.82	20	WG608731
Chlorobenzene	mg/l	0.0285	0.0294	114.	78-123	3.07	20	WG608731
Chlorodibromomethane	mg/l	0.0302	0.0327	121.	73-128	8.18	20	WG608731
Chloroethane	mg/l	0.0246	0.0240	98.0	52-164	2.34	20	WG608731
Chloroform	mg/l	0.0282	0.0278	113.	76-122	1.56	20	WG608731
Chloromethane	mg/l	0.0274	0.0264	109.	50-141	3.61	20	WG608731
cis-1,2-Dichloroethene	mg/l	0.0283	0.0287	113.	75-121	1.08	20	WG608731
cis-1,3-Dichloropropene	mg/l	0.0288	0.0284	115.	74-124	1.37	20	WG608731
Di-isopropyl ether	mg/l	0.0296	0.0289	118.	66-129	2.15	20	WG608731
Dibromomethane	mg/l	0.0286	0.0282	114.	77-124	1.29	20	WG608731
Dichlorodifluoromethane	mg/l	0.0269	0.0233	108.	33-173	14.2	20	WG608731
Ethylbenzene	mg/l	0.0279	0.0285	111.	77-124	2.04	20	WG608731
Hexachloro-1,3-butadiene	mg/l	0.0272	0.0276	109.	71-134	1.58	20	WG608731
Isopropylbenzene	mg/l	0.0288	0.0296	115.	74-126	2.72	20	WG608731
Methyl tert-butyl ether	mg/l	0.0283	0.0287	113.	67-127	1.39	20	WG608731
Methylene Chloride	mg/l	0.0283	0.0277	113.	67-122	2.22	20	WG608731
n-Butylbenzene	mg/l	0.0248	0.0248	99.0	74-130	0.0600	20	WG608731
n-Propylbenzene	mg/l	0.0271	0.0278	108.	77-125	2.67	20	WG608731
Naphthalene	mg/l	0.0266	0.0296	106.	70-134	10.5	20	WG608731
p-Isopropyltoluene	mg/l	0.0286	0.0293	114.	77-132	2.45	20	WG608731
sec-Butylbenzene	mg/l	0.0273	0.0281	109.	77-130	2.74	20	WG608731
Styrene	mg/l	0.0281	0.0291	112.	69-145	3.40	20	WG608731
tert-Butylbenzene	mg/l	0.0282	0.0289	113.	76-131	2.42	20	WG608731
Tetrachloroethene	mg/l	0.0301	0.0298	120.	69-131	0.920	20	WG608731
Toluene	mg/l	0.0280	0.0270	112.	75-114	3.54	20	WG608731
trans-1,2-Dichloroethene	mg/l	0.0285	0.0272	114.	63-127	4.62	20	WG608731
trans-1,3-Dichloropropene	mg/l	0.0295	0.0281	118.	69-124	4.86	20	WG608731
Trichloroethene	mg/l	0.0295	0.0280	118.	69-131	5.26	20	WG608731
Trichlorofluoromethane	mg/l	0.0268	0.0254	107.	53-161	5.46	20	WG608731
Vinyl chloride	mg/l	0.0246	0.0236	98.0	55-142	4.10	20	WG608731
Xylenes, Total	mg/l	0.0841	0.0860	112.	77-123	2.21	20	WG608731
4-Bromofluorobenzene				102.7	82-120			WG608731
Dibromofluoromethane				104.1	82-126			WG608731
Toluene-d8				105.8	92-112			WG608731

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Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
1,1,1,2-Tetrachloroethane	mg/kg	1.16	0	.025	92.7	49-135	L589435-03	WG607251
1,1,1-Trichloroethane	mg/kg	1.06	0	.025	84.9	43-142	L589435-03	WG607251
1,1,2,2-Tetrachloroethane	mg/kg	1.02	0	.025	81.7	42-147	L589435-03	WG607251
1,1,2-Trichloroethane	mg/kg	1.22	0	.025	97.8	51-134	L589435-03	WG607251
1,1,2-Trichlorotrifluoroethane	mg/kg	0.864	0	.025	69.1	25-156	L589435-03	WG607251
1,1-Dichloroethane	mg/kg	1.05	0	.025	84.0	50-131	L589435-03	WG607251
1,1-Dichloroethene	mg/kg	1.05	0	.025	83.8	29-145	L589435-03	WG607251
1,1-Dichloropropene	mg/kg	1.06	0	.025	84.6	40-136	L589435-03	WG607251
1,2,3-Trichlorobenzene	mg/kg	1.16	0	.025	92.6	13-142	L589435-03	WG607251
1,2,3-Trichloropropane	mg/kg	1.08	0	.025	86.8	41-149	L589435-03	WG607251
1,2,3-Trimethylbenzene	mg/kg	1.13	0	.025	90.5	33-146	L589435-03	WG607251
1,2,4-Trichlorobenzene	mg/kg	1.21	0	.025	96.5	12-140	L589435-03	WG607251
1,2,4-Trimethylbenzene	mg/kg	1.08	0	.025	86.1	29-143	L589435-03	WG607251
1,2-Dibromo-3-Chloropropane	mg/kg	1.05	0	.025	83.7	29-151	L589435-03	WG607251
1,2-Dibromoethane	mg/kg	1.18	0	.025	94.5	48-133	L589435-03	WG607251
1,2-Dichlorobenzene	mg/kg	1.13	0	.025	90.5	37-136	L589435-03	WG607251
1,2-Dichloroethane	mg/kg	1.07	0	.025	85.7	49-131	L589435-03	WG607251
1,2-Dichloropropane	mg/kg	1.13	0	.025	90.8	50-132	L589435-03	WG607251
1,3,5-Trimethylbenzene	mg/kg	1.15	0	.025	92.0	29-144	L589435-03	WG607251
1,3-Dichlorobenzene	mg/kg	1.12	0	.025	89.2	26-140	L589435-03	WG607251
1,3-Dichloropropane	mg/kg	1.15	0	.025	92.2	50-126	L589435-03	WG607251
1,4-Dichlorobenzene	mg/kg	1.09	0	.025	87.6	34-132	L589435-03	WG607251
2,2-Dichloropropane	mg/kg	0.999	0	.025	80.0	35-148	L589435-03	WG607251
2-Butanone (MEK)	mg/kg	4.94	0	.125	79.1	40-149	L589435-03	WG607251
2-Chloroethyl vinyl ether	mg/kg	5.18	0	.125	82.9	10-173	L589435-03	WG607251
2-Chlorotoluene	mg/kg	1.08	0	.025	86.2	34-136	L589435-03	WG607251
4-Chlorotoluene	mg/kg	1.06	0	.025	85.1	31-137	L589435-03	WG607251
4-Methyl-2-pentanone (MIBK)	mg/kg	5.04	0	.125	80.6	37-153	L589435-03	WG607251
Acetone	mg/kg	5.55	0	.125	88.8	10-177	L589435-03	WG607251
Acrylonitrile	mg/kg	5.23	0	.125	83.6	33-159	L589435-03	WG607251
Benzene	mg/kg	1.05	0	.025	84.1	44-131	L589435-03	WG607251
Bromobenzene	mg/kg	1.17	0	.025	93.8	36-132	L589435-03	WG607251
Bromodichloromethane	mg/kg	1.10	0	.025	87.6	48-134	L589435-03	WG607251
Bromoform	mg/kg	1.02	0	.025	81.2	34-141	L589435-03	WG607251
Bromomethane	mg/kg	1.01	0	.025	80.6	19-173	L589435-03	WG607251
Carbon tetrachloride	mg/kg	0.966	0	.025	77.3	36-140	L589435-03	WG607251
Chlorobenzene	mg/kg	1.16	0	.025	92.5	42-133	L589435-03	WG607251
Chlorodibromomethane	mg/kg	1.15	0	.025	92.2	45-135	L589435-03	WG607251
Chloroethane	mg/kg	0.790	0	.025	63.2	16-178	L589435-03	WG607251
Chloroform	mg/kg	1.05	0	.025	84.3	52-130	L589435-03	WG607251
Chloromethane	mg/kg	0.888	0	.025	71.0	28-147	L589435-03	WG607251
cis-1,2-Dichloroethene	mg/kg	1.03	0	.025	82.1	52-128	L589435-03	WG607251
cis-1,3-Dichloropropene	mg/kg	1.07	0	.025	85.8	46-131	L589435-03	WG607251
Di-isopropyl ether	mg/kg	1.08	0	.025	86.5	46-134	L589435-03	WG607251
Dibromomethane	mg/kg	1.10	0	.025	88.3	51-133	L589435-03	WG607251
Dichlorodifluoromethane	mg/kg	0.974	0	.025	77.9	12-179	L589435-03	WG607251
Ethylbenzene	mg/kg	1.16	0	.025	92.7	38-139	L589435-03	WG607251
Hexachloro-1,3-butadiene	mg/kg	0.972	0	.025	77.7	10-147	L589435-03	WG607251
Isopropylbenzene	mg/kg	1.15	0	.025	92.0	34-137	L589435-03	WG607251
Methyl tert-butyl ether	mg/kg	1.07	0	.025	85.2	45-134	L589435-03	WG607251
Methylene Chloride	mg/kg	1.02	0.0570	.025	77.2	41-133	L589435-03	WG607251
n-Butylbenzene	mg/kg	1.13	0	.025	90.4	19-149	L589435-03	WG607251
n-Propylbenzene	mg/kg	1.11	0	.025	89.1	27-142	L589435-03	WG607251
Naphthalene	mg/kg	0.990	0	.025	79.2	19-146	L589435-03	WG607251
p-Isopropyltoluene	mg/kg	1.13	0	.025	90.1	21-150	L589435-03	WG607251
sec-Butylbenzene	mg/kg	1.13	0	.025	90.6	25-148	L589435-03	WG607251
Styrene	mg/kg	1.13	0	.025	90.0	30-156	L589435-03	WG607251
tert-Butylbenzene	mg/kg	1.16	0	.025	92.5	32-146	L589435-03	WG607251
Tetrachloroethene	mg/kg	1.25	0	.025	100.	35-139	L589435-03	WG607251
Toluene	mg/kg	1.09	0	.025	87.5	43-127	L589435-03	WG607251

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Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report  
Level II

L589405

August 22, 2012

Analyte	Units	Matrix Spike				Limit	Ref Samp	Batch
		MS Res	Ref Res	TV	% Rec			
trans-1,2-Dichloroethene	mg/kg	1.04	0	.025	82.9	41-132	L589435-03	WG607251
trans-1,3-Dichloropropene	mg/kg	1.03	0	.025	82.7	43-129	L589435-03	WG607251
Trichloroethylene	mg/kg	1.24	0	.025	99.1	42-136	L589435-03	WG607251
Trichlorofluoromethane	mg/kg	0.825	0	.025	66.0	20-178	L589435-03	WG607251
Vinyl chloride	mg/kg	0.923	0	.025	73.8	30-157	L589435-03	WG607251
Xylenes, Total	mg/kg	3.32	0	.075	88.6	38-137	L589435-03	WG607251
4-Bromofluorobenzene					95.22	67-133		WG607251
Dibromofluoromethane					96.76	72-135		WG607251
Toluene-d8					100.2	90-113		WG607251
1,2,4-Trichlorobenzene	mg/kg	0.254	0	.333	76.4	27-118	L589405-04	WG607288
2,4,6-Trichlorophenol	mg/kg	0.310	0	.333	93.1	18-140	L589405-04	WG607288
2,4-Dichlorophenol	mg/kg	0.293	0	.333	88.0	30-134	L589405-04	WG607288
2,4-Dimethylphenol	mg/kg	0.294	0	.333	88.4	13-147	L589405-04	WG607288
2,4-Dinitrophenol	mg/kg	0.237	0	.333	71.2	10-110	L589405-04	WG607288
2,4-Dinitrotoluene	mg/kg	0.304	0	.333	91.4	12-146	L589405-04	WG607288
2,6-Dinitrotoluene	mg/kg	0.303	0	.333	91.1	10-150	L589405-04	WG607288
2-Chloronaphthalene	mg/kg	0.291	0	.333	87.5	31-127	L589405-04	WG607288
2-Chlorophenol	mg/kg	0.262	0	.333	78.8	26-120	L589405-04	WG607288
2-Nitrophenol	mg/kg	0.349	0	.333	105.	10-156	L589405-04	WG607288
3,3-Dichlorobenzidine	mg/kg	0.228	0	.333	68.4	10-127	L589405-04	WG607288
4,6-Dinitro-2-methylphenol	mg/kg	0.296	0	.333	88.9	10-124	L589405-04	WG607288
4-Bromophenyl-phenylether	mg/kg	0.314	0	.333	94.4	27-150	L589405-04	WG607288
4-Chloro-3-methylphenol	mg/kg	0.313	0	.333	93.8	24-140	L589405-04	WG607288
4-Chlorophenyl-phenylether	mg/kg	0.296	0	.333	89.0	27-142	L589405-04	WG607288
4-Nitrophenol	mg/kg	0.262	0	.333	78.7	10-166	L589405-04	WG607288
Acenaphthene	mg/kg	0.317	0	.333	95.2	30-132	L589405-04	WG607288
Acenaphthylene	mg/kg	0.308	0	.333	92.6	31-144	L589405-04	WG607288
Anthracene	mg/kg	0.296	0.0400	.333	76.9	27-140	L589405-04	WG607288
Benzidine	mg/kg	0.00480	0	.333	1.44*	10-55	L589405-04	WG607288
Benzo(a)anthracene	mg/kg	0.325	0.0620	.333	79.0	22-139	L589405-04	WG607288
Benzo(a)pyrene	mg/kg	0.320	0.0490	.333	81.4	16-148	L589405-04	WG607288
Benzo(b)fluoranthene	mg/kg	0.303	0.0670	.333	70.8	13-152	L589405-04	WG607288
Benzo(g,h,i)perylene	mg/kg	0.305	0	.333	91.5	10-137	L589405-04	WG607288
Benzo(k)fluoranthene	mg/kg	0.292	0	.333	87.8	15-152	L589405-04	WG607288
Benzylbutyl phthalate	mg/kg	0.325	0	.333	97.7	20-168	L589405-04	WG607288
Bis(2-chlorethoxy)methane	mg/kg	0.285	0	.333	85.7	32-141	L589405-04	WG607288
Bis(2-chloroethyl)ether	mg/kg	0.253	0	.333	75.9	25-139	L589405-04	WG607288
Bis(2-chloroisopropyl)ether	mg/kg	0.263	0	.333	79.1	32-128	L589405-04	WG607288
Bis(2-ethylhexyl)phthalate	mg/kg	0.361	0	.333	108.	20-163	L589405-04	WG607288
Chrysene	mg/kg	0.327	0.0610	.333	79.8	20-139	L589405-04	WG607288
Di-n-butyl phthalate	mg/kg	0.332	0	.333	99.7	24-149	L589405-04	WG607288
Di-n-octyl phthalate	mg/kg	0.342	0	.333	103.	14-164	L589405-04	WG607288
Dibenz(a,h)anthracene	mg/kg	0.302	0	.333	90.5	10-137	L589405-04	WG607288
Diethyl phthalate	mg/kg	0.301	0	.333	90.4	28-142	L589405-04	WG607288
Dimethyl phthalate	mg/kg	0.308	0	.333	92.6	31-142	L589405-04	WG607288
Fluoranthene	mg/kg	0.353	0.130	.333	66.9	24-145	L589405-04	WG607288
Fluorene	mg/kg	0.323	0.0410	.333	84.6	30-138	L589405-04	WG607288
Hexachloro-1,3-butadiene	mg/kg	0.283	0	.333	85.0	29-136	L589405-04	WG607288
Hexachlorobenzene	mg/kg	0.281	0	.333	84.4	26-136	L589405-04	WG607288
Hexachlorocyclopentadiene	mg/kg	0.276	0	.333	82.9	10-124	L589405-04	WG607288
Hexachloroethane	mg/kg	0.260	0	.333	78.2	21-107	L589405-04	WG607288
Indeno(1,2,3-cd)pyrene	mg/kg	0.309	0	.333	92.9	10-139	L589405-04	WG607288
Isophorone	mg/kg	0.236	0	.333	70.8	26-134	L589405-04	WG607288
n-Nitrosodi-n-propylamine	mg/kg	0.285	0	.333	85.4	24-141	L589405-04	WG607288
n-Nitrosodimethylamine	mg/kg	0.205	0	.333	61.4	18-126	L589405-04	WG607288
n-Nitrosodiphenylamine	mg/kg	0.303	0	.333	90.9	16-128	L589405-04	WG607288
Naphthalene	mg/kg	0.289	0.0360	.333	76.0	31-124	L589405-04	WG607288

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Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report  
Level II

L589405

August 22, 2012

Analyte	Units	MS Res	Matrix Spike Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Nitrobenzene	mg/kg	0.264	0	.333	79.4	22-122	L589405-04	WG607288
Pentachlorophenol	mg/kg	0.284	0	.333	85.2	10-124	L589405-04	WG607288
Phenanthrene	mg/kg	0.361	0.150	.333	63.2	25-139	L589405-04	WG607288
Phenol	mg/kg	0.262	0	.333	78.8	22-129	L589405-04	WG607288
Pyrene	mg/kg	0.361	0.100	.333	78.4	23-145	L589405-04	WG607288
2,4,6-Tribromophenol					106.6	16-136		WG607288
2-Fluorobiphenyl					96.33	37-119		WG607288
2-Fluorophenol					86.27	22-114		WG607288
Nitrobenzene-d5					81.99	20-114		WG607288
Phenol-d5					83.82	26-127		WG607288
p-Terphenyl-d14					94.12	15-174		WG607288
Mercury	mg/l	0.00281	0	.003	93.7	80-120	L589235-01	WG607220
Mercury	mg/kg	0.245	0.0210	.25	89.6	80-120	L589265-01	WG607211
Arsenic	mg/kg	36.4	7.80	50	57.2*	75-125	L589405-09	WG607181
Cadmium	mg/kg	28.1	0	50	56.2*	75-125	L589405-09	WG607181
Chromium	mg/kg	44.8	19.0	50	51.6*	75-125	L589405-09	WG607181
Lead	mg/kg	70.7	38.0	50	65.4*	75-125	L589405-09	WG607181
Selenium	mg/kg	24.9	1.40	50	47.0*	75-125	L589405-09	WG607181
Silver	mg/kg	43.0	0	50	17.2*	75-125	L589405-09	WG607181
Naphthalene	mg/kg	0.0904	0	.025	72.3	19-146	L589531-01	WG607441
4-Bromofluorobenzene					91.69	67-133		WG607441
Dibromofluoromethane					99.97	72-135		WG607441
Toluene-d8					97.69	90-113		WG607441
1,1,1,2-Tetrachloroethane	mg/l	12.9	0	.025	103.	71-130	L589338-01	WG607206
1,1,1-Trichloroethane	mg/l	11.6	0	.025	92.5	58-137	L589338-01	WG607206
1,1,2,2-Tetrachloroethane	mg/l	11.6	0	.025	92.8	64-149	L589338-01	WG607206
1,1,2-Trichloroethane	mg/l	11.9	0	.025	95.2	73-128	L589338-01	WG607206
1,1,2-Trichlorotrifluoroethane	mg/l	10.1	0	.025	80.8	36-159	L589338-01	WG607206
1,1-Dichloroethane	mg/l	13.0	0	.025	104.	58-133	L589338-01	WG607206
1,1-Dichloroethene	mg/l	11.1	0.260	.025	87.0	32-152	L589338-01	WG607206
1,1-Dichloropropene	mg/l	12.4	0	.025	99.3	50-140	L589338-01	WG607206
1,2,3-Trichlorobenzene	mg/l	11.8	0	.025	94.7	68-135	L589338-01	WG607206
1,2,3-Trichloropropane	mg/l	11.1	0	.025	88.6	74-137	L589338-01	WG607206
1,2,3-Trimethylbenzene	mg/l	12.9	0	.025	103.	67-133	L589338-01	WG607206
1,2,4-Trichlorobenzene	mg/l	12.1	0	.025	96.5	67-133	L589338-01	WG607206
1,2,4-Trimethylbenzene	mg/l	12.7	0.0329	.025	101.	62-141	L589338-01	WG607206
1,2-Dibromo-3-Chloropropane	mg/l	9.23	0	.025	73.9	55-148	L589338-01	WG607206
1,2-Dibromoethane	mg/l	11.7	0	.025	93.6	71-129	L589338-01	WG607206
1,2-Dichlorobenzene	mg/l	12.4	0	.025	99.0	75-125	L589338-01	WG607206
1,2-Dichloroethane	mg/l	12.0	0	.025	95.7	59-135	L589338-01	WG607206
1,2-Dichloropropane	mg/l	13.1	1.39	.025	93.9	68-126	L589338-01	WG607206
1,3,5-Trimethylbenzene	mg/l	12.7	0	.025	101.	67-136	L589338-01	WG607206
1,3-Dichlorobenzene	mg/l	12.5	0	.025	100.	69-131	L589338-01	WG607206
1,3-Dichloropropane	mg/l	12.5	0	.025	100.	70-122	L589338-01	WG607206
1,4-Dichlorobenzene	mg/l	12.3	0	.025	98.4	70-123	L589338-01	WG607206
2,2-Dichloropropane	mg/l	12.2	0	.025	97.3	51-141	L589338-01	WG607206
2-Butanone (MEK)	mg/l	39.1	0	.125	62.5	51-149	L589338-01	WG607206
2-Chloroethyl vinyl ether	mg/l	53.8	0	.125	86.1	10-161	L589338-01	WG607206
2-Chlorotoluene	mg/l	13.0	0	.025	104.	65-133	L589338-01	WG607206

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Est. 1970

August 22, 2012

Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
4-Chlorotoluene	mg/l	13.2	0	.025	106.	67-129	L589338-01	WG607206
4-Methyl-2-pentanone (MIBK)	mg/l	48.5	0	.125	77.6	53-154	L589338-01	WG607206
Acetone	mg/l	41.2	0	.125	66.0	34-146	L589338-01	WG607206
Acrolein	mg/l	63.4	0	.125	102.	10-189	L589338-01	WG607206
Acrylonitrile	mg/l	52.3	0	.125	83.7	49-162	L589338-01	WG607206
Benzene	mg/l	12.7	0.0589	.025	101.	51-134	L589338-01	WG607206
Bromobenzene	mg/l	13.1	0.0866	.025	104.	64-130	L589338-01	WG607206
Bromodichloromethane	mg/l	11.9	0	.025	94.9	67-132	L589338-01	WG607206
Bromoform	mg/l	11.2	0	.025	89.4	59-137	L589338-01	WG607206
Bromomethane	mg/l	12.3	0	.025	98.5	23-177	L589338-01	WG607206
Carbon tetrachloride	mg/l	11.6	0.0723	.025	92.0	49-140	L589338-01	WG607206
Chlorobenzene	mg/l	13.1	0	.025	105.	69-126	L589338-01	WG607206
Chlorodibromomethane	mg/l	11.9	0	.025	95.3	68-130	L589338-01	WG607206
Chloroethane	mg/l	11.5	0	.025	92.3	32-177	L589338-01	WG607206
Chloroform	mg/l	12.3	0	.025	98.5	64-130	L589338-01	WG607206
Chloromethane	mg/l	13.6	0	.025	108.	27-155	L589338-01	WG607206
cis-1,3-Dichloropropene	mg/l	12.5	0	.025	99.6	63-127	L589338-01	WG607206
Di-isopropyl ether	mg/l	12.6	0	.025	101.	58-133	L589338-01	WG607206
Dibromomethane	mg/l	11.6	0	.025	92.9	68-131	L589338-01	WG607206
Dichlorodifluoromethane	mg/l	12.2	0	.025	97.7	16-188	L589338-01	WG607206
Ethylbenzene	mg/l	12.7	0	.025	102.	64-135	L589338-01	WG607206
Hexachloro-1,3-butadiene	mg/l	13.1	0	.025	105.	64-140	L589338-01	WG607206
Isopropylbenzene	mg/l	12.4	0	.025	99.1	62-134	L589338-01	WG607206
Methyl tert-butyl ether	mg/l	11.0	0	.025	87.6	55-136	L589338-01	WG607206
Methylene Chloride	mg/l	12.6	0	.025	101.	52-130	L589338-01	WG607206
n-Butylbenzene	mg/l	12.7	0	.025	102.	62-142	L589338-01	WG607206
n-Propylbenzene	mg/l	12.6	0.0177	.025	101.	62-137	L589338-01	WG607206
Naphthalene	mg/l	10.8	0.0907	.025	85.4	65-140	L589338-01	WG607206
p-Isopropyltoluene	mg/l	12.6	0	.025	101.	64-142	L589338-01	WG607206
sec-Butylbenzene	mg/l	12.8	0.0262	.025	102.	67-139	L589338-01	WG607206
Styrene	mg/l	12.9	0	.025	103.	58-152	L589338-01	WG607206
tert-Butylbenzene	mg/l	12.7	0	.025	101.	66-139	L589338-01	WG607206
Tetrachloroethene	mg/l	12.6	0	.025	101.	56-139	L589338-01	WG607206
Toluene	mg/l	12.7	0.0334	.025	101.	61-126	L589338-01	WG607206
trans-1,2-Dichloroethene	mg/l	12.2	0.125	.025	96.5	45-137	L589338-01	WG607206
trans-1,3-Dichloropropene	mg/l	11.6	0.323	.025	90.6	59-130	L589338-01	WG607206
Trichlorofluoromethane	mg/l	11.5	0	.025	92.2	35-177	L589338-01	WG607206
Vinyl chloride	mg/l	16.2	3.56	.025	101.	32-159	L589338-01	WG607206
Xylenes, Total	mg/l	38.7	0	.075	103.	64-133	L589338-01	WG607206
1,2,4-Trichlorobenzene	mg/l	0.00796	0	.01	79.6	34-101	L589138-02	WG607069
2,4,6-Trichlorophenol	mg/l	0.00717	0	.01	71.6	14-145	L589138-02	WG607069
2,4-Dichlorophenol	mg/l	0.00847	0	.01	84.7	17-132	L589138-02	WG607069
2,4-Dimethylphenol	mg/l	0.00828	0	.01	82.8	10-154	L589138-02	WG607069
2,4-Dinitrophenol	mg/l	0.00835	0	.01	83.5	10-167	L589138-02	WG607069
2,4-Dinitrotoluene	mg/l	0.00887	0	.01	88.7	48-133	L589138-02	WG607069
2,6-Dinitrotoluene	mg/l	0.00865	0	.01	86.5	52-123	L589138-02	WG607069
2-Chloronaphthalene	mg/l	0.00905	0	.01	90.5	47-111	L589138-02	WG607069
2-Chlorophenol	mg/l	0.00825	0	.01	82.5	18-103	L589138-02	WG607069
2-Nitrophenol	mg/l	0.00986	0.000440	.01	94.2	25-130	L589138-02	WG607069
3,3-Dichlorobenzidine	mg/l	0.0103	0	.01	103.	10-149	L589138-02	WG607069
4,6-Dinitro-2-methylphenol	mg/l	0.00810	0	.01	81.0	10-149	L589138-02	WG607069
4-Bromophenyl-phenylether	mg/l	0.0101	0	.01	101.	51-138	L589138-02	WG607069
4-Chloro-3-methylphenol	mg/l	0.00819	0	.01	81.9	19-138	L589138-02	WG607069
4-Chlorophenyl-phenylether	mg/l	0.0102	0	.01	102.	47-132	L589138-02	WG607069
4-Nitrophenol	mg/l	0.00234	0	.01	23.4	10-86	L589138-02	WG607069
Acenaphthene	mg/l	0.00919	0	.01	91.9	45-121	L589138-02	WG607069
Acenaphthylene	mg/l	0.00951	0	.01	95.1	52-122	L589138-02	WG607069

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Est. 1970

Quality Assurance Report  
Level II

L589405

August 22, 2012

Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
Anthracene	mg/l	0.00928	0	.01	92.8	51-129	L589138-02	WG607069
Benzidine	mg/l	0.00353	0	.01	35.3	10-47	L589138-02	WG607069
Benzo(a)anthracene	mg/l	0.0106	0	.01	106.	55-127	L589138-02	WG607069
Benzo(a)pyrene	mg/l	0.00976	0	.01	97.6	47-132	L589138-02	WG607069
Benzo(b)fluoranthene	mg/l	0.0102	0	.01	102.	42-138	L589138-02	WG607069
Benzo(g,h,i)perylene	mg/l	0.0108	0	.01	108.	10-152	L589138-02	WG607069
Benzo(k)fluoranthene	mg/l	0.0102	0	.01	102.	40-136	L589138-02	WG607069
Benzylbutyl phthalate	mg/l	0.0105	0	.01	104.	14-180	L589138-02	WG607069
Bis(2-chlorethoxy)methane	mg/l	0.00992	0	.01	99.2	39-139	L589138-02	WG607069
Bis(2-chloroethyl)ether	mg/l	0.00782	0	.01	78.2	31-122	L589138-02	WG607069
Bis(2-chloroisopropyl)ether	mg/l	0.00851	0	.01	85.1	35-121	L589138-02	WG607069
Bis(2-ethylhexyl)phthalate	mg/l	0.0129	0.00220	.01	107.	23-173	L589138-02	WG607069
Chrysene	mg/l	0.0112	0	.01	112.	55-124	L589138-02	WG607069
Di-n-butyl phthalate	mg/l	0.0108	0.000820	.01	99.7	43-154	L589138-02	WG607069
Di-n-octyl phthalate	mg/l	0.0106	0	.01	106.	23-173	L589138-02	WG607069
Dibenz(a,h)anthracene	mg/l	0.0108	0	.01	108.	16-149	L589138-02	WG607069
Diethyl phthalate	mg/l	0.0104	0	.01	104.	28-150	L589138-02	WG607069
Dimethyl phthalate	mg/l	0.0105	0.000340	.01	102.	10-159	L589138-02	WG607069
Fluoranthene	mg/l	0.0100	0	.01	100.	58-130	L589138-02	WG607069
Fluorene	mg/l	0.00963	0	.01	96.3	51-120	L589138-02	WG607069
Hexachloro-1,3-butadiene	mg/l	0.00815	0	.01	81.5	32-120	L589138-02	WG607069
Hexachlorobenzene	mg/l	0.00958	0	.01	95.8	48-126	L589138-02	WG607069
Hexachlorocyclopentadiene	mg/l	0.0104	0	.01	104.	10-125	L589138-02	WG607069
Hexachloroethane	mg/l	0.00668	0	.01	66.8	10-121	L589138-02	WG607069
Indeno(1,2,3-cd)pyrene	mg/l	0.0107	0	.01	107.	17-147	L589138-02	WG607069
Isophorone	mg/l	0.0102	0	.01	102.	47-116	L589138-02	WG607069
n-Nitrosodi-n-propylamine	mg/l	0.00904	0	.01	90.4	36-139	L589138-02	WG607069
n-Nitrosodimethylamine	mg/l	0.00624	0	.01	62.4	10-83	L589138-02	WG607069
n-Nitrosodiphenylamine	mg/l	0.00957	0	.01	95.7	43-124	L589138-02	WG607069
Naphthalene	mg/l	0.00862	0	.01	86.2	32-116	L589138-02	WG607069
Nitrobenzene	mg/l	0.00941	0	.01	94.1	36-110	L589138-02	WG607069
Pentachlorophenol	mg/l	0.00415	0	.01	41.5	10-152	L589138-02	WG607069
Phenanthrene	mg/l	0.00991	0	.01	99.1	49-130	L589138-02	WG607069
Phenol	mg/l	0.00461	0.00130	.01	33.1	10-69	L589138-02	WG607069
Pyrene	mg/l	0.00968	0	.01	96.8	47-135	L589138-02	WG607069
2,4,6-Tribromophenol					94.21	16-147		WG607069
2-Fluorobiphenyl					107.1	29-127		WG607069
2-Fluorophenol					54.94	10-75		WG607069
Nitrobenzene-d5					101.4	17-119		WG607069
Phenol-d5					39.11	10-63		WG607069
p-Terphenyl-d14					102.0	40-174		WG607069
Extractable Petroleum Hydrocarbon	mg/kg	36.3	4.00	60	53.9	50-100	L589405-04	WG607282
o-Terphenyl					71.50	50-150		WG607282
cis-1,2-Dichloroethene	mg/l	0.0245	0.000881	.025	94.4	54-137	L589501-06	WG607572
Trichloroethene	mg/l	0.0305	0	.025	122.	40-155	L589501-06	WG607572
4-Bromofluorobenzene					101.6	82-120		WG607572
Dibromofluoromethane					98.90	82-126		WG607572
Toluene-d8					101.2	92-112		WG607572
PCB 1016	mg/kg	0.136	0	.167	81.5	10-165	L589405-04	WG607287
PCB 1260	mg/kg	0.153	0	.167	91.5	29-154	L589405-04	WG607287
Decachlorobiphenyl					81.95	18.9-115.8		WG607287
Tetrachloro-m-xylene					71.03	31.8-115.7		WG607287

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Level II

L589405

August 22, 2012

Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
1,1,1,2-Tetrachloroethane	mg/kg	0.118	0	.025	94.7	49-135	L589480-03	WG607252
1,1,1-Trichloroethane	mg/kg	0.114	0	.025	91.2	43-142	L589480-03	WG607252
1,1,2,2-Tetrachloroethane	mg/kg	0.0973	0	.025	77.8	42-147	L589480-03	WG607252
1,1,2-Trichloroethane	mg/kg	0.105	0	.025	83.9	51-134	L589480-03	WG607252
1,1,2-Trichlorotrifluoroethane	mg/kg	0.0996	0	.025	79.7	25-156	L589480-03	WG607252
1,1-Dichloroethane	mg/kg	0.123	0	.025	98.5	50-131	L589480-03	WG607252
1,1-Dichloroethene	mg/kg	0.106	0	.025	84.5	29-145	L589480-03	WG607252
1,1-Dichloropropene	mg/kg	0.120	0	.025	96.3	40-136	L589480-03	WG607252
1,2,3-Trichlorobenzene	mg/kg	0.109	0	.025	87.0	13-142	L589480-03	WG607252
1,2,3-Trichloropropane	mg/kg	0.0933	0	.025	74.6	41-149	L589480-03	WG607252
1,2,3-Trimethylbenzene	mg/kg	0.117	0	.025	93.8	33-146	L589480-03	WG607252
1,2,4-Trichlorobenzene	mg/kg	0.113	0	.025	90.2	12-140	L589480-03	WG607252
1,2,4-Trimethylbenzene	mg/kg	0.119	0	.025	94.9	29-143	L589480-03	WG607252
1,2-Dibromo-3-Chloropropane	mg/kg	0.0732	0	.025	58.6	29-151	L589480-03	WG607252
1,2-Dibromoethane	mg/kg	0.101	0	.025	81.0	48-133	L589480-03	WG607252
1,2-Dichlorobenzene	mg/kg	0.111	0	.025	88.4	37-136	L589480-03	WG607252
1,2-Dichloroethane	mg/kg	0.108	0	.025	86.8	49-131	L589480-03	WG607252
1,2-Dichloropropane	mg/kg	0.123	0	.025	98.5	50-132	L589480-03	WG607252
1,3,5-Trimethylbenzene	mg/kg	0.119	0	.025	95.5	29-144	L589480-03	WG607252
1,3-Dichlorobenzene	mg/kg	0.117	0	.025	93.8	26-140	L589480-03	WG607252
1,3-Dichloropropane	mg/kg	0.110	0	.025	87.7	50-126	L589480-03	WG607252
1,4-Dichlorobenzene	mg/kg	0.109	0	.025	86.9	34-132	L589480-03	WG607252
2,2-Dichloropropane	mg/kg	0.128	0	.025	103.	35-148	L589480-03	WG607252
2-Butanone (MEK)	mg/kg	0.301	0	.125	48.1	40-149	L589480-03	WG607252
2-Chloroethyl vinyl ether	mg/kg	0.487	0	.125	77.8	10-173	L589480-03	WG607252
2-Chlorotoluene	mg/kg	0.123	0	.025	98.1	34-136	L589480-03	WG607252
4-Chlorotoluene	mg/kg	0.123	0	.025	98.6	31-137	L589480-03	WG607252
4-Methyl-2-pentanone (MIBK)	mg/kg	0.398	0	.125	63.7	37-153	L589480-03	WG607252
Acetone	mg/kg	0.304	0	.125	48.6	10-177	L589480-03	WG607252
Acrylonitrile	mg/kg	0.450	0	.125	72.0	33-159	L589480-03	WG607252
Benzene	mg/kg	0.121	0	.025	96.4	44-131	L589480-03	WG607252
Bromobenzene	mg/kg	0.121	0	.025	96.6	36-132	L589480-03	WG607252
Bromodichloromethane	mg/kg	0.107	0	.025	85.9	48-134	L589480-03	WG607252
Bromoform	mg/kg	0.0931	0	.025	74.4	34-141	L589480-03	WG607252
Bromomethane	mg/kg	0.114	0	.025	90.8	19-173	L589480-03	WG607252
Carbon tetrachloride	mg/kg	0.113	0	.025	90.6	36-140	L589480-03	WG607252
Chlorobenzene	mg/kg	0.124	0	.025	99.4	42-133	L589480-03	WG607252
Chlorodibromomethane	mg/kg	0.109	0	.025	86.9	45-135	L589480-03	WG607252
Chloroethane	mg/kg	0.103	0	.025	82.4	16-178	L589480-03	WG607252
Chloroform	mg/kg	0.116	0	.025	92.7	52-130	L589480-03	WG607252
Chloromethane	mg/kg	0.124	0	.025	99.0	28-147	L589480-03	WG607252
cis-1,2-Dichloroethene	mg/kg	0.117	0	.025	93.2	52-128	L589480-03	WG607252
cis-1,3-Dichloropropene	mg/kg	0.115	0	.025	91.7	46-131	L589480-03	WG607252
Di-isopropyl ether	mg/kg	0.121	0	.025	96.9	46-134	L589480-03	WG607252
Dibromomethane	mg/kg	0.101	0	.025	80.9	51-133	L589480-03	WG607252
Dichlorodifluoromethane	mg/kg	0.109	0	.025	87.3	12-179	L589480-03	WG607252
Ethylbenzene	mg/kg	0.121	0	.025	97.1	38-139	L589480-03	WG607252
Hexachloro-1,3-butadiene	mg/kg	0.120	0	.025	96.1	10-147	L589480-03	WG607252
Isopropylbenzene	mg/kg	0.117	0	.025	93.5	34-137	L589480-03	WG607252
Methyl tert-butyl ether	mg/kg	0.0998	0	.025	79.9	45-134	L589480-03	WG607252
Methylene Chloride	mg/kg	0.120	0	.025	95.8	41-133	L589480-03	WG607252
n-Butylbenzene	mg/kg	0.118	0	.025	94.1	19-149	L589480-03	WG607252
n-Propylbenzene	mg/kg	0.121	0	.025	96.6	27-142	L589480-03	WG607252
Naphthalene	mg/kg	0.0928	0	.025	74.2	19-146	L589480-03	WG607252
p-Isopropyltoluene	mg/kg	0.120	0	.025	95.9	21-150	L589480-03	WG607252
sec-Butylbenzene	mg/kg	0.121	0	.025	96.6	25-148	L589480-03	WG607252
Styrene	mg/kg	0.122	0	.025	97.3	30-156	L589480-03	WG607252
tert-Butylbenzene	mg/kg	0.121	0	.025	96.6	32-146	L589480-03	WG607252

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Quality Assurance Report  
Level II

L589405

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Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
Tetrachloroethene	mg/kg	0.117	0	.025	93.3	35-139	L589480-03	WG607252
Toluene	mg/kg	0.120	0	.025	95.7	43-127	L589480-03	WG607252
trans-1,2-Dichloroethene	mg/kg	0.118	0	.025	94.3	41-132	L589480-03	WG607252
trans-1,3-Dichloropropene	mg/kg	0.106	0	.025	84.7	43-129	L589480-03	WG607252
Trichloroethene	mg/kg	0.110	0	.025	88.3	42-136	L589480-03	WG607252
Trichlorofluoromethane	mg/kg	0.108	0	.025	86.5	20-178	L589480-03	WG607252
Vinyl chloride	mg/kg	0.113	0	.025	90.0	30-157	L589480-03	WG607252
Xylenes, Total	mg/kg	0.364	0	.075	97.1	38-137	L589480-03	WG607252
4-Bromofluorobenzene					106.0	67-133		WG607252
Dibromofluoromethane					101.8	72-135		WG607252
Toluene-d8					104.2	90-113		WG607252
GRO (C6-C10)	mg/kg	4.03	0	1	80.6	50-100	L589378-01	WG607186
a,a,a-Trifluorotoluene(FID)					55.31	50-150		WG607186
4,4-DDD	mg/kg	0.0687	0	.0667	103.	45-139	L589405-04	WG607287
4,4-DDE	mg/kg	0.0529	0	.0667	79.2	47-134	L589405-04	WG607287
4,4-DDT	mg/kg	0.0367	0	.0667	55.0	11-148	L589405-04	WG607287
Aldrin	mg/kg	0.0501	0	.0667	75.0	52-117	L589405-04	WG607287
Alpha BHC	mg/kg	0.0482	0	.0667	72.2	51-120	L589405-04	WG607287
Beta BHC	mg/kg	0.0521	0	.0667	78.2	48-124	L589405-04	WG607287
Delta BHC	mg/kg	0.0527	0	.0667	79.0	38-128	L589405-04	WG607287
Dieldrin	mg/kg	0.0569	0	.0667	85.2	48-135	L589405-04	WG607287
Endosulfan I	mg/kg	0.0547	0	.0667	82.0	51-129	L589405-04	WG607287
Endosulfan II	mg/kg	0.0600	0	.0667	90.0	42-142	L589405-04	WG607287
Endosulfan sulfate	mg/kg	0.0584	0	.0667	87.6	38-140	L589405-04	WG607287
Endrin	mg/kg	0.0559	0	.0667	83.9	44-133	L589405-04	WG607287
Endrin aldehyde	mg/kg	0.0519	0	.0667	77.8	16-116	L589405-04	WG607287
Endrin ketone	mg/kg	0.0558	0	.0667	83.7	33-131	L589405-04	WG607287
Gamma BHC	mg/kg	0.0513	0	.0667	76.9	52-119	L589405-04	WG607287
Heptachlor	mg/kg	0.0493	0	.0667	73.9	47-121	L589405-04	WG607287
Heptachlor epoxide	mg/kg	0.0548	0	.0667	82.1	54-120	L589405-04	WG607287
Hexachlorobenzene	mg/kg	0.0458	0	.0667	68.7	58-115	L589405-04	WG607287
Methoxychlor	mg/kg	0.0468	0	.0667	70.1	9-153	L589405-04	WG607287
Decachlorobiphenyl					81.40	18.9-115.8		WG607287
Tetrachloro-m-xylene					73.20	31.8-115.7		WG607287
Barium	mg/kg	61.6	11.0	50	20.2*	75-125	L588827-03	WG607432
Extractable Petroleum Hydrocarbon	mg/kg	50.5	0	60	84.2	50-150	L589815-05	WG607708
o-Terphenyl					80.73	50-150		WG607708
Arsenic	mg/l	1.02	0	1.13	90.3	75-125	L589456-04	WG607273
Barium	mg/l	1.14	0.0840	1.13	93.4	75-125	L589456-04	WG607273
Cadmium	mg/l	1.06	0	1.13	93.8	75-125	L589456-04	WG607273
Chromium	mg/l	1.10	0	1.13	97.3	75-125	L589456-04	WG607273
Lead	mg/l	1.04	0	1.13	92.0	75-125	L589456-04	WG607273
Selenium	mg/l	1.04	0.0360	1.13	88.8	75-125	L589456-04	WG607273
Silver	mg/l	0.403	0	1.13	35.7*	75-125	L589456-04	WG607273
GRO (C6-C10)	mg/kg	3.43	0	1	68.6	50-100	L589634-01	WG607608
a,a,a-Trifluorotoluene(FID)					66.60	50-150		WG607608

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		MS Res	Ref Res	TV				
GRO (C6-C10) a,a,a-Trifluorotoluene(FID)	mg/l	0.989	0	1	98.8 68.18	50-100 50-150	L589864-01	WG607679
Barium	mg/kg	114.	60.8	50	106.	75-125	L589638-04	WG607517
Naphthalene	mg/kg	0.131	0.00172	.025	103. 93.42	19-146 67-133	L589804-02	WG607858
4-Bromofluorobenzene					104.8	72-135		WG607858
Dibromofluoromethane					96.56	90-113		WG607858
Toluene-d8								
PCB 1016	mg/kg	0.166	0	.167	99.4	10-165	L589405-11	WG607701
PCB 1260	mg/kg	0.212	0	.167	127.	29-154	L589405-11	WG607701
Decachlorobiphenyl					79.92	18.9-115.8		WG607701
Tetrachloro-m-xylene					73.01	31.8-115.7		WG607701
4,4-DDD	mg/kg	0.0714	0	.0667	107.	45-139	L589868-01	WG607701
4,4-DDE	mg/kg	0.145	0.0370	.0667	162.*	47-134	L589868-01	WG607701
4,4-DDT	mg/kg	0.0926	0	.0667	139.	11-148	L589868-01	WG607701
Aldrin	mg/kg	0.0599	0	.0667	89.8	52-117	L589868-01	WG607701
Alpha BHC	mg/kg	0.0601	0	.0667	90.0	51-120	L589868-01	WG607701
Beta BHC	mg/kg	0.0613	0	.0667	91.9	48-124	L589868-01	WG607701
Delta BHC	mg/kg	0.0624	0	.0667	93.5	38-128	L589868-01	WG607701
Dieldrin	mg/kg	0.0691	0	.0667	104.	48-135	L589868-01	WG607701
Endosulfan I	mg/kg	0.0639	0	.0667	95.8	51-129	L589868-01	WG607701
Endosulfan II	mg/kg	0.0712	0	.0667	107.	42-142	L589868-01	WG607701
Endosulfan sulfate	mg/kg	0.0680	0	.0667	102.	38-140	L589868-01	WG607701
Endrin	mg/kg	0.0687	0	.0667	103.	44-133	L589868-01	WG607701
Endrin aldehyde	mg/kg	0.0716	0	.0667	107.	16-116	L589868-01	WG607701
Endrin ketone	mg/kg	0.0692	0	.0667	104.	33-131	L589868-01	WG607701
Gamma BHC	mg/kg	0.0615	0	.0667	92.1	52-119	L589868-01	WG607701
Heptachlor	mg/kg	0.0673	0	.0667	101.	47-121	L589868-01	WG607701
Heptachlor epoxide	mg/kg	0.0636	0	.0667	95.3	54-120	L589868-01	WG607701
Hexachlorobenzene	mg/kg	0.0551	0	.0667	82.5	58-115	L589868-01	WG607701
Methoxychlor	mg/kg	0.0769	0	.0667	115.	9-153	L589868-01	WG607701
Decachlorobiphenyl					68.09	18.9-115.8		WG607701
Tetrachloro-m-xylene					84.26	31.8-115.7		WG607701
Extractable Petroleum Hydrocarbon	mg/kg	423.	400.	60	38.6*	50-150	L589599-03	WG608107
o-Terphenyl					72.24	50-150		WG608107
1,1,1,2-Tetrachloroethane	mg/l	0.0268	0	.025	107.	71-130	L590859-02	WG608731
1,1,1-Trichloroethane	mg/l	0.0277	0	.025	111.	58-137	L590859-02	WG608731
1,1,2,2-Tetrachloroethane	mg/l	0.000822	0	.025	3.29*	64-149	L590859-02	WG608731
1,1,2-Trichloroethane	mg/l	0.0276	0	.025	110.	73-128	L590859-02	WG608731
1,1,2-Trichlorotrifluoroethane	mg/l	0.0258	0	.025	103.	36-159	L590859-02	WG608731
1,1-Dichloroethane	mg/l	0.0265	0	.025	106.	58-133	L590859-02	WG608731
1,1-Dichloroethene	mg/l	0.0262	0	.025	105.	32-152	L590859-02	WG608731
1,1-Dichloropropene	mg/l	0.0266	0	.025	106.	50-140	L590859-02	WG608731
1,2,3-Trichlorobenzene	mg/l	0.0241	0	.025	96.3	68-135	L590859-02	WG608731
1,2,3-Trichloropropane	mg/l	0.0275	0	.025	110.	74-137	L590859-02	WG608731
1,2,3-Trimethylbenzene	mg/l	0.0230	0	.025	91.9	67-133	L590859-02	WG608731
1,2,4-Trichlorobenzene	mg/l	0.0250	0	.025	100.	67-133	L590859-02	WG608731
1,2,4-Trimethylbenzene	mg/l	0.0243	0	.025	97.2	62-141	L590859-02	WG608731
1,2-Dibromo-3-Chloropropane	mg/l	0.0344	0	.025	138.	55-148	L590859-02	WG608731

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Tax I.D. 62-0814289

Est. 1970

August 22, 2012

Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
1,2-Dibromoethane	mg/l	0.0279	0	.025	112.	71-129	L590859-02	WG608731
1,2-Dichlorobenzene	mg/l	0.0242	0	.025	97.0	75-125	L590859-02	WG608731
1,2-Dichloroethane	mg/l	0.0259	0	.025	104.	59-135	L590859-02	WG608731
1,2-Dichloropropane	mg/l	0.0250	0	.025	100.	68-126	L590859-02	WG608731
1,3,5-Trimethylbenzene	mg/l	0.0250	0	.025	99.8	67-136	L590859-02	WG608731
1,3-Dichlorobenzene	mg/l	0.0246	0	.025	98.2	69-131	L590859-02	WG608731
1,3-Dichloropropane	mg/l	0.0266	0	.025	106.	70-122	L590859-02	WG608731
1,4-Dichlorobenzene	mg/l	0.0230	0	.025	92.0	70-123	L590859-02	WG608731
2,2-Dichloropropane	mg/l	0.0254	0	.025	102.	51-141	L590859-02	WG608731
2-Butanone (MEK)	mg/l	0.198	0	.125	158.*	51-149	L590859-02	WG608731
2-Chloroethyl vinyl ether	mg/l	0.145	0	.125	116.	10-161	L590859-02	WG608731
2-Chlorotoluene	mg/l	0.0244	0	.025	97.8	65-133	L590859-02	WG608731
4-Chlorotoluene	mg/l	0.0236	0	.025	94.4	67-129	L590859-02	WG608731
4-Methyl-2-pentanone (MIBK)	mg/l	0.169	0	.125	135.	53-154	L590859-02	WG608731
Acetone	mg/l	0.234	0	.125	187.*	34-146	L590859-02	WG608731
Acrolein	mg/l	0.0328	0	.125	26.2	10-189	L590859-02	WG608731
Acrylonitrile	mg/l	0.170	0	.125	136.	49-162	L590859-02	WG608731
Benzene	mg/l	0.0254	0	.025	102.	51-134	L590859-02	WG608731
Bromobenzene	mg/l	0.0254	0	.025	101.	64-130	L590859-02	WG608731
Bromodichloromethane	mg/l	0.0263	0	.025	105.	67-132	L590859-02	WG608731
Bromoform	mg/l	0.0316	0	.025	126.	59-137	L590859-02	WG608731
Bromomethane	mg/l	0.0279	0	.025	112.	23-177	L590859-02	WG608731
Carbon tetrachloride	mg/l	0.0290	0	.025	116.	49-140	L590859-02	WG608731
Chlorobenzene	mg/l	0.0262	0	.025	105.	69-126	L590859-02	WG608731
Chlorodibromomethane	mg/l	0.0277	0	.025	111.	68-130	L590859-02	WG608731
Chloroethane	mg/l	0.0247	0	.025	98.7	32-177	L590859-02	WG608731
Chloroform	mg/l	0.0264	0	.025	106.	64-130	L590859-02	WG608731
Chloromethane	mg/l	0.0275	0	.025	110.	27-155	L590859-02	WG608731
cis-1,2-Dichloroethene	mg/l	0.0267	0	.025	107.	54-137	L590859-02	WG608731
cis-1,3-Dichloropropene	mg/l	0.0264	0	.025	105.	63-127	L590859-02	WG608731
Di-isopropyl ether	mg/l	0.0264	0	.025	106.	58-133	L590859-02	WG608731
Dibromomethane	mg/l	0.0284	0	.025	114.	68-131	L590859-02	WG608731
Dichlorodifluoromethane	mg/l	0.0262	0	.025	105.	16-188	L590859-02	WG608731
Ethylbenzene	mg/l	0.0264	0	.025	106.	64-135	L590859-02	WG608731
Hexachloro-1,3-butadiene	mg/l	0.0241	0	.025	96.4	64-140	L590859-02	WG608731
Isopropylbenzene	mg/l	0.0272	0	.025	109.	62-134	L590859-02	WG608731
Methyl tert-butyl ether	mg/l	0.0280	0	.025	112.	55-136	L590859-02	WG608731
Methylene Chloride	mg/l	0.0263	0	.025	105.	52-130	L590859-02	WG608731
n-Butylbenzene	mg/l	0.0247	0	.025	99.0	62-142	L590859-02	WG608731
n-Propylbenzene	mg/l	0.0263	0.00100	.025	101.	62-137	L590859-02	WG608731
Naphthalene	mg/l	0.0310	0	.025	124.	65-140	L590859-02	WG608731
p-Isopropyltoluene	mg/l	0.0261	0	.025	104.	64-142	L590859-02	WG608731
sec-Butylbenzene	mg/l	0.0261	0	.025	104.	67-139	L590859-02	WG608731
Sterene	mg/l	0.0251	0	.025	100.	58-152	L590859-02	WG608731
tert-Butylbenzene	mg/l	0.0258	0	.025	103.	66-139	L590859-02	WG608731
Tetrachloroethene	mg/l	0.0286	0	.025	114.	56-139	L590859-02	WG608731
Toluene	mg/l	0.0259	0	.025	104.	61-126	L590859-02	WG608731
trans-1,2-Dichloroethene	mg/l	0.0278	0	.025	111.	45-137	L590859-02	WG608731
trans-1,3-Dichloropropene	mg/l	0.0265	0	.025	106.	59-130	L590859-02	WG608731
Trichloroethene	mg/l	0.0621	0.00980	.025	209.*	40-155	L590859-02	WG608731
Trichlorofluoromethane	mg/l	0.0289	0	.025	116.	35-177	L590859-02	WG608731
Vinyl chloride	mg/l	0.0259	0	.025	103.	32-159	L590859-02	WG608731
Xylenes, Total	mg/l	0.0765	0	.075	102.	64-133	L590859-02	WG608731
4-Bromofluorobenzene					99.37	82-120		WG608731
Dibromofluoromethane					94.69	82-126		WG608731
Toluene-d8					103.2	92-112		WG608731
2,4,5-T	mg/kg	0.129	0	.167	77.0	14-114	L589658-01	WG607777

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Tax I.D. 62-0814289

Est. 1970

August 22, 2012

Analyte	Units	Matrix Spike				% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV					
2,4,5-TP (Silvex)	mg/kg	0.128	0	.167	76.7	10-125	L589658-01	WG607777	
2,4-D	mg/kg	0.236	0.0920	.167	86.5	10-161	L589658-01	WG607777	
2,4-DB	mg/kg	0.158	0	.167	94.8	10-128	L589658-01	WG607777	
Dalapon	mg/kg	0.108	0	.167	64.9	12-98	L589658-01	WG607777	
Dicamba	mg/kg	0.137	0	.167	81.8	16-114	L589658-01	WG607777	
Dichloroprop	mg/kg	0.150	0	.167	89.7	10-129	L589658-01	WG607777	
Dinoseb	mg/kg	0.100	0	.167	60.1	10-80	L589658-01	WG607777	
MCPA	mg/kg	10.9	0	16.7	65.4	10-169	L589658-01	WG607777	
MCPP	mg/kg	27.2	0	16.7	163.	10-198	L589658-01	WG607777	
2,4-Dichlorophenyl Acetic Acid					64.84	37-99		WG607777	

Analyte	Units	Matrix Spike Duplicate				Limit	RPD	Limit Ref Samp	Batch
		MSD	Ref	%Rec					
1,1,1,2-Tetrachloroethane	mg/kg	1.22	1.16	97.4	49-135	4.98	23	L589435-03	WG607251
1,1,1-Trichloroethane	mg/kg	1.02	1.06	81.3	43-142	4.32	24	L589435-03	WG607251
1,1,2,2-Tetrachloroethane	mg/kg	1.08	1.02	86.6	42-147	5.84	25	L589435-03	WG607251
1,1,2-Trichloroethane	mg/kg	1.24	1.22	98.8	51-134	1.03	21	L589435-03	WG607251
1,1,2-Trichlorotrifluoroethane	mg/kg	0.840	0.864	67.2	25-156	2.85	29	L589435-03	WG607251
1,1-Dichloroethane	mg/kg	1.04	1.05	83.3	50-131	0.840	21	L589435-03	WG607251
1,1-Dichloroethene	mg/kg	1.05	1.05	84.2	29-145	0.490	28	L589435-03	WG607251
1,1-Dichloropropene	mg/kg	1.05	1.06	84.0	40-136	0.700	24	L589435-03	WG607251
1,2,3-Trichlorobenzene	mg/kg	1.22	1.16	97.6	13-142	5.28	33	L589435-03	WG607251
1,2,3-Trichloropropane	mg/kg	1.21	1.08	96.8	41-149	10.9	28	L589435-03	WG607251
1,2,3-Trimethylbenzene	mg/kg	1.11	1.13	89.1	33-146	1.60	27	L589435-03	WG607251
1,2,4-Trichlorobenzene	mg/kg	1.27	1.21	102.	12-140	5.33	32	L589435-03	WG607251
1,2,4-Trimethylbenzene	mg/kg	1.12	1.08	89.6	29-143	3.99	30	L589435-03	WG607251
1,2-Dibromo-3-Chloropropane	mg/kg	1.03	1.05	82.4	29-151	1.55	31	L589435-03	WG607251
1,2-Dibromoethane	mg/kg	1.18	1.18	94.6	48-133	0.0600	22	L589435-03	WG607251
1,2-Dichlorobenzene	mg/kg	1.13	1.13	90.8	37-136	0.290	25	L589435-03	WG607251
1,2-Dichloroethane	mg/kg	1.10	1.07	88.2	49-131	2.85	20	L589435-03	WG607251
1,2-Dichloropropane	mg/kg	1.20	1.13	96.0	50-132	5.64	21	L589435-03	WG607251
1,3,5-Trimethylbenzene	mg/kg	1.16	1.15	93.0	29-144	1.01	30	L589435-03	WG607251
1,3-Dichlorobenzene	mg/kg	1.19	1.12	95.1	26-140	6.37	28	L589435-03	WG607251
1,3-Dichloropropane	mg/kg	1.16	1.15	93.0	50-126	0.870	22	L589435-03	WG607251
1,4-Dichlorobenzene	mg/kg	1.15	1.09	92.4	34-132	5.33	26	L589435-03	WG607251
2,2-Dichloropropane	mg/kg	1.00	0.999	80.0	35-148	0.100	26	L589435-03	WG607251
2-Butanone (MBK)	mg/kg	4.86	4.94	77.8	40-149	1.62	27	L589435-03	WG607251
2-Chloroethyl vinyl ether	mg/kg	5.50	5.18	88.0	10-173	5.88	33	L589435-03	WG607251
2-Chlorotoluene	mg/kg	1.15	1.08	91.7	34-136	6.24	28	L589435-03	WG607251
4-Chlorotoluene	mg/kg	1.11	1.06	89.2	31-137	4.69	27	L589435-03	WG607251
4-Methyl-2-pentanone (MIBK)	mg/kg	5.59	5.04	89.4	37-153	10.4	27	L589435-03	WG607251
Acetone	mg/kg	5.17	5.55	82.7	10-177	7.12	28	L589435-03	WG607251
Acrylonitrile	mg/kg	5.32	5.23	85.1	33-159	1.67	26	L589435-03	WG607251
Benzene	mg/kg	1.07	1.05	85.4	44-131	1.62	21	L589435-03	WG607251
Bromobenzene	mg/kg	1.27	1.17	101.	36-132	7.66	26	L589435-03	WG607251
Bromodichloromethane	mg/kg	1.11	1.10	88.6	48-134	1.04	20	L589435-03	WG607251
Bromoform	mg/kg	1.08	1.02	86.3	34-141	6.01	24	L589435-03	WG607251
Bromomethane	mg/kg	1.01	1.01	81.2	19-173	0.760	25	L589435-03	WG607251
Carbon tetrachloride	mg/kg	0.966	0.966	77.3	36-140	0.0100	26	L589435-03	WG607251
Chlorobenzene	mg/kg	1.22	1.16	97.5	42-133	5.23	24	L589435-03	WG607251
Chlorodibromomethane	mg/kg	1.18	1.15	94.5	45-135	2.42	23	L589435-03	WG607251
Chloroethane	mg/kg	0.688	0.790	55.0	16-178	13.8	25	L589435-03	WG607251
Chloroform	mg/kg	1.08	1.05	86.7	52-130	2.88	21	L589435-03	WG607251
Chloromethane	mg/kg	0.898	0.888	71.9	28-147	1.16	23	L589435-03	WG607251
cis-1,2-Dichloroethene	mg/kg	1.05	1.03	84.3	52-128	2.69	21	L589435-03	WG607251
cis-1,3-Dichloropropene	mg/kg	1.16	1.07	93.0	46-131	8.16	21	L589435-03	WG607251
Di-isopropyl ether	mg/kg	1.09	1.08	87.4	46-134	1.05	20	L589435-03	WG607251
Dibromomethane	mg/kg	1.13	1.10	90.5	51-133	2.49	21	L589435-03	WG607251

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Est. 1970

August 22, 2012

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref	Samp	Batch
			Ref	%Rec						
Dichlorodifluoromethane	mg/kg	0.939	0.974	75.1	12-179	3.66	27	L589435-03		WG607251
Ethylbenzene	mg/kg	1.19	1.16	95.4	38-139	2.88	27	L589435-03		WG607251
Hexachloro-1,3-butadiene	mg/kg	0.967	0.972	77.4	10-147	0.500	37	L589435-03		WG607251
Isopropylbenzene	mg/kg	1.20	1.15	95.6	34-137	3.81	29	L589435-03		WG607251
Methyl tert-butyl ether	mg/kg	1.07	1.07	85.4	45-134	0.260	22	L589435-03		WG607251
Methylene Chloride	mg/kg	1.07	1.02	81.2	41-133	4.82	28	L589435-03		WG607251
n-Butylbenzene	mg/kg	1.12	1.13	90.0	19-149	0.460	32	L589435-03		WG607251
n-Propylbenzene	mg/kg	1.11	1.11	89.0	27-142	0.150	29	L589435-03		WG607251
Naphthalene	mg/kg	1.07	0.990	85.3	19-146	7.42	30	L589435-03		WG607251
p-Isopropyltoluene	mg/kg	1.15	1.13	92.0	21-150	2.09	31	L589435-03		WG607251
sec-Butylbenzene	mg/kg	1.17	1.13	93.5	25-148	3.09	31	L589435-03		WG607251
Styrene	mg/kg	1.18	1.13	94.2	30-156	4.48	26	L589435-03		WG607251
tert-Butylbenzene	mg/kg	1.16	1.16	93.0	32-146	0.550	30	L589435-03		WG607251
Tetrachloroethene	mg/kg	1.19	1.25	94.9	35-139	5.15	27	L589435-03		WG607251
Toluene	mg/kg	1.14	1.09	91.4	43-127	4.44	21	L589435-03		WG607251
trans-1,2-Dichloroethene	mg/kg	1.07	1.04	85.6	41-132	3.22	23	L589435-03		WG607251
trans-1,3-Dichloropropene	mg/kg	1.09	1.03	87.0	43-129	5.09	23	L589435-03		WG607251
Trichloroethene	mg/kg	1.20	1.24	95.8	42-136	3.38	23	L589435-03		WG607251
Trichlorofluoromethane	mg/kg	0.946	0.825	75.7	20-178	13.6	30	L589435-03		WG607251
Vinyl chloride	mg/kg	0.900	0.923	72.0	30-157	2.53	24	L589435-03		WG607251
Xylenes, Total	mg/kg	3.40	3.32	90.7	38-137	2.34	26	L589435-03		WG607251
4-Bromofluorobenzene				96.85	67-133					WG607251
Dibromofluoromethane				97.10	72-135					WG607251
Toluene-d8				102.5	90-113					WG607251
1,2,4-Trichlorobenzene	mg/kg	0.248	0.254	74.6	27-118	2.32	23	L589405-04		WG607288
2,4,6-Trichlorophenol	mg/kg	0.296	0.310	89.0	18-140	4.50	26	L589405-04		WG607288
2,4-Dichlorophenol	mg/kg	0.286	0.293	85.8	30-134	2.48	23	L589405-04		WG607288
2,4-Dimethylphenol	mg/kg	0.293	0.294	87.8	13-147	0.588	27	L589405-04		WG607288
2,4-Dinitrophenol	mg/kg	0.219	0.237	65.7	10-110	7.93	40	L589405-04		WG607288
2,4-Dinitrotoluene	mg/kg	0.289	0.304	86.8	12-146	5.19	25	L589405-04		WG607288
2,6-Dinitrotoluene	mg/kg	0.278	0.303	83.5	10-150	8.70	23	L589405-04		WG607288
2-Chloronaphthalene	mg/kg	0.287	0.291	86.3	31-127	1.36	23	L589405-04		WG607288
2-Chlorophenol	mg/kg	0.264	0.262	79.2	26-120	0.543	21	L589405-04		WG607288
2-Nitrophenol	mg/kg	0.386	0.349	116.	10-156	10.2	24	L589405-04		WG607288
3,3-Dichlorobenzidine	mg/kg	0.190	0.228	57.1	10-127	18.0	40	L589405-04		WG607288
4,6-Dinitro-2-methylphenol	mg/kg	0.268	0.296	80.5	10-124	9.96	40	L589405-04		WG607288
4-Bromophenyl-phenylether	mg/kg	0.297	0.314	89.3	27-150	5.52	20	L589405-04		WG607288
4-Chloro-3-methylphenol	mg/kg	0.298	0.313	89.4	24-140	4.89	22	L589405-04		WG607288
4-Chlorophenyl-phenylether	mg/kg	0.290	0.296	87.0	27-142	2.24	21	L589405-04		WG607288
4-Nitrophenol	mg/kg	0.258	0.262	77.3	10-166	1.72	35	L589405-04		WG607288
Acenaphthene	mg/kg	0.310	0.317	93.0	30-132	2.31	21	L589405-04		WG607288
Acenaphthylene	mg/kg	0.304	0.308	91.2	31-144	1.58	24	L589405-04		WG607288
Anthracene	mg/kg	0.316	0.296	82.9	27-140	6.54	20	L589405-04		WG607288
Benzidine	mg/kg	0	0.00480	0*	10-55	200.*	36	L589405-04		WG607288
Benzo(a)anthracene	mg/kg	0.313	0.325	75.3	22-139	3.84	22	L589405-04		WG607288
Benzo(a)pyrene	mg/kg	0.306	0.320	77.1	16-148	4.61	21	L589405-04		WG607288
Benzo(b)fluoranthene	mg/kg	0.293	0.303	67.8	13-152	3.31	24	L589405-04		WG607288
Benzo(g,h,i)perylene	mg/kg	0.309	0.305	92.6	10-137	1.25	32	L589405-04		WG607288
Benzo(k)fluoranthene	mg/kg	0.287	0.292	86.2	15-152	1.82	22	L589405-04		WG607288
Benzylbutyl phthalate	mg/kg	0.320	0.325	96.2	20-168	1.50	23	L589405-04		WG607288
Bis(2-chlorethoxy)methane	mg/kg	0.273	0.285	81.9	32-141	4.55	20	L589405-04		WG607288
Bis(2-chloroethyl)ether	mg/kg	0.250	0.253	74.9	25-139	1.26	26	L589405-04		WG607288
Bis(2-chloroisopropyl)ether	mg/kg	0.251	0.263	75.4	32-128	4.72	22	L589405-04		WG607288
Bis(2-ethylhexyl)phthalate	mg/kg	0.335	0.361	101.	20-163	7.45	24	L589405-04		WG607288
Chrysene	mg/kg	0.314	0.327	76.1	20-139	3.90	23	L589405-04		WG607288
Di-n-butyl phthalate	mg/kg	0.298	0.332	89.4	24-149	10.8	24	L589405-04		WG607288
Di-n-octyl phthalate	mg/kg	0.347	0.342	104.	14-164	1.49	24	L589405-04		WG607288

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Est. 1970

Quality Assurance Report  
Level II

L589405

August 22, 2012

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref	Samp	Batch
			Ref	%Rec						
Dibenz(a,h)anthracene	mg/kg	0.283	0.302	84.9	10-137	6.39	29	L589405-04		WG607288
Diethyl phthalate	mg/kg	0.302	0.301	90.7	28-142	0.404	23	L589405-04		WG607288
Dimethyl phthalate	mg/kg	0.300	0.308	90.1	31-142	2.71	22	L589405-04		WG607288
Fluoranthene	mg/kg	0.336	0.353	61.8	24-145	4.92	29	L589405-04		WG607288
Fluorene	mg/kg	0.307	0.323	79.9	30-138	5.01	22	L589405-04		WG607288
Hexachloro-1,3-butadiene	mg/kg	0.274	0.283	82.1	29-136	3.50	22	L589405-04		WG607288
Hexachlorobenzene	mg/kg	0.275	0.281	82.6	26-136	2.26	20	L589405-04		WG607288
Hexachlorocyclopentadiene	mg/kg	0.277	0.276	83.2	10-124	0.364	33	L589405-04		WG607288
Hexachloroethane	mg/kg	0.257	0.260	77.3	21-107	1.11	27	L589405-04		WG607288
Indeno(1,2,3-cd)pyrene	mg/kg	0.295	0.309	88.5	10-139	4.90	32	L589405-04		WG607288
Isophorone	mg/kg	0.225	0.236	67.5	26-134	4.75	20	L589405-04		WG607288
n-Nitrosodi-n-propylamine	mg/kg	0.275	0.285	82.6	24-141	3.40	20	L589405-04		WG607288
n-Nitrosodimethylamine	mg/kg	0.214	0.205	64.2	18-126	4.33	27	L589405-04		WG607288
n-Nitrosodiphenylamine	mg/kg	0.284	0.303	85.4	16-128	6.24	25	L589405-04		WG607288
Naphthalene	mg/kg	0.276	0.289	72.1	31-124	4.60	25	L589405-04		WG607288
Nitrobenzene	mg/kg	0.256	0.264	76.9	22-122	3.25	20	L589405-04		WG607288
Pentachlorophenol	mg/kg	0.264	0.284	79.2	10-124	7.26	34	L589405-04		WG607288
Phenanthrene	mg/kg	0.352	0.361	60.8	25-139	2.33	25	L589405-04		WG607288
Phenol	mg/kg	0.262	0.262	78.7	22-129	0.0647	25	L589405-04		WG607288
Pyrene	mg/kg	0.338	0.361	71.6	23-145	6.43	30	L589405-04		WG607288
2,4,6-Tribromophenol				98.49	16-136					WG607288
2-Fluorobiphenyl				93.08	37-119					WG607288
2-Fluorophenol				83.95	22-114					WG607288
Nitrobenzene-d5				79.31	20-114					WG607288
Phenol-d5				82.20	26-127					WG607288
p-Terphenyl-d14				95.12	15-174					WG607288
Mercury	mg/l	0.00283	0.00281	94.3	80-120	0.709	20	L589235-01		WG607220
Mercury	mg/kg	0.242	0.245	88.4	80-120	1.23	20	L589265-01		WG607211
Arsenic	mg/kg	38.1	36.4	60.6*	75-125	4.56	20	L589405-09		WG607181
Cadmium	mg/kg	30.8	28.1	61.6*	75-125	9.17	20	L589405-09		WG607181
Chromium	mg/kg	47.2	44.8	56.4*	75-125	5.22	20	L589405-09		WG607181
Lead	mg/kg	78.7	70.7	81.4	75-125	10.7	20	L589405-09		WG607181
Selenium	mg/kg	26.3	24.9	49.8*	75-125	5.47	20	L589405-09		WG607181
Silver	mg/kg	43.4	43.0	17.4*	75-125	0.926	20	L589405-09		WG607181
Naphthalene	mg/kg	0.0874	0.0904	69.9	19-146	3.43	30	L589531-01		WG607441
4-Bromofluorobenzene				93.20	67-133					WG607441
Dibromofluoromethane				100.3	72-135					WG607441
Toluene-d8				97.31	90-113					WG607441
1,1,1,2-Tetrachloroethane	mg/l	11.1	12.9	89.0	71-130	14.9	20	L589338-01		WG607206
1,1,1-Trichloroethane	mg/l	9.93	11.6	79.4	58-137	15.2	20	L589338-01		WG607206
1,1,2,2-Tetrachloroethane	mg/l	11.5	11.6	92.3	64-149	0.590	20	L589338-01		WG607206
1,1,2-Trichloroethane	mg/l	11.0	11.9	88.0	73-128	7.92	20	L589338-01		WG607206
1,1,2-Trichlorotrifluoroethane	mg/l	8.44	10.1	67.5	36-159	17.9	21	L589338-01		WG607206
1,1-Dichloroethane	mg/l	11.2	13.0	89.3	58-133	15.1	20	L589338-01		WG607206
1,1-Dichloroethene	mg/l	9.27	11.1	72.1	32-152	18.2	20	L589338-01		WG607206
1,1-Dichloropropene	mg/l	10.4	12.4	83.5	50-140	17.3	20	L589338-01		WG607206
1,2,3-Trichlorobenzene	mg/l	11.4	11.8	90.9	68-135	4.08	20	L589338-01		WG607206
1,2,3-Trichloropropane	mg/l	10.8	11.1	86.5	74-137	2.35	20	L589338-01		WG607206
1,2,3-Trimethylbenzene	mg/l	11.6	12.9	93.2	67-133	9.90	20	L589338-01		WG607206

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Level II

L589405

August 22, 2012

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref	Samp	Batch
			Ref	%Rec						
1,2,4-Trichlorobenzene	mg/l	11.1	12.1	89.0	67-133	8.08	20	L589338-01		WG607206
1,2,4-Trimethylbenzene	mg/l	10.9	12.7	87.3	62-141	14.7	20	L589338-01		WG607206
1,2-Dibromo-3-Chloropropane	mg/l	10.3	9.23	82.5	55-148	11.1	22	L589338-01		WG607206
1,2-Dibromoethane	mg/l	11.0	11.7	88.1	71-129	6.00	20	L589338-01		WG607206
1,2-Dichlorobenzene	mg/l	11.5	12.4	91.8	75-125	7.55	20	L589338-01		WG607206
1,2-Dichloroethane	mg/l	11.0	12.0	87.8	59-135	8.63	20	L589338-01		WG607206
1,2-Dichloropropane	mg/l	11.6	13.1	81.6	68-126	12.5	20	L589338-01		WG607206
1,3,5-Trimethylbenzene	mg/l	10.8	12.7	86.6	67-136	15.7	20	L589338-01		WG607206
1,3-Dichlorobenzene	mg/l	10.8	12.5	86.6	69-131	14.5	20	L589338-01		WG607206
1,3-Dichloropropane	mg/l	11.5	12.5	92.2	70-122	8.53	20	L589338-01		WG607206
1,4-Dichlorobenzene	mg/l	11.0	12.3	87.9	70-123	11.2	20	L589338-01		WG607206
2,2-Dichloropropane	mg/l	10.6	12.2	85.1	51-141	13.4	20	L589338-01		WG607206
2-Butanone (MEK)	mg/l	36.8	39.1	58.9	51-149	5.85	22	L589338-01		WG607206
2-Chloroethyl vinyl ether	mg/l	52.2	53.8	83.4	10-161	3.12	40	L589338-01		WG607206
2-Chlorotoluene	mg/l	11.4	13.0	91.3	65-133	13.2	20	L589338-01		WG607206
4-Chlorotoluene	mg/l	11.3	13.2	90.2	67-129	15.8	20	L589338-01		WG607206
4-Methyl-2-pentanone (MIBK)	mg/l	50.7	48.5	81.1	53-154	4.44	21	L589338-01		WG607206
Acetone	mg/l	30.0	41.2	48.0	34-146	31.5*	22	L589338-01		WG607206
Acrolein	mg/l	65.8	63.4	105.	10-189	3.61	30	L589338-01		WG607206
Acrylonitrile	mg/l	55.0	52.3	88.0	49-162	4.97	20	L589338-01		WG607206
Benzene	mg/l	11.1	12.7	88.6	51-134	13.1	20	L589338-01		WG607206
Bromobenzene	mg/l	11.6	13.1	91.9	64-130	12.5	20	L589338-01		WG607206
Bromodichloromethane	mg/l	10.5	11.9	84.1	67-132	12.1	20	L589338-01		WG607206
Bromoform	mg/l	10.5	11.2	84.1	59-137	6.09	20	L589338-01		WG607206
Bromomethane	mg/l	11.5	12.3	91.6	23-177	7.25	21	L589338-01		WG607206
Carbon tetrachloride	mg/l	9.82	11.6	78.0	49-140	16.3	20	L589338-01		WG607206
Chlorobenzene	mg/l	11.8	13.1	94.2	69-126	10.7	20	L589338-01		WG607206
Chlorodibromomethane	mg/l	11.0	11.9	88.3	68-130	7.62	20	L589338-01		WG607206
Chloroethane	mg/l	9.96	11.5	79.7	32-177	14.7	21	L589338-01		WG607206
Chloroform	mg/l	10.8	12.3	86.6	64-130	12.9	20	L589338-01		WG607206
Chloromethane	mg/l	11.8	13.6	94.6	27-155	13.6	20	L589338-01		WG607206
cis-1,3-Dichloropropene	mg/l	11.2	12.5	89.3	63-127	10.9	20	L589338-01		WG607206
Di-isopropyl ether	mg/l	11.2	12.6	89.4	58-133	12.1	20	L589338-01		WG607206
Dibromomethane	mg/l	10.7	11.6	85.3	68-131	8.53	20	L589338-01		WG607206
Dichlorodifluoromethane	mg/l	10.1	12.2	80.9	16-188	18.8	22	L589338-01		WG607206
Ethylbenzene	mg/l	10.9	12.7	87.0	64-135	15.8	20	L589338-01		WG607206
Hexachloro-1,3-butadiene	mg/l	11.4	13.1	91.0	64-140	14.0	20	L589338-01		WG607206
Isopropylbenzene	mg/l	10.5	12.4	83.8	62-134	16.7	20	L589338-01		WG607206
Methyl tert-butyl ether	mg/l	10.2	11.0	81.5	55-136	7.31	20	L589338-01		WG607206
Methylene Chloride	mg/l	11.4	12.6	91.0	52-130	10.4	20	L589338-01		WG607206
n-Butylbenzene	mg/l	11.0	12.7	87.8	62-142	14.7	20	L589338-01		WG607206
n-Propylbenzene	mg/l	10.7	12.6	85.4	62-137	16.6	20	L589338-01		WG607206
Naphthalene	mg/l	11.3	10.8	89.3	65-140	4.37	20	L589338-01		WG607206
p-Isopropyltoluene	mg/l	10.6	12.6	84.8	64-142	17.4	20	L589338-01		WG607206
sec-Butylbenzene	mg/l	10.8	12.8	86.0	67-139	17.1	20	L589338-01		WG607206
Styrene	mg/l	11.4	12.9	91.2	58-152	12.2	20	L589338-01		WG607206
tert-Butylbenzene	mg/l	10.8	12.7	86.0	66-139	16.3	20	L589338-01		WG607206
Tetrachloroethene	mg/l	10.5	12.6	84.0	56-139	18.4	20	L589338-01		WG607206
Toluene	mg/l	10.9	12.7	87.1	61-126	14.7	20	L589338-01		WG607206
trans-1,2-Dichloroethene	mg/l	10.7	12.2	84.2	45-137	13.4	20	L589338-01		WG607206
trans-1,3-Dichloropropene	mg/l	10.8	11.6	83.6	59-130	7.73	20	L589338-01		WG607206
Trichlorofluoromethane	mg/l	9.80	11.5	78.4	35-177	16.2	23	L589338-01		WG607206
Vinyl chloride	mg/l	14.1	16.2	84.5	32-159	13.6	21	L589338-01		WG607206
Xylenes, Total	mg/l	32.8	38.7	87.6	64-133	16.3	20	L589338-01		WG607206
1,2,4-Trichlorobenzene	mg/l	0.00788	0.00796	78.8	34-101	0.949	23	L589138-02		WG607069
2,4,6-Trichlorophenol	mg/l	0.00678	0.00717	67.8	14-145	5.52	39	L589138-02		WG607069
2,4-Dichlorophenol	mg/l	0.00798	0.00847	79.8	17-132	6.00	30	L589138-02		WG607069

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2,4-Dimethylphenol	mg/l	0.00771	0.00828	77.1	10-154	7.21	40	L589138-02		WG607069
2,4-Dinitrophenol	mg/l	0.00774	0.00835	77.4	10-167	7.56	36	L589138-02		WG607069
2,4-Dinitrotoluene	mg/l	0.00841	0.00887	84.1	48-133	5.35	21	L589138-02		WG607069
2,6-Dinitrotoluene	mg/l	0.00896	0.00865	89.6	52-123	3.43	20	L589138-02		WG607069
2-Chloronaphthalene	mg/l	0.00873	0.00905	87.3	47-111	3.65	20	L589138-02		WG607069
2-Chlorophenol	mg/l	0.00699	0.00825	69.9	18-103	16.6	33	L589138-02		WG607069
2-Nitrophenol	mg/l	0.00969	0.00986	92.4	25-130	1.75	31	L589138-02		WG607069
3,3-Dichlorobenzidine	mg/l	0.00959	0.0103	95.9	10-149	6.80	33	L589138-02		WG607069
4,6-Dinitro-2-methylphenol	mg/l	0.00751	0.00810	75.1	10-149	7.54	40	L589138-02		WG607069
4-Bromophenyl-phenylether	mg/l	0.0103	0.0101	103.	51-138	1.96	20	L589138-02		WG607069
4-Chloro-3-methylphenol	mg/l	0.00826	0.00819	82.6	19-138	0.855	25	L589138-02		WG607069
4-Chlorophenyl-phenylether	mg/l	0.00941	0.0102	94.1	47-132	8.32	20	L589138-02		WG607069
4-Nitrophenol	mg/l	0.00210	0.00234	21.0	10-86	10.7	40	L589138-02		WG607069
Acenaphthene	mg/l	0.00894	0.00919	89.4	45-121	2.83	20	L589138-02		WG607069
Acenaphthylene	mg/l	0.00900	0.00951	90.0	52-122	5.50	20	L589138-02		WG607069
Anthracene	mg/l	0.00922	0.00928	92.2	51-129	0.603	20	L589138-02		WG607069
Benzidine	mg/l	0.00403	0.00353	40.3	10-47	13.3	40	L589138-02		WG607069
Benzo(a)anthracene	mg/l	0.00998	0.0106	99.8	55-127	6.16	20	L589138-02		WG607069
Benzo(a)pyrene	mg/l	0.00946	0.00976	94.6	47-132	3.17	20	L589138-02		WG607069
Benzo(b)fluoranthene	mg/l	0.00993	0.0102	99.3	42-138	2.42	20	L589138-02		WG607069
Benzo(g,h,i)perylene	mg/l	0.0109	0.0108	109.	10-152	0.906	22	L589138-02		WG607069
Benzo(k)fluoranthene	mg/l	0.0104	0.0102	104.	40-136	1.86	21	L589138-02		WG607069
Benzylbutyl phthalate	mg/l	0.00976	0.0105	97.6	14-180	6.92	25	L589138-02		WG607069
Bis(2-chlorethoxy)methane	mg/l	0.00937	0.00992	93.6	39-139	5.76	22	L589138-02		WG607069
Bis(2-chloroethyl)ether	mg/l	0.00725	0.00782	72.5	31-122	7.51	29	L589138-02		WG607069
Bis(2-chloroisopropyl)ether	mg/l	0.00830	0.00851	83.0	35-121	2.48	25	L589138-02		WG607069
Bis(2-ethylhexyl)phthalate	mg/l	0.0121	0.0129	98.7	23-173	6.89	24	L589138-02		WG607069
Chrysene	mg/l	0.0108	0.0112	108.	55-124	4.47	20	L589138-02		WG607069
Di-n-butyl phthalate	mg/l	0.00977	0.0108	89.5	43-154	9.92	20	L589138-02		WG607069
Di-n-octyl phthalate	mg/l	0.0104	0.0106	104.	23-173	1.83	25	L589138-02		WG607069
Dibenz(a,h)anthracene	mg/l	0.0104	0.0108	104.	16-149	4.09	22	L589138-02		WG607069
Diethyl phthalate	mg/l	0.0101	0.0104	101.	28-150	2.80	21	L589138-02		WG607069
Dimethyl phthalate	mg/l	0.0107	0.0105	104.	10-159	1.60	30	L589138-02		WG607069
Fluoranthene	mg/l	0.00993	0.0100	99.3	58-130	0.795	20	L589138-02		WG607069
Fluorene	mg/l	0.00960	0.00963	96.0	51-120	0.399	20	L589138-02		WG607069
Hexachloro-1,3-butadiene	mg/l	0.00771	0.00815	77.1	32-120	5.50	24	L589138-02		WG607069
Hexachlorobenzene	mg/l	0.00932	0.00958	93.2	48-126	2.68	20	L589138-02		WG607069
Hexachlorocyclopentadiene	mg/l	0.0105	0.0104	105.	10-125	1.33	35	L589138-02		WG607069
Hexachloroethane	mg/l	0.00641	0.00668	64.1	10-121	4.14	31	L589138-02		WG607069
Indeno(1,2,3-cd)pyrene	mg/l	0.0106	0.0107	106.	17-147	0.816	21	L589138-02		WG607069
Isophorone	mg/l	0.00934	0.0102	93.4	47-116	8.72	20	L589138-02		WG607069
n-Nitrosodi-n-propylamine	mg/l	0.00882	0.00904	88.2	36-139	2.53	24	L589138-02		WG607069
n-Nitrosodimethylamine	mg/l	0.00627	0.00624	62.7	10-83	0.496	40	L589138-02		WG607069
n-Nitrosodiphenylamine	mg/l	0.00920	0.00957	92.0	43-124	3.95	20	L589138-02		WG607069
Naphthalene	mg/l	0.00803	0.00862	80.3	32-116	7.07	23	L589138-02		WG607069
Nitrobenzene	mg/l	0.00954	0.00941	95.4	36-110	1.36	24	L589138-02		WG607069
Pentachlorophenol	mg/l	0.00333	0.00415	33.3	10-152	22.0	40	L589138-02		WG607069
Phenanthrene	mg/l	0.00958	0.00991	95.8	49-130	3.37	20	L589138-02		WG607069
Phenol	mg/l	0.00364	0.00461	23.4	10-69	23.4	34	L589138-02		WG607069
Pyrene	mg/l	0.00957	0.00968	95.6	47-135	1.15	21	L589138-02		WG607069
2,4,6-Tribromophenol				92.60	16-147					WG607069
2-Fluorobiphenyl				108.1	29-127					WG607069
2-Fluorophenol				48.77	10-75					WG607069
Nitrobenzene-d5				100.7	17-119					WG607069
Phenol-d5				34.63	10-63					WG607069
p-Terphenyl-d14				103.7	40-174					WG607069
Extractable Petroleum Hydrocarbon	mg/kg	35.7	36.3	52.9	50-100	1.64	20	L589405-04		WG607282

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Amanda Herrit  
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Quality Assurance Report  
Level II

L589405

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1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

August 22, 2012

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit Ref Samp			Batch
			Ref	%Rec			Limit	Ref	Samp	
o-Terphenyl				71.97	50-150					
PCB 1016	mg/kg	0.137	0.136	82.2	10-165	0.847	33	L589405-04		WG607287
PCB 1260	mg/kg	0.147	0.153	87.9	29-154	3.99	23	L589405-04		WG607287
Decachlorobiphenyl				78.23	18.9-115.8					WG607287
Tetrachloro-m-xylene				72.38	31.8-115.7					WG607287
cis-1,2-Dichloroethene	mg/l	0.0288	0.0245	112.	54-137	16.2	20	L589501-06		WG607572
Trichloroethene	mg/l	0.0398	0.0305	159.*	40-155	26.4*	20	L589501-06		WG607572
4-Bromofluorobenzene				97.37	82-120					WG607572
Dibromofluoromethane				99.48	82-126					WG607572
Toluene-d8				100.4	92-112					WG607572
1,1,1,2-Tetrachloroethane	mg/kg	0.126	0.118	101.	49-135	6.61	23	L589480-03		WG607252
1,1,1-Trichloroethane	mg/kg	0.123	0.114	98.0	43-142	7.14	24	L589480-03		WG607252
1,1,2,2-Tetrachloroethane	mg/kg	0.106	0.0973	85.1	42-147	8.90	25	L589480-03		WG607252
1,1,2-Trichloroethane	mg/kg	0.113	0.105	90.8	51-134	7.83	21	L589480-03		WG607252
1,1,2-Trichlorotrifluoroethane	mg/kg	0.105	0.0996	84.1	25-156	5.39	29	L589480-03		WG607252
1,1-Dichloroethane	mg/kg	0.137	0.123	110.	50-131	10.6	21	L589480-03		WG607252
1,1-Dichloroethene	mg/kg	0.113	0.106	90.1	29-145	6.37	28	L589480-03		WG607252
1,1-Dichloropropene	mg/kg	0.130	0.120	104.	40-136	7.46	24	L589480-03		WG607252
1,2,3-Trichlorobenzene	mg/kg	0.116	0.109	92.5	13-142	6.15	33	L589480-03		WG607252
1,2,3-Trichloropropane	mg/kg	0.0993	0.0933	79.4	41-149	6.27	28	L589480-03		WG607252
1,2,3-Trimethylbenzene	mg/kg	0.127	0.117	101.	33-146	7.63	27	L589480-03		WG607252
1,2,4-Trichlorobenzene	mg/kg	0.118	0.113	94.8	12-140	4.92	32	L589480-03		WG607252
1,2,4-Trimethylbenzene	mg/kg	0.126	0.119	101.	29-143	5.94	30	L589480-03		WG607252
1,2-Dibromo-3-Chloropropane	mg/kg	0.0819	0.0732	65.5	29-151	11.2	31	L589480-03		WG607252
1,2-Dibromoethane	mg/kg	0.112	0.101	89.4	48-133	9.77	22	L589480-03		WG607252
1,2-Dichlorobenzene	mg/kg	0.118	0.111	94.7	37-136	6.87	25	L589480-03		WG607252
1,2-Dichloroethane	mg/kg	0.120	0.108	96.1	49-131	10.2	20	L589480-03		WG607252
1,2-Dichloropropane	mg/kg	0.134	0.123	107.	50-132	8.71	21	L589480-03		WG607252
1,3,5-Trimethylbenzene	mg/kg	0.126	0.119	101.	29-144	5.53	30	L589480-03		WG607252
1,3-Dichlorobenzene	mg/kg	0.124	0.117	99.1	26-140	5.53	28	L589480-03		WG607252
1,3-Dichloropropane	mg/kg	0.118	0.110	94.6	50-126	7.47	22	L589480-03		WG607252
1,4-Dichlorobenzene	mg/kg	0.118	0.109	94.6	34-132	8.44	26	L589480-03		WG607252
2,2-Dichloropropane	mg/kg	0.135	0.128	108.	35-148	4.86	26	L589480-03		WG607252
2-Butanone (MEK)	mg/kg	0.327	0.301	52.3	40-149	8.32	27	L589480-03		WG607252
2-Chloroethyl vinyl ether	mg/kg	0.529	0.487	84.7	10-173	8.39	33	L589480-03		WG607252
2-Chlorotoluene	mg/kg	0.132	0.123	105.	34-136	6.98	28	L589480-03		WG607252
4-Chlorotoluene	mg/kg	0.130	0.123	104.	31-137	5.53	27	L589480-03		WG607252
4-Methyl-2-pentanone (MIBK)	mg/kg	0.436	0.398	69.7	37-153	9.01	27	L589480-03		WG607252
Acetone	mg/kg	0.315	0.304	50.3	10-177	3.59	28	L589480-03		WG607252
Acrylonitrile	mg/kg	0.496	0.450	79.4	33-159	9.76	26	L589480-03		WG607252
Benzene	mg/kg	0.132	0.121	105.	44-131	8.69	21	L589480-03		WG607252
Bromobenzene	mg/kg	0.130	0.121	104.	36-132	7.53	26	L589480-03		WG607252
Bromodichloromethane	mg/kg	0.118	0.107	94.1	48-134	9.15	20	L589480-03		WG607252
Bromoform	mg/kg	0.102	0.0931	81.3	34-141	8.83	24	L589480-03		WG607252
Bromomethane	mg/kg	0.116	0.114	92.6	19-173	1.95	25	L589480-03		WG607252
Carbon tetrachloride	mg/kg	0.121	0.113	96.6	36-140	6.32	26	L589480-03		WG607252
Chlorobenzene	mg/kg	0.134	0.124	107.	42-133	7.30	24	L589480-03		WG607252
Chlorodibromomethane	mg/kg	0.117	0.109	93.5	45-135	7.33	23	L589480-03		WG607252
Chloroethane	mg/kg	0.112	0.103	89.5	16-178	8.21	25	L589480-03		WG607252
Chloroform	mg/kg	0.130	0.116	104.	52-130	11.8	21	L589480-03		WG607252
Chloromethane	mg/kg	0.132	0.124	105.	28-147	6.37	23	L589480-03		WG607252
cis-1,2-Dichloroethene	mg/kg	0.127	0.117	102.	52-128	8.84	21	L589480-03		WG607252
cis-1,3-Dichloropropene	mg/kg	0.126	0.115	101.	46-131	9.65	21	L589480-03		WG607252
Di-isopropyl ether	mg/kg	0.133	0.121	106.	46-134	9.52	20	L589480-03		WG607252
Dibromomethane	mg/kg	0.111	0.101	88.4	51-133	8.91	21	L589480-03		WG607252

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Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report  
Level II

L589405

August 22, 2012

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref	Samp	Batch
			Ref	%Rec						
Dichlorodifluoromethane	mg/kg	0.116	0.109	93.1	12-179	6.38	27	L589480-03		WG607252
Ethylbenzene	mg/kg	0.129	0.121	103.	38-139	5.93	27	L589480-03		WG607252
Hexachloro-1,3-butadiene	mg/kg	0.128	0.120	102.	10-147	6.02	37	L589480-03		WG607252
Isopropylbenzene	mg/kg	0.123	0.117	98.5	34-137	5.23	29	L589480-03		WG607252
Methyl tert-butyl ether	mg/kg	0.110	0.0998	87.6	45-134	9.26	22	L589480-03		WG607252
Methylene Chloride	mg/kg	0.133	0.120	107.	41-133	10.8	28	L589480-03		WG607252
n-Butylbenzene	mg/kg	0.123	0.118	98.0	19-149	4.14	32	L589480-03		WG607252
n-Propylbenzene	mg/kg	0.127	0.121	101.	27-142	4.76	29	L589480-03		WG607252
Naphthalene	mg/kg	0.102	0.0928	81.2	19-146	8.97	30	L589480-03		WG607252
p-Isopropyltoluene	mg/kg	0.126	0.120	101.	21-150	4.82	31	L589480-03		WG607252
sec-Butylbenzene	mg/kg	0.128	0.121	102.	25-148	5.54	31	L589480-03		WG607252
Styrene	mg/kg	0.130	0.122	104.	30-156	6.28	26	L589480-03		WG607252
tert-Butylbenzene	mg/kg	0.128	0.121	102.	32-146	6.06	30	L589480-03		WG607252
Tetrachloroethene	mg/kg	0.123	0.117	98.4	35-139	5.27	27	L589480-03		WG607252
Toluene	mg/kg	0.126	0.120	101.	43-127	5.36	21	L589480-03		WG607252
trans-1,2-Dichloroethene	mg/kg	0.127	0.118	101.	41-132	7.15	23	L589480-03		WG607252
trans-1,3-Dichloropropene	mg/kg	0.116	0.106	92.6	43-129	8.97	23	L589480-03		WG607252
Trichloroethene	mg/kg	0.122	0.110	97.9	42-136	10.3	23	L589480-03		WG607252
Trichlorofluoromethane	mg/kg	0.116	0.108	92.7	20-178	6.89	30	L589480-03		WG607252
Vinyl chloride	mg/kg	0.121	0.113	97.0	30-157	7.49	24	L589480-03		WG607252
Xylenes, Total	mg/kg	0.382	0.364	102.	38-137	4.71	26	L589480-03		WG607252
4-Bromofluorobenzene				105.5	67-133					WG607252
Dibromofluoromethane				102.5	72-135					WG607252
Toluene-d8				103.2	90-113					WG607252
GRO (C6-C10)	mg/kg	3.86	4.03	77.2	50-100	4.36	20	L589378-01		WG607186
a,a,a-Trifluorotoluene(FID)				71.13	50-150					WG607186
4,4-DDD	mg/kg	0.0641	0.0687	96.1	45-139	6.85	21	L589405-04		WG607287
4,4-DDE	mg/kg	0.0506	0.0529	75.8	47-134	4.40	21	L589405-04		WG607287
4,4-DDT	mg/kg	0.0332	0.0367	49.8	11-148	10.1	21	L589405-04		WG607287
Aldrin	mg/kg	0.0485	0.0501	72.8	52-117	3.08	21	L589405-04		WG607287
Alpha BHC	mg/kg	0.0474	0.0482	71.0	51-120	1.61	20	L589405-04		WG607287
Beta BHC	mg/kg	0.0504	0.0521	75.6	48-124	3.38	21	L589405-04		WG607287
Delta BHC	mg/kg	0.0496	0.0527	74.4	38-128	5.91	21	L589405-04		WG607287
Dieldrin	mg/kg	0.0528	0.0569	79.2	48-135	7.40	20	L589405-04		WG607287
Endosulfan I	mg/kg	0.0518	0.0547	77.6	51-129	5.50	20	L589405-04		WG607287
Endosulfan II	mg/kg	0.0556	0.0600	83.4	42-142	7.54	21	L589405-04		WG607287
Endosulfan sulfate	mg/kg	0.0551	0.0584	82.6	38-140	5.78	22	L589405-04		WG607287
Endrin	mg/kg	0.0522	0.0559	78.2	44-133	6.96	20	L589405-04		WG607287
Endrin aldehyde	mg/kg	0.0482	0.0519	72.3	16-116	7.34	23	L589405-04		WG607287
Endrin ketone	mg/kg	0.0520	0.0558	78.0	33-131	7.10	21	L589405-04		WG607287
Gamma BHC	mg/kg	0.0492	0.0513	73.8	52-119	4.07	20	L589405-04		WG607287
Heptachlor	mg/kg	0.0480	0.0493	72.0	47-121	2.61	20	L589405-04		WG607287
Heptachlor epoxide	mg/kg	0.0515	0.0548	77.2	54-120	6.18	20	L589405-04		WG607287
Hexachlorobenzene	mg/kg	0.0437	0.0458	65.6	58-115	4.65	20	L589405-04		WG607287
Methoxychlor	mg/kg	0.0421	0.0468	63.1	9-153	10.6	22	L589405-04		WG607287
Decachlorobiphenyl				76.36	18.9-115.8					WG607287
Tetrachloro-m-xylene				74.30	31.8-115.7					WG607287
Barium	mg/kg	58.4	61.6	19.0*	75-125	5.33	20	L588827-03		WG607432
Extractable Petroleum Hydrocarbon	mg/kg	51.0	50.5	85.0	50-150	1.02	25	L589815-05		WG607708
o-Terphenyl				80.65	50-150					WG607708

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Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report  
Level II

L589405

August 22, 2012

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref	Samp	Batch
			Ref	%Rec						
Arsenic	mg/l	1.05	1.02	92.9	75-125	2.90	20	L589456-04		WG607273
Barium	mg/l	1.14	1.14	93.4	75-125	0	20	L589456-04		WG607273
Cadmium	mg/l	1.07	1.06	94.7	75-125	0.939	20	L589456-04		WG607273
Chromium	mg/l	1.12	1.10	99.1	75-125	1.80	20	L589456-04		WG607273
Lead	mg/l	1.06	1.04	93.8	75-125	1.90	20	L589456-04		WG607273
Selenium	mg/l	1.07	1.04	91.5	75-125	2.84	20	L589456-04		WG607273
Silver	mg/l	0.545	0.403	48.2*	75-125	30.0*	20	L589456-04		WG607273
GRO (C6-C10)	mg/kg	3.64	3.43	72.9	50-100	6.00	20	L589634-01		WG607608
a,a,a-Trifluorotoluene(FID)				70.08	50-150					WG607608
GRO (C6-C10)	mg/l	0.945	0.989	94.5	50-100	4.49	20	L589864-01		WG607679
a,a,a-Trifluorotoluene(FID)				68.16	50-150					WG607679
Barium	mg/kg	139.	114.	156.*	75-125	19.8	20	L589638-04		WG607517
Naphthalene	mg/kg	0.148	0.131	117.	19-146	12.0	30	L589804-02		WG607858
4-Bromofluorobenzene				95.61	67-133					WG607858
Dibromofluoromethane				105.0	72-135					WG607858
Toluene-d8				97.86	90-113					WG607858
PCB 1016	mg/kg	0.158	0.166	94.6	10-165	4.94	33	L589405-11		WG607701
PCB 1260	mg/kg	0.199	0.212	119.	29-154	6.23	23	L589405-11		WG607701
Decachlorobiphenyl				86.98	18.9-115.8					WG607701
Tetrachloro-m-xylene				75.25	31.8-115.7					WG607701
4,4-DDD	mg/kg	0.0738	0.0714	111.	45-139	3.32	21	L589868-01		WG607701
4,4-DDE	mg/kg	0.133	0.145	144.*	47-134	8.52	21	L589868-01		WG607701
4,4-DDT	mg/kg	0.0918	0.0926	138.	11-148	0.780	21	L589868-01		WG607701
Aldrin	mg/kg	0.0611	0.0599	91.5	52-117	1.93	21	L589868-01		WG607701
Alpha BHC	mg/kg	0.0612	0.0601	91.8	51-120	1.88	20	L589868-01		WG607701
Beta BHC	mg/kg	0.0623	0.0613	93.4	48-124	1.67	21	L589868-01		WG607701
Delta BHC	mg/kg	0.0638	0.0624	95.6	38-128	2.21	21	L589868-01		WG607701
Dieldrin	mg/kg	0.0694	0.0691	104.	48-135	0.461	20	L589868-01		WG607701
Endosulfan I	mg/kg	0.0654	0.0639	98.0	51-129	2.33	20	L589868-01		WG607701
Endosulfan II	mg/kg	0.0724	0.0712	108.	42-142	1.64	21	L589868-01		WG607701
Endosulfan sulfate	mg/kg	0.0709	0.0680	106.	38-140	4.21	22	L589868-01		WG607701
Endrin	mg/kg	0.0700	0.0687	105.	44-133	1.89	20	L589868-01		WG607701
Endrin aldehyde	mg/kg	0.0747	0.0716	112.	16-116	4.32	23	L589868-01		WG607701
Endrin ketone	mg/kg	0.0706	0.0692	106.	33-131	2.01	21	L589868-01		WG607701
Gamma BHC	mg/kg	0.0624	0.0615	93.6	52-119	1.58	20	L589868-01		WG607701
Heptachlor	mg/kg	0.0689	0.0673	103.	47-121	2.38	20	L589868-01		WG607701
Heptachlor epoxide	mg/kg	0.0647	0.0636	97.0	54-120	1.76	20	L589868-01		WG607701
Hexachlorobenzene	mg/kg	0.0565	0.0551	84.7	58-115	2.54	20	L589868-01		WG607701
Methoxychlor	mg/kg	0.0775	0.0769	116.	9-153	0.784	22	L589868-01		WG607701
Decachlorobiphenyl				63.43	18.9-115.8					WG607701
Tetrachloro-m-xylene				85.04	31.8-115.7					WG607701
Extractable Petroleum Hydrocarbon	mg/kg	221.	423.	0*	50-150	62.6*	20	L589599-03		WG608107
o-Terphenyl				79.04	50-150					WG608107
1,1,1,2-Tetrachloroethane	mg/l	0.0243	0.0268	97.1	71-130	9.92	20	L590859-02		WG608731

\* Performance of this Analyte is outside of established criteria.  
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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Amanda Herrit  
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report  
Level II

L589405

August 22, 2012

Analyte	Units	MSD	Matrix Spike Duplicate			Limit	RPD	Limit	Ref	Samp	Batch
			Ref	%Rec							
1,1,1-Trichloroethane	mg/l	0.0266	0.0277	106.		58-137	4.05	20	L590859-02		WG608731
1,1,2,2-Tetrachloroethane	mg/l	0.000552	0.000822	2.21*		64-149	39.4*	20	L590859-02		WG608731
1,1,2-Trichloroethane	mg/l	0.0249	0.0276	99.4		73-128	10.3	20	L590859-02		WG608731
1,1,2,Trichlorotrifluoroethane	mg/l	0.0241	0.0258	96.4		36-159	6.65	21	L590859-02		WG608731
1,1-Dichloroethane	mg/l	0.0245	0.0265	97.8		58-133	7.92	20	L590859-02		WG608731
1,1-Dichloroethene	mg/l	0.0241	0.0262	96.6		32-152	8.23	20	L590859-02		WG608731
1,1-Dichloropropene	mg/l	0.0259	0.0266	104.		50-140	2.79	20	L590859-02		WG608731
1,2,3-Trichlorobenzene	mg/l	0.0207	0.0241	82.7		68-135	15.2	20	L590859-02		WG608731
1,2,3-Trichloropropane	mg/l	0.0268	0.0275	107.		74-137	2.63	20	L590859-02		WG608731
1,2,3-Trimethylbenzene	mg/l	0.0210	0.0230	84.1		67-133	8.85	20	L590859-02		WG608731
1,2,4-Trichlorobenzene	mg/l	0.0209	0.0250	83.4		67-133	18.1	20	L590859-02		WG608731
1,2,4-Trimethylbenzene	mg/l	0.0230	0.0243	92.2		62-141	5.28	20	L590859-02		WG608731
1,2-Dibromo-3-Chloropropane	mg/l	0.0306	0.0344	122.		55-148	11.8	22	L590859-02		WG608731
1,2-Dibromoethane	mg/l	0.0250	0.0279	99.8		71-129	11.3	20	L590859-02		WG608731
1,2-Dichlorobenzene	mg/l	0.0218	0.0242	87.4		75-125	10.4	20	L590859-02		WG608731
1,2-Dichloroethane	mg/l	0.0235	0.0259	94.2		59-135	9.56	20	L590859-02		WG608731
1,2-Dichloropropane	mg/l	0.0230	0.0250	91.8		68-126	8.73	20	L590859-02		WG608731
1,3,5-Trimethylbenzene	mg/l	0.0234	0.0250	93.6		67-136	6.40	20	L590859-02		WG608731
1,3-Dichlorobenzene	mg/l	0.0232	0.0246	93.0		69-131	5.47	20	L590859-02		WG608731
1,3-Dichloropropane	mg/l	0.0234	0.0266	93.7		70-122	12.6	20	L590859-02		WG608731
1,4-Dichlorobenzene	mg/l	0.0214	0.0230	85.8		70-123	7.01	20	L590859-02		WG608731
2,2-Dichloropropane	mg/l	0.0250	0.0254	100.		51-141	1.46	20	L590859-02		WG608731
2-Butanone (MEK)	mg/l	0.181	0.198	145.		51-149	8.77	22	L590859-02		WG608731
2-Chloroethyl vinyl ether	mg/l	0.135	0.145	108.		10-161	7.29	40	L590859-02		WG608731
2-Chlorotoluene	mg/l	0.0232	0.0244	92.6		65-133	5.40	20	L590859-02		WG608731
4-Chlorotoluene	mg/l	0.0228	0.0236	91.4		67-129	3.32	20	L590859-02		WG608731
4-Methyl-2-pentanone (MIBK)	mg/l	0.159	0.169	127.		53-154	6.31	21	L590859-02		WG608731
Acetone	mg/l	0.210	0.234	168.*		34-146	10.6	22	L590859-02		WG608731
Acrolein	mg/l	0.0234	0.0328	18.7		10-189	33.5*	30	L590859-02		WG608731
Acrylonitrile	mg/l	0.156	0.170	125.		49-162	8.63	20	L590859-02		WG608731
Benzene	mg/l	0.0241	0.0254	96.2		51-134	5.37	20	L590859-02		WG608731
Bromobenzene	mg/l	0.0237	0.0254	94.9		64-130	6.68	20	L590859-02		WG608731
Bromodichloromethane	mg/l	0.0235	0.0263	93.9		67-132	11.4	20	L590859-02		WG608731
Bromoform	mg/l	0.0294	0.0316	118.		59-137	7.25	20	L590859-02		WG608731
Bromomethane	mg/l	0.0250	0.0279	99.8		23-177	11.3	21	L590859-02		WG608731
Carbon tetrachloride	mg/l	0.0280	0.0290	112.		49-140	3.48	20	L590859-02		WG608731
Chlorobenzene	mg/l	0.0242	0.0262	96.7		69-126	8.01	20	L590859-02		WG608731
Chlorodibromomethane	mg/l	0.0257	0.0277	103.		68-130	7.41	20	L590859-02		WG608731
Chloroethane	mg/l	0.0230	0.0247	91.9		32-177	7.06	21	L590859-02		WG608731
Chloroform	mg/l	0.0249	0.0264	99.7		64-130	5.85	20	L590859-02		WG608731
Chloromethane	mg/l	0.0259	0.0275	104.		27-155	5.99	20	L590859-02		WG608731
cis-1,2-Dichloroethene	mg/l	0.0242	0.0267	96.8		54-137	9.91	20	L590859-02		WG608731
cis-1,3-Dichloropropene	mg/l	0.0236	0.0264	94.5		63-127	10.9	20	L590859-02		WG608731
Di-isopropyl ether	mg/l	0.0246	0.0264	98.5		58-133	6.93	20	L590859-02		WG608731
Dibromomethane	mg/l	0.0250	0.0284	100.		68-131	12.6	20	L590859-02		WG608731
Dichlorodifluoromethane	mg/l	0.0255	0.0262	102.		16-188	2.83	22	L590859-02		WG608731
Ethylbenzene	mg/l	0.0253	0.0264	101.		64-135	4.39	20	L590859-02		WG608731
Hexachloro-1,3-butadiene	mg/l	0.0220	0.0241	88.0		64-140	9.11	20	L590859-02		WG608731
Isopropylbenzene	mg/l	0.0264	0.0272	106.		62-134	2.97	20	L590859-02		WG608731
Methyl tert-butyl ether	mg/l	0.0246	0.0280	98.5		55-136	12.7	20	L590859-02		WG608731
Methylene Chloride	mg/l	0.0244	0.0263	97.8		52-130	7.18	20	L590859-02		WG608731
n-Butylbenzene	mg/l	0.0231	0.0247	92.2		62-142	7.08	20	L590859-02		WG608731
n-Propylbenzene	mg/l	0.0256	0.0263	98.6		62-137	2.53	20	L590859-02		WG608731
Naphthalene	mg/l	0.0268	0.0310	107.		65-140	14.3	20	L590859-02		WG608731
p-Isopropyltoluene	mg/l	0.0252	0.0261	101.		64-142	3.82	20	L590859-02		WG608731
sec-Butylbenzene	mg/l	0.0248	0.0261	99.2		67-139	5.11	20	L590859-02		WG608731
Styrene	mg/l	0.0244	0.0251	97.5		58-152	2.99	20	L590859-02		WG608731
tert-Butylbenzene	mg/l	0.0245	0.0258	98.2		66-139	5.10	20	L590859-02		WG608731
Tetrachloroethene	mg/l	0.0273	0.0286	109.		56-139	4.95	20	L590859-02		WG608731

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Quality Assurance Report  
Level II

L589405

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(615) 758-5858  
1-800-767-5859  
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Tax I.D. 62-0814289

Est. 1970

August 22, 2012

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref	Samp	Batch
			Ref	%Rec						
Toluene	mg/l	0.0242	0.0259	96.8	61-126	6.91	20	L590859-02		WG608731
trans-1,2-Dichloroethene	mg/l	0.0263	0.0278	105.	45-137	5.47	20	L590859-02		WG608731
trans-1,3-Dichloropropene	mg/l	0.0241	0.0265	96.4	59-130	9.55	20	L590859-02		WG608731
Trichloroethene	mg/l	0.0570	0.0621	189.*	40-155	8.56	20	L590859-02		WG608731
Trichlorofluoromethane	mg/l	0.0273	0.0289	109.	35-177	5.87	23	L590859-02		WG608731
Vinyl chloride	mg/l	0.0231	0.0259	92.6	32-159	11.2	21	L590859-02		WG608731
Xylenes, Total	mg/l	0.0733	0.0765	97.8	64-133	4.21	20	L590859-02		WG608731
4-Bromofluorobenzene				105.1	82-120					WG608731
Dibromofluoromethane				94.86	82-126					WG608731
Toluene-d8				104.7	92-112					WG608731
2,4,5-T	mg/kg	0.120	0.129	72.1	14-114	6.53	40	L589658-01		WG607777
2,4,5-TP (Silvex)	mg/kg	0.133	0.128	79.6	10-125	3.76	40	L589658-01		WG607777
2,4-D	mg/kg	0.238	0.236	87.5	10-161	0.703	40	L589658-01		WG607777
2,4-DB	mg/kg	0.154	0.158	92.4	10-128	2.47	40	L589658-01		WG607777
Dalapon	mg/kg	0.103	0.108	62.0	12-98	4.58	40	L589658-01		WG607777
Dicamba	mg/kg	0.147	0.137	87.8	16-114	6.99	40	L589658-01		WG607777
Dichloroprop	mg/kg	0.148	0.150	88.4	10-129	1.51	40	L589658-01		WG607777
Dinoseb	mg/kg	0.143	0.100	85.6*	10-80	35.0	40	L589658-01		WG607777
MCPP	mg/kg	9.73	10.9	58.3	10-169	11.5	40	L589658-01		WG607777
2,4-Dichlorophenyl Acetic Acid	mg/kg	25.4	27.2	152.	10-198	6.68	40	L589658-01		WG607777
				62.53	37-99					WG607777

Batch number /Run number / Sample number cross reference

WG607251: R2299056: L589405-01 02 03 04 05 06 07 08 09 10  
WG607288: R2299442: L589405-01 02 03 04 05 06 07 08 09 10 11 12 13  
WG607220: R2299444: L589405-14  
WG607211: R2299496: L589405-01 02 03 04 05 06 07 08 09 10 11 12 13  
WG607420: R2299955: L589405-14  
WG607181: R2300221: L589405-01 02 03 04 05 06 07 08 09 10 11 12 13  
WG607206: R2300296: L589405-14  
WG607441: R2300495: L589405-01 02  
WG607069: R2300595: L589405-14  
WG607172: R2300855: L589405-13  
WG607282: R2300856: L589405-01 02 03 04 05 06 07 08 09 10  
WG607287: R2301033: L589405-01 03 04 05 06 07 08 12 13  
WG607572: R2301034: L589405-14  
WG607252: R2301269: L589405-11 12 13  
WG607186: R2301434: L589405-03 04 05 06 07 08 09 11 12 13  
WG607432: R2301935: L589405-01 02 04 05 06 07 08 09 10 11 12 13  
WG607708: R2302513: L589405-12  
WG607273: R2302754: L589405-14  
WG607517: R2302914: L589405-03  
WG607608: R2303114: L589405-01 02 10  
WG607679: R2303115: L589405-14  
WG607601: R2303553: L589405-14  
WG607701: R2304753: L589405-02 09 10 11  
WG607858: R2304994: L589405-13  
WG607482: R2305115: L589405-14  
WG608107: R2307234: L589405-11  
WG607777: R2310573: L589405-01 02 03 04 05 06 07 08 09 10 11 12 13  
WG608731: R2311093: L589405-15

\* \* Calculations are performed prior to rounding of reported values.

\* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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Est. 1970

August 22, 2012

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

# Terracon Consulting Inc.

51 Lost Mound Dr. Ste 135  
Chattanooga, TN 37406

## Billing Information:

Stacy Adams  
PO Box 5010  
Chattanooga, TN 37406

## Analysis/Container/Preservative

D203

Chain of Custody

Page \_\_\_\_ of \_\_\_\_



12065 Lebanon Road  
Mt Juliet, TN 37122

Phone: (800) 767-5859  
Phone: (615) 758-5858  
Fax: (615) 758-5859

Report to:  
Amanda Herrit

Email:  
amherrit@terracon.com

Project Description: Hamm Road

City/State Collected  
Chattanooga  
TN

Phone: (423) 499-6111  
FAX:

Client Project #:  
E2107081

Lab Project #  
GALLETCTN-HAMM ROA1

Collected by (print):  
Paul Davis

Site/Facility ID#:

P.O.#: E2107081

Collected by (signature):  
Paul Davis

Rush? (Lab MUST Be Notified)

Same Day ..... 200%

Date Results Needed

Next Day ..... 100%

No. of Cntrs

Two Day ..... 50%

Three Day ..... 25%

Email? No X Yes  
FAX? No Yes

Immediately Packed on Ice N Y X

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time		8081/8082 100ml Amb-NoPres	8270 100ml Amb NoPres	EPHTN 1L-Amb-Add HCl	GROTN 40mlAmb HCl	GROTN, V8260 2ozClr-NoPres	RCRA8 Metals 500mlHDPE-HNO3	Remarks/Contaminant	Sample # (lab only)
HR-1 10-12	G	SS	10-12	8-8-12	2:05	5			X	X	X			L589405 - 01
HR-1 12-14	G	SS	12-14	8-8-12	2:07	5			X	X	X			02
HR-2 4-6	G	SS	4-6	8-8-12	11:25	5			X	X	X			03
HR-2 16-18'	G	SS	16-18	8-8-12	12:10	5			X	X	X			04
HR-3 10-12'	G	SS	10-12	8-8-12	10:15	5			X	X	X			05
HR-3 12-14'	G	SS	12-14	8-8-12	10:20	5			X	X	X			06
HR-4 4-6	G	SS	4-6	8-9-12	8:07	5			X	X	X			07
HR-4 10-12	G	SS	10-12	8-9-12	9:15	5			X	X	X			08
HR-5 4-6	G	SS	4-6	8-9-12	8:00	5			X	X	X			09

\*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other \_\_\_\_\_

pH \_\_\_\_\_ Temp \_\_\_\_\_

Remarks: Include detailed case narrative on report.

Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature) <i>Paul Davis</i>	Date: 8-9-12	Time: 5:00	Received by: (Signature) <i>FedEx</i>	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: <i>55</i> (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 34 Bottles Received: 77+TB	COC Seal Intact: <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>Karen Weller</i>	Date: 8/10/12 Time: 0900	pH Checked: <input type="checkbox"/> NCF: <i>X</i>

Terracon Consulting Inc.			Billing information:			Analysis/Container/Preservative			Chain of Custody			
51 Lost Mound Dr. Ste 135 Chattanooga, TN 37406			Stacy Adams PO Box 5010 Chattanooga, TN 37406						Page ____ of ____			
Report to: Amanda Herrit			Email: amherrit@terracon.com									
Project Description: Hamm Road			City/State Collected <i>Chattanooga TN</i>									
Phone: (423) 499-6111 FAX:	Client Project #: E2107081		Lab Project # <b>GALLETCNTN-HAMM ROAI</b>						L-A-B S-C-I-E-N-C-E-S			
Collected by (print): <i>Paul Davis</i>	Site/Facility ID#:		P.O.#: E2107081						12065 Lebanon Road Mt Juliet, TN 37122			
Collected by (signature): <i>Paul Davis</i>	Rush? (Lab MUST Be Notified) ____ Same Day ..... 200% ____ Next Day ..... 100% ____ Two Day ..... 50% ____ Three Day ..... 25%		Date Results Needed						Phone: (800) 767-5859 Phone: (615) 758-5858 Fax: (615) 758-5859			
Immediately Packed on Ice N <input checked="" type="checkbox"/> Y <input type="checkbox"/>												
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	SV8081/8082 4ozClr-NoPres	SV8151 1L-Amb-No Pres	SV8151, SV8270 4ozClr-NoPres	V8260 40mlAmb-HCl	V8260 40mlAmb-HCl-Bik	Acctnum: <b>GALLETCNTN</b> (lab use only)
HR-1 10-12	C	SS	10-12	8-8-12	2:05	5	X	X			T80901/P401714	
HR-1 12-14	C	SS	12-14	8-8-12	2:07	5	X	X			Cooler #: <i>8/3 NO</i>	
HR-2 4-6'	C	SS	4-6	8-8-12	11:25	5	X	X			Shipped Via: FedEX Ground	
HR-2 16-18'	b	SS	16-18	8-8-12	12:10	5	X	X				
HR-3 10'-12'	C	SS	10'-12'	8-8-12	10:15	5	X	X				
HR-3 12-14'	C	SS	12-14	8-8-12	10:20	5	X	X				
HR-4 4-6	C	SS	4-6	8-9-12	9:07	5	X	X				
HR-4 10-12	C	SS	10-12	8-9-12	9:15	5	X	X				
HR-5 4-6	C	SS	4-6	8-9-12	8:00	5	X	X				

\*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other \_\_\_\_\_

Remarks: Include detailed case narrative on report.

*Note: COC is for soil only*

*+ 1 minute sample. G will follow  
Later.*

*51748798620*

Relinquished by: (Signature) <i>Paul Davis</i>	Date: 8-9-12	Time: 9:00	Received by: (Signature) <i>FedEx</i>	Samples returned via: <input type="checkbox"/> UPS <i>51748798620</i> <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: <i>(5)</i> (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 34°	Bottles Received: 77+27
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>Lynn Wren</i>	Date: 8/10/12	Time: 0900 pH Checked: <input type="checkbox"/> NCF: <i>X</i>

Terracon Consulting Inc.			Billing information:			Analysis/Container/Preservative			Chain of Custody	
51 Lost Mound Dr. Ste 135 Chattanooga, TN 37406			Stacy Adams PO Box 5010 Chattanooga, TN 37406						Page ____ of ____	
Report to: Amanda Herrit			Email: amherrit@terracon.com							
Project Description: Hamm Road			City/State Collected							
Phone: (423) 499-6111 FAX:	Client Project #: F-2107081		Lab Project # <b>GALLETCTN-HAMM ROA</b>							
Collected by (print): <i>Paul Davis</i>	Site/Facility ID#: F-2107081		P.O.#: F-2107081							
Collected by (signature): <i>Paul Davis</i>	Rush? (Lab MUST Be Notified) Same Day ..... 200% Next Day ..... 100% Two Day ..... 50% Three Day ..... 25%			Date Results Needed Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input type="checkbox"/> No <input type="checkbox"/> Yes			No. of Cntrs			
Immediately Packed on Ice N <input type="checkbox"/> Y <input checked="" type="checkbox"/>										
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time				Remarks/Contaminant	Sample # (lab only)
HR-5 10-12	G	SS	10-12	8-9-12	8:05	5	X	X X		6589405-10
HR-6 0-2	G	SS	0-2	8-8-12	3:10	5	X	X X		11
HR-6 10-12	G	SS	10-12	8-8-12	3:32	5	X	X X		12
MS-Dup	G	SS	—	8-8-12	—	5	X	X X		13
MSD		SS				5	X	X X		
HR-MW+ Rinsate	G	GW	—	8-9-12	12:00	13	X X X	X	X	14
HR-MW-2		GW				13	X X X	X	X	
HR-MW-3		GW				13	X X X	X	X	
HR-MW-4		GW				13	X X X	X	X	

\*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other \_\_\_\_\_

pH \_\_\_\_\_ Temp \_\_\_\_\_

Remarks: Include detailed case narrative on report.

Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature) <i>Paul E. Davis</i>	Date: 8-9-12	Time: 5:00	Received by: (Signature) <i>Fed Ex</i>	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: <b>C5</b> (lab use only)
Relinquished by: (Signature) <i>Paul E. Davis</i>	Date:	Time:	Received by: (Signature) <i>Fed Ex</i>	Temp: 34 Bottles Received: 77+273	COC Seal Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N NA
Relinquished by: (Signature) <i>Paul E. Davis</i>	Date:	Time:	Received for lab by: (Signature) <i>Paul Weier</i>	Date: 8/10/12 Time: 0900	pH Checked: <b>62</b> NCF: <b>X</b>

Terracon Consulting Inc. 51 Lost Mound Dr. Ste 135 Chattanooga, TN 37406		Billing information:  Stacy Adams PO Box 5010 Chattanooga, TN 37406		Analysis/Container/Preservative		Chain of Custody Page ____ of ____
Report to: Amanda Herrit		Email: amherrit@terracon.com				
Project Description: Hamm Road		City/State Collected Chattanooga, TN				
Phone: (423) 499-6111 FAX:	Client Project #: EL 167081	Lab Project # GALLETCNTN-HAMM ROAD				
Collected by (print): Paul Paris	Site/Facility ID#:	P.O.#: EL 167081				
Collected by (signature): Paul Paris	Rush? (Lab MUST Be Notified) Same Day ..... 200% Next Day ..... 100% Two Day ..... 50% Three Day ..... 25%	Date Results Needed	No. of Cntrs			
Immediately Packed on Ice N Y X	Email? No X Yes FAX? No Yes					
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	
HR-5 10-12	G	SS	4-6	8-9-12	8:00	5 X X
HR-6 0-2	G	SS	0-2	8-9-12	3:10	5 X X
HR-6 10-12	G	SS	10-12	8-9-12	3:32	5 X X
MS-Dup	G	SS	—	8-9-12	—	5 X X
MSD		SS				5 X X
HR-MW-1 Rinsate	G	GW	—	8-9-12	12:00	13 X X
HR-MW-2		GW				13 X X
HR-MW-3		GW				13 X X
HR-MW-4		GW				13 X X

\*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH \_\_\_\_\_ Temp \_\_\_\_\_

Remarks: Include detailed case narrative on report.

Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature) Paul F. Paris	Date: 8-9-12	Time: 5:40	Received by: (Signature) Fed Ex	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: (S) (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 34 Bottles Received: 77 + RTB	COC Seal Intact: Y N NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) Lynn Walker	Date: 8/10/12 Time: 09L	pH Checked: NCF: X

J. Hunt



L . A . B   S . C . I . E . N . C . E . S

### NON-COMFORMANCE FORM

Login No.: 1584405

Date: 8/10/12

Evaluated by: K. Wallace

Client: G. Abbott-Taylor

#### Non-Conformance (check applicable items)

- Parameter(s) past holding time
- Improper temperature
- Improper container type
- Improper preservation
- Container lid not intact
- Login Clarification Needed
- Chain of custody is incomplete
- Chain of Custody is missing (see below)
- Broken container(s) (See below)
- Broken container; sufficient sample volume remains for analysis requested (See below)

If no COC: Received by \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Temp: \_\_\_\_\_ Cont. Rec. \_\_\_\_\_ pH: \_\_\_\_\_  
FedEx = UPS = SWA = Other \_\_\_\_\_  
Tracking #: \_\_\_\_\_

- Insufficient packing material around container
- Insufficient packing material inside cooler
- Improper handling by carrier (FedEx / UPS / Courier)
- Sample was frozen

Comments: Received broken 100 ml tube for sample id Rinsite.

Login Instructions:

Client informed by call / email / fax / voice mail date: 8/16/12 time: 1415

Client contact:

Proceed with analyses

TSR Initials: JH



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Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

## Report Summary

Wednesday August 29, 2012

Report Number: L590320

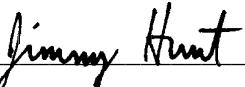
Samples Received: 08/16/12

Client Project: E2107081

Description: Hamm Road

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

  
\_\_\_\_\_  
Jimmy Hunt, ESC Representative

### Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,  
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,  
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,  
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,  
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,  
TX - T104704245-11-3, OK - 9915, PA - 68-02979

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Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-1  
Collected By : Jeff Beasley  
Collection Date : 08/14/12 15:45

ESC Sample # : L590320-01

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.00020	mg/l	7470A	08/17/12	1
Arsenic	BDL	0.020	mg/l	6010B	08/16/12	1
Barium	0.053	0.0050	mg/l	6010B	08/16/12	1
Cadmium	BDL	0.0050	mg/l	6010B	08/16/12	1
Chromium	BDL	0.010	mg/l	6010B	08/16/12	1
Lead	0.0053	0.0050	mg/l	6010B	08/16/12	1
Selenium	BDL	0.020	mg/l	6010B	08/16/12	1
Silver	BDL	0.010	mg/l	6010B	08/16/12	1
TPH (GC/FID) Low Fraction						
GRO (C6-C10)	BDL	0.10	mg/l	8015D	08/23/12	1
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	102.23		% Rec.	8015D	08/23/12	1
Volatile Organics						
Acetone	BDL	0.50	mg/l	8260B	08/17/12	10
Acrolein	BDL	0.50	mg/l	8260B	08/17/12	10
Acrylonitrile	BDL	0.10	mg/l	8260B	08/17/12	10
Benzene	BDL	0.010	mg/l	8260B	08/17/12	10
Bromobenzene	BDL	0.010	mg/l	8260B	08/17/12	10
Bromodichloromethane	BDL	0.010	mg/l	8260B	08/17/12	10
Bromoform	BDL	0.010	mg/l	8260B	08/17/12	10
Bromomethane	BDL	0.050	mg/l	8260B	08/17/12	10
n-Butylbenzene	BDL	0.010	mg/l	8260B	08/17/12	10
sec-Butylbenzene	BDL	0.010	mg/l	8260B	08/17/12	10
tert-Butylbenzene	BDL	0.010	mg/l	8260B	08/17/12	10
Carbon tetrachloride	BDL	0.010	mg/l	8260B	08/17/12	10
Chlorobenzene	BDL	0.010	mg/l	8260B	08/17/12	10
Chlorodibromomethane	BDL	0.010	mg/l	8260B	08/17/12	10
Chloroethane	BDL	0.050	mg/l	8260B	08/17/12	10
2-Chloroethyl vinyl ether	BDL	0.50	mg/l	8260B	08/17/12	10
Chloroform	BDL	0.050	mg/l	8260B	08/17/12	10
Chloromethane	BDL	0.025	mg/l	8260B	08/17/12	10
2-Chlorotoluene	BDL	0.010	mg/l	8260B	08/17/12	10
4-Chlorotoluene	BDL	0.010	mg/l	8260B	08/17/12	10
1,2-Dibromo-3-Chloropropane	BDL	0.050	mg/l	8260B	08/17/12	10
1,2-Dibromoethane	BDL	0.010	mg/l	8260B	08/17/12	10
Dibromomethane	BDL	0.010	mg/l	8260B	08/17/12	10
1,2-Dichlorobenzene	BDL	0.010	mg/l	8260B	08/17/12	10
1,3-Dichlorobenzene	BDL	0.010	mg/l	8260B	08/17/12	10
1,4-Dichlorobenzene	BDL	0.010	mg/l	8260B	08/17/12	10
Dichlorodifluoromethane	BDL	0.050	mg/l	8260B	08/17/12	10
1,1-Dichloroethane	BDL	0.010	mg/l	8260B	08/17/12	10

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L590320-01 (V8260) - Target compounds too high to run at a lower dilution.



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REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-1  
Collected By : Jeff Beasley  
Collection Date : 08/14/12 15:45

ESC Sample # : L590320-01

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2-Dichloroethane	BDL	0.010	mg/l	8260B	08/17/12	10
1,1-Dichloroethene	BDL	0.010	mg/l	8260B	08/17/12	10
cis-1,2-Dichloroethene	BDL	0.010	mg/l	8260B	08/17/12	10
trans-1,2-Dichloroethene	BDL	0.010	mg/l	8260B	08/17/12	10
1,2-Dichloropropane	BDL	0.010	mg/l	8260B	08/17/12	10
1,1-Dichloropropene	BDL	0.010	mg/l	8260B	08/17/12	10
1,3-Dichloropropane	BDL	0.010	mg/l	8260B	08/17/12	10
cis-1,3-Dichloropropene	BDL	0.010	mg/l	8260B	08/17/12	10
trans-1,3-Dichloropropene	BDL	0.010	mg/l	8260B	08/17/12	10
2,2-Dichloropropane	BDL	0.010	mg/l	8260B	08/17/12	10
Di-isopropyl ether	BDL	0.010	mg/l	8260B	08/17/12	10
Ethylbenzene	BDL	0.010	mg/l	8260B	08/17/12	10
Hexachloro-1,3-butadiene	BDL	0.010	mg/l	8260B	08/17/12	10
Isopropylbenzene	BDL	0.010	mg/l	8260B	08/17/12	10
p-Isopropyltoluene	BDL	0.010	mg/l	8260B	08/17/12	10
2-Butanone (MEK)	BDL	0.10	mg/l	8260B	08/17/12	10
Methylene Chloride	BDL	0.050	mg/l	8260B	08/17/12	10
4-Methyl-2-pentanone (MIBK)	BDL	0.10	mg/l	8260B	08/17/12	10
Methyl tert-butyl ether	BDL	0.010	mg/l	8260B	08/17/12	10
Naphthalene	0.59	0.050	mg/l	8260B	08/17/12	10
n-Propylbenzene	BDL	0.010	mg/l	8260B	08/17/12	10
Styrene	BDL	0.010	mg/l	8260B	08/17/12	10
1,1,1,2-Tetrachloroethane	BDL	0.010	mg/l	8260B	08/17/12	10
1,1,2,2-Tetrachloroethane	BDL	0.010	mg/l	8260B	08/17/12	10
1,1,2-Trichlorotrifluoroethane	BDL	0.010	mg/l	8260B	08/17/12	10
Tetrachloroethene	BDL	0.010	mg/l	8260B	08/17/12	10
Toluene	BDL	0.050	mg/l	8260B	08/17/12	10
1,2,3-Trichlorobenzene	BDL	0.010	mg/l	8260B	08/17/12	10
1,2,4-Trichlorobenzene	BDL	0.010	mg/l	8260B	08/17/12	10
1,1,1-Trichloroethane	BDL	0.010	mg/l	8260B	08/17/12	10
1,1,2-Trichloroethane	BDL	0.010	mg/l	8260B	08/17/12	10
Trichloroethene	BDL	0.010	mg/l	8260B	08/17/12	10
Trichlorofluoromethane	BDL	0.050	mg/l	8260B	08/17/12	10
1,2,3-Trichloropropane	BDL	0.025	mg/l	8260B	08/17/12	10
1,2,4-Trimethylbenzene	BDL	0.010	mg/l	8260B	08/17/12	10
1,2,3-Trimethylbenzene	BDL	0.010	mg/l	8260B	08/17/12	10
1,3,5-Trimethylbenzene	BDL	0.010	mg/l	8260B	08/17/12	10
Vinyl chloride	BDL	0.010	mg/l	8260B	08/17/12	10
Xylenes, Total	BDL	0.030	mg/l	8260B	08/17/12	10
Surrogate Recovery						
Toluene-d8	96.6		% Rec.	8260B	08/17/12	10
Dibromofluoromethane	99.0		% Rec.	8260B	08/17/12	10
4-Bromofluorobenzene	100.		% Rec.	8260B	08/17/12	10

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L590320-01 (V8260) - Target compounds too high to run at a lower dilution.



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REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-1  
Collected By : Jeff Beasley  
Collection Date : 08/14/12 15:45

ESC Sample # : L590320-01

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Extractable Petroleum Hydrocarb Surrogate Recovery	3.2	0.10	mg/l	EPH	08/20/12	1
o-Terphenyl	57.2		% Rec.	EPH	08/20/12	1
Pesticide/PCBs						
Aldrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Alpha BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Beta BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Delta BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Gamma BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Chlordane	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDD	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDE	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDT	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Dieldrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan I	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan II	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan sulfate	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin aldehyde	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin ketone	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Heptachlor	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Heptachlor epoxide	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Hexachlorobenzene	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Methoxychlor	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Toxaphene	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1016	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1221	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1232	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1242	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1248	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1254	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1260	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	84.3		% Rec.	8081A/8082	08/20/12	1
Tetrachloro-m-xylene	83.8		% Rec.	8081A/8082	08/20/12	1
Herbicides						
2,4-D	BDL	0.0020	mg/l	8151	08/22/12	1
Dalapon	BDL	0.20	mg/l	8151	08/22/12	1
2,4-DB	0.014	0.010	mg/l	8151	08/23/12	5
Dicamba	BDL	0.0020	mg/l	8151	08/22/12	1
Dichloroprop	BDL	0.0020	mg/l	8151	08/22/12	1
Dinoseb	BDL	0.0020	mg/l	8151	08/22/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L590320-01 (V8260) - Target compounds too high to run at a lower dilution.



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REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012

ESC Sample # : L590320-01

Description : Hamm Road

Site ID :

Sample ID : HR-MW-1

Project # : E2107081

Collected By : Jeff Beasley

Collection Date : 08/14/12 15:45

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPA	BDL	0.10	mg/l	8151	08/22/12	1
MCPP	BDL	0.10	mg/l	8151	08/22/12	1
2,4,5-T	BDL	0.0020	mg/l	8151	08/22/12	1
2,4,5-TP (Silvex)	BDL	0.0020	mg/l	8151	08/22/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	78.1		% Rec.	8151	08/22/12	1
Base/Neutral Extractables						
Acenaphthene	0.019	0.0010	mg/l	8270 C	08/18/12	1
Acenaphthylene	0.00011	0.0010	mg/l	8270 C	08/18/12	1
Anthracene	0.014	0.0010	mg/l	8270 C	08/18/12	1
Benzidine	BDL	0.010	mg/l	8270 C	08/18/12	1
Benzo(a)anthracene	0.0097	0.0010	mg/l	8270 C	08/18/12	1
Benzo(b)fluoranthene	0.0083	0.0010	mg/l	8270 C	08/18/12	1
Benzo(k)fluoranthene	0.0025	0.0010	mg/l	8270 C	08/18/12	1
Benzo(g,h,i)perylene	0.0026	0.0010	mg/l	8270 C	08/18/12	1
Benzo(a)pyrene	0.0055	0.0010	mg/l	8270 C	08/18/12	1
Bis(2-chlorethoxy)methane	BDL	0.010	mg/l	8270 C	08/18/12	1
Bis(2-chloroethyl)ether	BDL	0.010	mg/l	8270 C	08/18/12	1
Bis(2-chloroisopropyl)ether	BDL	0.010	mg/l	8270 C	08/18/12	1
4-Bromophenyl-phenylether	BDL	0.010	mg/l	8270 C	08/18/12	1
2-Chloronaphthalene	BDL	0.0010	mg/l	8270 C	08/18/12	1
4-Chlorophenyl-phenylether	BDL	0.010	mg/l	8270 C	08/18/12	1
Chrysene	0.0087	0.0010	mg/l	8270 C	08/18/12	1
Dibenz(a,h)anthracene	BDL	0.0010	mg/l	8270 C	08/18/12	1
3,3-Dichlorobenzidine	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dinitrotoluene	BDL	0.010	mg/l	8270 C	08/18/12	1
2,6-Dinitrotoluene	BDL	0.010	mg/l	8270 C	08/18/12	1
Fluoranthene	0.048	0.0010	mg/l	8270 C	08/18/12	1
Fluorene	0.051	0.0010	mg/l	8270 C	08/18/12	1
Hexachlorobenzene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Hexachloro-1,3-butadiene	BDL	0.010	mg/l	8270 C	08/18/12	1
Hexachlorocyclopentadiene	BDL	0.010	mg/l	8270 C	08/18/12	1
Hexachloroethane	BDL	0.010	mg/l	8270 C	08/18/12	1
Indeno(1,2,3-cd)pyrene	0.0023	0.0010	mg/l	8270 C	08/18/12	1
Isophorone	BDL	0.010	mg/l	8270 C	08/18/12	1
Naphthalene	0.0018	0.0010	mg/l	8270 C	08/18/12	1
Nitrobenzene	BDL	0.010	mg/l	8270 C	08/18/12	1
n-Nitrosodimethylamine	BDL	0.010	mg/l	8270 C	08/18/12	1
n-Nitrosodiphenylamine	BDL	0.010	mg/l	8270 C	08/18/12	1
n-Nitrosodi-n-propylamine	BDL	0.010	mg/l	8270 C	08/18/12	1
Phenanthrene	0.074	0.0010	mg/l	8270 C	08/18/12	1
Benzylbutyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Bis(2-ethylhexyl)phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L590320-01 (V8260) - Target compounds too high to run at a lower dilution.



12065 Lebanon Rd.  
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-1  
Collected By : Jeff Beasley  
Collection Date : 08/14/12 15:45

ESC Sample # : L590320-01

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Di-n-butyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Diethyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Dimethyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Di-n-octyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Pyrene	0.032	0.0010	mg/l	8270 C	08/18/12	1
1,2,4-Trichlorobenzene	BDL	0.010	mg/l	8270 C	08/18/12	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2-Chlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dichlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dimethylphenol	0.020	0.010	mg/l	8270 C	08/18/12	1
4,6-Dinitro-2-methylphenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dinitrophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2-Nitrophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
4-Nitrophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
Pentachlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
Phenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4,6-Trichlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
Surrogate Recovery						
2-Fluorophenol	32.8	% Rec.	8270 C	08/18/12	1	
Phenol-d5	21.7	% Rec.	8270 C	08/18/12	1	
Nitrobenzene-d5	73.6	% Rec.	8270 C	08/18/12	1	
2-Fluorobiphenyl	74.4	% Rec.	8270 C	08/18/12	1	
2,4,6-Tribromophenol	76.7	% Rec.	8270 C	08/18/12	1	
p-Terphenyl-d14	78.6	% Rec.	8270 C	08/18/12	1	

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 08/28/12 17:36 Revised: 08/29/12 09:12

L590320-01 (V8260) - Target compounds too high to run at a lower dilution.



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Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-2  
Collected By : Jeff Beasley  
Collection Date : 08/14/12 15:00

ESC Sample # : L590320-02

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.00020	mg/l	7470A	08/17/12	1
Arsenic	BDL	0.020	mg/l	6010B	08/17/12	1
Barium	0.030	0.0050	mg/l	6010B	08/17/12	1
Cadmium	BDL	0.0050	mg/l	6010B	08/17/12	1
Chromium	BDL	0.010	mg/l	6010B	08/17/12	1
Lead	BDL	0.0050	mg/l	6010B	08/17/12	1
Selenium	BDL	0.020	mg/l	6010B	08/17/12	1
Silver	BDL	0.010	mg/l	6010B	08/19/12	1
TPH (GC/FID) Low Fraction GRO (C6-C10)	BDL	0.10	mg/l	8015D	08/23/12	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	104.26		% Rec.	8015D	08/23/12	1
Volatile Organics						
Acetone	BDL	0.050	mg/l	8260B	08/17/12	1
Acrolein	BDL	0.050	mg/l	8260B	08/17/12	1
Acrylonitrile	BDL	0.010	mg/l	8260B	08/17/12	1
Benzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromodichloromethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromoform	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromomethane	BDL	0.0050	mg/l	8260B	08/17/12	1
n-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
sec-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
tert-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260B	08/17/12	1
Chlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Chloroethane	BDL	0.0050	mg/l	8260B	08/17/12	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/l	8260B	08/17/12	1
Chloroform	BDL	0.0050	mg/l	8260B	08/17/12	1
Chloromethane	BDL	0.0025	mg/l	8260B	08/17/12	1
2-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
4-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dibromo-3-Chloropropane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2-Dibromoethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Dibromomethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Dichlorodifluoromethane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-2  
Collected By : Jeff Beasley  
Collection Date : 08/14/12 15:00

ESC Sample # : L590320-02

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2-Dichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
2,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
Di-isopropyl ether	BDL	0.0010	mg/l	8260B	08/17/12	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Hexachloro-1,3-butadiene	BDL	0.0010	mg/l	8260B	08/17/12	1
Isopropylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
p-Isopropyltoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
2-Butanone (MEK)	BDL	0.010	mg/l	8260B	08/17/12	1
Methylene Chloride	BDL	0.0050	mg/l	8260B	08/17/12	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/l	8260B	08/17/12	1
Methyl tert-butyl ether	BDL	0.0010	mg/l	8260B	08/17/12	1
Naphthalene	BDL	0.0050	mg/l	8260B	08/17/12	1
n-Propylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Styrene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2-Trichlorotrifluoroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Tetrachloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
Toluene	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,1-Trichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2-Trichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Trichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
Trichlorofluoromethane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2,3-Trichloropropane	BDL	0.0025	mg/l	8260B	08/17/12	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Vinyl chloride	BDL	0.0010	mg/l	8260B	08/17/12	1
Xylenes, Total	BDL	0.0030	mg/l	8260B	08/17/12	1
Surrogate Recovery						
Toluene-d8	95.4		% Rec.	8260B	08/17/12	1
Dibromofluoromethane	102.		% Rec.	8260B	08/17/12	1
4-Bromofluorobenzene	95.0		% Rec.	8260B	08/17/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-2  
Collected By : Jeff Beasley  
Collection Date : 08/14/12 15:00

ESC Sample # : L590320-02

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Extractable Petroleum Hydrocarb Surrogate Recovery	BDL	0.10	mg/l	EPH	08/20/12	1
o-Terphenyl	75.4		% Rec.	EPH	08/20/12	1
Pesticide/PCBs						
Aldrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Alpha BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Beta BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Delta BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Gamma BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Chlordane	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDD	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDE	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDT	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Dieldrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan I	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan II	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan sulfate	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin aldehyde	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin ketone	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Heptachlor	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Heptachlor epoxide	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Hexachlorobenzene	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Methoxychlor	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Toxaphene	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1016	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1221	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1232	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1242	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1248	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1254	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1260	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	82.6		% Rec.	8081A/8082	08/20/12	1
Tetrachloro-m-xylene	67.7		% Rec.	8081A/8082	08/20/12	1
Herbicides						
2,4-D	BDL	0.0020	mg/l	8151	08/22/12	1
Dalapon	BDL	0.20	mg/l	8151	08/22/12	1
2,4-DB	BDL	0.0020	mg/l	8151	08/22/12	1
Dicamba	BDL	0.0020	mg/l	8151	08/22/12	1
Dichloroprop	BDL	0.0020	mg/l	8151	08/22/12	1
Dinoseb	BDL	0.0020	mg/l	8151	08/22/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-2  
Collected By : Jeff Beasley  
Collection Date : 08/14/12 15:00

ESC Sample # : L590320-02

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPA	BDL	0.10	mg/l	8151	08/22/12	1
MCPP	BDL	0.10	mg/l	8151	08/22/12	1
2,4,5-T	BDL	0.0020	mg/l	8151	08/22/12	1
2,4,5-TP (Silvex)	BDL	0.0020	mg/l	8151	08/22/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	74.3		% Rec.	8151	08/22/12	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Acenaphthylene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Anthracene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzidine	BDL	0.010	mg/l	8270 C	08/18/12	1
Benzo(a)anthracene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(b)fluoranthene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(k)fluoranthene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(g,h,i)perylene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(a)pyrene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Bis(2-chlorethoxy)methane	BDL	0.010	mg/l	8270 C	08/18/12	1
Bis(2-chloroethyl)ether	BDL	0.010	mg/l	8270 C	08/18/12	1
Bis(2-chloroisopropyl)ether	BDL	0.010	mg/l	8270 C	08/18/12	1
4-Bromophenyl-phenylether	BDL	0.010	mg/l	8270 C	08/18/12	1
2-Chloronaphthalene	BDL	0.0010	mg/l	8270 C	08/18/12	1
4-Chlorophenyl-phenylether	BDL	0.010	mg/l	8270 C	08/18/12	1
Chrysene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Dibenz(a,h)anthracene	BDL	0.0010	mg/l	8270 C	08/18/12	1
3,3-Dichlorobenzidine	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dinitrotoluene	BDL	0.010	mg/l	8270 C	08/18/12	1
2,6-Dinitrotoluene	BDL	0.010	mg/l	8270 C	08/18/12	1
Fluoranthene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Fluorene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Hexachlorobenzene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Hexachloro-1,3-butadiene	BDL	0.010	mg/l	8270 C	08/18/12	1
Hexachlorocyclopentadiene	BDL	0.010	mg/l	8270 C	08/18/12	1
Hexachloroethane	BDL	0.010	mg/l	8270 C	08/18/12	1
Indeno(1,2,3-cd)pyrene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Isophorone	BDL	0.010	mg/l	8270 C	08/18/12	1
Naphthalene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Nitrobenzene	BDL	0.010	mg/l	8270 C	08/18/12	1
n-Nitrosodimethylamine	BDL	0.010	mg/l	8270 C	08/18/12	1
n-Nitrosodiphenylamine	BDL	0.010	mg/l	8270 C	08/18/12	1
n-Nitrosodi-n-propylamine	BDL	0.010	mg/l	8270 C	08/18/12	1
Phenanthrene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzylbutyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Bis(2-ethylhexyl)phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-2  
Collected By : Jeff Beasley  
Collection Date : 08/14/12 15:00

ESC Sample # : L590320-02

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Di-n-butyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Diethyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Dimethyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Di-n-octyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Pyrene	BDL	0.0010	mg/l	8270 C	08/18/12	1
1,2,4-Trichlorobenzene	BDL	0.010	mg/l	8270 C	08/18/12	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2-Chlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dichlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dimethylphenol	BDL	0.010	mg/l	8270 C	08/18/12	1
4,6-Dinitro-2-methylphenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dinitrophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2-Nitrophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
4-Nitrophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
Pentachlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
Phenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4,6-Trichlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
Surrogate Recovery						
2-Fluorophenol	31.6		% Rec.	8270 C	08/18/12	1
Phenol-d5	16.8		% Rec.	8270 C	08/18/12	1
Nitrobenzene-d5	80.6		% Rec.	8270 C	08/18/12	1
2-Fluorobiphenyl	87.0		% Rec.	8270 C	08/18/12	1
2,4,6-Tribromophenol	82.0		% Rec.	8270 C	08/18/12	1
p-Terphenyl-d14	83.8		% Rec.	8270 C	08/18/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/28/12 17:36 Revised: 08/29/12 09:12



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Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-3  
Collected By : Jeff Beasley  
Collection Date : 08/14/12 13:45

ESC Sample # : L590320-03

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.00020	mg/l	7470A	08/17/12	1
Arsenic	BDL	0.020	mg/l	6010B	08/17/12	1
Barium	0.077	0.0050	mg/l	6010B	08/17/12	1
Cadmium	BDL	0.0050	mg/l	6010B	08/17/12	1
Chromium	BDL	0.010	mg/l	6010B	08/17/12	1
Lead	BDL	0.0050	mg/l	6010B	08/17/12	1
Selenium	BDL	0.020	mg/l	6010B	08/17/12	1
Silver	BDL	0.010	mg/l	6010B	08/19/12	1
TPH (GC/FID) Low Fraction						
GRO (C6-C10)	BDL	0.10	mg/l	8015D	08/23/12	1
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	102.63		% Rec.	8015D	08/23/12	1
Volatile Organics						
Acetone	BDL	0.050	mg/l	8260B	08/17/12	1
Acrolein	BDL	0.050	mg/l	8260B	08/17/12	1
Acrylonitrile	BDL	0.010	mg/l	8260B	08/17/12	1
Benzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromodichloromethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromoform	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromomethane	BDL	0.0050	mg/l	8260B	08/17/12	1
n-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
sec-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
tert-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260B	08/17/12	1
Chlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Chloroethane	BDL	0.0050	mg/l	8260B	08/17/12	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/l	8260B	08/17/12	1
Chloroform	BDL	0.0050	mg/l	8260B	08/17/12	1
Chloromethane	BDL	0.0025	mg/l	8260B	08/17/12	1
2-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
4-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dibromo-3-Chloropropane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2-Dibromoethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Dibromomethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Dichlorodifluoromethane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-3  
Collected By : Jeff Beasley  
Collection Date : 08/14/12 13:45

ESC Sample # : L590320-03

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2-Dichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
2,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
Di-isopropyl ether	BDL	0.0010	mg/l	8260B	08/17/12	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Hexachloro-1,3-butadiene	BDL	0.0010	mg/l	8260B	08/17/12	1
Isopropylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
p-Isopropyltoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
2-Butanone (MEK)	BDL	0.010	mg/l	8260B	08/17/12	1
Methylene Chloride	BDL	0.0050	mg/l	8260B	08/17/12	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/l	8260B	08/17/12	1
Methyl tert-butyl ether	BDL	0.0010	mg/l	8260B	08/17/12	1
Naphthalene	BDL	0.0050	mg/l	8260B	08/17/12	1
n-Propylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Styrene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2-Trichlorotrifluoroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Tetrachloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
Toluene	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,1-Trichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2-Trichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Trichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
Trichlorofluoromethane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2,3-Trichloropropane	BDL	0.0025	mg/l	8260B	08/17/12	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Vinyl chloride	BDL	0.0010	mg/l	8260B	08/17/12	1
Xylenes, Total	BDL	0.0030	mg/l	8260B	08/17/12	1
Surrogate Recovery						
Toluene-d8	97.0		% Rec.	8260B	08/17/12	1
Dibromofluoromethane	97.3		% Rec.	8260B	08/17/12	1
4-Bromofluorobenzene	97.8		% Rec.	8260B	08/17/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-3  
Collected By : Jeff Beasley  
Collection Date : 08/14/12 13:45

ESC Sample # : L590320-03

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Extractable Petroleum Hydrocarb Surrogate Recovery	BDL	0.10	mg/l	EPH	08/20/12	1
o-Terphenyl	76.0		% Rec.	EPH	08/20/12	1
Pesticide/PCBs						
Aldrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Alpha BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Beta BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Delta BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Gamma BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Chlordane	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDD	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDE	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDT	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Dieldrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan I	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan II	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan sulfate	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin aldehyde	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin ketone	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Heptachlor	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Heptachlor epoxide	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Hexachlorobenzene	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Methoxychlor	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Toxaphene	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1016	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1221	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1232	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1242	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1248	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1254	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1260	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	76.5		% Rec.	8081A/8082	08/20/12	1
Tetrachloro-m-xylene	55.8		% Rec.	8081A/8082	08/20/12	1
Herbicides						
2,4-D	BDL	0.0020	mg/l	8151	08/22/12	1
Dalapon	BDL	0.20	mg/l	8151	08/22/12	1
2,4-DB	BDL	0.0020	mg/l	8151	08/22/12	1
Dicamba	BDL	0.0020	mg/l	8151	08/22/12	1
Dichloroprop	BDL	0.0020	mg/l	8151	08/22/12	1
Dinoseb	BDL	0.0020	mg/l	8151	08/22/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road

ESC Sample # : L590320-03

Sample ID : HR-MW-3

Site ID :

Collected By : Jeff Beasley  
Collection Date : 08/14/12 13:45

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPA	BDL	0.10	mg/l	8151	08/22/12	1
MCPP	BDL	0.10	mg/l	8151	08/22/12	1
2,4,5-T	BDL	0.0020	mg/l	8151	08/22/12	1
2,4,5-TP (Silvex)	BDL	0.0020	mg/l	8151	08/22/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	72.9		% Rec.	8151	08/22/12	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Acenaphthylene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Anthracene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzidine	BDL	0.010	mg/l	8270 C	08/18/12	1
Benzo(a)anthracene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(b)fluoranthene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(k)fluoranthene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(g,h,i)perylene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(a)pyrene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Bis(2-chlorethoxy)methane	BDL	0.010	mg/l	8270 C	08/18/12	1
Bis(2-chloroethyl)ether	BDL	0.010	mg/l	8270 C	08/18/12	1
Bis(2-chloroisopropyl)ether	BDL	0.010	mg/l	8270 C	08/18/12	1
4-Bromophenyl-phenylether	BDL	0.010	mg/l	8270 C	08/18/12	1
2-Chloronaphthalene	BDL	0.0010	mg/l	8270 C	08/18/12	1
4-Chlorophenyl-phenylether	BDL	0.010	mg/l	8270 C	08/18/12	1
Chrysene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Dibenz(a,h)anthracene	BDL	0.0010	mg/l	8270 C	08/18/12	1
3,3-Dichlorobenzidine	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dinitrotoluene	BDL	0.010	mg/l	8270 C	08/18/12	1
2,6-Dinitrotoluene	BDL	0.010	mg/l	8270 C	08/18/12	1
Fluoranthene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Fluorene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Hexachlorobenzene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Hexachloro-1,3-butadiene	BDL	0.010	mg/l	8270 C	08/18/12	1
Hexachlorocyclopentadiene	BDL	0.010	mg/l	8270 C	08/18/12	1
Hexachloroethane	BDL	0.010	mg/l	8270 C	08/18/12	1
Indeno(1,2,3-cd)pyrene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Isophorone	BDL	0.010	mg/l	8270 C	08/18/12	1
Naphthalene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Nitrobenzene	BDL	0.010	mg/l	8270 C	08/18/12	1
n-Nitrosodimethylamine	BDL	0.010	mg/l	8270 C	08/18/12	1
n-Nitrosodiphenylamine	BDL	0.010	mg/l	8270 C	08/18/12	1
n-Nitrosodi-n-propylamine	BDL	0.010	mg/l	8270 C	08/18/12	1
Phenanthrene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzylbutyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Bis(2-ethylhexyl)phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-3  
Collected By : Jeff Beasley  
Collection Date : 08/14/12 13:45

ESC Sample # : L590320-03

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Di-n-butyl phthalate	0.0048	0.0030	mg/l	8270 C	08/18/12	1
Diethyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Dimethyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Di-n-octyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Pyrene	BDL	0.0010	mg/l	8270 C	08/18/12	1
1,2,4-Trichlorobenzene	BDL	0.010	mg/l	8270 C	08/18/12	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2-Chlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dichlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dimethylphenol	BDL	0.010	mg/l	8270 C	08/18/12	1
4,6-Dinitro-2-methylphenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dinitrophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2-Nitrophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
4-Nitrophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
Pentachlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
Phenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4,6-Trichlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
Surrogate Recovery						
2-Fluorophenol	31.3	% Rec.	8270 C	08/18/12	1	
Phenol-d5	16.8	% Rec.	8270 C	08/18/12	1	
Nitrobenzene-d5	83.6	% Rec.	8270 C	08/18/12	1	
2-Fluorobiphenyl	86.2	% Rec.	8270 C	08/18/12	1	
2,4,6-Tribromophenol	90.0	% Rec.	8270 C	08/18/12	1	
p-Terphenyl-d14	83.9	% Rec.	8270 C	08/18/12	1	

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/28/12 17:36 Revised: 08/29/12 09:12



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Mt. Juliet, TN 37122  
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-4  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 10:30

ESC Sample # : L590320-04

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.00020	mg/l	7470A	08/17/12	1
Arsenic	BDL	0.020	mg/l	6010B	08/17/12	1
Barium	0.098	0.0050	mg/l	6010B	08/17/12	1
Cadmium	BDL	0.0050	mg/l	6010B	08/17/12	1
Chromium	BDL	0.010	mg/l	6010B	08/17/12	1
Lead	0.0051	0.0050	mg/l	6010B	08/17/12	1
Selenium	BDL	0.020	mg/l	6010B	08/17/12	1
Silver	BDL	0.010	mg/l	6010B	08/19/12	1
TPH (GC/FID) Low Fraction GRO (C6-C10)	BDL	0.10	mg/l	8015D	08/23/12	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	102.91		% Rec.	8015D	08/23/12	1
Volatile Organics						
Acetone	BDL	0.050	mg/l	8260B	08/17/12	1
Acrolein	BDL	0.050	mg/l	8260B	08/17/12	1
Acrylonitrile	BDL	0.010	mg/l	8260B	08/17/12	1
Benzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromodichloromethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromoform	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromomethane	BDL	0.0050	mg/l	8260B	08/17/12	1
n-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
sec-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
tert-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260B	08/17/12	1
Chlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Chloroethane	BDL	0.0050	mg/l	8260B	08/17/12	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/l	8260B	08/17/12	1
Chloroform	BDL	0.0050	mg/l	8260B	08/17/12	1
Chloromethane	BDL	0.0025	mg/l	8260B	08/17/12	1
2-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
4-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dibromo-3-Chloropropane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2-Dibromoethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Dibromomethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Dichlorodifluoromethane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



12065 Lebanon Rd.  
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-4  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 10:30

ESC Sample # : L590320-04

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2-Dichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
2,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
Di-isopropyl ether	BDL	0.0010	mg/l	8260B	08/17/12	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Hexachloro-1,3-butadiene	BDL	0.0010	mg/l	8260B	08/17/12	1
Isopropylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
p-Isopropyltoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
2-Butanone (MEK)	BDL	0.010	mg/l	8260B	08/17/12	1
Methylene Chloride	BDL	0.0050	mg/l	8260B	08/17/12	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/l	8260B	08/17/12	1
Methyl tert-butyl ether	BDL	0.0010	mg/l	8260B	08/17/12	1
Naphthalene	BDL	0.0050	mg/l	8260B	08/17/12	1
n-Propylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Styrene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2-Trichlorotrifluoroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Tetrachloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
Toluene	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,1-Trichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2-Trichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Trichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
Trichlorofluoromethane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2,3-Trichloropropane	BDL	0.0025	mg/l	8260B	08/17/12	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Vinyl chloride	BDL	0.0010	mg/l	8260B	08/17/12	1
Xylenes, Total	BDL	0.0030	mg/l	8260B	08/17/12	1
Surrogate Recovery						
Toluene-d8	98.2		% Rec.	8260B	08/17/12	1
Dibromofluoromethane	103.		% Rec.	8260B	08/17/12	1
4-Bromofluorobenzene	96.5		% Rec.	8260B	08/17/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-4  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 10:30

ESC Sample # : L590320-04

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Extractable Petroleum Hydrocarb Surrogate Recovery	BDL	0.10	mg/l	EPH	08/20/12	1
o-Terphenyl	74.6		% Rec.	EPH	08/20/12	1
Pesticide/PCBs						
Aldrin	BDL	0.000050	mg/l	8081/8082	08/27/12	1
Alpha BHC	BDL	0.000050	mg/l	8081/8082	08/27/12	1
Beta BHC	BDL	0.000050	mg/l	8081/8082	08/27/12	1
Delta BHC	BDL	0.000050	mg/l	8081/8082	08/27/12	1
Gamma BHC	BDL	0.000050	mg/l	8081/8082	08/27/12	1
Chlordane	BDL	0.000050	mg/l	8081/8082	08/27/12	1
4,4-DDD	BDL	0.000050	mg/l	8081/8082	08/27/12	1
4,4-DDE	BDL	0.000050	mg/l	8081/8082	08/27/12	1
4,4-DDT	BDL	0.000050	mg/l	8081/8082	08/27/12	1
Dieldrin	BDL	0.000050	mg/l	8081/8082	08/27/12	1
Endosulfan I	BDL	0.000050	mg/l	8081/8082	08/27/12	1
Endosulfan II	BDL	0.000050	mg/l	8081/8082	08/27/12	1
Endosulfan sulfate	BDL	0.000050	mg/l	8081/8082	08/27/12	1
Endrin	BDL	0.000050	mg/l	8081/8082	08/27/12	1
Endrin aldehyde	BDL	0.000050	mg/l	8081/8082	08/27/12	1
Endrin ketone	BDL	0.000050	mg/l	8081/8082	08/27/12	1
Heptachlor	BDL	0.000050	mg/l	8081/8082	08/27/12	1
Heptachlor epoxide	BDL	0.000050	mg/l	8081/8082	08/27/12	1
Hexachlorobenzene	BDL	0.000050	mg/l	8081/8082	08/27/12	1
Methoxychlor	BDL	0.000050	mg/l	8081/8082	08/27/12	1
Toxaphene	BDL	0.000050	mg/l	8081/8082	08/27/12	1
PCB 1016	BDL	0.000050	mg/l	8081/8082	08/24/12	1
PCB 1221	BDL	0.000050	mg/l	8081/8082	08/24/12	1
PCB 1232	BDL	0.000050	mg/l	8081/8082	08/24/12	1
PCB 1242	BDL	0.000050	mg/l	8081/8082	08/24/12	1
PCB 1248	BDL	0.000050	mg/l	8081/8082	08/24/12	1
PCB 1254	BDL	0.000050	mg/l	8081/8082	08/24/12	1
PCB 1260	BDL	0.000050	mg/l	8081/8082	08/24/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	49.9		% Rec.	8081/8082	08/24/12	1
Tetrachloro-m-xylene	77.6		% Rec.	8081/8082	08/24/12	1
Herbicides						
2,4-D	BDL	0.0020	mg/l	8151	08/22/12	1
Dalapon	BDL	0.20	mg/l	8151	08/22/12	1
2,4-DB	BDL	0.0020	mg/l	8151	08/22/12	1
Dicamba	BDL	0.0020	mg/l	8151	08/22/12	1
Dichloroprop	BDL	0.0020	mg/l	8151	08/22/12	1
Dinoseb	BDL	0.0020	mg/l	8151	08/22/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-4  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 10:30

ESC Sample # : L590320-04

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPA	BDL	0.10	mg/l	8151	08/22/12	1
MCPP	BDL	0.10	mg/l	8151	08/22/12	1
2,4,5-T	BDL	0.0020	mg/l	8151	08/22/12	1
2,4,5-TP (Silvex)	BDL	0.0020	mg/l	8151	08/22/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	76.4		% Rec.	8151	08/22/12	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.0010	mg/l	8270C	08/24/12	1
Acenaphthylene	BDL	0.0010	mg/l	8270C	08/24/12	1
Anthracene	BDL	0.0010	mg/l	8270C	08/24/12	1
Benzidine	BDL	0.010	mg/l	8270C	08/24/12	1
Benzo(a)anthracene	BDL	0.0010	mg/l	8270C	08/24/12	1
Benzo(b)fluoranthene	BDL	0.0010	mg/l	8270C	08/24/12	1
Benzo(k)fluoranthene	BDL	0.0010	mg/l	8270C	08/24/12	1
Benzo(g,h,i)perylene	BDL	0.0010	mg/l	8270C	08/24/12	1
Benzo(a)pyrene	BDL	0.0010	mg/l	8270C	08/24/12	1
Bis(2-chlorethoxy)methane	BDL	0.010	mg/l	8270C	08/24/12	1
Bis(2-chloroethyl)ether	BDL	0.010	mg/l	8270C	08/24/12	1
Bis(2-chloroisopropyl)ether	BDL	0.010	mg/l	8270C	08/24/12	1
4-Bromophenyl-phenylether	BDL	0.010	mg/l	8270C	08/24/12	1
2-Chloronaphthalene	BDL	0.0010	mg/l	8270C	08/24/12	1
4-Chlorophenyl-phenylether	BDL	0.010	mg/l	8270C	08/24/12	1
Chrysene	BDL	0.0010	mg/l	8270C	08/24/12	1
Dibenz(a,h)anthracene	BDL	0.0010	mg/l	8270C	08/24/12	1
3,3-Dichlorobenzidine	BDL	0.010	mg/l	8270C	08/24/12	1
2,4-Dinitrotoluene	BDL	0.010	mg/l	8270C	08/24/12	1
2,6-Dinitrotoluene	BDL	0.010	mg/l	8270C	08/24/12	1
Fluoranthene	BDL	0.0010	mg/l	8270C	08/24/12	1
Fluorene	BDL	0.0010	mg/l	8270C	08/24/12	1
Hexachlorobenzene	BDL	0.0010	mg/l	8270C	08/24/12	1
Hexachloro-1,3-butadiene	BDL	0.010	mg/l	8270C	08/24/12	1
Hexachlorocyclopentadiene	BDL	0.010	mg/l	8270C	08/24/12	1
Hexachloroethane	BDL	0.010	mg/l	8270C	08/24/12	1
Indeno(1,2,3-cd)pyrene	BDL	0.0010	mg/l	8270C	08/24/12	1
Isophorone	BDL	0.010	mg/l	8270C	08/24/12	1
Naphthalene	BDL	0.0010	mg/l	8270C	08/24/12	1
Nitrobenzene	BDL	0.010	mg/l	8270C	08/24/12	1
n-Nitrosodimethylamine	BDL	0.010	mg/l	8270C	08/24/12	1
n-Nitrosodiphenylamine	BDL	0.010	mg/l	8270C	08/24/12	1
n-Nitrosodi-n-propylamine	BDL	0.010	mg/l	8270C	08/24/12	1
Phenanthrene	BDL	0.0010	mg/l	8270C	08/24/12	1
Benzylbutyl phthalate	BDL	0.0010	mg/l	8270C	08/24/12	1
Bis(2-ethylhexyl)phthalate	BDL	0.0010	mg/l	8270C	08/24/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road

ESC Sample # : L590320-04

Sample ID : HR-MW-4  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 10:30

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Di-n-butyl phthalate	BDL	0.0010	mg/l	8270C	08/24/12	1
Diethyl phthalate	BDL	0.0010	mg/l	8270C	08/24/12	1
Dimethyl phthalate	BDL	0.0010	mg/l	8270C	08/24/12	1
Di-n-octyl phthalate	BDL	0.0010	mg/l	8270C	08/24/12	1
Pyrene	BDL	0.0010	mg/l	8270C	08/24/12	1
1,2,4-Trichlorobenzene	BDL	0.010	mg/l	8270C	08/24/12	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.010	mg/l	8270C	08/24/12	1
2-Chlorophenol	BDL	0.010	mg/l	8270C	08/24/12	1
2,4-Dichlorophenol	BDL	0.010	mg/l	8270C	08/24/12	1
2,4-Dimethylphenol	BDL	0.010	mg/l	8270C	08/24/12	1
4,6-Dinitro-2-methylphenol	BDL	0.010	mg/l	8270C	08/24/12	1
2,4-Dinitrophenol	BDL	0.010	mg/l	8270C	08/24/12	1
2-Nitrophenol	BDL	0.010	mg/l	8270C	08/24/12	1
4-Nitrophenol	BDL	0.010	mg/l	8270C	08/24/12	1
Pentachlorophenol	BDL	0.010	mg/l	8270C	08/24/12	1
Phenol	BDL	0.010	mg/l	8270C	08/24/12	1
2,4,6-Trichlorophenol	BDL	0.010	mg/l	8270C	08/24/12	1
Surrogate Recovery						
2-Fluorophenol	33.7	% Rec.	8270C	08/24/12	1	
Phenol-d5	20.3	% Rec.	8270C	08/24/12	1	
Nitrobenzene-d5	80.0	% Rec.	8270C	08/24/12	1	
2-Fluorobiphenyl	94.4	% Rec.	8270C	08/24/12	1	
2,4,6-Tribromophenol	95.2	% Rec.	8270C	08/24/12	1	
p-Terphenyl-d14	83.0	% Rec.	8270C	08/24/12	1	

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/28/12 17:36 Revised: 08/29/12 09:12



YOUR LAB OF CHOICE

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Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-5  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 09:45

ESC Sample # : L590320-05

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.00020	mg/l	7470A	08/17/12	1
Arsenic	BDL	0.020	mg/l	6010B	08/17/12	1
Barium	0.11	0.0050	mg/l	6010B	08/17/12	1
Cadmium	BDL	0.0050	mg/l	6010B	08/17/12	1
Chromium	0.024	0.010	mg/l	6010B	08/17/12	1
Lead	0.056	0.0050	mg/l	6010B	08/17/12	1
Selenium	BDL	0.020	mg/l	6010B	08/17/12	1
Silver	BDL	0.010	mg/l	6010B	08/19/12	1
TPH (GC/FID) Low Fraction GRO (C6-C10)	BDL	0.10	mg/l	8015D	08/23/12	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	103.6		% Rec.	8015D	08/23/12	1
Volatile Organics						
Acetone	BDL	0.050	mg/l	8260B	08/17/12	1
Acrolein	BDL	0.050	mg/l	8260B	08/17/12	1
Acrylonitrile	BDL	0.010	mg/l	8260B	08/17/12	1
Benzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromodichloromethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromoform	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromomethane	BDL	0.0050	mg/l	8260B	08/17/12	1
n-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
sec-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
tert-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260B	08/17/12	1
Chlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Chloroethane	BDL	0.0050	mg/l	8260B	08/17/12	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/l	8260B	08/17/12	1
Chloroform	BDL	0.0050	mg/l	8260B	08/17/12	1
Chloromethane	BDL	0.0025	mg/l	8260B	08/17/12	1
2-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
4-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dibromo-3-Chloropropane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2-Dibromoethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Dibromomethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Dichlorodifluoromethane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-5  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 09:45

ESC Sample # : L590320-05

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2-Dichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
2,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
Di-isopropyl ether	BDL	0.0010	mg/l	8260B	08/17/12	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Hexachloro-1,3-butadiene	BDL	0.0010	mg/l	8260B	08/17/12	1
Isopropylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
p-Isopropyltoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
2-Butanone (MEK)	BDL	0.010	mg/l	8260B	08/17/12	1
Methylene Chloride	BDL	0.0050	mg/l	8260B	08/17/12	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/l	8260B	08/17/12	1
Methyl tert-butyl ether	BDL	0.0010	mg/l	8260B	08/17/12	1
Naphthalene	0.0066	0.0050	mg/l	8260B	08/17/12	1
n-Propylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Styrene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2-Trichlorotrifluoroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Tetrachloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
Toluene	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,1-Trichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2-Trichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Trichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
Trichlorofluoromethane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2,3-Trichloropropane	BDL	0.0025	mg/l	8260B	08/17/12	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Vinyl chloride	BDL	0.0010	mg/l	8260B	08/17/12	1
Xylenes, Total	BDL	0.0030	mg/l	8260B	08/17/12	1
Surrogate Recovery						
Toluene-d8	96.7		% Rec.	8260B	08/17/12	1
Dibromofluoromethane	102.		% Rec.	8260B	08/17/12	1
4-Bromofluorobenzene	94.5		% Rec.	8260B	08/17/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



12065 Lebanon Rd.  
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-5  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 09:45

ESC Sample # : L590320-05

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Extractable Petroleum Hydrocarb Surrogate Recovery	BDL	0.10	mg/l	EPH	08/20/12	1
o-Terphenyl	69.3		% Rec.	EPH	08/20/12	1
Pesticide/PCBs						
Aldrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Alpha BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Beta BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Delta BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Gamma BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Chlordane	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDD	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDE	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDT	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Dieldrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan I	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan II	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan sulfate	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin aldehyde	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin ketone	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Heptachlor	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Heptachlor epoxide	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Hexachlorobenzene	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Methoxychlor	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Toxaphene	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1016	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1221	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1232	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1242	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1248	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1254	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1260	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	57.1		% Rec.	8081A/8082	08/20/12	1
Tetrachloro-m-xylene	62.6		% Rec.	8081A/8082	08/20/12	1
Herbicides						
2,4-D	BDL	0.0020	mg/l	8151	08/22/12	1
Dalapon	BDL	0.20	mg/l	8151	08/22/12	1
2,4-DB	BDL	0.0020	mg/l	8151	08/22/12	1
Dicamba	BDL	0.0020	mg/l	8151	08/22/12	1
Dichloroprop	BDL	0.0020	mg/l	8151	08/22/12	1
Dinoseb	BDL	0.0020	mg/l	8151	08/22/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



12065 Lebanon Rd.  
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-5  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 09:45

ESC Sample # : L590320-05

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPA	BDL	0.10	mg/l	8151	08/22/12	1
MCPP	BDL	0.10	mg/l	8151	08/22/12	1
2,4,5-T	BDL	0.0020	mg/l	8151	08/22/12	1
2,4,5-TP (Silvex)	BDL	0.0020	mg/l	8151	08/22/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	73.4		% Rec.	8151	08/22/12	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.0010	mg/l	8270 C	08/21/12	1
Acenaphthylene	BDL	0.0010	mg/l	8270 C	08/21/12	1
Anthracene	BDL	0.0010	mg/l	8270 C	08/21/12	1
Benzidine	BDL	0.010	mg/l	8270 C	08/21/12	1
Benzo(a)anthracene	BDL	0.0010	mg/l	8270 C	08/21/12	1
Benzo(b)fluoranthene	BDL	0.0010	mg/l	8270 C	08/21/12	1
Benzo(k)fluoranthene	BDL	0.0010	mg/l	8270 C	08/21/12	1
Benzo(g,h,i)perylene	BDL	0.0010	mg/l	8270 C	08/21/12	1
Benzo(a)pyrene	BDL	0.0010	mg/l	8270 C	08/21/12	1
Bis(2-chlorethoxy)methane	BDL	0.010	mg/l	8270 C	08/21/12	1
Bis(2-chloroethyl)ether	BDL	0.010	mg/l	8270 C	08/21/12	1
Bis(2-chloroisopropyl)ether	BDL	0.010	mg/l	8270 C	08/21/12	1
4-Bromophenyl-phenylether	BDL	0.010	mg/l	8270 C	08/21/12	1
2-Chloronaphthalene	BDL	0.0010	mg/l	8270 C	08/21/12	1
4-Chlorophenyl-phenylether	BDL	0.010	mg/l	8270 C	08/21/12	1
Chrysene	BDL	0.0010	mg/l	8270 C	08/21/12	1
Dibenz(a,h)anthracene	BDL	0.0010	mg/l	8270 C	08/21/12	1
3,3-Dichlorobenzidine	BDL	0.010	mg/l	8270 C	08/21/12	1
2,4-Dinitrotoluene	BDL	0.010	mg/l	8270 C	08/21/12	1
2,6-Dinitrotoluene	BDL	0.010	mg/l	8270 C	08/21/12	1
Fluoranthene	BDL	0.0010	mg/l	8270 C	08/21/12	1
Fluorene	BDL	0.0010	mg/l	8270 C	08/21/12	1
Hexachlorobenzene	BDL	0.0010	mg/l	8270 C	08/21/12	1
Hexachloro-1,3-butadiene	BDL	0.010	mg/l	8270 C	08/21/12	1
Hexachlorocyclopentadiene	BDL	0.010	mg/l	8270 C	08/21/12	1
Hexachloroethane	BDL	0.010	mg/l	8270 C	08/21/12	1
Indeno(1,2,3-cd)pyrene	BDL	0.0010	mg/l	8270 C	08/21/12	1
Isophorone	BDL	0.010	mg/l	8270 C	08/21/12	1
Naphthalene	BDL	0.0010	mg/l	8270 C	08/21/12	1
Nitrobenzene	BDL	0.010	mg/l	8270 C	08/21/12	1
n-Nitrosodimethylamine	BDL	0.010	mg/l	8270 C	08/21/12	1
n-Nitrosodiphenylamine	BDL	0.010	mg/l	8270 C	08/21/12	1
n-Nitrosodi-n-propylamine	BDL	0.010	mg/l	8270 C	08/21/12	1
Phenanthrene	BDL	0.0010	mg/l	8270 C	08/21/12	1
Benzylbutyl phthalate	BDL	0.0030	mg/l	8270 C	08/21/12	1
Bis(2-ethylhexyl)phthalate	BDL	0.0030	mg/l	8270 C	08/21/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-5  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 09:45

ESC Sample # : L590320-05

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Di-n-butyl phthalate	BDL	0.0030	mg/l	8270 C	08/21/12	1
Diethyl phthalate	BDL	0.0030	mg/l	8270 C	08/21/12	1
Dimethyl phthalate	BDL	0.0030	mg/l	8270 C	08/21/12	1
Di-n-octyl phthalate	BDL	0.0030	mg/l	8270 C	08/21/12	1
Pyrene	BDL	0.0010	mg/l	8270 C	08/21/12	1
1,2,4-Trichlorobenzene	BDL	0.010	mg/l	8270 C	08/21/12	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.010	mg/l	8270 C	08/21/12	1
2-Chlorophenol	BDL	0.010	mg/l	8270 C	08/21/12	1
2,4-Dichlorophenol	BDL	0.010	mg/l	8270 C	08/21/12	1
2,4-Dimethylphenol	BDL	0.010	mg/l	8270 C	08/21/12	1
4,6-Dinitro-2-methylphenol	BDL	0.010	mg/l	8270 C	08/21/12	1
2,4-Dinitrophenol	BDL	0.010	mg/l	8270 C	08/21/12	1
2-Nitrophenol	BDL	0.010	mg/l	8270 C	08/21/12	1
4-Nitrophenol	BDL	0.010	mg/l	8270 C	08/21/12	1
Pentachlorophenol	BDL	0.010	mg/l	8270 C	08/21/12	1
Phenol	BDL	0.010	mg/l	8270 C	08/21/12	1
2,4,6-Trichlorophenol	BDL	0.010	mg/l	8270 C	08/21/12	1
Surrogate Recovery						
2-Fluorophenol	28.6	% Rec.	8270 C	08/21/12	1	
Phenol-d5	14.6	% Rec.	8270 C	08/21/12	1	
Nitrobenzene-d5	74.7	% Rec.	8270 C	08/21/12	1	
2-Fluorobiphenyl	83.5	% Rec.	8270 C	08/21/12	1	
2,4,6-Tribromophenol	78.6	% Rec.	8270 C	08/21/12	1	
p-Terphenyl-d14	76.8	% Rec.	8270 C	08/21/12	1	

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/28/12 17:36 Revised: 08/29/12 09:12



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-DUP  
Collected By : Jeff Beasley  
Collection Date : 08/14/12 00:00

ESC Sample # : L590320-06

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.00020	mg/l	7470A	08/17/12	1
Arsenic	BDL	0.020	mg/l	6010B	08/17/12	1
Barium	0.076	0.0050	mg/l	6010B	08/17/12	1
Cadmium	BDL	0.0050	mg/l	6010B	08/17/12	1
Chromium	BDL	0.010	mg/l	6010B	08/17/12	1
Lead	BDL	0.0050	mg/l	6010B	08/17/12	1
Selenium	BDL	0.020	mg/l	6010B	08/17/12	1
Silver	BDL	0.010	mg/l	6010B	08/19/12	1
TPH (GC/FID) Low Fraction GRO (C6-C10)	BDL	0.10	mg/l	8015D	08/24/12	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	103.35		% Rec.	8015D	08/24/12	1
Volatile Organics						
Acetone	BDL	0.050	mg/l	8260B	08/17/12	1
Acrolein	BDL	0.050	mg/l	8260B	08/17/12	1
Acrylonitrile	BDL	0.010	mg/l	8260B	08/17/12	1
Benzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromodichloromethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromoform	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromomethane	BDL	0.0050	mg/l	8260B	08/17/12	1
n-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
sec-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
tert-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260B	08/17/12	1
Chlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Chloroethane	BDL	0.0050	mg/l	8260B	08/17/12	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/l	8260B	08/17/12	1
Chloroform	BDL	0.0050	mg/l	8260B	08/17/12	1
Chloromethane	BDL	0.0025	mg/l	8260B	08/17/12	1
2-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
4-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dibromo-3-Chloropropane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2-Dibromoethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Dibromomethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Dichlorodifluoromethane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-DUP  
Collected By : Jeff Beasley  
Collection Date : 08/14/12 00:00

ESC Sample # : L590320-06

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2-Dichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
2,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
Di-isopropyl ether	BDL	0.0010	mg/l	8260B	08/17/12	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Hexachloro-1,3-butadiene	BDL	0.0010	mg/l	8260B	08/17/12	1
Isopropylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
p-Isopropyltoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
2-Butanone (MEK)	BDL	0.010	mg/l	8260B	08/17/12	1
Methylene Chloride	BDL	0.0050	mg/l	8260B	08/17/12	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/l	8260B	08/17/12	1
Methyl tert-butyl ether	BDL	0.0010	mg/l	8260B	08/17/12	1
Naphthalene	BDL	0.0050	mg/l	8260B	08/17/12	1
n-Propylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Styrene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2-Trichlorotrifluoroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Tetrachloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
Toluene	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,1-Trichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2-Trichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Trichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
Trichlorofluoromethane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2,3-Trichloropropane	BDL	0.0025	mg/l	8260B	08/17/12	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Vinyl chloride	BDL	0.0010	mg/l	8260B	08/17/12	1
Xylenes, Total	BDL	0.0030	mg/l	8260B	08/17/12	1
Surrogate Recovery						
Toluene-d8	97.3		% Rec.	8260B	08/17/12	1
Dibromofluoromethane	103.		% Rec.	8260B	08/17/12	1
4-Bromofluorobenzene	93.7		% Rec.	8260B	08/17/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-DUP  
Collected By : Jeff Beasley  
Collection Date : 08/14/12 00:00

ESC Sample # : L590320-06

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Extractable Petroleum Hydrocarb Surrogate Recovery	BDL	0.10	mg/l	EPH	08/20/12	1
o-Terphenyl	71.7		% Rec.	EPH	08/20/12	1
Pesticide/PCBs						
Aldrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Alpha BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Beta BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Delta BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Gamma BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Chlordane	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDD	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDE	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDT	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Dieldrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan I	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan II	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan sulfate	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin aldehyde	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin ketone	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Heptachlor	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Heptachlor epoxide	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Hexachlorobenzene	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Methoxychlor	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Toxaphene	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1016	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1221	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1232	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1242	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1248	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1254	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1260	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	69.7		% Rec.	8081A/8082	08/20/12	1
Tetrachloro-m-xylene	57.4		% Rec.	8081A/8082	08/20/12	1
Herbicides						
2,4-D	BDL	0.0020	mg/l	8151	08/22/12	1
Dalapon	BDL	0.20	mg/l	8151	08/22/12	1
2,4-DB	BDL	0.0020	mg/l	8151	08/22/12	1
Dicamba	BDL	0.0020	mg/l	8151	08/22/12	1
Dichloroprop	BDL	0.0020	mg/l	8151	08/22/12	1
Dinoseb	BDL	0.0020	mg/l	8151	08/22/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-DUP  
Collected By : Jeff Beasley  
Collection Date : 08/14/12 00:00

ESC Sample # : L590320-06

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPA	BDL	0.10	mg/l	8151	08/22/12	1
MCPP	BDL	0.10	mg/l	8151	08/22/12	1
2,4,5-T	BDL	0.0020	mg/l	8151	08/22/12	1
2,4,5-TP (Silvex)	BDL	0.0020	mg/l	8151	08/22/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	62.8		% Rec.	8151	08/22/12	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Acenaphthylene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Anthracene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzidine	BDL	0.010	mg/l	8270 C	08/18/12	1
Benzo(a)anthracene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(b)fluoranthene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(k)fluoranthene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(g,h,i)perylene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(a)pyrene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Bis(2-chlorethoxy)methane	BDL	0.010	mg/l	8270 C	08/18/12	1
Bis(2-chloroethyl)ether	BDL	0.010	mg/l	8270 C	08/18/12	1
Bis(2-chloroisopropyl)ether	BDL	0.010	mg/l	8270 C	08/18/12	1
4-Bromophenyl-phenylether	BDL	0.010	mg/l	8270 C	08/18/12	1
2-Chloronaphthalene	BDL	0.0010	mg/l	8270 C	08/18/12	1
4-Chlorophenyl-phenylether	BDL	0.010	mg/l	8270 C	08/18/12	1
Chrysene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Dibenz(a,h)anthracene	BDL	0.0010	mg/l	8270 C	08/18/12	1
3,3-Dichlorobenzidine	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dinitrotoluene	BDL	0.010	mg/l	8270 C	08/18/12	1
2,6-Dinitrotoluene	BDL	0.010	mg/l	8270 C	08/18/12	1
Fluoranthene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Fluorene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Hexachlorobenzene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Hexachloro-1,3-butadiene	BDL	0.010	mg/l	8270 C	08/18/12	1
Hexachlorocyclopentadiene	BDL	0.010	mg/l	8270 C	08/18/12	1
Hexachloroethane	BDL	0.010	mg/l	8270 C	08/18/12	1
Indeno(1,2,3-cd)pyrene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Isophorone	BDL	0.010	mg/l	8270 C	08/18/12	1
Naphthalene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Nitrobenzene	BDL	0.010	mg/l	8270 C	08/18/12	1
n-Nitrosodimethylamine	BDL	0.010	mg/l	8270 C	08/18/12	1
n-Nitrosodiphenylamine	BDL	0.010	mg/l	8270 C	08/18/12	1
n-Nitrosodi-n-propylamine	BDL	0.010	mg/l	8270 C	08/18/12	1
Phenanthrene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzylbutyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Bis(2-ethylhexyl)phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-DUP  
Collected By : Jeff Beasley  
Collection Date : 08/14/12 00:00

ESC Sample # : L590320-06

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Di-n-butyl phthalate	0.0044	0.0030	mg/l	8270 C	08/18/12	1
Diethyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Dimethyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Di-n-octyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Pyrene	BDL	0.0010	mg/l	8270 C	08/18/12	1
1,2,4-Trichlorobenzene	BDL	0.010	mg/l	8270 C	08/18/12	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2-Chlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dichlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dimethylphenol	BDL	0.010	mg/l	8270 C	08/18/12	1
4,6-Dinitro-2-methylphenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dinitrophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2-Nitrophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
4-Nitrophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
Pentachlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
Phenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4,6-Trichlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
Surrogate Recovery						
2-Fluorophenol	31.7	% Rec.	8270 C	08/18/12	1	
Phenol-d5	18.4	% Rec.	8270 C	08/18/12	1	
Nitrobenzene-d5	86.1	% Rec.	8270 C	08/18/12	1	
2-Fluorobiphenyl	88.4	% Rec.	8270 C	08/18/12	1	
2,4,6-Tribromophenol	83.1	% Rec.	8270 C	08/18/12	1	
p-Terphenyl-d14	81.0	% Rec.	8270 C	08/18/12	1	

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/28/12 17:36 Revised: 08/29/12 09:12



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Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-FB  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 12:00

ESC Sample # : L590320-07

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.00020	mg/l	7470A	08/17/12	1
Arsenic	BDL	0.020	mg/l	6010B	08/17/12	1
Barium	BDL	0.0050	mg/l	6010B	08/17/12	1
Cadmium	BDL	0.0050	mg/l	6010B	08/17/12	1
Chromium	BDL	0.010	mg/l	6010B	08/17/12	1
Lead	BDL	0.0050	mg/l	6010B	08/17/12	1
Selenium	BDL	0.020	mg/l	6010B	08/17/12	1
Silver	BDL	0.010	mg/l	6010B	08/19/12	1
TPH (GC/FID) Low Fraction GRO (C6-C10)	BDL	0.10	mg/l	8015D	08/24/12	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	116.86		% Rec.	8015D	08/24/12	1
Volatile Organics						
Acetone	BDL	0.050	mg/l	8260B	08/17/12	1
Acrolein	BDL	0.050	mg/l	8260B	08/17/12	1
Acrylonitrile	BDL	0.010	mg/l	8260B	08/17/12	1
Benzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromodichloromethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromoform	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromomethane	BDL	0.0050	mg/l	8260B	08/17/12	1
n-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
sec-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
tert-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260B	08/17/12	1
Chlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Chloroethane	BDL	0.0050	mg/l	8260B	08/17/12	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/l	8260B	08/17/12	1
Chloroform	BDL	0.0050	mg/l	8260B	08/17/12	1
Chloromethane	BDL	0.0025	mg/l	8260B	08/17/12	1
2-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
4-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dibromo-3-Chloropropane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2-Dibromoethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Dibromomethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Dichlorodifluoromethane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-FB  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 12:00

ESC Sample # : L590320-07

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2-Dichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
2,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
Di-isopropyl ether	BDL	0.0010	mg/l	8260B	08/17/12	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Hexachloro-1,3-butadiene	BDL	0.0010	mg/l	8260B	08/17/12	1
Isopropylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
p-Isopropyltoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
2-Butanone (MEK)	BDL	0.010	mg/l	8260B	08/17/12	1
Methylene Chloride	BDL	0.0050	mg/l	8260B	08/17/12	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/l	8260B	08/17/12	1
Methyl tert-butyl ether	BDL	0.0010	mg/l	8260B	08/17/12	1
Naphthalene	BDL	0.0050	mg/l	8260B	08/17/12	1
n-Propylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Styrene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2-Trichlorotrifluoroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Tetrachloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
Toluene	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,1-Trichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2-Trichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Trichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
Trichlorofluoromethane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2,3-Trichloropropane	BDL	0.0025	mg/l	8260B	08/17/12	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Vinyl chloride	BDL	0.0010	mg/l	8260B	08/17/12	1
Xylenes, Total	BDL	0.0030	mg/l	8260B	08/17/12	1
Surrogate Recovery						
Toluene-d8	97.1		% Rec.	8260B	08/17/12	1
Dibromofluoromethane	100.		% Rec.	8260B	08/17/12	1
4-Bromofluorobenzene	97.0		% Rec.	8260B	08/17/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-FB  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 12:00

ESC Sample # : L590320-07

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Extractable Petroleum Hydrocarb Surrogate Recovery	BDL	0.10	mg/l	EPH	08/20/12	1
o-Terphenyl	66.6		% Rec.	EPH	08/20/12	1
Pesticide/PCBs						
Aldrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Alpha BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Beta BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Delta BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Gamma BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Chlordane	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDD	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDE	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDT	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Dieldrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan I	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan II	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan sulfate	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin aldehyde	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin ketone	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Heptachlor	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Heptachlor epoxide	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Hexachlorobenzene	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Methoxychlor	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Toxaphene	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1016	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1221	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1232	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1242	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1248	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1254	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1260	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	56.7		% Rec.	8081A/8082	08/20/12	1
Tetrachloro-m-xylene	65.6		% Rec.	8081A/8082	08/20/12	1
Herbicides						
2,4-D	BDL	0.0020	mg/l	8151	08/22/12	1
Dalapon	BDL	0.20	mg/l	8151	08/22/12	1
2,4-DB	BDL	0.0020	mg/l	8151	08/22/12	1
Dicamba	BDL	0.0020	mg/l	8151	08/22/12	1
Dichloroprop	BDL	0.0020	mg/l	8151	08/22/12	1
Dinoseb	BDL	0.0020	mg/l	8151	08/22/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-FB  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 12:00

ESC Sample # : L590320-07

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPA	BDL	0.10	mg/l	8151	08/22/12	1
MCPP	BDL	0.10	mg/l	8151	08/22/12	1
2,4,5-T	BDL	0.0020	mg/l	8151	08/22/12	1
2,4,5-TP (Silvex)	BDL	0.0020	mg/l	8151	08/22/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	67.9		% Rec.	8151	08/22/12	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Acenaphthylene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Anthracene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzidine	BDL	0.010	mg/l	8270 C	08/18/12	1
Benzo(a)anthracene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(b)fluoranthene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(k)fluoranthene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(g,h,i)perylene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(a)pyrene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Bis(2-chlorethoxy)methane	BDL	0.010	mg/l	8270 C	08/18/12	1
Bis(2-chloroethyl)ether	BDL	0.010	mg/l	8270 C	08/18/12	1
Bis(2-chloroisopropyl)ether	BDL	0.010	mg/l	8270 C	08/18/12	1
4-Bromophenyl-phenylether	BDL	0.010	mg/l	8270 C	08/18/12	1
2-Chloronaphthalene	BDL	0.0010	mg/l	8270 C	08/18/12	1
4-Chlorophenyl-phenylether	BDL	0.010	mg/l	8270 C	08/18/12	1
Chrysene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Dibenz(a,h)anthracene	BDL	0.0010	mg/l	8270 C	08/18/12	1
3,3-Dichlorobenzidine	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dinitrotoluene	BDL	0.010	mg/l	8270 C	08/18/12	1
2,6-Dinitrotoluene	BDL	0.010	mg/l	8270 C	08/18/12	1
Fluoranthene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Fluorene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Hexachlorobenzene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Hexachloro-1,3-butadiene	BDL	0.010	mg/l	8270 C	08/18/12	1
Hexachlorocyclopentadiene	BDL	0.010	mg/l	8270 C	08/18/12	1
Hexachloroethane	BDL	0.010	mg/l	8270 C	08/18/12	1
Indeno(1,2,3-cd)pyrene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Isophorone	BDL	0.010	mg/l	8270 C	08/18/12	1
Naphthalene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Nitrobenzene	BDL	0.010	mg/l	8270 C	08/18/12	1
n-Nitrosodimethylamine	BDL	0.010	mg/l	8270 C	08/18/12	1
n-Nitrosodiphenylamine	BDL	0.010	mg/l	8270 C	08/18/12	1
n-Nitrosodi-n-propylamine	BDL	0.010	mg/l	8270 C	08/18/12	1
Phenanthrene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzylbutyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Bis(2-ethylhexyl)phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-FB  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 12:00

ESC Sample # : L590320-07

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Di-n-butyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Diethyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Dimethyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Di-n-octyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Pyrene	BDL	0.0010	mg/l	8270 C	08/18/12	1
1,2,4-Trichlorobenzene	BDL	0.010	mg/l	8270 C	08/18/12	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2-Chlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dichlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dimethylphenol	BDL	0.010	mg/l	8270 C	08/18/12	1
4,6-Dinitro-2-methylphenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dinitrophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2-Nitrophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
4-Nitrophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
Pentachlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
Phenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4,6-Trichlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
Surrogate Recovery						
2-Fluorophenol	48.5	% Rec.	8270 C	08/18/12	1	
Phenol-d5	32.9	% Rec.	8270 C	08/18/12	1	
Nitrobenzene-d5	84.9	% Rec.	8270 C	08/18/12	1	
2-Fluorobiphenyl	93.2	% Rec.	8270 C	08/18/12	1	
2,4,6-Tribromophenol	90.5	% Rec.	8270 C	08/18/12	1	
p-Terphenyl-d14	90.6	% Rec.	8270 C	08/18/12	1	

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/28/12 17:36 Revised: 08/29/12 09:13



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-6  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 08:45

ESC Sample # : L590320-08

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.00020	mg/l	7470A	08/17/12	1
Arsenic	BDL	0.020	mg/l	6010B	08/17/12	1
Barium	0.045	0.0050	mg/l	6010B	08/17/12	1
Cadmium	BDL	0.0050	mg/l	6010B	08/17/12	1
Chromium	BDL	0.010	mg/l	6010B	08/17/12	1
Lead	BDL	0.0050	mg/l	6010B	08/17/12	1
Selenium	BDL	0.020	mg/l	6010B	08/17/12	1
Silver	BDL	0.010	mg/l	6010B	08/19/12	1
TPH (GC/FID) Low Fraction						
GRO (C6-C10)	BDL	0.10	mg/l	8015D	08/24/12	1
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	101.62		% Rec.	8015D	08/24/12	1
Volatile Organics						
Acetone	BDL	0.050	mg/l	8260B	08/17/12	1
Acrolein	BDL	0.050	mg/l	8260B	08/17/12	1
Acrylonitrile	BDL	0.010	mg/l	8260B	08/17/12	1
Benzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromodichloromethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromoform	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromomethane	BDL	0.0050	mg/l	8260B	08/17/12	1
n-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
sec-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
tert-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260B	08/17/12	1
Chlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Chloroethane	BDL	0.0050	mg/l	8260B	08/17/12	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/l	8260B	08/17/12	1
Chloroform	BDL	0.0050	mg/l	8260B	08/17/12	1
Chloromethane	BDL	0.0025	mg/l	8260B	08/17/12	1
2-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
4-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dibromo-3-Chloropropane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2-Dibromoethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Dibromomethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Dichlorodifluoromethane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-6  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 08:45

ESC Sample # : L590320-08

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2-Dichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
2,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
Di-isopropyl ether	BDL	0.0010	mg/l	8260B	08/17/12	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Hexachloro-1,3-butadiene	BDL	0.0010	mg/l	8260B	08/17/12	1
Isopropylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
p-Isopropyltoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
2-Butanone (MEK)	BDL	0.010	mg/l	8260B	08/17/12	1
Methylene Chloride	BDL	0.0050	mg/l	8260B	08/17/12	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/l	8260B	08/17/12	1
Methyl tert-butyl ether	BDL	0.0010	mg/l	8260B	08/17/12	1
Naphthalene	0.013	0.0050	mg/l	8260B	08/17/12	1
n-Propylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Styrene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2-Trichlorotrifluoroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Tetrachloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
Toluene	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,1-Trichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2-Trichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Trichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
Trichlorofluoromethane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2,3-Trichloropropane	BDL	0.0025	mg/l	8260B	08/17/12	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Vinyl chloride	BDL	0.0010	mg/l	8260B	08/17/12	1
Xylenes, Total	BDL	0.0030	mg/l	8260B	08/17/12	1
Surrogate Recovery						
Toluene-d8	97.7		% Rec.	8260B	08/17/12	1
Dibromofluoromethane	101.		% Rec.	8260B	08/17/12	1
4-Bromofluorobenzene	97.1		% Rec.	8260B	08/17/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-6  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 08:45

ESC Sample # : L590320-08

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Extractable Petroleum Hydrocarb Surrogate Recovery	0.87	0.10	mg/l	EPH	08/20/12	1
o-Terphenyl	60.8		% Rec.	EPH	08/20/12	1
Pesticide/PCBs						
Aldrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Alpha BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Beta BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Delta BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Gamma BHC	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Chlordane	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDD	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDE	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
4,4-DDT	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Dieldrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan I	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan II	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endosulfan sulfate	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin aldehyde	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Endrin ketone	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Heptachlor	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Heptachlor epoxide	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Hexachlorobenzene	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Methoxychlor	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Toxaphene	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1016	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1221	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1232	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1242	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1248	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1254	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
PCB 1260	BDL	0.000050	mg/l	8081A/8082	08/20/12	1
Pest/PCBs Surrogates						
Decachlorobiphenyl	71.6		% Rec.	8081A/8082	08/20/12	1
Tetrachloro-m-xylene	60.1		% Rec.	8081A/8082	08/20/12	1
Herbicides						
2,4-D	BDL	0.0020	mg/l	8151	08/22/12	1
Dalapon	BDL	0.20	mg/l	8151	08/22/12	1
2,4-DB	BDL	0.0020	mg/l	8151	08/22/12	1
Dicamba	BDL	0.0020	mg/l	8151	08/22/12	1
Dichloroprop	BDL	0.0020	mg/l	8151	08/22/12	1
Dinoseb	BDL	0.0020	mg/l	8151	08/22/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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August 29, 2012

Amanda Herrit  
Terracon Consulting Inc.  
51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-6  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 08:45

ESC Sample # : L590320-08

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
MCPA	BDL	0.10	mg/l	8151	08/22/12	1
MCPP	BDL	0.10	mg/l	8151	08/22/12	1
2,4,5-T	BDL	0.0020	mg/l	8151	08/22/12	1
2,4,5-TP (Silvex)	BDL	0.0020	mg/l	8151	08/22/12	1
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	70.1		% Rec.	8151	08/22/12	1
Base/Neutral Extractables						
Acenaphthene	0.0027	0.0010	mg/l	8270 C	08/18/12	1
Acenaphthylene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Anthracene	0.0011	0.0010	mg/l	8270 C	08/18/12	1
Benzidine	BDL	0.010	mg/l	8270 C	08/18/12	1
Benzo(a)anthracene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(b)fluoranthene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(k)fluoranthene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(g,h,i)perylene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Benzo(a)pyrene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Bis(2-chlorethoxy)methane	BDL	0.010	mg/l	8270 C	08/18/12	1
Bis(2-chloroethyl)ether	BDL	0.010	mg/l	8270 C	08/18/12	1
Bis(2-chloroisopropyl)ether	BDL	0.010	mg/l	8270 C	08/18/12	1
4-Bromophenyl-phenylether	BDL	0.010	mg/l	8270 C	08/18/12	1
2-Chloronaphthalene	BDL	0.0010	mg/l	8270 C	08/18/12	1
4-Chlorophenyl-phenylether	BDL	0.010	mg/l	8270 C	08/18/12	1
Chrysene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Dibenz(a,h)anthracene	BDL	0.0010	mg/l	8270 C	08/18/12	1
3,3-Dichlorobenzidine	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dinitrotoluene	BDL	0.010	mg/l	8270 C	08/18/12	1
2,6-Dinitrotoluene	BDL	0.010	mg/l	8270 C	08/18/12	1
Fluoranthene	0.0021	0.0010	mg/l	8270 C	08/18/12	1
Fluorene	0.0046	0.0010	mg/l	8270 C	08/18/12	1
Hexachlorobenzene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Hexachloro-1,3-butadiene	BDL	0.010	mg/l	8270 C	08/18/12	1
Hexachlorocyclopentadiene	BDL	0.010	mg/l	8270 C	08/18/12	1
Hexachloroethane	BDL	0.010	mg/l	8270 C	08/18/12	1
Indeno(1,2,3-cd)pyrene	BDL	0.0010	mg/l	8270 C	08/18/12	1
Isophorone	BDL	0.010	mg/l	8270 C	08/18/12	1
Naphthalene	0.0093	0.0010	mg/l	8270 C	08/18/12	1
Nitrobenzene	BDL	0.010	mg/l	8270 C	08/18/12	1
n-Nitrosodimethylamine	BDL	0.010	mg/l	8270 C	08/18/12	1
n-Nitrosodiphenylamine	BDL	0.010	mg/l	8270 C	08/18/12	1
n-Nitrosodi-n-propylamine	BDL	0.010	mg/l	8270 C	08/18/12	1
Phenanthrene	0.0042	0.0010	mg/l	8270 C	08/18/12	1
Benzylbutyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Bis(2-ethylhexyl)phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : HR-MW-6  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 08:45

ESC Sample # : L590320-08

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Di-n-butyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Diethyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Dimethyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Di-n-octyl phthalate	BDL	0.0030	mg/l	8270 C	08/18/12	1
Pyrene	0.0016	0.0010	mg/l	8270 C	08/18/12	1
1,2,4-Trichlorobenzene	BDL	0.010	mg/l	8270 C	08/18/12	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2-Chlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dichlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dimethylphenol	BDL	0.010	mg/l	8270 C	08/18/12	1
4,6-Dinitro-2-methylphenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4-Dinitrophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2-Nitrophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
4-Nitrophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
Pentachlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
Phenol	BDL	0.010	mg/l	8270 C	08/18/12	1
2,4,6-Trichlorophenol	BDL	0.010	mg/l	8270 C	08/18/12	1
Surrogate Recovery						
2-Fluorophenol	35.9	% Rec.	8270 C	08/18/12	1	
Phenol-d5	19.8	% Rec.	8270 C	08/18/12	1	
Nitrobenzene-d5	88.6	% Rec.	8270 C	08/18/12	1	
2-Fluorobiphenyl	94.8	% Rec.	8270 C	08/18/12	1	
2,4,6-Tribromophenol	89.4	% Rec.	8270 C	08/18/12	1	
p-Terphenyl-d14	88.6	% Rec.	8270 C	08/18/12	1	

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 08/28/12 17:36 Revised: 08/29/12 09:13



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51 Lost Mound Dr, Ste 135  
Chattanooga, TN 37406

Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : TRIP BLANK  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 00:00

ESC Sample # : L590320-09

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	0.050	mg/l	8260B	08/17/12	1
Acrolein	BDL	0.050	mg/l	8260B	08/17/12	1
Acrylonitrile	BDL	0.010	mg/l	8260B	08/17/12	1
Benzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromodichloromethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromoform	BDL	0.0010	mg/l	8260B	08/17/12	1
Bromomethane	BDL	0.0050	mg/l	8260B	08/17/12	1
n-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
sec-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
tert-Butylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260B	08/17/12	1
Chlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Chloroethane	BDL	0.0050	mg/l	8260B	08/17/12	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/l	8260B	08/17/12	1
Chloroform	BDL	0.0050	mg/l	8260B	08/17/12	1
Chloromethane	BDL	0.0025	mg/l	8260B	08/17/12	1
2-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
4-Chlorotoluene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dibromo-3-Chloropropane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2-Dibromoethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Dibromomethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Dichlorodifluoromethane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	08/17/12	1
2,2-Dichloropropane	BDL	0.0010	mg/l	8260B	08/17/12	1
Di-isopropyl ether	BDL	0.0010	mg/l	8260B	08/17/12	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Hexachloro-1,3-butadiene	BDL	0.0010	mg/l	8260B	08/17/12	1
Isopropylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
p-Isopropyltoluene	BDL	0.0010	mg/l	8260B	08/17/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Date Received : August 16, 2012  
Description : Hamm Road  
Sample ID : TRIP BLANK  
Collected By : Jeff Beasley  
Collection Date : 08/15/12 00:00

ESC Sample # : L590320-09

Site ID :

Project # : E2107081

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	0.010	mg/l	8260B	08/17/12	1
Methylene Chloride	BDL	0.0050	mg/l	8260B	08/17/12	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/l	8260B	08/17/12	1
Methyl tert-butyl ether	BDL	0.0010	mg/l	8260B	08/17/12	1
Naphthalene	BDL	0.0050	mg/l	8260B	08/17/12	1
n-Propylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Styrene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2-Trichlorotrifluoroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Tetrachloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
Toluene	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,1-Trichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
1,1,2-Trichloroethane	BDL	0.0010	mg/l	8260B	08/17/12	1
Trichloroethene	BDL	0.0010	mg/l	8260B	08/17/12	1
Trichlorofluoromethane	BDL	0.0050	mg/l	8260B	08/17/12	1
1,2,3-Trichloropropane	BDL	0.0025	mg/l	8260B	08/17/12	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/l	8260B	08/17/12	1
Vinyl chloride	BDL	0.0010	mg/l	8260B	08/17/12	1
Xylenes, Total	BDL	0.0030	mg/l	8260B	08/17/12	1
Surrogate Recovery						
Toluene-d8	97.0		% Rec.	8260B	08/17/12	1
Dibromofluoromethane	99.6		% Rec.	8260B	08/17/12	1
4-Bromofluorobenzene	97.8		% Rec.	8260B	08/17/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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**Attachment A**  
**List of Analytes with QC Qualifiers**

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L590320-01	WG608121	SAMP	Dieldrin	R2309553	J3
	WG608121	SAMP	Endrin aldehyde	R2309553	J6J3
	WG608121	SAMP	PCB 1016	R2309553	J3J6
	WG608121	SAMP	PCB 1260	R2309553	J3J5
	WG608122	SAMP	Acenaphthene	R2308293	VJ5
	WG608122	SAMP	Benzidine	R2308293	J3
	WG608122	SAMP	Benzo(b)fluoranthene	R2308293	J6
	WG608122	SAMP	Bis(2-chloroisopropyl)ether	R2308293	J5
	WG608122	SAMP	4-Chlorophenyl-phenylether	R2308293	J3
	WG608122	SAMP	Fluoranthene	R2308293	J6VJ3
	WG608122	SAMP	Fluorene	R2308293	V
	WG608122	SAMP	Phenanthrene	R2308293	VJ3
	WG608122	SAMP	Pyrene	R2308293	J6
	WG608122	SAMP	2,4-Dimethylphenol	R2308293	J5
	WG608122	SAMP	2,4-Dinitrophenol	R2308293	J6J3
	WG608122	SAMP	Phenol	R2308293	J5J3
	WG608850	SAMP	2,4-DB	R2314415	J6J3
	WG608850	SAMP	Dichloroprop	R2314415	J5
L590320-02	WG608121	SAMP	Hexachlorobenzene	R2309553	J3
	WG608121	SAMP	PCB 1016	R2309553	J3
L590320-03	WG608121	SAMP	Hexachlorobenzene	R2309553	J3
	WG608121	SAMP	PCB 1016	R2309553	J3
L590320-05	WG608121	SAMP	Hexachlorobenzene	R2309553	J3
	WG608121	SAMP	PCB 1016	R2309553	J3
L590320-06	WG608121	SAMP	Hexachlorobenzene	R2309553	J3
	WG608121	SAMP	PCB 1016	R2309553	J3
L590320-07	WG608121	SAMP	Hexachlorobenzene	R2309553	J3
	WG608121	SAMP	PCB 1016	R2309553	J3
L590320-08	WG608121	SAMP	Hexachlorobenzene	R2309553	J3
	WG608121	SAMP	PCB 1016	R2309553	J3

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low
V	(ESC) - Additional QC Info: The sample concentration is too high to evaluate accurate spike recoveries.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.



L A B S C I E N C E S

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Amanda Herrit

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Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report  
Level II

L590320

August 29, 2012

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
Arsenic	< .02	mg/l			WG608088	08/16/12 20:38
Barium	< .005	mg/l			WG608088	08/16/12 20:38
Cadmium	< .005	mg/l			WG608088	08/16/12 20:38
Chromium	< .01	mg/l			WG608088	08/16/12 20:38
Lead	< .005	mg/l			WG608088	08/16/12 20:38
Selenium	< .02	mg/l			WG608088	08/16/12 20:38
Silver	< .01	mg/l			WG608088	08/16/12 20:38
1,1,1,2-Tetrachloroethane	< .001	mg/l			WG608218	08/17/12 04:57
1,1,1-Trichloroethane	< .001	mg/l			WG608218	08/17/12 04:57
1,1,2,2-Tetrachloroethane	< .001	mg/l			WG608218	08/17/12 04:57
1,1,2-Trichloroethane	< .001	mg/l			WG608218	08/17/12 04:57
1,1,2-Trichlorotrifluoroethane	< .001	mg/l			WG608218	08/17/12 04:57
1,1-Dichloroethane	< .001	mg/l			WG608218	08/17/12 04:57
1,1-Dichloroethene	< .001	mg/l			WG608218	08/17/12 04:57
1,1-Dichloropropene	< .001	mg/l			WG608218	08/17/12 04:57
1,2,3-Trichlorobenzene	< .001	mg/l			WG608218	08/17/12 04:57
1,2,3-Trichloropropane	< .001	mg/l			WG608218	08/17/12 04:57
1,2,3-Trimethylbenzene	< .001	mg/l			WG608218	08/17/12 04:57
1,2,4-Trichlorobenzene	< .001	mg/l			WG608218	08/17/12 04:57
1,2,4-Trimethylbenzene	< .001	mg/l			WG608218	08/17/12 04:57
1,2-Dibromo-3-Chloropropane	< .005	mg/l			WG608218	08/17/12 04:57
1,2-Dibromoethane	< .001	mg/l			WG608218	08/17/12 04:57
1,2-Dichlorobenzene	< .001	mg/l			WG608218	08/17/12 04:57
1,2-Dichloroethane	< .001	mg/l			WG608218	08/17/12 04:57
1,2-Dichloropropane	< .001	mg/l			WG608218	08/17/12 04:57
1,3,5-Trimethylbenzene	< .001	mg/l			WG608218	08/17/12 04:57
1,3-Dichlorobenzene	< .001	mg/l			WG608218	08/17/12 04:57
1,3-Dichloropropane	< .001	mg/l			WG608218	08/17/12 04:57
1,4-Dichlorobenzene	< .001	mg/l			WG608218	08/17/12 04:57
2,2-Dichloropropane	< .001	mg/l			WG608218	08/17/12 04:57
2-Butanone (MEK)	< .01	mg/l			WG608218	08/17/12 04:57
2-Chloroethyl vinyl ether	< .05	mg/l			WG608218	08/17/12 04:57
2-Chlorotoluene	< .001	mg/l			WG608218	08/17/12 04:57
4-Chlorotoluene	< .001	mg/l			WG608218	08/17/12 04:57
4-Methyl-2-pentanone (MIBK)	< .01	mg/l			WG608218	08/17/12 04:57
Acetone	< .05	mg/l			WG608218	08/17/12 04:57
Acrolein	< .025	mg/l			WG608218	08/17/12 04:57
Acrylonitrile	< .01	mg/l			WG608218	08/17/12 04:57
Benzene	< .001	mg/l			WG608218	08/17/12 04:57
Bromobenzene	< .001	mg/l			WG608218	08/17/12 04:57
Bromodichloromethane	< .001	mg/l			WG608218	08/17/12 04:57
Bromoform	< .001	mg/l			WG608218	08/17/12 04:57
Bromomethane	< .005	mg/l			WG608218	08/17/12 04:57
Carbon tetrachloride	< .001	mg/l			WG608218	08/17/12 04:57
Chlorobenzene	< .001	mg/l			WG608218	08/17/12 04:57
Chlorodibromomethane	< .001	mg/l			WG608218	08/17/12 04:57
Chloroethane	< .005	mg/l			WG608218	08/17/12 04:57
Chloroform	< .005	mg/l			WG608218	08/17/12 04:57
Chloromethane	< .0025	mg/l			WG608218	08/17/12 04:57
cis-1,2-Dichloroethene	< .001	mg/l			WG608218	08/17/12 04:57
cis-1,3-Dichloropropene	< .001	mg/l			WG608218	08/17/12 04:57
Di-isopropyl ether	< .001	mg/l			WG608218	08/17/12 04:57
Dibromomethane	< .001	mg/l			WG608218	08/17/12 04:57
Dichlorodifluoromethane	< .005	mg/l			WG608218	08/17/12 04:57
Ethylbenzene	< .001	mg/l			WG608218	08/17/12 04:57
Hexachloro-1,3-butadiene	< .001	mg/l			WG608218	08/17/12 04:57
Isopropylbenzene	< .001	mg/l			WG608218	08/17/12 04:57

\* Performance of this Analyte is outside of established criteria.

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Quality Assurance Report  
Level II

L590320

August 29, 2012

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
Methyl tert-butyl ether	< .001	mg/l			WG608218	08/17/12 04:57
Methylene Chloride	< .005	mg/l			WG608218	08/17/12 04:57
n-Butylbenzene	< .001	mg/l			WG608218	08/17/12 04:57
n-Propylbenzene	< .001	mg/l			WG608218	08/17/12 04:57
Naphthalene	< .005	mg/l			WG608218	08/17/12 04:57
p-Isopropyltoluene	< .001	mg/l			WG608218	08/17/12 04:57
sec-Butylbenzene	< .001	mg/l			WG608218	08/17/12 04:57
Styrene	< .001	mg/l			WG608218	08/17/12 04:57
tert-Butylbenzene	< .001	mg/l			WG608218	08/17/12 04:57
Tetrachloroethene	< .001	mg/l			WG608218	08/17/12 04:57
Toluene	< .005	mg/l			WG608218	08/17/12 04:57
trans-1,2-Dichloroethene	< .001	mg/l			WG608218	08/17/12 04:57
trans-1,3-Dichloropropene	< .001	mg/l			WG608218	08/17/12 04:57
Trichloroethene	< .001	mg/l			WG608218	08/17/12 04:57
Trichlorofluoromethane	< .005	mg/l			WG608218	08/17/12 04:57
Vinyl chloride	< .001	mg/l			WG608218	08/17/12 04:57
Xylenes, Total	< .003	mg/l			WG608218	08/17/12 04:57
4-Bromofluorobenzene		% Rec.	97.64	82-120	WG608218	08/17/12 04:57
Dibromofluoromethane		% Rec.	98.11	82-126	WG608218	08/17/12 04:57
Toluene-d8		% Rec.	96.22	92-112	WG608218	08/17/12 04:57
Mercury	< .0002	mg/l			WG608123	08/17/12 09:52
Arsenic	< .02	mg/l			WG608201	08/17/12 22:20
Barium	< .005	mg/l			WG608201	08/17/12 22:20
Cadmium	< .005	mg/l			WG608201	08/17/12 22:20
Chromium	< .01	mg/l			WG608201	08/17/12 22:20
Lead	< .005	mg/l			WG608201	08/17/12 22:20
Selenium	< .02	mg/l			WG608201	08/17/12 22:20
Silver	< .01	mg/l			WG608201	08/19/12 13:54
1,2,4-Trichlorobenzene	< .01	mg/l			WG608122	08/18/12 11:20
2,4,6-Trichlorophenol	< .01	mg/l			WG608122	08/18/12 11:20
2,4-Dichlorophenol	< .01	mg/l			WG608122	08/18/12 11:20
2,4-Dimethylphenol	< .01	mg/l			WG608122	08/18/12 11:20
2,4-Dinitrophenol	< .01	mg/l			WG608122	08/18/12 11:20
2,4-Dinitrotoluene	< .01	mg/l			WG608122	08/18/12 11:20
2,6-Dinitrotoluene	< .01	mg/l			WG608122	08/18/12 11:20
2-Chloronaphthalene	< .001	mg/l			WG608122	08/18/12 11:20
2-Chlorophenol	< .01	mg/l			WG608122	08/18/12 11:20
2-Nitrophenol	< .01	mg/l			WG608122	08/18/12 11:20
3,3-Dichlorobenzidine	< .01	mg/l			WG608122	08/18/12 11:20
4,6-Dinitro-2-methylphenol	< .01	mg/l			WG608122	08/18/12 11:20
4-Bromophenyl-phenylether	< .01	mg/l			WG608122	08/18/12 11:20
4-Chloro-3-methylphenol	< .01	mg/l			WG608122	08/18/12 11:20
4-Chlorophenyl-phenylether	< .01	mg/l			WG608122	08/18/12 11:20
4-Nitrophenol	< .01	mg/l			WG608122	08/18/12 11:20
Acenaphthene	< .001	mg/l			WG608122	08/18/12 11:20
Acenaphthylene	< .001	mg/l			WG608122	08/18/12 11:20
Anthracene	< .001	mg/l			WG608122	08/18/12 11:20
Benzidine	< .01	mg/l			WG608122	08/18/12 11:20
Benzo(a)anthracene	< .001	mg/l			WG608122	08/18/12 11:20
Benzo(a)pyrene	< .001	mg/l			WG608122	08/18/12 11:20
Benzo(b)fluoranthene	< .001	mg/l			WG608122	08/18/12 11:20
Benzo(g,h,i)perylene	< .001	mg/l			WG608122	08/18/12 11:20
Benzo(k)fluoranthene	< .001	mg/l			WG608122	08/18/12 11:20

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## Quality Assurance Report

Level II

L590320

August 29, 2012

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
Benzylbutyl phthalate	< .003	mg/l			WG608122	08/18/12 11:20
Bis(2-chlorethoxy)methane	< .01	mg/l			WG608122	08/18/12 11:20
Bis(2-chloroethyl)ether	< .01	mg/l			WG608122	08/18/12 11:20
Bis(2-chloroisopropyl)ether	< .01	mg/l			WG608122	08/18/12 11:20
Bis(2-ethylhexyl)phthalate	< .003	mg/l			WG608122	08/18/12 11:20
Chrysene	< .001	mg/l			WG608122	08/18/12 11:20
Di-n-butyl phthalate	< .003	mg/l			WG608122	08/18/12 11:20
Di-n-octyl phthalate	< .003	mg/l			WG608122	08/18/12 11:20
Dibenz(a,h)anthracene	< .001	mg/l			WG608122	08/18/12 11:20
Diethyl phthalate	< .003	mg/l			WG608122	08/18/12 11:20
Dimethyl phthalate	< .003	mg/l			WG608122	08/18/12 11:20
Fluoranthene	< .001	mg/l			WG608122	08/18/12 11:20
Fluorene	< .001	mg/l			WG608122	08/18/12 11:20
Hexachloro-1,3-butadiene	< .01	mg/l			WG608122	08/18/12 11:20
Hexachlorobenzene	< .001	mg/l			WG608122	08/18/12 11:20
Hexachlorocyclopentadiene	< .01	mg/l			WG608122	08/18/12 11:20
Hexachloroethane	< .01	mg/l			WG608122	08/18/12 11:20
Indeno(1,2,3-cd)pyrene	< .001	mg/l			WG608122	08/18/12 11:20
Isophorone	< .01	mg/l			WG608122	08/18/12 11:20
n-Nitrosodi-n-propylamine	< .01	mg/l			WG608122	08/18/12 11:20
n-Nitrosodimethylamine	< .01	mg/l			WG608122	08/18/12 11:20
n-Nitrosodiphenylamine	< .01	mg/l			WG608122	08/18/12 11:20
Naphthalene	< .001	mg/l			WG608122	08/18/12 11:20
Nitrobenzene	< .01	mg/l			WG608122	08/18/12 11:20
Pentachlorophenol	< .001	mg/l			WG608122	08/18/12 11:20
Phenanthrene	< .001	mg/l			WG608122	08/18/12 11:20
Phenol	< .01	mg/l			WG608122	08/18/12 11:20
Pyrene	< .001	mg/l			WG608122	08/18/12 11:20
2,4,6-Tribromophenol	% Rec.	75.26	16-147		WG608122	08/18/12 11:20
2-Fluorobiphenyl	% Rec.	74.23	29-127		WG608122	08/18/12 11:20
2-Fluorophenol	% Rec.	35.24	10-75		WG608122	08/18/12 11:20
Nitrobenzene-d5	% Rec.	70.29	17-119		WG608122	08/18/12 11:20
Phenol-d5	% Rec.	24.03	10-63		WG608122	08/18/12 11:20
p-Terphenyl-d14	% Rec.	78.67	40-174		WG608122	08/18/12 11:20
PCB 1016	< .0005	mg/l			WG608121	08/20/12 12:24
PCB 1221	< .0005	mg/l			WG608121	08/20/12 12:24
PCB 1232	< .0005	mg/l			WG608121	08/20/12 12:24
PCB 1242	< .0005	mg/l			WG608121	08/20/12 12:24
PCB 1248	< .0005	mg/l			WG608121	08/20/12 12:24
PCB 1254	< .0005	mg/l			WG608121	08/20/12 12:24
PCB 1260	< .0005	mg/l			WG608121	08/20/12 12:24
Decachlorobiphenyl	% Rec.	98.70	10-122.6		WG608121	08/20/12 12:24
Tetrachloro-m-xylene	% Rec.	66.70	15.3-114.2		WG608121	08/20/12 12:24
4,4-DDD	< .00005	mg/l			WG608121	08/20/12 17:19
4,4-DDE	< .00005	mg/l			WG608121	08/20/12 17:19
4,4-DDT	< .00005	mg/l			WG608121	08/20/12 17:19
Aldrin	< .00005	mg/l			WG608121	08/20/12 17:19
Alpha BHC	< .00005	mg/l			WG608121	08/20/12 17:19
Beta BHC	< .00005	mg/l			WG608121	08/20/12 17:19
Chlordane	< .0005	mg/l			WG608121	08/20/12 17:19
Delta BHC	< .00005	mg/l			WG608121	08/20/12 17:19
Dieldrin	< .00005	mg/l			WG608121	08/20/12 17:19
Endosulfan I	< .00005	mg/l			WG608121	08/20/12 17:19
Endosulfan II	< .00005	mg/l			WG608121	08/20/12 17:19
Endosulfan sulfate	< .00005	mg/l			WG608121	08/20/12 17:19
Endrin	< .00005	mg/l			WG608121	08/20/12 17:19
Endrin aldehyde	< .00005	mg/l			WG608121	08/20/12 17:19

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Quality Assurance Report  
Level II

L590320

August 29, 2012

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
Endrin ketone	< .00005	mg/l			WG608121	08/20/12 17:19
Gamma BHC	< .00005	mg/l			WG608121	08/20/12 17:19
Heptachlor	< .00005	mg/l			WG608121	08/20/12 17:19
Heptachlor epoxide	< .00005	mg/l			WG608121	08/20/12 17:19
Hexachlorobenzene	< .00005	mg/l			WG608121	08/20/12 17:19
Methoxychlor	< .00005	mg/l			WG608121	08/20/12 17:19
Toxaphene	< .0005	mg/l			WG608121	08/20/12 17:19
Decachlorobiphenyl		% Rec.	96.83	10-122.6	WG608121	08/20/12 17:19
Tetrachloro-m-xylene		% Rec.	82.48	15.3-114.2	WG608121	08/20/12 17:19
Extractable Petroleum Hydrocarbon	< .1	ppm			WG608431	08/20/12 18:40
o-Terphenyl		% Rec.	66.61	50-150	WG608431	08/20/12 18:40
1,2,4-Trichlorobenzene	< .01	mg/l			WG608422	08/21/12 06:27
2,4,6-Trichlorophenol	< .01	mg/l			WG608422	08/21/12 06:27
2,4-Dichlorophenol	< .01	mg/l			WG608422	08/21/12 06:27
2,4-Dimethylphenol	< .01	mg/l			WG608422	08/21/12 06:27
2,4-Dinitrophenol	< .01	mg/l			WG608422	08/21/12 06:27
2,4-Dinitrotoluene	< .01	mg/l			WG608422	08/21/12 06:27
2,6-Dinitrotoluene	< .01	mg/l			WG608422	08/21/12 06:27
2-Chloronaphthalene	< .001	mg/l			WG608422	08/21/12 06:27
2-Chlorophenol	< .01	mg/l			WG608422	08/21/12 06:27
2-Nitrophenol	< .01	mg/l			WG608422	08/21/12 06:27
3,3-Dichlorobenzidine	< .01	mg/l			WG608422	08/21/12 06:27
4,6-Dinitro-2-methylphenol	< .01	mg/l			WG608422	08/21/12 06:27
4-Bromophenyl-phenylether	< .01	mg/l			WG608422	08/21/12 06:27
4-Chloro-3-methylphenol	< .01	mg/l			WG608422	08/21/12 06:27
4-Chlorophenyl-phenylether	< .01	mg/l			WG608422	08/21/12 06:27
4-Nitrophenol	< .01	mg/l			WG608422	08/21/12 06:27
Acenaphthene	< .001	mg/l			WG608422	08/21/12 06:27
Acenaphthylene	< .001	mg/l			WG608422	08/21/12 06:27
Anthracene	< .001	mg/l			WG608422	08/21/12 06:27
Benzidine	< .01	mg/l			WG608422	08/21/12 06:27
Benzo(a)anthracene	< .001	mg/l			WG608422	08/21/12 06:27
Benzo(a)pyrene	< .001	mg/l			WG608422	08/21/12 06:27
Benzo(b)fluoranthene	< .001	mg/l			WG608422	08/21/12 06:27
Benzo(g,h,i)perylene	< .001	mg/l			WG608422	08/21/12 06:27
Benzo(k)fluoranthene	< .001	mg/l			WG608422	08/21/12 06:27
Benzylbutyl phthalate	< .003	mg/l			WG608422	08/21/12 06:27
Bis(2-chlorethoxy)methane	< .01	mg/l			WG608422	08/21/12 06:27
Bis(2-chloroethyl)ether	< .01	mg/l			WG608422	08/21/12 06:27
Bis(2-chloroisopropyl)ether	< .01	mg/l			WG608422	08/21/12 06:27
Bis(2-ethylhexyl)phthalate	< .003	mg/l			WG608422	08/21/12 06:27
Chrysene	< .001	mg/l			WG608422	08/21/12 06:27
Di-n-butyl phthalate	< .003	mg/l			WG608422	08/21/12 06:27
Di-n-octyl phthalate	< .003	mg/l			WG608422	08/21/12 06:27
Dibenz(a,h)anthracene	< .001	mg/l			WG608422	08/21/12 06:27
Diethyl phthalate	< .003	mg/l			WG608422	08/21/12 06:27
Dimethyl phthalate	< .003	mg/l			WG608422	08/21/12 06:27
Fluoranthene	< .001	mg/l			WG608422	08/21/12 06:27
Fluorene	< .001	mg/l			WG608422	08/21/12 06:27
Hexachloro-1,3-butadiene	< .01	mg/l			WG608422	08/21/12 06:27
Hexachlorobenzene	< .001	mg/l			WG608422	08/21/12 06:27
Hexachlorocyclopentadiene	< .01	mg/l			WG608422	08/21/12 06:27
Hexachloroethane	< .01	mg/l			WG608422	08/21/12 06:27
Indeno(1,2,3-cd)pyrene	< .001	mg/l			WG608422	08/21/12 06:27
Isophorone	< .01	mg/l			WG608422	08/21/12 06:27

\* Performance of this Analyte is outside of established criteria.

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L A B S C I E N C E S

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Amanda Herrit

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Est. 1970

Quality Assurance Report  
Level II

L590320

August 29, 2012

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
n-Nitrosodi-n-propylamine	< .01	mg/l			WG608422	08/21/12 06:27
n-Nitrosodimethylamine	< .01	mg/l			WG608422	08/21/12 06:27
n-Nitrosodiphenylamine	< .01	mg/l			WG608422	08/21/12 06:27
Naphthalene	< .001	mg/l			WG608422	08/21/12 06:27
Nitrobenzene	< .01	mg/l			WG608422	08/21/12 06:27
Pentachlorophenol	< .001	mg/l			WG608422	08/21/12 06:27
Phenanthrene	< .001	mg/l			WG608422	08/21/12 06:27
Phenol	< .01	mg/l			WG608422	08/21/12 06:27
Pyrene	< .001	mg/l			WG608422	08/21/12 06:27
2,4,6-Tribromophenol		% Rec.	78.80	16-147	WG608422	08/21/12 06:27
2-Fluorobiphenyl		% Rec.	82.89	29-127	WG608422	08/21/12 06:27
2-Fluorophenol		% Rec.	54.85	10-75	WG608422	08/21/12 06:27
Nitrobenzene-d5		% Rec.	70.31	17-119	WG608422	08/21/12 06:27
Phenol-d5		% Rec.	37.36	10-63	WG608422	08/21/12 06:27
p-Terphenyl-d14		% Rec.	69.92	40-174	WG608422	08/21/12 06:27
2,4,5-T	< .002	mg/l			WG608850	08/22/12 17:18
2,4,5-TP (Silvex)	< .002	mg/l			WG608850	08/22/12 17:18
2,4-D	< .002	mg/l			WG608850	08/22/12 17:18
2,4-DB	< .002	mg/l			WG608850	08/22/12 17:18
Dalapon	< .002	mg/l			WG608850	08/22/12 17:18
Dicamba	< .002	mg/l			WG608850	08/22/12 17:18
Dichloroprop	< .002	mg/l			WG608850	08/22/12 17:18
Dinoseb	< .002	mg/l			WG608850	08/22/12 17:18
MCPA	< .1	mg/l			WG608850	08/22/12 17:18
MCPP	< .1	mg/l			WG608850	08/22/12 17:18
2,4-Dichlorophenyl Acetic Acid		%	75.68	42-112	WG608850	08/22/12 17:18
GRO (C6-C10)	< .1	mg/l			WG608856	08/23/12 19:22
a,a,a-Trifluorotoluene(FID)		% Rec.	101.7	50-150	WG608856	08/23/12 19:22
PCB 1016	< .0005	mg/l			WG608902	08/24/12 08:28
PCB 1221	< .0005	mg/l			WG608902	08/24/12 08:28
PCB 1232	< .0005	mg/l			WG608902	08/24/12 08:28
PCB 1242	< .0005	mg/l			WG608902	08/24/12 08:28
PCB 1248	< .0005	mg/l			WG608902	08/24/12 08:28
PCB 1254	< .0005	mg/l			WG608902	08/24/12 08:28
PCB 1260	< .0005	mg/l			WG608902	08/24/12 08:28
Decachlorobiphenyl		% Rec.	97.37	10-122.6	WG608902	08/24/12 08:28
Tetrachloro-m-xylene		% Rec.	60.90	15.3-114.2	WG608902	08/24/12 08:28
1,2,4-Trichlorobenzene	< .01	mg/l			WG609003	08/24/12 11:39
2,4,6-Trichlorophenol	< .01	mg/l			WG609003	08/24/12 11:39
2,4-Dichlorophenol	< .01	mg/l			WG609003	08/24/12 11:39
2,4-Dimethylphenol	< .01	mg/l			WG609003	08/24/12 11:39
2,4-Dinitrophenol	< .01	mg/l			WG609003	08/24/12 11:39
2,4-Dinitrotoluene	< .01	mg/l			WG609003	08/24/12 11:39
2,6-Dinitrotoluene	< .01	mg/l			WG609003	08/24/12 11:39
2-Chloronaphthalene	< .001	mg/l			WG609003	08/24/12 11:39
2-Chlorophenol	< .01	mg/l			WG609003	08/24/12 11:39
2-Nitrophenol	< .01	mg/l			WG609003	08/24/12 11:39
3,3-Dichlorobenzidine	< .01	mg/l			WG609003	08/24/12 11:39
4,6-Dinitro-2-methylphenol	< .01	mg/l			WG609003	08/24/12 11:39
4-Bromophenyl-phenylether	< .01	mg/l			WG609003	08/24/12 11:39
4-Chloro-3-methylphenol	< .01	mg/l			WG609003	08/24/12 11:39

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Quality Assurance Report  
Level II

L590320

August 29, 2012

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
4-Chlorophenyl-phenylether	< .01	mg/l			WG609003	08/24/12 11:39
4-Nitrophenol	< .01	mg/l			WG609003	08/24/12 11:39
Acenaphthene	< .001	mg/l			WG609003	08/24/12 11:39
Acenaphthylene	< .001	mg/l			WG609003	08/24/12 11:39
Anthracene	< .001	mg/l			WG609003	08/24/12 11:39
Benzidine	< .01	mg/l			WG609003	08/24/12 11:39
Benzo(a)anthracene	< .001	mg/l			WG609003	08/24/12 11:39
Benzo(a)pyrene	< .001	mg/l			WG609003	08/24/12 11:39
Benzo(b)fluoranthene	< .001	mg/l			WG609003	08/24/12 11:39
Benzo(g,h,i)perylene	< .001	mg/l			WG609003	08/24/12 11:39
Benzo(k)fluoranthene	< .001	mg/l			WG609003	08/24/12 11:39
Benzylbutyl phthalate	< .001	mg/l			WG609003	08/24/12 11:39
Bis(2-chlorethoxy)methane	< .01	mg/l			WG609003	08/24/12 11:39
Bis(2-chloroethyl)ether	< .01	mg/l			WG609003	08/24/12 11:39
Bis(2-chloroisopropyl)ether	< .01	mg/l			WG609003	08/24/12 11:39
Bis(2-ethylhexyl)phthalate	< .001	mg/l			WG609003	08/24/12 11:39
Chrysene	< .001	mg/l			WG609003	08/24/12 11:39
Di-n-butyl phthalate	< .001	mg/l			WG609003	08/24/12 11:39
Di-n-octyl phthalate	< .001	mg/l			WG609003	08/24/12 11:39
Dibenz(a,h)anthracene	< .001	mg/l			WG609003	08/24/12 11:39
Diethyl phthalate	< .001	mg/l			WG609003	08/24/12 11:39
Dimethyl phthalate	< .001	mg/l			WG609003	08/24/12 11:39
Fluoranthene	< .001	mg/l			WG609003	08/24/12 11:39
Fluorene	< .001	mg/l			WG609003	08/24/12 11:39
Hexachloro-1,3-butadiene	< .01	mg/l			WG609003	08/24/12 11:39
Hexachlorobenzene	< .001	mg/l			WG609003	08/24/12 11:39
Hexachlorocyclopentadiene	< .01	mg/l			WG609003	08/24/12 11:39
Hexachloroethane	< .01	mg/l			WG609003	08/24/12 11:39
Indeno(1,2,3-cd)pyrene	< .001	mg/l			WG609003	08/24/12 11:39
Isophorone	< .01	mg/l			WG609003	08/24/12 11:39
n-Nitrosodi-n-propylamine	< .01	mg/l			WG609003	08/24/12 11:39
n-Nitrosodimethylamine	< .01	mg/l			WG609003	08/24/12 11:39
n-Nitrosodiphenylamine	< .01	mg/l			WG609003	08/24/12 11:39
Naphthalene	< .001	mg/l			WG609003	08/24/12 11:39
Nitrobenzene	< .01	mg/l			WG609003	08/24/12 11:39
Pentachlorophenol	< .001	mg/l			WG609003	08/24/12 11:39
Phenanthrene	< .001	mg/l			WG609003	08/24/12 11:39
Phenol	< .01	mg/l			WG609003	08/24/12 11:39
Pyrene	< .001	mg/l			WG609003	08/24/12 11:39
2,4,6-Tribromophenol		% Rec.	81.26	16-147	WG609003	08/24/12 11:39
2-Fluorobiphenyl		% Rec.	77.73	29-127	WG609003	08/24/12 11:39
2-Fluorophenol		% Rec.	39.03	10-75	WG609003	08/24/12 11:39
Nitrobenzene-d5		% Rec.	56.36	17-119	WG609003	08/24/12 11:39
Phenol-d5		% Rec.	27.40	10-63	WG609003	08/24/12 11:39
p-Terphenyl-d14		% Rec.	81.64	40-174	WG609003	08/24/12 11:39
4,4-DDD	< .00005	mg/l			WG608902	08/27/12 15:56
4,4-DDE	< .00005	mg/l			WG608902	08/27/12 15:56
4,4-DDT	< .00005	mg/l			WG608902	08/27/12 15:56
Aldrin	< .00005	mg/l			WG608902	08/27/12 15:56
Alpha BHC	< .00005	mg/l			WG608902	08/27/12 15:56
Beta BHC	< .00005	mg/l			WG608902	08/27/12 15:56
Chlordane	< .0005	mg/l			WG608902	08/27/12 15:56
Delta BHC	< .00005	mg/l			WG608902	08/27/12 15:56
Dieldrin	< .00005	mg/l			WG608902	08/27/12 15:56
Endosulfan I	< .00005	mg/l			WG608902	08/27/12 15:56
Endosulfan II	< .00005	mg/l			WG608902	08/27/12 15:56
Endosulfan sulfate	< .00005	mg/l			WG608902	08/27/12 15:56

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**Quality Assurance Report**  
**Level II**

L590320

August 29, 2012

Analyte	Result	Laboratory Blank			Batch	Date Analyzed
		Units	% Rec	Limit		
Endrin	< .00005	mg/l			WG608902	08/27/12 15:56
Endrin aldehyde	< .00005	mg/l			WG608902	08/27/12 15:56
Endrin ketone	< .00005	mg/l			WG608902	08/27/12 15:56
Gamma BHC	< .00005	mg/l			WG608902	08/27/12 15:56
Heptachlor	< .00005	mg/l			WG608902	08/27/12 15:56
Heptachlor epoxide	< .00005	mg/l			WG608902	08/27/12 15:56
Hexachlorobenzene	< .00005	mg/l			WG608902	08/27/12 15:56
Methoxychlor	< .00005	mg/l			WG608902	08/27/12 15:56
Toxaphene	< .0005	mg/l			WG608902	08/27/12 15:56
Decachlorobiphenyl	% Rec.	90.33	10-122.6		WG608902	08/27/12 15:56
Tetrachloro-m-xylene	% Rec.	79.51	15.3-114.2		WG608902	08/27/12 15:56

Analyte	Units	Result	Duplicate			Ref Samp	Batch
			Duplicate	RPD	Limit		
Arsenic	mg/l	0	0	0	20	L590232-01	WG608088
Barium	mg/l	0.160	0.150	3.28	20	L590232-01	WG608088
Cadmium	mg/l	0	0.000400	NA	20	L590232-01	WG608088
Chromium	mg/l	0	0.00200	NA	20	L590232-01	WG608088
Selenium	mg/l	0.0200	0.0250	22.2*	20	L590232-01	WG608088
Silver	mg/l	0	0	0	20	L590232-01	WG608088
Lead	mg/l	0	0	0	20	L590232-01	WG608088
Mercury	mg/l	0	0	0	20	L590320-01	WG608123
Arsenic	mg/l	0	0.00580	NA	20	L590385-04	WG608201
Barium	mg/l	0.130	0.122	3.23	20	L590385-04	WG608201
Cadmium	mg/l	0	0	0	20	L590385-04	WG608201
Chromium	mg/l	0	0	0	20	L590385-04	WG608201
Lead	mg/l	0	0	0	20	L590385-04	WG608201
Selenium	mg/l	0	0.00420	NA	20	L590385-04	WG608201
Silver	mg/l	0	0	0	20	L590385-04	WG608201

Analyte	Units	Laboratory Control Sample			Limit	Batch
		Known Val	Result	% Rec		
Arsenic	mg/l	1.13	1.08	95.6	85-115	WG608088
Barium	mg/l	1.13	1.07	94.7	85-115	WG608088
Cadmium	mg/l	1.13	1.04	92.0	85-115	WG608088
Chromium	mg/l	1.13	1.07	94.7	85-115	WG608088
Lead	mg/l	1.13	1.10	97.3	85-115	WG608088
Selenium	mg/l	1.13	1.03	91.2	85-115	WG608088
Silver	mg/l	1.13	1.03	91.2	85-115	WG608088
1,1,1,2-Tetrachloroethane	mg/l	.025	0.0235	93.8	77-128	WG608218
1,1,1-Trichloroethane	mg/l	.025	0.0230	91.9	71-126	WG608218
1,1,2,2-Tetrachloroethane	mg/l	.025	0.0217	86.7	78-130	WG608218
1,1,2-Trichloroethane	mg/l	.025	0.0213	85.2	81-121	WG608218
1,1,2-Trichlorotrifluoroethane	mg/l	.025	0.0265	106.	53-143	WG608218
1,1-Dichloroethane	mg/l	.025	0.0221	88.3	73-123	WG608218
1,1-Dichloroethene	mg/l	.025	0.0243	97.4	54-134	WG608218
1,1-Dichloropropene	mg/l	.025	0.0219	87.8	67-127	WG608218
1,2,3-Trichlorobenzene	mg/l	.025	0.0246	98.5	77-130	WG608218
1,2,3-Trichloropropane	mg/l	.025	0.0209	83.6	68-130	WG608218
1,2,3-Trimethylbenzene	mg/l	.025	0.0202	80.9	77-126	WG608218
1,2,4-Trichlorobenzene	mg/l	.025	0.0243	97.0	76-127	WG608218

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**Quality Assurance Report**  
**Level II**

L590320

August 29, 2012

Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
1,2,4-Trimethylbenzene	mg/l	.025	0.0209	83.5	77-129	WG608218
1,2-Dibromo-3-Chloropropane	mg/l	.025	0.0234	93.4	55-142	WG608218
1,2-Dibromoethane	mg/l	.025	0.0231	92.4	78-124	WG608218
1,2-Dichlorobenzene	mg/l	.025	0.0229	91.7	82-121	WG608218
1,2-Dichloroethane	mg/l	.025	0.0223	89.2	69-128	WG608218
1,2-Dichloropropane	mg/l	.025	0.0248	99.4	77-121	WG608218
1,3,5-Trimethylbenzene	mg/l	.025	0.0206	82.6	78-127	WG608218
1,3-Dichlorobenzene	mg/l	.025	0.0230	92.1	77-127	WG608218
1,3-Dichloropropane	mg/l	.025	0.0216	86.3	78-117	WG608218
1,4-Dichlorobenzene	mg/l	.025	0.0220	88.0	79-117	WG608218
2,2-Dichloropropane	mg/l	.025	0.0244	97.7	63-130	WG608218
2-Butanone (MEK)	mg/l	.125	0.0972	77.8	58-144	WG608218
2-Chloroethyl vinyl ether	mg/l	.125	0.108	86.0	26-172	WG608218
2-Chlorotoluene	mg/l	.025	0.0211	84.4	78-123	WG608218
4-Chlorotoluene	mg/l	.025	0.0206	82.4	78-122	WG608218
4-Methyl-2-pentanone (MIBK)	mg/l	.125	0.109	87.4	58-147	WG608218
Acetone	mg/l	.125	0.105	84.1	49-153	WG608218
Acrolein	mg/l	.125	0.0838	67.1	10-181	WG608218
Acrylonitrile	mg/l	.125	0.110	87.7	53-153	WG608218
Benzene	mg/l	.025	0.0206	82.4	72-119	WG608218
Bromobenzene	mg/l	.025	0.0210	84.1	76-121	WG608218
Bromodichloromethane	mg/l	.025	0.0228	91.2	75-127	WG608218
Bromoform	mg/l	.025	0.0233	93.4	61-136	WG608218
Bromomethane	mg/l	.025	0.0352	141.	42-172	WG608218
Carbon tetrachloride	mg/l	.025	0.0237	94.9	63-129	WG608218
Chlorobenzene	mg/l	.025	0.0223	89.1	78-123	WG608218
Chlorodibromomethane	mg/l	.025	0.0226	90.3	73-128	WG608218
Chloroethane	mg/l	.025	0.0289	116.	52-164	WG608218
Chloroform	mg/l	.025	0.0221	88.5	76-122	WG608218
Chloromethane	mg/l	.025	0.0191	76.2	50-141	WG608218
cis-1,2-Dichloroethene	mg/l	.025	0.0230	91.9	75-121	WG608218
cis-1,3-Dichloropropene	mg/l	.025	0.0226	90.3	74-124	WG608218
Di-isopropyl ether	mg/l	.025	0.0204	81.5	66-129	WG608218
Dibromomethane	mg/l	.025	0.0250	100.	77-124	WG608218
Dichlorodifluoromethane	mg/l	.025	0.0229	91.7	33-173	WG608218
Ethylbenzene	mg/l	.025	0.0225	90.0	77-124	WG608218
Hexachloro-1,3-butadiene	mg/l	.025	0.0257	103.	71-134	WG608218
Isopropylbenzene	mg/l	.025	0.0207	82.9	74-126	WG608218
Methyl tert-butyl ether	mg/l	.025	0.0216	86.5	67-127	WG608218
Methylene Chloride	mg/l	.025	0.0226	90.5	67-122	WG608218
n-Butylbenzene	mg/l	.025	0.0199	79.8	74-130	WG608218
n-Propylbenzene	mg/l	.025	0.0201	80.4	77-125	WG608218
Naphthalene	mg/l	.025	0.0202	80.9	70-134	WG608218
p-Isopropyltoluene	mg/l	.025	0.0212	85.0	77-132	WG608218
sec-Butylbenzene	mg/l	.025	0.0205	82.1	77-130	WG608218
Styrene	mg/l	.025	0.0211	84.5	69-145	WG608218
tert-Butylbenzene	mg/l	.025	0.0221	88.4	76-131	WG608218
Tetrachloroethene	mg/l	.025	0.0247	98.9	69-131	WG608218
Toluene	mg/l	.025	0.0219	87.6	75-114	WG608218
trans-1,2-Dichloroethene	mg/l	.025	0.0227	90.8	63-127	WG608218
trans-1,3-Dichloropropene	mg/l	.025	0.0246	98.3	69-124	WG608218
Trichloroethene	mg/l	.025	0.0257	103.	69-131	WG608218
Trichlorofluoromethane	mg/l	.025	0.0268	107.	53-161	WG608218
Vinyl chloride	mg/l	.025	0.0228	91.3	55-142	WG608218
Xylenes, Total	mg/l	.075	0.0647	86.3	77-123	WG608218
4-Bromofluorobenzene				93.00	82-120	WG608218
Dibromofluoromethane				101.8	82-126	WG608218
Toluene-d8				97.26	92-112	WG608218

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## Quality Assurance Report

## Level II

L590320

August 29, 2012

Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
Mercury	mg/l	.003	0.00289	96.3	85-115	WG608123
Arsenic	mg/l	1.13	1.10	97.3	85-115	WG608201
Barium	mg/l	1.13	1.13	100.	85-115	WG608201
Cadmium	mg/l	1.13	1.16	103.	85-115	WG608201
Chromium	mg/l	1.13	1.08	95.6	85-115	WG608201
Lead	mg/l	1.13	1.13	100.	85-115	WG608201
Selenium	mg/l	1.13	1.06	93.8	85-115	WG608201
Silver	mg/l	1.13	1.05	92.9	85-115	WG608201
1,2,4-Trichlorobenzene	mg/l	.01	0.00819	81.9	18-130	WG608122
2,4,6-Trichlorophenol	mg/l	.01	0.00939	93.9	12-147	WG608122
2,4-Dichlorophenol	mg/l	.01	0.00790	79.0	10-157	WG608122
2,4-Dimethylphenol	mg/l	.01	0.00848	84.8	19-160	WG608122
2,4-Dinitrophenol	mg/l	.01	0.00859	85.9	10-135	WG608122
2,4-Dinitrotoluene	mg/l	.01	0.00845	84.5	30-168	WG608122
2,6-Dinitrotoluene	mg/l	.01	0.00830	83.0	32-163	WG608122
2-Chloronaphthalene	mg/l	.01	0.00864	86.4	29-149	WG608122
2-Chlorophenol	mg/l	.01	0.00720	72.0	16-129	WG608122
2-Nitrophenol	mg/l	.01	0.00821	82.1	14-158	WG608122
3,3-Dichlorobenzidine	mg/l	.01	0.0100	100.	42-150	WG608122
4,6-Dinitro-2-methylphenol	mg/l	.01	0.0111	111.	10-164	WG608122
4-Bromophenyl-phenylether	mg/l	.01	0.0103	103.	40-166	WG608122
4-Chloro-3-methylphenol	mg/l	.01	0.00821	82.1	14-158	WG608122
4-Chlorophenyl-phenylether	mg/l	.01	0.00993	99.3	39-155	WG608122
4-Nitrophenol	mg/l	.01	0.00246	24.6	10-61	WG608122
Acenaphthene	mg/l	.01	0.00873	87.3	37-159	WG608122
Acenaphthylene	mg/l	.01	0.00855	85.5	34-162	WG608122
Anthracene	mg/l	.01	0.00912	91.2	48-167	WG608122
Benzidine	mg/l	.01	0.00481	48.1	10-86	WG608122
Benzo(a)anthracene	mg/l	.01	0.00966	96.6	46-167	WG608122
Benzo(a)pyrene	mg/l	.01	0.00911	91.1	39-167	WG608122
Benzo(b)fluoranthene	mg/l	.01	0.00978	97.8	39-173	WG608122
Benzo(g,h,i)perylene	mg/l	.01	0.0105	105.	42-181	WG608122
Benzo(k)fluoranthene	mg/l	.01	0.00961	96.1	42-178	WG608122
Benzylbutyl phthalate	mg/l	.01	0.00847	84.7	10-178	WG608122
Bis(2-chlorethoxy)methane	mg/l	.01	0.00959	95.9	34-155	WG608122
Bis(2-chloroethyl)ether	mg/l	.01	0.00672	67.2	22-149	WG608122
Bis(2-chloroisopropyl)ether	mg/l	.01	0.00767	76.7	26-149	WG608122
Bis(2-ethylhexyl)phthalate	mg/l	.01	0.00968	96.8	42-191	WG608122
Chrysene	mg/l	.01	0.0103	103.	46-170	WG608122
Di-n-butyl phthalate	mg/l	.01	0.00980	98.0	33-175	WG608122
Di-n-octyl phthalate	mg/l	.01	0.00908	90.8	40-170	WG608122
Dibenz(a,h)anthracene	mg/l	.01	0.0106	106.	43-187	WG608122
Diethyl phthalate	mg/l	.01	0.0101	101.	10-182	WG608122
Dimethyl phthalate	mg/l	.01	0.0102	102.	10-165	WG608122
Fluoranthene	mg/l	.01	0.00947	94.7	46-171	WG608122
Fluorene	mg/l	.01	0.00926	92.6	39-163	WG608122
Hexachloro-1,3-butadiene	mg/l	.01	0.00817	81.7	18-136	WG608122
Hexachlorobenzene	mg/l	.01	0.0101	101.	38-163	WG608122
Hexachlorocyclopentadiene	mg/l	.01	0.00985	98.5	10-142	WG608122
Hexachloroethane	mg/l	.01	0.00655	65.5	10-130	WG608122
Indeno(1,2,3-cd)pyrene	mg/l	.01	0.0103	103.	42-184	WG608122
Isophorone	mg/l	.01	0.00893	89.3	36-166	WG608122
n-Nitrosodi-n-propylamine	mg/l	.01	0.00815	81.5	27-157	WG608122
n-Nitrosodimethylamine	mg/l	.01	0.00389	39.0	10-96	WG608122

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L A B S C I E N C E S

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Est. 1970

Quality Assurance Report  
Level II

L590320

August 29, 2012

Analyte	Units	Laboratory Control Sample				
		Known Val	Result	% Rec	Limit	Batch
n-Nitrosodiphenylamine	mg/l	.01	0.00901	90.1	41-168	WG608122
Naphthalene	mg/l	.01	0.00804	80.4	26-147	WG608122
Nitrobenzene	mg/l	.01	0.00901	90.1	22-154	WG608122
Pentachlorophenol	mg/l	.01	0.00732	73.2	10-128	WG608122
Phenanthrene	mg/l	.01	0.00927	92.7	46-163	WG608122
Phenol	mg/l	.01	0.00351	35.1	10-69	WG608122
Pyrene	mg/l	.01	0.00906	90.6	45-176	WG608122
2,4,6-Tribromophenol			89.60	16-147	WG608122	
2-Fluorobiphenyl			84.47	29-127	WG608122	
2-Fluorophenol			43.84	10-75	WG608122	
Nitrobenzene-d5			82.54	17-119	WG608122	
Phenol-d5			31.13	10-63	WG608122	
p-Terphenyl-d14			83.34	40-174	WG608122	
PCB 1016	mg/l	.0005	0.000379	75.8	32-126	WG608121
PCB 1260	mg/l	.0005	0.000380	76.1	58-128	WG608121
Decachlorobiphenyl			67.31	10-122.6	WG608121	
Tetrachloro-m-xylene			70.81	15.3-114.2	WG608121	
4,4-DDD	mg/l	.0002	0.000154	76.8	60-123	WG608121
4,4-DDE	mg/l	.0002	0.000157	78.4	50-120	WG608121
4,4-DDT	mg/l	.0002	0.000168	84.0	61-121	WG608121
Aldrin	mg/l	.0002	0.0000785	39.3	10-136	WG608121
Alpha BHC	mg/l	.0002	0.000158	79.2	58-114	WG608121
Beta BHC	mg/l	.0002	0.000162	81.1	61-120	WG608121
Delta BHC	mg/l	.0002	0.000153	76.7	57-120	WG608121
Dieldrin	mg/l	.0002	0.000161	80.5	62-123	WG608121
Endosulfan I	mg/l	.0002	0.000163	81.4	63-123	WG608121
Endosulfan II	mg/l	.0002	0.000157	78.6	63-124	WG608121
Endosulfan sulfate	mg/l	.0002	0.000151	75.6	59-125	WG608121
Endrin	mg/l	.0002	0.000158	78.9	60-123	WG608121
Endrin aldehyde	mg/l	.0002	0.000140	69.9	42-92	WG608121
Endrin ketone	mg/l	.0002	0.000165	82.5	60-117	WG608121
Gamma BHC	mg/l	.0002	0.000160	79.8	59-116	WG608121
Heptachlor	mg/l	.0002	0.000118	58.9	10-131	WG608121
Heptachlor epoxide	mg/l	.0002	0.000163	81.5	61-118	WG608121
Hexachlorobenzene	mg/l	.0002	0.0000741	37.0	28-116	WG608121
Methoxychlor	mg/l	.0002	0.000186	93.1	66-122	WG608121
Decachlorobiphenyl			81.89	10-122.6	WG608121	
Tetrachloro-m-xylene			71.94	15.3-114.2	WG608121	
Extractable Petroleum Hydrocarbon	ppm	1.5	1.26	83.9	50-100	WG608431
o-Terphenyl				69.00	50-150	WG608431
1,2,4-Trichlorobenzene	mg/l	.01	0.00859	85.9	18-130	WG608422
2,4,6-Trichlorophenol	mg/l	.01	0.00975	97.5	12-147	WG608422
2,4-Dichlorophenol	mg/l	.01	0.00856	85.6	10-157	WG608422
2,4-Dimethylphenol	mg/l	.01	0.00880	88.0	19-160	WG608422
2,4-Dinitrophenol	mg/l	.01	0.0105	105.	10-135	WG608422
2,4-Dinitrotoluene	mg/l	.01	0.00798	79.8	30-168	WG608422
2,6-Dinitrotoluene	mg/l	.01	0.00824	82.4	32-163	WG608422
2-Chloronaphthalene	mg/l	.01	0.00853	85.3	29-149	WG608422
2-Chlorophenol	mg/l	.01	0.00788	78.8	16-129	WG608422
2-Nitrophenol	mg/l	.01	0.00871	87.1	14-158	WG608422
3,3-Dichlorobenzidine	mg/l	.01	0.00969	96.9	42-150	WG608422
4,6-Dinitro-2-methylphenol	mg/l	.01	0.0107	107.	10-164	WG608422
4-Bromophenyl-phenylether	mg/l	.01	0.00951	95.1	40-166	WG608422

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Y O U R L A B O F C H O I C E

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**Quality Assurance Report**  
**Level II**

L590320

August 29, 2012

Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
4-Chloro-3-methylphenol	mg/l	.01	0.00853	85.3	14-158	WG608422
4-Chlorophenyl-phenylether	mg/l	.01	0.00908	90.8	39-155	WG608422
4-Nitrophenol	mg/l	.01	0.00399	39.9	10-61	WG608422
Acenaphthene	mg/l	.01	0.00848	84.8	37-159	WG608422
Acenaphthylene	mg/l	.01	0.00826	82.6	34-162	WG608422
Anthracene	mg/l	.01	0.00870	87.0	48-167	WG608422
Benzidine	mg/l	.01	0.00447	44.7	10-86	WG608422
Benzo(a)anthracene	mg/l	.01	0.00921	92.1	46-167	WG608422
Benzo(a)pyrene	mg/l	.01	0.00913	91.3	39-167	WG608422
Benzo(b)fluoranthene	mg/l	.01	0.00922	92.2	39-173	WG608422
Benzo(g,h,i)perylene	mg/l	.01	0.0101	101.	42-181	WG608422
Benzo(k)fluoranthene	mg/l	.01	0.00930	93.0	42-178	WG608422
Benzylbutyl phthalate	mg/l	.01	0.00823	82.3	10-178	WG608422
Bis(2-chlorethoxy)methane	mg/l	.01	0.00940	94.0	34-155	WG608422
Bis(2-chloroethyl)ether	mg/l	.01	0.00628	62.8	22-149	WG608422
Bis(2-chloroisopropyl)ether	mg/l	.01	0.00779	77.9	26-149	WG608422
Bis(2-ethylhexyl)phthalate	mg/l	.01	0.00875	87.5	42-191	WG608422
Chrysene	mg/l	.01	0.00998	99.8	46-170	WG608422
Di-n-butyl phthalate	mg/l	.01	0.00874	87.4	33-175	WG608422
Di-n-octyl phthalate	mg/l	.01	0.00917	91.7	40-170	WG608422
Dibenz(a,h)anthracene	mg/l	.01	0.0105	105.	43-187	WG608422
Diethyl phthalate	mg/l	.01	0.00962	96.2	10-182	WG608422
Dimethyl phthalate	mg/l	.01	0.00970	97.0	10-165	WG608422
Fluoranthene	mg/l	.01	0.00912	91.2	46-171	WG608422
Fluorene	mg/l	.01	0.00892	89.2	39-163	WG608422
Hexachloro-1,3-butadiene	mg/l	.01	0.00869	86.9	18-136	WG608422
Hexachlorobenzene	mg/l	.01	0.00961	96.1	38-163	WG608422
Hexachlorocyclopentadiene	mg/l	.01	0.0109	109.	10-142	WG608422
Hexachloroethane	mg/l	.01	0.00758	75.8	10-130	WG608422
Indeno(1,2,3-cd)pyrene	mg/l	.01	0.0102	102.	42-184	WG608422
Isophorone	mg/l	.01	0.00898	89.8	36-166	WG608422
n-Nitrosodi-n-propylamine	mg/l	.01	0.00812	81.2	27-157	WG608422
n-Nitrosodimethylamine	mg/l	.01	0.00394	39.4	10-96	WG608422
n-Nitrosodiphenylamine	mg/l	.01	0.00877	87.7	41-168	WG608422
Naphthalene	mg/l	.01	0.00808	80.8	26-147	WG608422
Nitrobenzene	mg/l	.01	0.00897	89.7	22-154	WG608422
Pentachlorophenol	mg/l	.01	0.00656	65.6	10-128	WG608422
Phenanthrone	mg/l	.01	0.00904	90.4	46-163	WG608422
Phenol	mg/l	.01	0.00480	48.0	10-69	WG608422
Pyrene	mg/l	.01	0.00826	82.6	45-176	WG608422
2,4,6-Tribromophenol				85.45	16-147	WG608422
2-Fluorobiphenyl				78.63	29-127	WG608422
2-Fluorophenol				56.62	10-75	WG608422
Nitrobenzene-d5				73.31	17-119	WG608422
Phenol-d5				40.62	10-63	WG608422
p-Terphenyl-d14				71.22	40-174	WG608422
2,4,5-T	mg/l	.005	0.00434	86.7	46-116	WG608850
2,4,5-TP (Silvex)	mg/l	.005	0.00469	93.8	53.6-122	WG608850
2,4-D	mg/l	.005	0.00408	81.6	47.4-113	WG608850
2,4-DB	mg/l	.005	0.00512	102.	48.4-118	WG608850
Dalapon	mg/l	.005	0.00414	82.8	40.5-102	WG608850
Dicamba	mg/l	.005	0.00475	94.9	57.2-111	WG608850
Dichloroprop	mg/l	.005	0.00520	104.	55.8-128	WG608850
Dinoseb	mg/l	.005	0.00462	92.4	41-121	WG608850
MCPA	mg/l	.5	0.382	76.4	24.1-143	WG608850
MCPP	mg/l	.5	0.670	134.	49-198	WG608850
2,4-Dichlorophenyl Acetic Acid				73.36	42-112	WG608850

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Quality Assurance Report  
Level II

L590320

August 29, 2012

Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
GRO (C6-C10)	mg/l	1	0.574	57.4	50-100	WG608856
a,a,a-Trifluorotoluene(FID)				118.2	50-150	WG608856
PCB 1016	mg/l	.0005	0.000369	73.9	32-126	WG608902
PCB 1260	mg/l	.0005	0.000415	82.9	58-128	WG608902
Decachlorobiphenyl				82.57	10-122.6	WG608902
Tetrachloro-m-xylene				69.08	15.3-114.2	WG608902
1,2,4-Trichlorobenzene	mg/l	.01	0.00596	59.6	34-97	WG609003
2,4,6-Trichlorophenol	mg/l	.01	0.00836	83.6	38-113	WG609003
2,4-Dichlorophenol	mg/l	.01	0.00812	81.2	46-105	WG609003
2,4-Dimethylphenol	mg/l	.01	0.00798	79.8	47-108	WG609003
2,4-Dinitrophenol	mg/l	.01	0.00791	79.1	10-121	WG609003
2,4-Dinitrotoluene	mg/l	.01	0.00840	84.0	59-117	WG609003
2,6-Dinitrotoluene	mg/l	.01	0.00864	86.4	57-110	WG609003
2-Chloronaphthalene	mg/l	.01	0.00743	74.3	47-106	WG609003
2-Chlorophenol	mg/l	.01	0.00676	67.6	37-90	WG609003
2-Nitrophenol	mg/l	.01	0.00790	79.0	40-112	WG609003
3,3-Dichlorobenzidine	mg/l	.01	0.00760	76.0	58-116	WG609003
4,6-Dinitro-2-methylphenol	mg/l	.01	0.00961	96.1	21-119	WG609003
4-Bromophenyl-phenylether	mg/l	.01	0.00778	77.8	63-120	WG609003
4-Chlorophenyl-phenylether	mg/l	.01	0.00807	80.8	50-105	WG609003
4-Chlorophenyl-phenylether	mg/l	.01	0.00734	73.4	58-115	WG609003
4-Nitrophenol	mg/l	.01	0.00410	41.0	10-53	WG609003
Acenaphthene	mg/l	.01	0.00749	74.9	52-107	WG609003
Acenaphthylene	mg/l	.01	0.00787	78.7	55-119	WG609003
Anthracene	mg/l	.01	0.00806	80.6	65-114	WG609003
Benzidine	mg/l	.01	0.00347	34.7	10-55	WG609003
Benzo(a)anthracene	mg/l	.01	0.00815	81.5	68-113	WG609003
Benzo(a)pyrene	mg/l	.01	0.00838	83.8	68-115	WG609003
Benzo(b)fluoranthene	mg/l	.01	0.00837	83.7	67-114	WG609003
Benzo(g,h,i)perylene	mg/l	.01	0.00831	83.1	52-132	WG609003
Benzo(k)fluoranthene	mg/l	.01	0.00836	83.6	62-116	WG609003
Benzylbutyl phthalate	mg/l	.01	0.00791	79.1	12-166	WG609003
Bis(2-chlorethoxy)methane	mg/l	.01	0.00836	83.6	56-116	WG609003
Bis(2-chloroethyl)ether	mg/l	.01	0.00767	76.7	39-109	WG609003
Bis(2-chloroisopropyl)ether	mg/l	.01	0.00732	73.2	43-108	WG609003
Bis(2-ethylhexyl)phthalate	mg/l	.01	0.00782	78.2	61-147	WG609003
Chrysene	mg/l	.01	0.00843	84.3	65-114	WG609003
Di-n-butyl phthalate	mg/l	.01	0.00791	79.1	56-133	WG609003
Di-n-octyl phthalate	mg/l	.01	0.00756	75.6	59-143	WG609003
Dibenz(a,h)anthracene	mg/l	.01	0.00815	81.5	54-130	WG609003
Diethyl phthalate	mg/l	.01	0.00813	81.3	33-136	WG609003
Dimethyl phthalate	mg/l	.01	0.00810	81.0	10-152	WG609003
Fluoranthene	mg/l	.01	0.00794	79.4	66-120	WG609003
Fluorene	mg/l	.01	0.00782	78.2	58-110	WG609003
Hexachloro-1,3-butadiene	mg/l	.01	0.00572	57.2	34-115	WG609003
Hexachlorobenzene	mg/l	.01	0.00717	71.7	55-117	WG609003
Hexachlorocyclopentadiene	mg/l	.01	0.00648	64.8	20-121	WG609003
Hexachloroethane	mg/l	.01	0.00503	50.3	24-93	WG609003
Indeno(1,2,3-cd)pyrene	mg/l	.01	0.00839	83.9	56-129	WG609003
Isophorone	mg/l	.01	0.00687	68.7	55-108	WG609003
n-Nitrosodi-n-propylamine	mg/l	.01	0.00870	87.0	50-115	WG609003
n-Nitrosodimethylamine	mg/l	.01	0.00415	41.5	12-68	WG609003
n-Nitrosodiphenylamine	mg/l	.01	0.00822	82.2	55-98	WG609003
Naphthalene	mg/l	.01	0.00691	69.1	42-103	WG609003
Nitrobenzene	mg/l	.01	0.00782	78.2	39-102	WG609003

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August 29, 2012

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Pentachlorophenol	mg/l	.01	0.00764	76.4	10-101	WG609003
Phenanthrene	mg/l	.01	0.00833	83.3	61-110	WG609003
Phenol	mg/l	.01	0.00361	36.1	10-53	WG609003
Pyrene	mg/l	.01	0.00785	78.5	65-116	WG609003
2,4,6-Tribromophenol				90.26	16-147	WG609003
2-Fluorobiphenyl				90.84	29-127	WG609003
2-Fluorophenol				52.34	10-75	WG609003
Nitrobenzene-d5				80.72	17-119	WG609003
Phenol-d5				36.20	10-63	WG609003
p-Terphenyl-d14				70.16	40-174	WG609003
4,4-DDD	mg/l	.0002	0.000176	87.8	60-123	WG608902
4,4-DDE	mg/l	.0002	0.000150	75.1	50-120	WG608902
4,4-DDT	mg/l	.0002	0.000173	86.5	61-121	WG608902
Aldrin	mg/l	.0002	0.0000824	41.2	10-136	WG608902
Alpha BHC	mg/l	.0002	0.000181	90.4	58-114	WG608902
Beta BHC	mg/l	.0002	0.000174	87.2	61-120	WG608902
Delta BHC	mg/l	.0002	0.000197	98.5	57-120	WG608902
Dieldrin	mg/l	.0002	0.000175	87.4	62-123	WG608902
Endosulfan I	mg/l	.0002	0.000177	88.3	63-123	WG608902
Endosulfan II	mg/l	.0002	0.000174	86.8	63-124	WG608902
Endosulfan sulfate	mg/l	.0002	0.000217	108.	59-125	WG608902
Endrin	mg/l	.0002	0.000175	87.6	60-123	WG608902
Endrin aldehyde	mg/l	.0002	0.000157	78.4	42-92	WG608902
Endrin ketone	mg/l	.0002	0.000199	99.3	60-117	WG608902
Gamma BHC	mg/l	.0002	0.000182	90.9	59-116	WG608902
Heptachlor	mg/l	.0002	0.000111	55.4	10-131	WG608902
Heptachlor epoxide	mg/l	.0002	0.000174	87.1	61-118	WG608902
Hexachlorobenzene	mg/l	.0002	0.000108	53.9	28-116	WG608902
Methoxychlor	mg/l	.0002	0.000172	86.2	66-122	WG608902
Decachlorobiphenyl				86.45	10-122.6	WG608902
Tetrachloro-m-xylene				86.44	15.3-114.2	WG608902

Analyte	Units	Laboratory Control Sample Duplicate		RPD	Limit	Batch
		Result	Ref			
1,1,1,2-Tetrachloroethane	mg/l	0.0250	0.0235	100.	77-128	6.35
1,1,1-Trichloroethane	mg/l	0.0237	0.0230	95.0	71-126	3.11
1,1,2,2-Tetrachloroethane	mg/l	0.0222	0.0217	89.0	78-130	2.58
1,1,2-Trichloroethane	mg/l	0.0229	0.0213	92.0	81-121	7.36
1,1,2-Trichlorotrifluoroethane	mg/l	0.0263	0.0265	105.	53-143	0.580
1,1-Dichloroethane	mg/l	0.0220	0.0221	88.0	73-123	0.240
1,1-Dichloroethene	mg/l	0.0243	0.0243	97.0	54-134	0.100
1,1-Dichloropropene	mg/l	0.0222	0.0219	89.0	67-127	1.13
1,2,3-Trichlorobenzene	mg/l	0.0255	0.0246	102.	77-130	3.49
1,2,3-Trichloropropane	mg/l	0.0216	0.0209	86.0	68-130	3.09
1,2,3-Trimethylbenzene	mg/l	0.0208	0.0202	83.0	77-126	2.76
1,2,4-Trichlorobenzene	mg/l	0.0254	0.0243	101.	76-127	4.50
1,2,4-Trimethylbenzene	mg/l	0.0218	0.0209	87.0	77-129	4.42
1,2-Dibromo-3-Chloropropane	mg/l	0.0238	0.0234	95.0	55-142	1.77
1,2-Dibromoethane	mg/l	0.0245	0.0231	98.0	78-124	5.70
1,2-Dichlorobenzene	mg/l	0.0240	0.0229	96.0	82-121	4.79
1,2-Dichloroethane	mg/l	0.0229	0.0223	92.0	69-128	2.67
1,2-Dichloropropane	mg/l	0.0258	0.0248	103.	77-121	3.81
1,3,5-Trimethylbenzene	mg/l	0.0219	0.0206	88.0	78-127	5.98
1,3-Dichlorobenzene	mg/l	0.0248	0.0230	99.0	77-127	7.65
1,3-Dichloropropane	mg/l	0.0226	0.0216	90.0	78-117	4.71
1,4-Dichlorobenzene	mg/l	0.0237	0.0220	95.0	79-117	7.47

\* Performance of this Analyte is outside of established criteria.

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**Quality Assurance Report**  
**Level II**

L590320

August 29, 2012

Analyte	Units	Laboratory Result	Control Ref	%Rec	Sample Limit	Duplicate RPD	Limit	Batch
2,2-Dichloropropane	mg/l	0.0233	0.0244	93.0	63-130	4.70	20	WG608218
2-Butanone (MEK)	mg/l	0.0965	0.0972	77.0	58-144	0.710	20	WG608218
2-Chloroethyl vinyl ether	mg/l	0.112	0.108	90.0	26-172	4.41	22	WG608218
2-Chlorotoluene	mg/l	0.0220	0.0211	88.0	78-123	4.06	20	WG608218
4-Chlorotoluene	mg/l	0.0218	0.0206	87.0	78-122	5.44	20	WG608218
4-Methyl-2-pentanone (MIBK)	mg/l	0.116	0.109	93.0	58-147	6.00	20	WG608218
Acetone	mg/l	0.104	0.105	83.0	49-153	0.780	21	WG608218
Acrolein	mg/l	0.0817	0.0838	65.0	10-181	2.61	30	WG608218
Acrylonitrile	mg/l	0.108	0.110	87.0	53-153	1.12	20	WG608218
Benzene	mg/l	0.0209	0.0206	84.0	72-119	1.34	20	WG608218
Bromobenzene	mg/l	0.0219	0.0210	87.0	76-121	3.83	20	WG608218
Bromodichloromethane	mg/l	0.0241	0.0228	96.0	75-127	5.47	20	WG608218
Bromoform	mg/l	0.0258	0.0233	103.	61-136	10.0	20	WG608218
Bromomethane	mg/l	0.0348	0.0352	139.	42-172	1.08	20	WG608218
Carbon tetrachloride	mg/l	0.0237	0.0237	95.0	63-129	0.0500	20	WG608218
Chlorobenzene	mg/l	0.0236	0.0223	94.0	78-123	5.79	20	WG608218
Chlorodibromomethane	mg/l	0.0239	0.0226	96.0	73-128	5.88	20	WG608218
Chloroethane	mg/l	0.0279	0.0289	111.	52-164	3.69	20	WG608218
Chloroform	mg/l	0.0228	0.0221	91.0	76-122	2.76	20	WG608218
Chloromethane	mg/l	0.0190	0.0191	76.0	50-141	0.0300	20	WG608218
cis-1,2-Dichloroethene	mg/l	0.0243	0.0230	97.0	75-121	5.69	20	WG608218
cis-1,3-Dichloropropene	mg/l	0.0240	0.0226	96.0	74-124	6.32	20	WG608218
Di-isopropyl ether	mg/l	0.0205	0.0204	82.0	66-129	0.430	20	WG608218
Dibromomethane	mg/l	0.0266	0.0250	106.	77-124	6.14	20	WG608218
Dichlorodifluoromethane	mg/l	0.0217	0.0229	87.0	33-173	5.58	20	WG608218
Ethylbenzene	mg/l	0.0238	0.0225	95.0	77-124	5.61	20	WG608218
Hexachloro-1,3-butadiene	mg/l	0.0267	0.0257	107.	71-134	3.82	20	WG608218
Isopropylbenzene	mg/l	0.0214	0.0207	86.0	74-126	3.38	20	WG608218
Methyl tert-butyl ether	mg/l	0.0220	0.0216	88.0	67-127	1.58	20	WG608218
Methylene Chloride	mg/l	0.0229	0.0226	92.0	67-122	1.17	20	WG608218
n-Butylbenzene	mg/l	0.0202	0.0199	81.0	74-130	1.20	20	WG608218
n-Propylbenzene	mg/l	0.0209	0.0201	83.0	77-125	3.74	20	WG608218
Naphthalene	mg/l	0.0210	0.0202	84.0	70-134	3.80	20	WG608218
p-Isopropyltoluene	mg/l	0.0224	0.0212	89.0	77-132	5.13	20	WG608218
sec-Butylbenzene	mg/l	0.0211	0.0205	84.0	77-130	2.98	20	WG608218
Styrene	mg/l	0.0227	0.0211	91.0	69-145	7.15	20	WG608218
tert-Butylbenzene	mg/l	0.0232	0.0221	93.0	76-131	4.61	20	WG608218
Tetrachloroethene	mg/l	0.0256	0.0247	102.	69-131	3.65	20	WG608218
Toluene	mg/l	0.0231	0.0219	92.0	75-114	5.50	20	WG608218
trans-1,2-Dichloroethene	mg/l	0.0232	0.0227	93.0	63-127	2.00	20	WG608218
trans-1,3-Dichloropropene	mg/l	0.0271	0.0246	108.	69-124	9.63	20	WG608218
Trichloroethene	mg/l	0.0277	0.0257	111.	69-131	7.59	20	WG608218
Trichlorofluoromethane	mg/l	0.0270	0.0268	108.	53-161	0.870	20	WG608218
Vinyl chloride	mg/l	0.0222	0.0228	89.0	55-142	2.84	20	WG608218
Xylenes, Total	mg/l	0.0688	0.0647	92.0	77-123	6.08	20	WG608218
4-Bromofluorobenzene				92.23	82-120			WG608218
Dibromofluoromethane				97.73	82-126			WG608218
Toluene-d8				96.68	92-112			WG608218
1,2,4-Trichlorobenzene	mg/l	0.00780	0.00819	78.0	18-130	4.89	32	WG608122
2,4,6-Trichlorophenol	mg/l	0.00911	0.00939	91.0	12-147	3.03	40	WG608122
2,4-Dichlorophenol	mg/l	0.00787	0.00790	79.0	10-157	0.436	40	WG608122
2,4-Dimethylphenol	mg/l	0.00780	0.00848	78.0	19-160	8.35	40	WG608122
2,4-Dinitrophenol	mg/l	0.00812	0.00859	81.0	10-135	5.61	40	WG608122
2,4-Dinitrotoluene	mg/l	0.00787	0.00845	79.0	30-168	7.04	32	WG608122
2,6-Dinitrotoluene	mg/l	0.00801	0.00830	80.0	32-163	3.49	30	WG608122
2-Chloronaphthalene	mg/l	0.00815	0.00864	81.0	29-149	5.82	34	WG608122
2-Chlorophenol	mg/l	0.00679	0.00720	68.0	16-129	5.94	40	WG608122

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**Quality Assurance Report**  
**Level II**

L590320

August 29, 2012

Analyte	Units	Laboratory Result	Control Ref	Sample %Rec	Duplicate Limit	RPD	Limit	Batch
2-Nitrophenol	mg/l	0.00769	0.00821	77.0	14-158	6.61	40	WG608122
3,3-Dichlorobenzidine	mg/l	0.00983	0.0100	98.0	42-150	2.03	29	WG608122
4,6-Dinitro-2-methylphenol	mg/l	0.0104	0.0111	104.	10-164	6.85	40	WG608122
4-Bromophenyl-phenylether	mg/l	0.00964	0.0103	96.0	40-166	6.37	36	WG608122
4-Chloro-3-methylphenol	mg/l	0.00749	0.00821	75.0	14-158	9.18	40	WG608122
4-Chlorophenyl-phenylether	mg/l	0.00976	0.00993	98.0	39-155	1.73	33	WG608122
4-Nitrophenol	mg/l	0.00169	0.00246	17.0	10-61	37.1	40	WG608122
Acenaphthene	mg/l	0.00814	0.00873	81.0	37-159	7.06	30	WG608122
Acenaphthylene	mg/l	0.00807	0.00855	81.0	34-162	5.77	31	WG608122
Anthracene	mg/l	0.00865	0.00912	86.0	48-167	5.39	26	WG608122
Benzidine	mg/l	0.00508	0.00481	51.0	10-86	5.48	40	WG608122
Benzo(a)anthracene	mg/l	0.00998	0.00966	100.	46-167	3.23	29	WG608122
Benzo(a)pyrene	mg/l	0.00901	0.00911	90.0	39-167	1.15	29	WG608122
Benzo(b)fluoranthene	mg/l	0.00960	0.00978	96.0	39-173	1.92	32	WG608122
Benzo(g,h,i)perylene	mg/l	0.0100	0.0105	100.	42-181	4.36	30	WG608122
Benzo(k)fluoranthene	mg/l	0.00976	0.00961	98.0	42-178	1.54	33	WG608122
Benzylbutyl phthalate	mg/l	0.00817	0.00847	82.0	10-178	3.57	40	WG608122
Bis(2-chlorethoxy)methane	mg/l	0.00905	0.00959	90.0	34-155	5.82	31	WG608122
Bis(2-chloroethyl)ether	mg/l	0.00604	0.00672	60.0	22-149	10.6	38	WG608122
Bis(2-chloroisopropyl)ether	mg/l	0.00790	0.00767	79.0	26-149	2.88	34	WG608122
Bis(2-ethylhexyl)phthalate	mg/l	0.00945	0.00968	94.0	42-191	2.34	33	WG608122
Chrysene	mg/l	0.00989	0.0103	99.0	46-170	4.03	30	WG608122
Di-n-butyl phthalate	mg/l	0.00859	0.00980	86.0	33-175	13.1	39	WG608122
Di-n-octyl phthalate	mg/l	0.00868	0.00908	87.0	40-170	4.54	28	WG608122
Dibenz(a,h)anthracene	mg/l	0.00997	0.0106	100.	43-187	6.47	31	WG608122
Diethyl phthalate	mg/l	0.0101	0.0101	101.	10-182	0.360	35	WG608122
Dimethyl phthalate	mg/l	0.00990	0.0102	99.0	10-165	3.11	37	WG608122
Fluoranthene	mg/l	0.00895	0.00947	90.0	46-171	5.58	37	WG608122
Fluorene	mg/l	0.00900	0.00926	90.0	39-163	2.81	36	WG608122
Hexachloro-1,3-butadiene	mg/l	0.00786	0.00817	79.0	18-136	3.79	30	WG608122
Hexachlorobenzene	mg/l	0.00898	0.0101	90.0	38-163	12.1	35	WG608122
Hexachlorocyclopentadiene	mg/l	0.00972	0.00985	97.0	10-142	1.26	40	WG608122
Hexachloroethane	mg/l	0.00598	0.00655	60.0	10-130	9.09	39	WG608122
Indeno(1,2,3-cd)pyrene	mg/l	0.0100	0.0103	100.	42-184	2.38	32	WG608122
Isophorone	mg/l	0.00865	0.00893	86.0	36-166	3.23	35	WG608122
n-Nitrosodi-n-propylamine	mg/l	0.00812	0.00815	81.0	27-157	0.399	31	WG608122
n-Nitrosodimethylamine	mg/l	0.00383	0.00389	38.0	10-96	1.70	36	WG608122
n-Nitrosodiphenylamine	mg/l	0.00883	0.00901	88.0	41-168	1.98	37	WG608122
Naphthalene	mg/l	0.00776	0.00804	78.0	26-147	3.50	31	WG608122
Nitrobenzene	mg/l	0.00873	0.00901	87.0	22-154	3.24	37	WG608122
Pentachlorophenol	mg/l	0.00575	0.00732	57.0	10-128	24.1	40	WG608122
Phenanthrene	mg/l	0.00863	0.00927	86.0	46-163	7.13	29	WG608122
Phenol	mg/l	0.00347	0.00351	35.0	10-69	1.11	40	WG608122
Pyrene	mg/l	0.00879	0.00906	88.0	45-176	3.13	28	WG608122
2,4,6-Tribromophenol				85.96	16-147			WG608122
2-Fluorobiphenyl				79.90	29-127			WG608122
2-Fluorophenol				39.92	10-75			WG608122
Nitrobenzene-d5				77.90	17-119			WG608122
Phenol-d5				30.10	10-63			WG608122
p-Terphenyl-d14				79.49	40-174			WG608122
PCB 1016	mg/l	0.000289	0.000379	58.0	32-126	26.8*	22	WG608121
PCB 1260	mg/l	0.000377	0.000380	75.0	58-128	1.04	20	WG608121
Decachlorobiphenyl				84.17	10-122.6			WG608121
Tetrachloro-m-xylene				63.36	15.3-114.2			WG608121
4,4-DDD	mg/l	0.000164	0.000154	82.0	60-123	6.35	20	WG608121
4,4-DDE	mg/l	0.000167	0.000157	84.0	50-120	6.33	22	WG608121
4,4-DDT	mg/l	0.000195	0.000168	97.0	61-121	14.7	20	WG608121

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Y O U R L A B O F C H O I C E

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**Quality Assurance Report**  
**Level II**

L590320

August 29, 2012

Analyte	Units	Laboratory Result	Control Ref	Sample %Rec	Duplicate Limit	RPD	Limit	Batch
Aldrin	mg/l	0.0000721	0.0000785	36.0	10-136	8.50	33	WG608121
Alpha BHC	mg/l	0.000173	0.000158	86.0	58-114	8.66	21	WG608121
Beta BHC	mg/l	0.000172	0.000162	86.0	61-120	5.79	20	WG608121
Delta BHC	mg/l	0.000164	0.000153	82.0	57-120	6.92	21	WG608121
Dieldrin	mg/l	0.000173	0.000161	86.0	62-123	7.07	20	WG608121
Endosulfan I	mg/l	0.000175	0.000163	88.0	63-123	7.34	20	WG608121
Endosulfan II	mg/l	0.000168	0.000157	84.0	63-124	6.74	20	WG608121
Endosulfan sulfate	mg/l	0.000162	0.000151	81.0	59-125	7.21	21	WG608121
Endrin	mg/l	0.000170	0.000158	85.0	60-123	7.61	20	WG608121
Endrin aldehyde	mg/l	0.000156	0.000140	78.0	42-92	10.8	21	WG608121
Endrin ketone	mg/l	0.000175	0.000165	87.0	60-117	5.78	20	WG608121
Gamma BHC	mg/l	0.000172	0.000160	86.0	59-116	7.62	20	WG608121
Heptachlor	mg/l	0.000112	0.000118	56.0	10-131	5.12	28	WG608121
Heptachlor epoxide	mg/l	0.000174	0.000163	87.0	61-118	6.79	20	WG608121
Hexachlorobenzene	mg/l	0.0000983	0.0000741	49.0	28-116	28.2*	27	WG608121
Methoxychlor	mg/l	0.000195	0.000186	98.0	66-122	4.59	20	WG608121
Decachlorobiphenyl				82.99	10-122.6			WG608121
Tetrachloro-m-xylene				73.67	15.3-114.2			WG608121
Extractable Petroleum Hydrocarbon	ppm	1.36	1.26	91.0	50-100	7.96	20	WG608431
o-Terphenyl				74.32	50-150			WG608431
1,2,4-Trichlorobenzene	mg/l	0.00759	0.00859	76.0	18-130	12.4	32	WG608422
2,4,6-Trichlorophenol	mg/l	0.00907	0.00975	91.0	12-147	7.14	40	WG608422
2,4-Dichlorophenol	mg/l	0.00777	0.00856	78.0	10-157	9.62	40	WG608422
2,4-Dimethylphenol	mg/l	0.00836	0.00880	84.0	19-160	5.14	40	WG608422
2,4-Dinitrophenol	mg/l	0.00975	0.0105	97.0	10-135	7.74	40	WG608422
2,4-Dinitrotoluene	mg/l	0.00757	0.00798	76.0	30-168	5.25	32	WG608422
2,6-Dinitrotoluene	mg/l	0.00731	0.00824	73.0	32-163	12.0	30	WG608422
2-Chloronaphthalene	mg/l	0.00797	0.00853	80.0	29-149	6.75	34	WG608422
2-Chlorophenol	mg/l	0.00739	0.00788	74.0	16-129	6.49	40	WG608422
2-Nitrophenol	mg/l	0.00807	0.00871	81.0	14-158	7.60	40	WG608422
3,3-Dichlorobenzidine	mg/l	0.00925	0.00969	92.0	42-150	4.65	29	WG608422
4,6-Dinitro-2-methylphenol	mg/l	0.0101	0.0107	101.	10-164	5.20	40	WG608422
4-Bromophenyl-phenylether	mg/l	0.00901	0.00951	90.0	40-166	5.43	36	WG608422
4-Chloro-3-methylphenol	mg/l	0.00792	0.00853	79.0	14-158	7.45	40	WG608422
4-Chlorophenyl-phenylether	mg/l	0.00870	0.00908	87.0	39-155	4.23	33	WG608422
4-Nitrophenol	mg/l	0.00355	0.00399	35.0	10-61	11.8	40	WG608422
Acenaphthene	mg/l	0.00794	0.00848	79.0	37-159	6.62	30	WG608422
Acenaphthylene	mg/l	0.00780	0.00826	78.0	34-162	5.71	31	WG608422
Anthracene	mg/l	0.00814	0.00870	81.0	48-167	6.69	26	WG608422
Benzidine	mg/l	0.00443	0.00447	44.0	10-86	0.945	40	WG608422
Benzo(a)anthracene	mg/l	0.00888	0.00921	89.0	46-167	3.55	29	WG608422
Benzo(a)pyrene	mg/l	0.00843	0.00913	84.0	39-167	8.03	29	WG608422
Benzo(b)fluoranthene	mg/l	0.00844	0.00922	84.0	39-173	8.79	32	WG608422
Benzo(g,h,i)perylene	mg/l	0.0100	0.0101	100.	42-181	0.959	30	WG608422
Benzo(k)fluoranthene	mg/l	0.00927	0.00930	93.0	42-178	0.268	33	WG608422
Benzylbutyl phthalate	mg/l	0.00777	0.00823	78.0	10-178	5.75	40	WG608422
Bis(2-chlorethoxy)methane	mg/l	0.00842	0.00940	84.0	34-155	11.1	31	WG608422
Bis(2-chloroethyl)ether	mg/l	0.00598	0.00628	60.0	22-149	4.87	38	WG608422
Bis(2-chloroisopropyl)ether	mg/l	0.00754	0.00779	75.0	26-149	3.29	34	WG608422
Bis(2-ethylhexyl)phthalate	mg/l	0.00878	0.00875	88.0	42-191	0.351	33	WG608422
Chrysene	mg/l	0.00923	0.00998	92.0	46-170	7.78	30	WG608422
Di-n-butyl phthalate	mg/l	0.00794	0.00874	79.0	33-175	9.54	39	WG608422
Di-n-octyl phthalate	mg/l	0.00882	0.00917	88.0	40-170	3.86	28	WG608422
Dibenz(a,h)anthracene	mg/l	0.00999	0.0105	100.	43-187	4.68	31	WG608422
Diethyl phthalate	mg/l	0.00906	0.00962	91.0	10-182	5.99	35	WG608422

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Est. 1970

## Quality Assurance Report

Level II

L590320

August 29, 2012

Analyte	Units	Laboratory Result	Control Ref	%Rec	Sample Limit	Duplicate RPD	Limit	Batch
Dimethyl phthalate	mg/l	0.00928	0.00970	93.0	10-165	4.40	37	WG608422
Fluoranthene	mg/l	0.00844	0.00912	84.0	46-171	7.74	37	WG608422
Fluorene	mg/l	0.00876	0.00892	88.0	39-163	1.81	36	WG608422
Hexachloro-1,3-butadiene	mg/l	0.00796	0.00869	80.0	18-136	8.75	30	WG608422
Hexachlorobenzene	mg/l	0.00887	0.00961	89.0	38-163	7.98	35	WG608422
Hexachlorocyclopentadiene	mg/l	0.0103	0.0109	103.	10-142	5.49	40	WG608422
Hexachloroethane	mg/l	0.00683	0.00758	68.0	10-130	10.4	39	WG608422
Indeno(1,2,3-cd)pyrene	mg/l	0.00976	0.0102	98.0	42-184	3.91	32	WG608422
Iso phorone	mg/l	0.00810	0.00898	81.0	36-166	10.4	35	WG608422
n-Nitrosodi-n-propylamine	mg/l	0.00788	0.00812	79.0	27-157	3.00	31	WG608422
n-Nitrosodimethylamine	mg/l	0.00347	0.00394	35.0	10-96	12.6	36	WG608422
n-Nitrosodiphenylamine	mg/l	0.00844	0.00877	84.0	41-168	3.83	37	WG608422
Naphthalene	mg/l	0.00735	0.00808	73.0	26-147	9.47	31	WG608422
Nitrobenzene	mg/l	0.00833	0.00897	83.0	22-154	7.36	37	WG608422
Pentachlorophenol	mg/l	0.00580	0.00656	58.0	10-128	12.4	40	WG608422
Phenanthrene	mg/l	0.00816	0.00904	82.0	46-163	10.3	29	WG608422
Phenol	mg/l	0.00440	0.00480	44.0	10-69	8.74	40	WG608422
Pyrene	mg/l	0.00806	0.00826	81.0	45-176	2.46	28	WG608422
2,4,6-Tribromophenol				79.79	16-147			WG608422
2-Fluorobiphenyl				75.55	29-127			WG608422
2-Fluorophenol				54.48	10-75			WG608422
Nitrobenzene-d5				68.79	17-119			WG608422
Phenol-d5				34.22	10-63			WG608422
p-Terphenyl-d14				67.76	40-174			WG608422
2,4,5-T	mg/l	0.00456	0.00434	91.0	46-116	4.97	20	WG608850
2,4,5-TP (Silvex)	mg/l	0.00481	0.00469	96.0	53.6-122	2.41	2520	WG608850
2,4-D	mg/l	0.00428	0.00408	86.0	47.4-113	4.83	20	WG608850
2,4-DB	mg/l	0.00511	0.00512	102.	48.4-118	0.255	20	WG608850
Dalapon	mg/l	0.00393	0.00414	79.0	40.5-102	5.04	20	WG608850
Dicamba	mg/l	0.00486	0.00475	97.0	57.2-111	2.31	20	WG608850
Dichloroprop	mg/l	0.00524	0.00520	105.	55.8-128	0.720	20	WG608850
Dinoseb	mg/l	0.00496	0.00462	99.0	41-121	7.12	20.4	WG608850
MCPA	mg/l	0.410	0.382	82.0	24.1-143	7.16	23.9	WG608850
MCPP	mg/l	0.708	0.670	142.	49-198	5.57	20	WG608850
2,4-Dichlorophenyl Acetic Acid				75.14	42-112			WG608850
GRO (C6-C10)	mg/l	0.629	0.574	63.0	50-100	9.13	20	WG608856
a,a,a-Trifluorotoluene(FID)				105.8	50-150			WG608856
PCB 1016	mg/l	0.000437	0.000369	87.0	32-126	16.8	22	WG608902
PCB 1260	mg/l	0.000438	0.000415	88.0	58-128	5.58	20	WG608902
Decachlorobiphenyl				85.64	10-122.6			WG608902
Tetrachloro-m-xylene				73.08	15.3-114.2			WG608902
1,2,4-Trichlorobenzene	mg/l	0.00561	0.00596	56.0	34-97	6.13	21	WG609003
2,4,6-Trichlorophenol	mg/l	0.00838	0.00836	84.0	38-113	0.255	29	WG609003
2,4-Dichlorophenol	mg/l	0.00775	0.00812	77.0	46-105	4.67	20	WG609003
2,4-Dimethylphenol	mg/l	0.00752	0.00798	75.0	47-108	5.92	20	WG609003
2,4-Dinitrophenol	mg/l	0.00681	0.00791	68.0	10-121	14.9	40	WG609003
2,4-Dinitrotoluene	mg/l	0.00780	0.00840	78.0	59-117	7.47	20	WG609003
2,6-Dinitrotoluene	mg/l	0.00844	0.00864	84.0	57-110	2.42	20	WG609003
2-Chloronaphthalene	mg/l	0.00717	0.00743	72.0	47-106	3.46	20	WG609003
2-Chlorophenol	mg/l	0.00690	0.00676	69.0	37-90	2.06	21	WG609003
2-Nitrophenol	mg/l	0.00763	0.00790	76.0	40-112	3.39	22	WG609003

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**Quality Assurance Report**  
**Level II**

L590320

August 29, 2012

Analyte	Units	Laboratory Result	Control Ref	Sample %Rec	Duplicate Limit	RPD	Limit	Batch
3,3-Dichlorobenzidine	mg/l	0.00781	0.00760	78.0	58-116	2.77	20	WG609003
4,6-Dinitro-2-methylphenol	mg/l	0.00845	0.00961	84.0	21-119	12.8	40	WG609003
4-Bromophenyl-phenylether	mg/l	0.00778	0.00778	78.0	63-120	0.00808	20	WG609003
4-Chloro-3-methylphenol	mg/l	0.00764	0.00807	76.0	50-105	5.58	20	WG609003
4-Chlorophenyl-phenylether	mg/l	0.00746	0.00734	74.0	58-115	1.54	20	WG609003
4-Nitrophenol	mg/l	0.00376	0.00410	38.0	10-53	8.64	40	WG609003
Acenaphthene	mg/l	0.00767	0.00749	77.0	52-107	2.41	20	WG609003
Acenaphthylene	mg/l	0.00786	0.00787	79.0	55-119	0.0478	20	WG609003
Anthracene	mg/l	0.00765	0.00806	76.0	65-114	5.18	20	WG609003
Benzidine	mg/l	0.00364	0.00347	36.0	10-55	4.73	40	WG609003
Benzo(a)anthracene	mg/l	0.00810	0.00815	81.0	68-113	0.667	20	WG609003
Benzo(a)pyrene	mg/l	0.00825	0.00838	82.0	68-115	1.57	20	WG609003
Benzo(b)fluoranthene	mg/l	0.00810	0.00837	81.0	67-114	3.28	20	WG609003
Benzo(g,h,i)perylene	mg/l	0.00827	0.00831	83.0	52-132	0.584	20	WG609003
Benzo(k)fluoranthene	mg/l	0.00828	0.00836	83.0	62-116	1.01	20	WG609003
Benzylbutyl phthalate	mg/l	0.00794	0.00791	79.0	12-166	0.348	20	WG609003
Bis(2-chlorethoxy)methane	mg/l	0.00825	0.00836	82.0	56-116	1.38	20	WG609003
Bis(2-chloroethyl)ether	mg/l	0.00766	0.00767	76.0	39-109	0.172	23	WG609003
Bis(2-chloroisopropyl)ether	mg/l	0.00741	0.00732	74.0	43-108	1.16	20	WG609003
Bis(2-ethylhexyl)phthalate	mg/l	0.00780	0.00782	78.0	61-147	0.214	20	WG609003
Chrysene	mg/l	0.00845	0.00843	84.0	65-114	0.202	20	WG609003
Di-n-butyl phthalate	mg/l	0.00820	0.00791	82.0	56-133	3.58	20	WG609003
Di-n-octyl phthalate	mg/l	0.00770	0.00756	77.0	59-143	1.80	20	WG609003
Dibenz(a,h)anthracene	mg/l	0.00814	0.00815	81.0	54-130	0.181	20	WG609003
Diethyl phthalate	mg/l	0.00832	0.00813	83.0	33-136	2.37	20	WG609003
Dimethyl phthalate	mg/l	0.00824	0.00810	82.0	10-152	1.80	22	WG609003
Fluoranthene	mg/l	0.00782	0.00794	78.0	66-120	1.42	20	WG609003
Fluorene	mg/l	0.00751	0.00782	75.0	58-110	4.07	20	WG609003
Hexachloro-1,3-butadiene	mg/l	0.00535	0.00572	54.0	34-115	6.58	22	WG609003
Hexachlorobenzene	mg/l	0.00724	0.00717	72.0	55-117	0.917	20	WG609003
Hexachlorocyclopentadiene	mg/l	0.00595	0.00648	59.0	20-121	8.55	27	WG609003
Hexachloroethane	mg/l	0.00489	0.00503	49.0	24-93	2.88	25	WG609003
Indeno(1,2,3-cd)pyrene	mg/l	0.00824	0.00839	82.0	56-129	1.90	20	WG609003
Isophorone	mg/l	0.00661	0.00687	66.0	55-108	3.91	20	WG609003
n-Nitrosodi-n-propylamine	mg/l	0.00831	0.00870	83.0	50-115	4.62	20	WG609003
n-Nitrosodimethylamine	mg/l	0.00381	0.00415	38.0	12-68	8.67	31	WG609003
n-Nitrosodiphenylamine	mg/l	0.00799	0.00822	80.0	55-98	2.81	20	WG609003
Naphthalene	mg/l	0.00652	0.00691	65.0	42-103	5.91	20	WG609003
Nitrobenzene	mg/l	0.00764	0.00782	76.0	39-102	2.37	20	WG609003
Pentachlorophenol	mg/l	0.00741	0.00764	74.0	10-101	3.11	40	WG609003
Phenanthrene	mg/l	0.00795	0.00833	80.0	61-110	4.59	20	WG609003
Phenol	mg/l	0.00337	0.00361	34.0	10-53	6.88	20	WG609003
Pyrene	mg/l	0.00798	0.00785	80.0	65-116	1.62	20	WG609003
2,4,6-Tribromophenol				88.93	16-147			WG609003
2-Fluorobiphenyl				87.81	29-127			WG609003
2-Fluorophenol				50.25	10-75			WG609003
Nitrobenzene-d5				81.30	17-119			WG609003
Phenol-d5				34.36	10-63			WG609003
p-Terphenyl-d14				72.17	40-174			WG609003
4,4-DDD	mg/l	0.000188	0.000176	94.0	60-123	7.04	20	WG608902
4,4-DDE	mg/l	0.000162	0.000150	81.0	50-120	7.45	22	WG608902
4,4-DDT	mg/l	0.000187	0.000173	93.0	61-121	7.53	20	WG608902
Aldrin	mg/l	0.0000881	0.0000824	44.0	10-136	6.61	33	WG608902
Alpha BHC	mg/l	0.000183	0.000181	92.0	58-114	1.37	21	WG608902
Beta BHC	mg/l	0.000170	0.000174	85.0	61-120	2.31	20	WG608902
Delta BHC	mg/l	0.000208	0.000197	104.	57-120	5.61	21	WG608902
Dieldrin	mg/l	0.000184	0.000175	92.0	62-123	5.36	20	WG608902

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## Quality Assurance Report

Level II

L590320

August 29, 2012

Analyte	Laboratory		Control	Sample	Duplicate	Limit	RPD	Limit	Batch
	Units	Result	Ref	%Rec					
Endosulfan I	mg/l	0.000185	0.000177	93.0	63-123	4.89	20	WG608902	
Endosulfan II	mg/l	0.000188	0.000174	94.0	63-124	7.76	20	WG608902	
Endosulfan sulfate	mg/l	0.000235	0.000217	118.	59-125	8.03	21	WG608902	
Endrin	mg/l	0.000187	0.000175	93.0	60-123	6.29	20	WG608902	
Endrin aldehyde	mg/l	0.000172	0.000157	86.0	42-92	9.02	21	WG608902	
Endrin ketone	mg/l	0.000214	0.000199	107.	60-117	7.36	20	WG608902	
Gamma BHC	mg/l	0.000187	0.000182	93.0	59-116	2.65	20	WG608902	
Heptachlor	mg/l	0.000117	0.000111	59.0	10-131	5.75	28	WG608902	
Heptachlor epoxide	mg/l	0.000181	0.000174	90.0	61-118	3.92	20	WG608902	
Hexachlorobenzene	mg/l	0.000109	0.000108	54.0	28-116	0.772	27	WG608902	
Methoxychlor	mg/l	0.000186	0.000172	93.0	66-122	7.60	20	WG608902	
Decachlorobiphenyl				78.68	10-122.6			WG608902	
Tetrachloro-m-xylene				82.25	15.3-114.2			WG608902	

Analyte	Matrix Spike					Limit	Ref Samp	Batch
	Units	MS Res	Ref Res	TV	% Rec			
Arsenic	mg/l	1.06	0	1.13	93.8	75-125	L590232-01	WG608088
Barium	mg/l	1.17	0.150	1.13	90.3	75-125	L590232-01	WG608088
Cadmium	mg/l	1.00	0.000400	1.13	88.5	75-125	L590232-01	WG608088
Chromium	mg/l	1.03	0.00200	1.13	91.0	75-125	L590232-01	WG608088
Selenium	mg/l	1.02	0.0250	1.13	88.0	75-125	L590232-01	WG608088
Silver	mg/l	0.202	0	1.13	17.9*	75-125	L590232-01	WG608088
Lead	mg/l	1.02	0	1.13	18.0*	75-125	L590232-01	WG608088
1,1,1,2-Tetrachloroethane	mg/l	0.236	0	.025	94.4	71-130	L590320-01	WG608218
1,1,1-Trichloroethane	mg/l	0.242	0	.025	96.6	58-137	L590320-01	WG608218
1,1,2,2-Tetrachloroethane	mg/l	0.223	0	.025	89.3	64-149	L590320-01	WG608218
1,1,2-Trichloroethane	mg/l	0.218	0	.025	87.0	73-128	L590320-01	WG608218
1,1,2-Trichlorotrifluoroethane	mg/l	0.276	0	.025	110.	36-159	L590320-01	WG608218
1,1-Dichloroethane	mg/l	0.241	0	.025	96.4	58-133	L590320-01	WG608218
1,1-Dichloroethene	mg/l	0.268	0	.025	107.	32-152	L590320-01	WG608218
1,1-Dichloropropene	mg/l	0.247	0	.025	98.8	50-140	L590320-01	WG608218
1,2,3-Trichlorobenzene	mg/l	0.243	0	.025	97.2	68-135	L590320-01	WG608218
1,2,3-Trichloropropane	mg/l	0.215	0	.025	86.1	74-137	L590320-01	WG608218
1,2,3-Trimethylbenzene	mg/l	0.215	0	.025	85.9	67-133	L590320-01	WG608218
1,2,4-Trichlorobenzene	mg/l	0.246	0	.025	98.2	67-133	L590320-01	WG608218
1,2,4-Trimethylbenzene	mg/l	0.218	0	.025	87.3	62-141	L590320-01	WG608218
1,2-Dibromo-3-Chloropropane	mg/l	0.237	0	.025	94.7	55-148	L590320-01	WG608218
1,2-Dibromoethane	mg/l	0.237	0	.025	94.8	71-129	L590320-01	WG608218
1,2-Dichlorobenzene	mg/l	0.238	0	.025	95.1	75-125	L590320-01	WG608218
1,2-Dichloroethane	mg/l	0.248	0	.025	99.3	59-135	L590320-01	WG608218
1,2-Dichloropropane	mg/l	0.274	0	.025	110.	68-126	L590320-01	WG608218
1,3,5-Trimethylbenzene	mg/l	0.216	0	.025	86.5	67-136	L590320-01	WG608218
1,3-Dichlorobenzene	mg/l	0.234	0	.025	93.7	69-131	L590320-01	WG608218
1,3-Dichloropropane	mg/l	0.228	0	.025	91.2	70-122	L590320-01	WG608218
1,4-Dichlorobenzene	mg/l	0.231	0	.025	92.5	70-123	L590320-01	WG608218
2,2-Dichloropropane	mg/l	0.249	0	.025	99.5	51-141	L590320-01	WG608218
2-Butanone (MFK)	mg/l	0.849	0	.125	68.0	51-149	L590320-01	WG608218
2-Chloroethyl vinyl ether	mg/l	1.09	0	.125	87.0	10-161	L590320-01	WG608218
2-Chlorotoluene	mg/l	0.218	0	.025	87.3	65-133	L590320-01	WG608218
4-Chlorotoluene	mg/l	0.214	0	.025	85.8	67-129	L590320-01	WG608218
4-Methyl-2-pentanone (MIBK)	mg/l	1.16	0	.125	92.5	53-154	L590320-01	WG608218
Acetone	mg/l	0.893	0	.125	71.4	34-146	L590320-01	WG608218
Acrolein	mg/l	1.46	0	.125	117.	10-189	L590320-01	WG608218
Acrylonitrile	mg/l	1.18	0	.125	94.3	49-162	L590320-01	WG608218
Benzene	mg/l	0.231	0	.025	92.3	51-134	L590320-01	WG608218
Bromobenzene	mg/l	0.222	0	.025	88.6	64-130	L590320-01	WG608218

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L A B S C I E N C E S

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Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report  
Level II

L590320

August 29, 2012

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Bromodichloromethane	mg/l	0.247	0	.025	98.6	67-132	L590320-01	WG608218
Bromoform	mg/l	0.229	0	.025	91.6	59-137	L590320-01	WG608218
Bromomethane	mg/l	0.365	0	.025	146.	23-177	L590320-01	WG608218
Carbon tetrachloride	mg/l	0.245	0	.025	98.1	49-140	L590320-01	WG608218
Chlorobenzene	mg/l	0.234	0	.025	93.5	69-126	L590320-01	WG608218
Chlorodibromomethane	mg/l	0.230	0	.025	92.2	68-130	L590320-01	WG608218
Chloroethane	mg/l	0.325	0	.025	130.	32-177	L590320-01	WG608218
Chloroform	mg/l	0.242	0	.025	96.6	64-130	L590320-01	WG608218
Chloromethane	mg/l	0.232	0	.025	92.7	27-155	L590320-01	WG608218
cis-1,2-Dichloroethene	mg/l	0.253	0	.025	101.	54-137	L590320-01	WG608218
cis-1,3-Dichloropropene	mg/l	0.247	0	.025	98.6	63-127	L590320-01	WG608218
Di-isopropyl ether	mg/l	0.229	0	.025	91.8	58-133	L590320-01	WG608218
Dibromomethane	mg/l	0.271	0	.025	108.	68-131	L590320-01	WG608218
Dichlorodifluoromethane	mg/l	0.261	0	.025	104.	16-188	L590320-01	WG608218
Ethylbenzene	mg/l	0.233	0	.025	93.2	64-135	L590320-01	WG608218
Hexachloro-1,3-butadiene	mg/l	0.255	0	.025	102.	64-140	L590320-01	WG608218
Isopropylbenzene	mg/l	0.209	0	.025	83.7	62-134	L590320-01	WG608218
Methyl tert-butyl ether	mg/l	0.230	0	.025	91.8	55-136	L590320-01	WG608218
Methylene Chloride	mg/l	0.251	0	.025	100.	52-130	L590320-01	WG608218
n-Butylbenzene	mg/l	0.212	0	.025	84.8	62-142	L590320-01	WG608218
n-Propylbenzene	mg/l	0.206	0	.025	82.5	62-137	L590320-01	WG608218
Naphthalene	mg/l	0.757	0.590	.025	66.7	65-140	L590320-01	WG608218
p-Isopropyltoluene	mg/l	0.214	0	.025	85.6	64-142	L590320-01	WG608218
sec-Butylbenzene	mg/l	0.204	0	.025	81.7	67-139	L590320-01	WG608218
Styrene	mg/l	0.222	0	.025	88.7	58-152	L590320-01	WG608218
tert-Butylbenzene	mg/l	0.218	0	.025	87.4	66-139	L590320-01	WG608218
Tetrachloroethene	mg/l	0.249	0	.025	99.6	56-139	L590320-01	WG608218
Toluene	mg/l	0.243	0	.025	97.1	61-126	L590320-01	WG608218
trans-1,2-Dichloroethene	mg/l	0.251	0	.025	100.	45-137	L590320-01	WG608218
trans-1,3-Dichloropropene	mg/l	0.267	0	.025	107.	59-130	L590320-01	WG608218
Trichloroethene	mg/l	0.273	0	.025	109.	40-155	L590320-01	WG608218
Trichlorofluoromethane	mg/l	0.284	0	.025	114.	35-177	L590320-01	WG608218
Vinyl chloride	mg/l	0.265	0	.025	106.	32-159	L590320-01	WG608218
Xylenes, Total	mg/l	0.686	0	.075	91.4	64-133	L590320-01	WG608218
4-Bromofluorobenzene					91.79	82-120		WG608218
Dibromofluoromethane					101.8	82-126		WG608218
Toluene-d8					99.17	92-112		WG608218
Mercury	mg/l	0.00297	0	.003	99.0	80-120	L590320-01	WG608123
Arsenic	mg/l	1.11	0.00580	1.13	97.7	75-125	L590385-04	WG608201
Barium	mg/l	1.22	0.122	1.13	97.2	75-125	L590385-04	WG608201
Cadmium	mg/l	1.13	0	1.13	100.	75-125	L590385-04	WG608201
Chromium	mg/l	1.06	0	1.13	93.8	75-125	L590385-04	WG608201
Lead	mg/l	1.08	0	1.13	95.6	75-125	L590385-04	WG608201
Selenium	mg/l	1.04	0.00420	1.13	91.7	75-125	L590385-04	WG608201
Silver	mg/l	0.183	0	1.13	16.2*	75-125	L590385-04	WG608201
1,2,4-Trichlorobenzene	mg/l	0.00719	0	.01	71.9	34-101	L590320-01	WG608122
2,4,6-Trichlorophenol	mg/l	0.00965	0	.01	96.5	14-145	L590320-01	WG608122
2,4-Dichlorophenol	mg/l	0.00859	0	.01	85.9	17-132	L590320-01	WG608122
2,4-Dimethylphenol	mg/l	0.0390	0.0200	.01	190.*	10-154	L590320-01	WG608122
2,4-Dinitrophenol	mg/l	0	0	.01	0*	10-167	L590320-01	WG608122
2,4-Dinitrotoluene	mg/l	0.0113	0	.01	112.	48-133	L590320-01	WG608122
2,6-Dinitrotoluene	mg/l	0.0106	0	.01	106.	52-123	L590320-01	WG608122
2-Chloronaphthalene	mg/l	0.00787	0	.01	78.7	47-111	L590320-01	WG608122

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Y O U R L A B O F C H O I C E

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**Quality Assurance Report**  
**Level II**

L590320

August 29, 2012

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
2-Chlorophenol	mg/l	0.00627	0	.01	62.7	18-103	L590320-01	WG608122
2-Nitrophenol	mg/l	0.00787	0	.01	78.7	25-130	L590320-01	WG608122
3, 3-Dichlorobenzidine	mg/l	0.0122	0	.01	122.	10-149	L590320-01	WG608122
4,6-Dinitro-2-methylphenol	mg/l	0.00793	0	.01	79.3	10-149	L590320-01	WG608122
4-Bromophenyl-phenylether	mg/l	0.0109	0	.01	109.	51-138	L590320-01	WG608122
4-Chlorophenyl-phenylether	mg/l	0.0105	0	.01	104.	47-132	L590320-01	WG608122
4-Nitrophenol	mg/l	0.00180	0	.01	18.0	10-86	L590320-01	WG608122
Acenaphthene	mg/l	0.0409	0.0190	.01	219.*	45-121	L590320-01	WG608122
Acenaphthylene	mg/l	0.0103	0.00110	.01	91.7	52-122	L590320-01	WG608122
Anthracene	mg/l	0.0226	0.0140	.01	85.7	51-129	L590320-01	WG608122
Benzidine	mg/l	0.00221	0	.01	22.1	10-47	L590320-01	WG608122
Benzo(a)anthracene	mg/l	0.0156	0.00970	.01	59.2	55-127	L590320-01	WG608122
Benzo(a)pyrene	mg/l	0.0109	0.00550	.01	54.1	47-132	L590320-01	WG608122
Benzo(b)fluoranthene	mg/l	0.0123	0.00830	.01	40.2*	42-138	L590320-01	WG608122
Benzo(g,h,i)perylene	mg/l	0.00922	0.00260	.01	66.2	10-152	L590320-01	WG608122
Benzo(k)fluoranthene	mg/l	0.0111	0.00250	.01	85.6	40-136	L590320-01	WG608122
Benzylbutyl phthalate	mg/l	0.0117	0	.01	117.	14-180	L590320-01	WG608122
Bis(2-chlorethoxy)methane	mg/l	0.00995	0	.01	99.5	39-139	L590320-01	WG608122
Bis(2-chloroethyl)ether	mg/l	0.00637	0	.01	63.7	31-122	L590320-01	WG608122
Bis(2-chloroisopropyl)ether	mg/l	0.0130	0	.01	130.*	35-121	L590320-01	WG608122
Bis(2-ethylhexyl)phthalate	mg/l	0.0111	0	.01	111.	23-173	L590320-01	WG608122
Chrysene	mg/l	0.0151	0.00870	.01	63.7	55-124	L590320-01	WG608122
Di-n-butyl phthalate	mg/l	0.0120	0	.01	120.	43-154	L590320-01	WG608122
Di-n-octyl phthalate	mg/l	0.00821	0	.01	82.1	23-173	L590320-01	WG608122
Dibenz(a,h)anthracene	mg/l	0.00927	0	.01	92.7	16-149	L590320-01	WG608122
Diethyl phthalate	mg/l	0.0121	0	.01	121.	28-150	L590320-01	WG608122
Dimethyl phthalate	mg/l	0.0114	0	.01	114.	10-159	L590320-01	WG608122
Fluoranthene	mg/l	0.0399	0.0480	.01	0*	58-130	L590320-01	WG608122
Fluorene	mg/l	0.0697	0.0510	.01	187.*	51-120	L590320-01	WG608122
Hexachloro-1,3-butadiene	mg/l	0.00732	0	.01	73.2	32-120	L590320-01	WG608122
Hexachlorobenzene	mg/l	0.0109	0	.01	109.	48-126	L590320-01	WG608122
Hexachlorocyclopentadiene	mg/l	0.00944	0	.01	94.4	10-125	L590320-01	WG608122
Hexachloroethane	mg/l	0.00650	0	.01	65.0	10-121	L590320-01	WG608122
Indeno(1,2,3-cd)pyrene	mg/l	0.00891	0.00230	.01	66.1	17-147	L590320-01	WG608122
Isophorone	mg/l	0.00971	0	.01	97.1	47-116	L590320-01	WG608122
n-Nitrosodi-n-propylamine	mg/l	0.00931	0	.01	93.1	36-139	L590320-01	WG608122
n-Nitrosodimethylamine	mg/l	0.00434	0	.01	43.4	10-83	L590320-01	WG608122
n-Nitrosodiphenylamine	mg/l	0.0108	0	.01	108.	43-124	L590320-01	WG608122
Naphthalene	mg/l	0.00502	0.00180	.01	32.2	32-116	L590320-01	WG608122
Nitrobenzene	mg/l	0.00867	0	.01	86.7	36-110	L590320-01	WG608122
Pentachlorophenol	mg/l	0.00527	0	.01	52.7	10-152	L590320-01	WG608122
Phenanthrone	mg/l	0.0748	0.0740	.01	7.73*	49-130	L590320-01	WG608122
Phenol	mg/l	0.00633	0	.01	63.3	10-69	L590320-01	WG608122
Pyrene	mg/l	0.0304	0.0320	.01	0*	47-135	L590320-01	WG608122
2,4,6-Tribromophenol					90.02	16-147		WG608122
2-Fluorobiphenyl					86.37	29-127		WG608122
2-Fluorophenol					32.98	10-75		WG608122
Nitrobenzene-d5					79.87	17-119		WG608122
Phenol-d5					21.94	10-63		WG608122
p-Terphenyl-d14					91.58	40-174		WG608122
PCB 1016	mg/l	0.000323	0	.0005	64.5*	70-130	L590320-01	WG608121
PCB 1260	mg/l	0.00121	0	.0005	241.*	10-133	L590320-01	WG608121
Decachlorobiphenyl					77.79	10-122.6		WG608121
Tetrachloro-m-xylene					75.50	15.3-114.2		WG608121
4,4-DDD	mg/l	0.000167	0	.0002	83.3	47-117	L590320-01	WG608121
4,4-DDE	mg/l	0.000173	0	.0002	86.3	43-107	L590320-01	WG608121

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Quality Assurance Report

Level II

L590320

August 29, 2012

Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
4,4'-DDT	mg/l	0.000153	0	.0002	76.3	17-136	L590320-01	WG608121
Aldrin	mg/l	0.000120	0	.0002	59.8	21-113	L590320-01	WG608121
Alpha BHC	mg/l	0.000107	0	.0002	53.4	43-104	L590320-01	WG608121
Beta BHC	mg/l	0.000130	0	.0002	65.1	35-120	L590320-01	WG608121
Delta BHC	mg/l	0.000184	0	.0002	92.0	32-113	L590320-01	WG608121
Dieldrin	mg/l	0.000168	0	.0002	83.8	45-109	L590320-01	WG608121
Endosulfan I	mg/l	0.000156	0	.0002	77.8	40-117	L590320-01	WG608121
Endosulfan II	mg/l	0.000136	0	.0002	68.1	40-125	L590320-01	WG608121
Endosulfan sulfate	mg/l	0.000171	0	.0002	85.5	37-126	L590320-01	WG608121
Endrin	mg/l	0.000153	0	.0002	76.2	36-135	L590320-01	WG608121
Endrin aldehyde	mg/l	0.0000101	0	.0002	5.04*	31-98	L590320-01	WG608121
Endrin ketone	mg/l	0.000141	0	.0002	70.7	26-129	L590320-01	WG608121
Gamma BHC	mg/l	0.000143	0	.0002	71.5	43-105	L590320-01	WG608121
Heptachlor	mg/l	0.000148	0	.0002	74.2	10-165	L590320-01	WG608121
Heptachlor epoxide	mg/l	0.000144	0	.0002	71.9	44-107	L590320-01	WG608121
Methoxychlor	mg/l	0.000237	0	.0002	119.	10-147	L590320-01	WG608121
Decachlorobiphenyl					61.90	10-122.6		WG608121
Tetrachloro-m-xylene					66.61	15.3-114.2		WG608121
Extractable Petroleum Hydrocarbon	ppm	1.49	0.230	1.5	83.8	50-150	L589864-01	WG608431
o-Terphenyl					70.71	50-150		WG608431
Extractable Petroleum Hydrocarbon	ppm	1.35	0	1.5	90.2	50-150	L590287-01	WG608431
o-Terphenyl					80.41	50-150		WG608431
Extractable Petroleum Hydrocarbon	ppm	4.68	3.20	1.5	98.7	50-150	L590320-01	WG608431
o-Terphenyl					60.86	50-150		WG608431
2,4,5-T	mg/l	0.00495	0	.005	99.0	30-136	L590320-01	WG608850
2,4,5-TP (Silvex)	mg/l	0.00455	0	.005	91.1	33-134	L590320-01	WG608850
2,4-D	mg/l	0.00564	0	.005	113.	24-127	L590320-01	WG608850
Dalapon	mg/l	0.00405	0	.005	81.0	14-121	L590320-01	WG608850
Dicamba	mg/l	0.00494	0	.005	98.7	31-135	L590320-01	WG608850
Dichloroprop	mg/l	0.00639	0	.005	128.*	30-122	L590320-01	WG608850
Dinoseb	mg/l	0.00521	0	.005	104.	28-183	L590320-01	WG608850
MCPA	mg/l	0.445	0	.5	89.0	32-153	L590320-01	WG608850
MCPP	mg/l	0.342	0	.5	68.4	42-133	L590320-01	WG608850
2,4-Dichlorophenyl Acetic Acid					77.78	42-112		WG608850
2,4-DB	mg/l	0.0128	0.0140	.005	0*	22-198	L590320-01	WG608850
GRO (C6-C10)	mg/l	0.721	0	1	72.1	50-100	L590320-01	WG608856
a,a,a-Trifluorotoluene(FID)					115.6	50-150		WG608856
GRO (C6-C10)	mg/l	0.673	0	1	67.3	50-100	L590287-01	WG608856
a,a,a-Trifluorotoluene(FID)					110.6	50-150		WG608856

Analyte	Units	Matrix Spike Duplicate			%Rec	Limit	RPD	Limit	Ref Samp	Batch
		MSD	Ref	%Rec						
Arsenic	mg/l	1.12	1.06	99.1	75-125	5.50	20	L590232-01	WG608088	
Barium	mg/l	1.23	1.17	95.6	75-125	5.00	20	L590232-01	WG608088	
Cadmium	mg/l	1.06	1.00	93.8	75-125	5.83	20	L590232-01	WG608088	
Chromium	mg/l	1.08	1.03	95.4	75-125	4.74	20	L590232-01	WG608088	
Selenium	mg/l	1.07	1.02	92.5	75-125	4.78	20	L590232-01	WG608088	
Silver	mg/l	0.331	0.202	29.3*	75-125	48.4*	20	L590232-01	WG608088	
Lead	mg/l	1.10	1.02	19.5*	75-125	7.55	20	L590232-01	WG608088	

1,1,1,2-Tetrachloroethane mg/l 0.254 0.236 102. 71-130 7.28 20 L590320-01 WG608218

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Quality Assurance Report  
Level II

L590320

August 29, 2012

Analyte	Units	Matrix	Spike	Duplicate							
	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref	Samp	Batch	
1,1,1-Trichloroethane	mg/l	0.255	0.242	102.	58-137	5.41	20	L590320-01		WG608218	
1,1,2,2-Tetrachloroethane	mg/l	0.237	0.223	94.8	64-149	6.00	20	L590320-01		WG608218	
1,1,2-Trichloroethane	mg/l	0.234	0.218	93.7	73-128	7.35	20	L590320-01		WG608218	
1,1,2-Trichlorotrifluoroethane	mg/l	0.294	0.276	117.	36-159	6.23	21	L590320-01		WG608218	
1,1-Dichloroethane	mg/l	0.251	0.241	100.	58-133	4.23	20	L590320-01		WG608218	
1,1-Dichloroethene	mg/l	0.279	0.268	112.	32-152	3.96	20	L590320-01		WG608218	
1,1-Dichloropropene	mg/l	0.254	0.247	102.	50-140	2.84	20	L590320-01		WG608218	
1,2,3-Trichlorobenzene	mg/l	0.271	0.243	108.	68-135	10.9	20	L590320-01		WG608218	
1,2,3-Trichloropropane	mg/l	0.224	0.215	89.5	74-137	3.80	20	L590320-01		WG608218	
1,2,3-Trimethylbenzene	mg/l	0.228	0.215	91.1	67-133	5.86	20	L590320-01		WG608218	
1,2,4-Trichlorobenzene	mg/l	0.274	0.246	110.	67-133	10.9	20	L590320-01		WG608218	
1,2,4-Trimethylbenzene	mg/l	0.233	0.218	93.3	62-141	6.66	20	L590320-01		WG608218	
1,2-Dibromo-3-Chloropropane	mg/l	0.250	0.237	99.9	55-148	5.27	22	L590320-01		WG608218	
1,2-Dibromoethane	mg/l	0.256	0.237	102.	71-129	7.55	20	L590320-01		WG608218	
1,2-Dichlorobenzene	mg/l	0.258	0.238	103.	75-125	7.99	20	L590320-01		WG608218	
1,2-Dichloroethane	mg/l	0.259	0.248	103.	59-135	4.06	20	L590320-01		WG608218	
1,2-Dichloropropane	mg/l	0.286	0.274	114.	68-126	4.14	20	L590320-01		WG608218	
1,3,5-Trimethylbenzene	mg/l	0.230	0.216	91.9	67-136	5.97	20	L590320-01		WG608218	
1,3-Dichlorobenzene	mg/l	0.253	0.234	101.	69-131	7.82	20	L590320-01		WG608218	
1,3-Dichloropropane	mg/l	0.238	0.228	95.3	70-122	4.44	20	L590320-01		WG608218	
1,4-Dichlorobenzene	mg/l	0.253	0.231	101.	70-123	9.09	20	L590320-01		WG608218	
2,2-Dichloropropane	mg/l	0.267	0.249	107.	51-141	7.20	20	L590320-01		WG608218	
2-Butanone (MEK)	mg/l	0.854	0.849	68.3	51-149	0.560	22	L590320-01		WG608218	
2-Chloroethyl vinyl ether	mg/l	1.04	1.09	83.0	10-161	4.71	40	L590320-01		WG608218	
2-Chlorotoluene	mg/l	0.231	0.218	92.4	65-133	5.63	20	L590320-01		WG608218	
4-Chlorotoluene	mg/l	0.228	0.214	91.1	67-129	6.08	20	L590320-01		WG608218	
4-Methyl-2-pentanone (MIBK)	mg/l	1.22	1.16	97.2	53-154	5.00	21	L590320-01		WG608218	
Acetone	mg/l	0.910	0.893	72.8	34-146	1.91	22	L590320-01		WG608218	
Acrolein	mg/l	1.73	1.46	138.	10-189	16.7	30	L590320-01		WG608218	
Acrylonitrile	mg/l	1.21	1.18	97.0	49-162	2.82	20	L590320-01		WG608218	
Benzene	mg/l	0.240	0.231	96.1	51-134	4.02	20	L590320-01		WG608218	
Bromobenzene	mg/l	0.230	0.222	92.1	64-130	3.84	20	L590320-01		WG608218	
Bromodichloromethane	mg/l	0.264	0.247	106.	67-132	6.75	20	L590320-01		WG608218	
Bromoform	mg/l	0.254	0.229	101.	59-137	10.2	20	L590320-01		WG608218	
Bromomethane	mg/l	0.412	0.365	165.	23-177	12.2	21	L590320-01		WG608218	
Carbon tetrachloride	mg/l	0.256	0.245	102.	49-140	4.49	20	L590320-01		WG608218	
Chlorobenzene	mg/l	0.248	0.234	99.1	69-126	5.77	20	L590320-01		WG608218	
Chlorodibromomethane	mg/l	0.246	0.230	98.5	68-130	6.65	20	L590320-01		WG608218	
Chloroethane	mg/l	0.340	0.325	136.	32-177	4.51	21	L590320-01		WG608218	
Chloroform	mg/l	0.254	0.242	102.	64-130	5.06	20	L590320-01		WG608218	
Chloromethane	mg/l	0.238	0.232	95.1	27-155	2.55	20	L590320-01		WG608218	
cis-1,2-Dichloroethene	mg/l	0.264	0.253	106.	54-137	4.38	20	L590320-01		WG608218	
cis-1,3-Dichloropropene	mg/l	0.261	0.247	104.	63-127	5.73	20	L590320-01		WG608218	
Di-isopropyl ether	mg/l	0.235	0.229	93.9	58-133	2.35	20	L590320-01		WG608218	
Dibromomethane	mg/l	0.295	0.271	118.	68-131	8.33	20	L590320-01		WG608218	
Dichlorodifluoromethane	mg/l	0.268	0.261	107.	16-188	2.82	22	L590320-01		WG608218	
Ethylbenzene	mg/l	0.247	0.233	98.9	64-135	5.98	20	L590320-01		WG608218	
Hexachloro-1,3-butadiene	mg/l	0.269	0.255	108.	64-140	5.38	20	L590320-01		WG608218	
Isopropylbenzene	mg/l	0.222	0.209	88.7	62-134	5.78	20	L590320-01		WG608218	
Methyl tert-butyl ether	mg/l	0.246	0.230	98.3	55-136	6.78	20	L590320-01		WG608218	
Methylene Chloride	mg/l	0.263	0.251	105.	52-130	4.71	20	L590320-01		WG608218	
n-Butylbenzene	mg/l	0.220	0.212	88.1	62-142	3.76	20	L590320-01		WG608218	
n-Propylbenzene	mg/l	0.218	0.206	87.2	62-137	5.53	20	L590320-01		WG608218	
Naphthalene	mg/l	0.798	0.757	83.3	65-140	5.36	20	L590320-01		WG608218	
p-Isopropyltoluene	mg/l	0.231	0.214	92.4	64-142	7.69	20	L590320-01		WG608218	
sec-Butylbenzene	mg/l	0.219	0.204	87.4	67-139	6.69	20	L590320-01		WG608218	
Styrene	mg/l	0.233	0.222	93.2	58-152	4.92	20	L590320-01		WG608218	
tert-Butylbenzene	mg/l	0.237	0.218	94.6	66-139	7.97	20	L590320-01		WG608218	
Tetrachloroethene	mg/l	0.271	0.249	108.	56-139	8.57	20	L590320-01		WG608218	

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## Quality Assurance Report

Level II

L590320

August 29, 2012

Analyte	Units	Matrix	Spike	Duplicate							
		Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref	Samp	Batch
Toluene	mg/l	0.255	0.243	102.	61-126	4.92	20	L590320-01	WG608218		
trans-1,2-Dichloroethene	mg/l	0.265	0.251	106.	45-137	5.27	20	L590320-01	WG608218		
trans-1,3-Dichloropropene	mg/l	0.288	0.267	115.	59-130	7.46	20	L590320-01	WG608218		
Trichloroethene	mg/l	0.289	0.273	115.	40-155	5.41	20	L590320-01	WG608218		
Trichlorofluoromethane	mg/l	0.302	0.284	121.	35-177	6.28	23	L590320-01	WG608218		
Vinyl chloride	mg/l	0.275	0.265	110.	32-159	3.76	21	L590320-01	WG608218		
Xylenes, Total	mg/l	0.723	0.686	96.4	64-133	5.34	20	L590320-01	WG608218		
4-Bromofluorobenzene				91.23	82-120						WG608218
Dibromofluoromethane				101.4	82-126						WG608218
Toluene-d8				98.21	92-112						WG608218
Mercury	mg/l	0.00303	0.00297	101.	80-120	2.00	20	L590320-01	WG608123		
Arsenic	mg/l	1.12	1.11	98.6	75-125	0.897	20	L590385-04	WG608201		
Barium	mg/l	1.21	1.22	96.3	75-125	0.823	20	L590385-04	WG608201		
Cadmium	mg/l	1.12	1.13	99.1	75-125	0.889	20	L590385-04	WG608201		
Chromium	mg/l	1.07	1.06	94.7	75-125	0.939	20	L590385-04	WG608201		
Lead	mg/l	1.10	1.08	97.3	75-125	1.83	20	L590385-04	WG608201		
Selenium	mg/l	1.04	1.04	91.7	75-125	0	20	L590385-04	WG608201		
Silver	mg/l	0.154	0.183	13.6*	75-125	17.2	20	L590385-04	WG608201		
1,2,4-Trichlorobenzene	mg/l	0.00666	0.00719	66.6	34-101	7.73	23	L590320-01	WG608122		
2,4,6-Trichlorophenol	mg/l	0.00928	0.00965	92.8	14-145	3.90	39	L590320-01	WG608122		
2,4-Dichlorophenol	mg/l	0.00743	0.00859	74.2	17-132	14.5	30	L590320-01	WG608122		
2,4-Dimethylphenol	mg/l	0.0398	0.0390	198.*	10-154	2.14	40	L590320-01	WG608122		
2,4-Dinitrophenol	mg/l	0.00763	0	76.3	10-167	200.*	36	L590320-01	WG608122		
2,4-Dinitrotoluene	mg/l	0.0108	0.0113	108.	48-133	3.91	21	L590320-01	WG608122		
2,6-Dinitrotoluene	mg/l	0.00872	0.0106	87.2	52-123	19.4	20	L590320-01	WG608122		
2-Chloronaphthalene	mg/l	0.00732	0.00787	73.2	47-111	7.29	20	L590320-01	WG608122		
2-Chlorophenol	mg/l	0.00568	0.00627	56.8	18-103	9.96	33	L590320-01	WG608122		
2-Nitrophenol	mg/l	0.00724	0.00787	72.4	25-130	8.28	31	L590320-01	WG608122		
3,3-Dichlorobenzidine	mg/l	0.0109	0.0122	108.	10-149	12.1	33	L590320-01	WG608122		
4,6-Dinitro-2-methylphenol	mg/l	0.00907	0.00793	90.7	10-149	13.5	40	L590320-01	WG608122		
4-Bromophenyl-phenylether	mg/l	0.00932	0.0109	93.2	51-138	15.6	20	L590320-01	WG608122		
4-Chloro-3-methylphenol	mg/l	0.00834	0.00868	83.4	19-138	4.04	25	L590320-01	WG608122		
4-Chlorophenyl-phenylether	mg/l	0.00854	0.0105	85.4	47-132	20.1*	20	L590320-01	WG608122		
4-Nitrophenol	mg/l	0.00223	0.00180	22.3	10-86	21.3	40	L590320-01	WG608122		
Acenaphthene	mg/l	0.0353	0.0409	163.*	45-121	14.7	20	L590320-01	WG608122		
Acenaphthylene	mg/l	0.00886	0.0103	77.6	52-122	14.7	20	L590320-01	WG608122		
Anthracene	mg/l	0.0249	0.0226	109.	51-129	9.65	20	L590320-01	WG608122		
Benzidine	mg/l	0.00110	0.00221	11.0	10-47	67.0*	40	L590320-01	WG608122		
Benzo(a)anthracene	mg/l	0.0164	0.0156	67.2	55-127	5.02	20	L590320-01	WG608122		
Benzo(a)pyrene	mg/l	0.0107	0.0109	51.9	47-132	1.98	20	L590320-01	WG608122		
Benzo(b)fluoranthene	mg/l	0.0127	0.0123	44.0	42-138	3.11	20	L590320-01	WG608122		
Benzo(g,h,i)perylene	mg/l	0.00832	0.00922	57.2	10-152	10.2	22	L590320-01	WG608122		
Benzo(k)fluoranthene	mg/l	0.0101	0.0111	75.8	40-136	9.29	21	L590320-01	WG608122		
Benzylbutyl phthalate	mg/l	0.0105	0.0117	105.	14-180	11.5	25	L590320-01	WG608122		
Bis(2-chlorethoxy)methane	mg/l	0.00854	0.00995	85.4	39-139	15.2	22	L590320-01	WG608122		
Bis(2-chloroethyl)ether	mg/l	0.00603	0.00637	60.3	31-122	5.48	29	L590320-01	WG608122		
Bis(2-chloroisopropyl)ether	mg/l	0.0150	0.0130	150.*	35-121	13.8	25	L590320-01	WG608122		
Bis(2-ethylhexyl)phthalate	mg/l	0.00939	0.0111	93.9	23-173	17.0	24	L590320-01	WG608122		
Chrysene	mg/l	0.0157	0.0151	69.8	55-124	3.95	20	L590320-01	WG608122		
Di-n-butyl phthalate	mg/l	0.0109	0.0120	109.	43-154	10.2	20	L590320-01	WG608122		
Di-n-octyl phthalate	mg/l	0.00684	0.00821	68.4	23-173	18.2	25	L590320-01	WG608122		
Dibenz(a,h)anthracene	mg/l	0.00782	0.00927	78.2	16-149	17.1	22	L590320-01	WG608122		
Diethyl phthalate	mg/l	0.0110	0.0121	110.	28-150	9.40	21	L590320-01	WG608122		

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Est. 1970

## Quality Assurance Report

Level II

L590320

August 29, 2012

Analyte	Units	Matrix	Spike	Duplicate							
		Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref	Samp	Batch
Dimethyl phthalate	mg/l	0.0103	0.0114	103.	10-159	10.6	30	L590320-01	WG608122		
Fluoranthene	mg/l	0.0515	0.0399	35.3*	58-130	25.5*	20	L590320-01	WG608122		
Fluorene	mg/l	0.0756	0.0697	246.*	51-120	8.15	20	L590320-01	WG608122		
Hexachloro-1,3-butadiene	mg/l	0.00667	0.00732	66.7	32-120	9.25	24	L590320-01	WG608122		
Hexachlorobenzene	mg/l	0.00934	0.0109	93.4	48-126	15.8	20	L590320-01	WG608122		
Hexachlorocyclopentadiene	mg/l	0.00890	0.00944	89.0	10-125	5.90	35	L590320-01	WG608122		
Hexachloroethane	mg/l	0.00598	0.00650	59.8	10-121	8.41	31	L590320-01	WG608122		
Indeno(1,2,3-cd)pyrene	mg/l	0.00837	0.00891	60.7	17-147	6.19	21	L590320-01	WG608122		
Isothorone	mg/l	0.00860	0.00971	86.0	47-116	12.1	20	L590320-01	WG608122		
n-Nitrosodi-n-propylamine	mg/l	0.00845	0.00931	84.5	36-139	9.65	24	L590320-01	WG608122		
n-Nitrosodimethylamine	mg/l	0.00379	0.00434	37.9	10-83	13.7	40	L590320-01	WG608122		
n-Nitrosodiphenylamine	mg/l	0.00944	0.0108	94.4	43-124	13.5	20	L590320-01	WG608122		
Naphthalene	mg/l	0.00623	0.00502	44.3	32-116	21.4	23	L590320-01	WG608122		
Nitrobenzene	mg/l	0.00810	0.00867	81.0	36-110	6.80	24	L590320-01	WG608122		
Pentachlorophenol	mg/l	0.00719	0.00527	71.9	10-152	30.9	40	L590320-01	WG608122		
Phenanthrene	mg/l	0.116	0.0748	418.*	49-130	43.1*	20	L590320-01	WG608122		
Phenol	mg/l	0.0113	0.00633	113.*	10-69	56.4*	34	L590320-01	WG608122		
Pyrene	mg/l	0.0361	0.0304	41.1*	47-135	17.2	21	L590320-01	WG608122		
2,4,6-Tribromophenol				79.22	16-147						WG608122
2-Fluorobiphenyl				70.15	29-127						WG608122
2-Fluorophenol				32.85	10-75						WG608122
Nitrobenzene-d5				70.12	17-119						WG608122
Phenol-d5				25.51	10-63						WG608122
p-Terphenyl-d14				81.86	40-174						WG608122
PCB 1016	mg/l	0.000211	0.000323	42.1*	70-130	42.0*	20	L590320-01	WG608121		
PCB 1260	mg/l	0.000605	0.00121	121.	10-133	66.5*	34	L590320-01	WG608121		
Decachlorobiphenyl				62.09	10-122.6						WG608121
Tetrachloro-m-xylene				58.50	15.3-114.2						WG608121
4,4-DDD	mg/l	0.000208	0.000167	104.	47-117	22.3	31	L590320-01	WG608121		
4,4-DDE	mg/l	0.000192	0.000173	95.8	43-107	10.4	29	L590320-01	WG608121		
4,4-DDT	mg/l	0.000166	0.000153	82.9	17-136	8.27	40	L590320-01	WG608121		
Aldrin	mg/l	0.000102	0.000120	50.8	21-113	16.1	35	L590320-01	WG608121		
Alpha BHC	mg/l	0.000118	0.000107	59.0	43-104	9.88	24	L590320-01	WG608121		
Beta BHC	mg/l	0.000140	0.000130	70.2	35-120	7.54	28	L590320-01	WG608121		
Delta BHC	mg/l	0.000196	0.000184	98.2	32-113	6.51	26	L590320-01	WG608121		
Dieldrin	mg/l	0.000090	0.000168	45.4	45-109	59.3*	28	L590320-01	WG608121		
Endosulfan I	mg/l	0.000166	0.000156	82.8	40-117	6.15	26	L590320-01	WG608121		
Endosulfan II	mg/l	0.000161	0.000136	80.3	40-125	16.5	29	L590320-01	WG608121		
Endosulfan sulfate	mg/l	0.000186	0.000171	93.2	37-126	8.66	31	L590320-01	WG608121		
Endrin	mg/l	0.000176	0.000153	87.9	36-135	14.2	26	L590320-01	WG608121		
Endrin aldehyde	mg/l	0.000144	0.000010	72.2	31-98	174.*	31	L590320-01	WG608121		
Endrin ketone	mg/l	0.000154	0.000141	77.0	26-129	8.46	30	L590320-01	WG608121		
Gamma BHC	mg/l	0.000166	0.000143	82.8	43-105	14.6	24	L590320-01	WG608121		
Heptachlor	mg/l	0.000134	0.000148	67.0	10-165	10.2	39	L590320-01	WG608121		
Heptachlor epoxide	mg/l	0.000149	0.000144	74.6	44-107	3.67	26	L590320-01	WG608121		
Hexachlorobenzene	mg/l	0.000086	0.000085	0.00900*	-	0.651	32				WG608121
Methoxychlor	mg/l	0.000257	0.000237	129.	10-147	8.10	40	L590320-01	WG608121		
Decachlorobiphenyl				64.11	10-122.6						WG608121
Tetrachloro-m-xylene				65.81	15.3-114.2						WG608121
Extractable Petroleum Hydrocarbon	ppm	1.45	1.49	81.2	50-150	2.64	25	L589864-01	WG608431		
o-Terphenyl				71.59	50-150						WG608431
Extractable Petroleum Hydrocarbon	ppm	1.33	1.35	88.8	50-150	1.46	25	L590287-01	WG608431		
o-Terphenyl				79.55	50-150						WG608431
Extractable Petroleum Hydrocarbon	ppm	5.06	4.68	124.	50-150	7.72	25	L590320-01	WG608431		
o-Terphenyl				67.37	50-150						WG608431

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## Quality Assurance Report

Level II

L590320

August 29, 2012

Analyte	Units	MSD	Matrix	Spike	Duplicate	Limit	RPD	Limit	Ref	Samp	Batch
2,4,5-T	mg/l	0.00477	0.00495	95.4		30-136	3.73	31	L590320-01		WG608850
2,4,5-TP (Silvex)	mg/l	0.00450	0.00455	90.1		33-134	1.14	30	L590320-01		WG608850
2,4-D	mg/l	0.00551	0.00564	110.		24-127	2.20	27	L590320-01		WG608850
Dalapon	mg/l	0.00372	0.00405	74.4		14-121	8.50	31	L590320-01		WG608850
Dicamba	mg/l	0.00480	0.00494	96.0		31-135	2.81	25	L590320-01		WG608850
Dichloroprop	mg/l	0.00637	0.00639	127.*		30-122	0.393	26	L590320-01		WG608850
Dinoseb	mg/l	0.00487	0.00521	97.3		28-183	6.74	38	L590320-01		WG608850
MCPP	mg/l	0.408	0.445	81.6		32-153	8.63	31	L590320-01		WG608850
MCPP	mg/l	0.313	0.342	62.6		42-133	8.93	29	L590320-01		WG608850
2,4-Dichlorophenyl Acetic Acid				75.89		42-112					WG608850
2,4-DB	mg/l	0.0429	0.0128	577.*		22-198	108.*	33	L590320-01		WG608850
GRO (C6-C10)	mg/l	0.721	0.721	72.1		50-100	0.0300	20	L590320-01		WG608856
a,a,a-Trifluorotoluene(FID)				127.4		50-150					WG608856
GRO (C6-C10)	mg/l	0.682	0.673	68.2		50-100	1.24	20	L590287-01		WG608856
a,a,a-Trifluorotoluene(FID)				111.6		50-150					WG608856

Batch number /Run number / Sample number cross reference

WG608088: R2306336: L590320-01  
 WG608218: R2306553: L590320-01 02 03 04 05 06 07 08 09  
 WG608123: R2306694: L590320-01 02 03 04 05 06 07 08  
 WG608201: R2307474: L590320-02 03 04 05 06 07 08  
 WG608122: R2308293: L590320-01 02 03 06 07 08  
 WG608121: R2309553: L590320-01 02 03 05 06 07 08  
 WG608431: R2310493: L590320-01 02 03 04 05 06 07 08  
 WG608422: R2312636: L590320-05  
 WG608850: R2314415: L590320-01 02 03 04 05 06 07 08  
 WG608856: R2314833: L590320-01 02 03 04 05 06 07 08  
 WG608902: R2315494: L590320-04  
 WG609003: R2316795: L590320-04

\* \* Calculations are performed prior to rounding of reported values.

\* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



**YOUR LAB OF CHOICE**

Terracon Consulting Inc.

Amanda Herrit

51 Lost Mound Dr, Ste 135

Chattanooga, TN 37406

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report  
Level II

L590320

August 29, 2012

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

Company Name/Address:

**Terracon Consulting Inc.**51 Lost Mound Dr. Ste 135  
Chattanooga, TN 37406

Billing Information:

Stacy Adams  
PO Box 5010  
Chattanooga, TN 37406

Report to:

Amanda Herit

Email to:

Project  
Description:

Hamm Rd.

City/State  
Collected

Phone: (423) 499-6111

FAX:

Client Project #:

E2107081

ESC Key:

Galletctn-Hamm Rd

Collected by: (print) Jeff Beddoe

Site/Facility ID#:

P.O.#:

Collected by (signature):

Jeff Beddoe ✓

Immediately

Packed on Ice N Y

Rush? (Lab MUST Be Notified)

- Same Day ..... 200%  
 Next Day ..... 100%  
 Two Day ..... 50%  
 Three Day ..... 25%

Date Results Needed:

STAN

No.  
of  
Cntrs

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	MS	V8260	Y8151	8081	8210	GR07	RCKA8	V8260
HR-MW-1	Grab	GW		8-14-12	1545	13	X	X	X	X	X	X	
HR-MW-2				8-14-12	1500	13	X	X	X	X	X	X	
HR-MW-3				8-14-12	1545	13	X	X	X	X	X	X	
HR-MW-4				8-15-12	1030	131	X	X	X	X	X	X	
HR-MW-5				8-15-12	945	13	X	X	X	X	X	X	
HR-DVP				8-14-12	-	13	X	X	X	X	X	X	
HR-FB				8-15-12	1200	13	X	X	X	X	X	X	
HR-MS				8-14-12	1545	13	X	X	X	X	X	X	
HR-MSD	Grab	GW		8-14-12	1545	13	X	X	X	X	X	X	

\*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks: 1) 5274 8798 6242 3) 6088 5) 6264  
2) 6231 4) 6070 6253

G116

Chain of Custody  
Page 1 of 2

L-A-B S-C-I-E-N-C-E-S

12065 Lebanon Road  
Mt. Juliet, TN 37122Phone: (800) 767-5859  
Phone: (615) 758-5858  
Fax: (615) 758-5859CoCode **GALLETCTN** (lab use only)

Template/Prelogin

Shipped Via:

Remarks/Contaminant	Sample # (lab only)
	LS90320-01
	02
	03
	04
	05
	06
	07
	08
	09
	10

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via:	Condition:	(lab use only)
Jeff Beddoe	8-15-12	1800		<input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 312	Bottles Received: 136	CoC Seals Intact <input checked="" type="checkbox"/> Y <input type="checkbox"/> N NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 8/16/12	Time: 0500	pH Checked: L2 NCF: P





L · A · B · S · C · I · E · N · C · E · S

## NON-CONFORMANCE FORM

Login No.: LSGO 320

Date: 8/16/12

Evaluated by: K. Wallace

Client: GALLETCTN

### Non-Conformance (check applicable items)

- Parameter(s) past holding time       Login Clarification Needed
- Improper temperature       Chain of custody is incomplete
- Improper container type       Chain of Custody is missing (see below)
- Improper preservation       Broken container(s) (See below)
- Container lid not intact       Broken container: sufficient sample volume remains for analysis requested (See below)

If no COC: Received by \_\_\_\_\_  
Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Temp: \_\_\_\_\_ Cont. Rec. \_\_\_\_\_ pH: \_\_\_\_\_  
FedEx: \_\_\_\_\_ UPS: \_\_\_\_\_ SWA: \_\_\_\_\_ Other: \_\_\_\_\_  
Tracking #: \_\_\_\_\_

- Insufficient packing material around container
- Insufficient packing material inside cooler
- Improper handling by carrier (FedEx / UPS / Courier)
- Sample was frozen

**Comments:** Received 2 Amber Liters w/ HCU per ID. No analysis on the COC for these containers.

Client informed by call/ email/ fax/ voice mail      date: 8/17/12    time: 0850    TSR Initials: jeh  
Client contact: Brian Watson

**Login Instructions:** Add EPHTN to all samples with extra 2 liters.