# Phase II & III Field Investigation

# 95 Oak Street

Glastonbury, Connecticut 06033

## Submitted to:

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# **Table of Contents**

<u>E</u>	recutive S	umma	ry		iν
1.	Introduct	ion			1
	1.1	Purpo	se		1
	1.2	-	of Work		1
	1.3	-	t Organiza	ation	1
	1.4	Site S	etting and	History	2
		1.4.1	Current 1	Land Use	2
		1.4.2	•	t Land Use	2 2 2 2
		1.4.3	Site Hist	ory	2
<u>2.</u>	Field Inve	estigat	ion		4
	2.1	Field	Methods		4
		2.1.1		ce Soil Borings/GW Monitoring Well Installation	4
			2.1.1.1	Soil Borings	5
			2.1.1.2	Monitoring Well Construction	6
		2.1.2	Groundy	vater Sampling	7
			2.1.2.1	Gauging	7
			2.1.2.2	Purging	7
			2.1.2.3	Groundwater Sampling	7
	2.2	Field	Methods		8
		2.2.1	Subsurfa	ce Soil Borings & Temporary GW Micro Well Installation	
			2.2.1.1	Soil Borings	8
			2.2.1.2	Monitoring Well Construction	9
		2.2.2	Groundy	vater Sampling	10
			2.2.2.1	Gauging	10
			2.2.2.2	Purging	10
			2.2.2.3	Groundwater Sampling	10
3.	Physical	Chara	cteristics	s of the Site	11
	3.1	Land	Use in the	Site Vicinity	11
	3.2		Groundwa	•	11
	3.3	Surfac	ce Water H	Iydrology	12
		3.3.1	Surface '	•	12
	3.4	Regio	nal Geolog	gy and Site Stratigraphy	12
	3.5			eology and Site Stratigraphy	12
	3.6	Groun	ndwater Fl	ow	12



i

<u>4.</u>	Nature a	nd Exte	ent of Co	ontamination	13
	4.1	Subsu	rface Soil	S	13
		4.1.1	Physical	l Observations	13
		4.1.2	Chemica	al Analysis	13
			4.1.2.1	Phase II Field Investigation	13
			4.1.2.2	Phase III Field Investigation	14
	4.2	Groun	ndwater	-	14
		4.2.1	Chemica	al Analysis	14
			4.2.1.1	Phase II Field Investigation	14
			4.2.1.2	Phase III Field Investigation	15
5.	Discussi	ion. Co	nclusion	ns and Recommendations	16



# **Table of Contents (continued)**

# **Tables**

- 1 Phase II Soil Analytical Results
- 2 Phase III Soil Analytical Results
- 3 Groundwater Analytical Results

# **Figures**

- 1 Site Location Map
- 2 Soil Boring and Monitoring Well Locations
- 3 Groundwater Contours February 2009

# **Appendices**

- A Soil Boring Completion Logs
- B Laboratory Analytical Results and Chain-of-Custody Forms



# **Executive Summary**

This Phase II & III Field Investigation (FI) was conducted for the Town of Glastonbury. The subject of this field investigation is located at 95 Oak Street in Glastonbury, Connecticut (the "Site" or "subject property"). The Site is an approximately 13.75 acre parcel with a 179,682 square foot industrial/commercial building that is currently occupied by Aero Med.

The Phase II portion of this report focuses on the areas of concern (AOC) at the subject property identified in the April 2008 Phase I Environmental Site Assessment report. These AOCs include the following:

- The single story building on site was constructed in 1949. The building was originally occupied by the Consolidated Cigar Company. The building is currently occupied by Aero Med and is used for dry storage.
- Four 2,000 gallon gasoline underground storage tanks (UST) that were removed.
- 20,000 gallon and 10,000 gallon fuel oil USTs that were abandoned in place.
- A slab mounted transformer located just west of the building on site.
- Fuel pumps located near the four gasoline USTs.
- The septic tank and associated leaching field located northwest of the building on site.
- Pesticides and herbicides used historically on site.

The Phase III portion of the FI focuses on delineation of the impacts encountered during the Phase II portion of the FI.

The Phase II/III FI included the advancement of soil borings, the installation of groundwater monitoring wells, and the collection and laboratory analysis of soil and groundwater samples.

The purpose of the FI Report is to document the results of the Phase II/III FI performed by GEI Consultants, Inc. (GEI).

Semi-VOCs and TPH were detected in several soil samples during the Phase II portion of this FI at concentrations below the applicable Connecticut Department of Environmental



Protection (CTDEP) Remediation Standard Regulations (RSR). The pesticide dieldrin was detected in shallow soil samples SS-1 and SS-3 at concentrations above the CTDEP GA Pollutant Mobility Criteria (GAPMC).

Several Semi-VOCs and lead were detected in groundwater sample GEI-MW-17 at concentrations above the CTDEP surface water protection criteria (SWPC).

Due to the concentrations of dieldrin in shallow soils west of the building on site (SS-1 and SS-3) and the concentrations of semi-VOCs and lead in the groundwater east of the building on site, GEI proposed a Phase III FI to delineate the extent of the soil and groundwater impact.

The concentration of dieldrin in the shallow soil samples (Phase II FI) was below the CTDEP residential direct exposure criteria (RESDEC) but above the GA pollutant mobility criteria (GAPMC). Therefore, as part of the Phase III FI, GEI resampled the soil at the SS-1 and SS-3 sample locations at six inches below grade (the original sample depth) and at two fbg and analyzed the samples for pesticides by the SPLP Method. In addition, GEI collected shallow (six inches below grade) soil samples in a grid pattern to the west of the building on site and submitted these samples for analysis. The results of the SPLP analysis indicated that the dieldrin in the soil on site is statistically insignificant.

GEI installed groundwater monitoring well GEI-MW-18 at the location of the highest soil concentration of dieldrin (SS-3). A groundwater sample from this well was analyzed for pesticides and the results indicated no detectable dieldrin in the groundwater sample.

Therefore, GEI recommends no additional investigation or remediation regarding dieldrin on site. We do however recommend that the soil be handled appropriately during any future excavation or redevelopment of the property.

To assess the extent of semi-VOC impacted groundwater, GEI advanced seven borings in the area of GEI-MW-17. Groundwater samples were collected from seven temporary micro wells installed in the seven borings and from GEI-MW-15. The results of the laboratory analysis indicated no detectable concentrations of semi-VOCs. GEI recommends that the limited semi-VOC impacted soil in the area of GEI-MW-17 be excavated and removed during the planned construction activities. Confirmation soil samples should be collected and analyzed for semi-VOCs at the conclusion of the excavation activities.

To assess the extent of lead impacted groundwater, GEI had the eight groundwater samples mentioned above analyzed for lead. The results of the analysis indicated concentrations of lead in two of the wells above the SWPC. Due to the locations of the impacted groundwater



samples TW-1 and TW-3, the excavation of the soil mentioned above should include much of the lead impacted media. Since the original source of the lead (two 2,000-gallon gasoline USTs) has been removed, GEI does not recommend any additional remediation beyond the planned excavation.

GEI recommends the proper handling of soils, in the area of well GEI-MW-17 and the area of pesticide impacted soil to the west of the building on site, during any excavation activities in those areas.



# 1. Introduction

# 1.1 Purpose

The purpose of this report is to document the results of the Phase II & III Field Investigation (FI) performed by GEI Consultants, Inc. (GEI) at the Aero Med facility located at 95 Oak Street in Glastonbury, Connecticut. The subject property is occupied by an industrial/commercial building that is currently used for dry storage. The site location map is provided as Figure 1, and a site layout and sample location map is provided as Figure 2. The scope of work for this Phase II/III FI was based on the proposals submitted on February 10, 2009 (Phase II FI) and March 10, 2009 (Phase III FI). Complete details regarding the subject property description, the Site history, and the recognized environmental conditions are presented in the April 2008 Phase I ESA report. A summary of the Site description and Site history is provided in subsection 1.4 of this report. The Phase II portion of the FI was conducted to evaluate potential impacts to the Site soil and groundwater in the areas of concern (AOC) identified in the Phase I ESA report. The Phase III portion of this FI was conducted to delineate the extent of impacted soil and groundwater identified in the Phase II portion of the FI. The results of this Phase II/III FI are discussed in detail in Section 4 of this report.

# 1.2 Scope of Work

The scope of work for this Phase II/III FI included the following tasks:

- Soil boring advancement and subsurface-soil sampling
- Groundwater monitoring well installation
- Groundwater gauging and sampling
- Soil and groundwater laboratory analysis
- Phase II/III FI Report composition

# 1.3 Report Organization

This report presents the results of the Phase II & III FI and is organized into five sections. Section 2 provides a description of the methods and materials for conducting the Phase II FI. Section 3 presents the physical characteristics of the study area. Section 4 discusses the nature and extent of contamination. Section 5 presents a discussion, the conclusions of this investigation, and recommendations for any additional work warranted.



1

Soil boring completion logs are included as Appendix A. Analytical results and chain-of-custody forms are included as Appendix B.

# 1.4 Site Setting and History

This subsection of the report presents information from the Phase I ESA relating to the current Site use, surrounding land use, Site history, previous investigations, and environmental setting.

# 1.4.1 Current Land Use

The Site is an approximately 13.75 acre parcel with an industrial/commercial building on it. The building is currently occupied by Aero Med and is used for dry storage.

# 1.4.2 Adjacent Land Use

The subject property is located in an industrial and residential portion of Glastonbury. Adjacent land use is as follows.

- South: Stop and Shop Grocery
- East: Bagel Boys, Inc. (a bakery), and to the northeast is Kindercare (a child daycare facility)
- West: Commercial, Sheet Metal Works, Inc. and Harco Inc. Northeast is the Glastonbury Citizen (local newspaper)
- North: Vacant land, Wetlands

# 1.4.3 Site History

Certified Sanborn® maps are not available for the Site and surrounding area.

The 1957 aerial photograph shows the subject property as it appears today. Vacant land, farm land, and residential properties are adjacent to the subject property. The road currently known as Oak Street is located to the east of the property. The road currently known as Commerce Street did not exist at the time of this photograph. The subject property appears unchanged in the 1977, 1989, and 1997 aerial photographs. The surrounding areas appear to be a mix of commercial and residential properties.



The 1893, 1906, and 1948 topographic maps show the subject property and adjacent properties as vacant land. The 1953 topographic map shows the subject property with a building that appears to be approximately one-half the size of the current building. The 1964, 1972, and 1984 topographic maps show the subject property with the building as it appears today.

No City Directories, for the subject property and surrounding area, were available for review. However, a copy of the 1958 Factory Mutual Insurance plan was available from the Glastonbury town records. This plan shows the building constructed in 1949 was used by the Consolidated Cigar Company as barracks and a cafeteria. The existing barn is shown as a shed and a 5,000 gallon fuel oil tank is shown, off the north east corner of the building.

The Town of Glastonbury Assessor's card for the subject property confirmed that the current building was constructed in 1949.



# 2. Field Investigation

# **Phase II Field Investigation**

The Phase II portion of the FI was designed to assess the potential presence of contamination at the Site based on AOCs identified in the April 2008 Phase I ESA report. The Phase I ESA identified the following recognized environmental conditions at the subject property:

- The single story building on site was constructed in 1949. The building was originally occupied by the Consolidated Cigar Company. The building is currently occupied by Aero Med and is used for dry storage.
- Four 2,000 gallon gasoline USTs that were removed.
- 20,000 gallon and 10,000 gallon fuel oil USTs that were abandoned in place.
- A slab mounted transformer located just west of the building on site.
- Fuel pumps located near the four gasoline USTs.
- The septic tank and associated leaching field located northwest of the building on site.
- Pesticides and herbicides used historically on site.

All Phase II FI activities were conducted according to the GEI Phase II Environmental Site Assessment proposal dated February 10, 2009.

Laboratory analysis was performed by Connecticut Testing Laboratories, Inc. (CTL) of Meriden, Connecticut. CTL is a State of Connecticut licensed analytical laboratory.

# 2.1 Field Methods

# 2.1.1 Subsurface Soil Borings/GW Monitoring Well Installation

Columbia Environmental Drilling was subcontracted to advance soil borings and install groundwater monitoring wells. Twelve soil borings were advanced to the groundwater table using a GeoProbe<sup>TM</sup> type hydraulic drill rig. Soil samples were collected from four foot long two inch diameter macrocore sampling tubes equipped with an acetate liner. Six soil borings



were advanced with a hollow-stem auger drill rig. These six borings were completed as groundwater monitoring wells. Three surface soil hand borings were advanced using a hand auger. The following table outlines the constituents of concern (COC) and sampling locations associated with each AOC.

Area of Concern	Constituents of Concern	Sample Locations
Historical use of the	Volatile Organic Compounds	GEI-MW-15, GEI-MW-
building on site	(VOCs), lead, TPH and Semi-	16, GEI-MW-13
	VOCs.	
Four 2,000-gallon UST	VOCs and Lead. TPH on	SB-6, SB-7, SB-10, SB-
graves	GEI-MW-15 only.	11, MW-2, GEI-MW-15,
		and GEI-MW-16
Abandoned 10,000-	VOCs, TPH, and Semi-VOCs.	SB-1, SB-10, SB-11,
gallon and 20,000-gallon	RCRA 8 Metals on GEI-MW-	SB-12. GEI-MW-15,
fuel oil USTs	16 only. Lead on GEI-MW-15	GEI-MW-16, and GEI-
	and GEI-MW-17 only. No	MW-17
	Semi-VOCs on GEI-MW-15.	
Transformer	, TPH, Semi-VOCs, and	SB-8 and SB-9
	PCBs	
Fuel pumps in the area of	VOC and Lead. ETPH on	MW-1, SB-4 and SB-5
the former gasoline	MW-1 only.	
USTs		
Septic tank and leeching	VOCs, TPH, and RCRA 8	SB-14 and GEI-MW-13
field	metals. Semi-VOCs for SB-14	
	only.	
Pesticides and	Pesticides and Herbicides	SS-1, SS-2, and SS-3
Herbicides application.		

## 2.1.1.1 Soil Borings

The objective of these borings is to assess if the soil in the AOCs have been impacted by current or historic activities on site. In addition, the borings provide information regarding the subsurface geology at the subject property.

A GeoProbe<sup>TM</sup> type hydraulic drill rig was used to advance borings SB-1 through SB-12 and SB-14. Soil samples were collected using a four foot long, two inch diameter steel macrocore sampler with an acetate liner. Continuous macrocore soil samples were collected from the ground surface to bottom of boring. The borings ranged in total depth from 8 feet below grade (fbg) to approximately 13 fbg. After each sample was retrieved, the macrocore samplers were decontaminated using an Alconox bath, nitric acid rinse, methanol rinse, and a deionized water rinse. Soil samples collected were visually examined and logged in the field by GEI personnel. The soil samples were screened for the presence of total VOCs using a photoionization detector (PID) equipped with a 10.8 eV lamp.



The soil samples were also assessed for any visual and olfactory evidence of contamination, and the results were recorded. The PID was calibrated prior to the start of work. The boring logs are included in Appendix A.

A hollow-stem auger drill rig with a 4.25-inch inside diameter auger was used to advance borings and install monitoring wells (GEI-MW-13, GEI-MW-15, GEI-MW-16, and GEI-MW-17). Continuous split-spoon samples were collected from the ground surface to the bottom of the boring in all four exterior boring locations. Samples were collected in advance of the auger using a 2-inch, 2-foot-long, split spoon sampler. After each sample was retrieved, the split spoons were decontaminated using an Alconox bath, nitric acid rinse, methanol rinse, and a deionized water rinse.

As with the GeoProbe sampling, soil samples collected were visually examined and logged in the field by GEI personnel. The soil samples were screened with the PID. The soil samples were also assessed for any visual and olfactory evidence of contamination, and the results were recorded. The boring logs are included in Appendix A.

One soil sample from each of the borings (SB-1 through SB-12, SB-14, and GEI-MW-13) was placed in laboratory-supplied glassware, maintained at approximately 4° Celsius, and submitted for laboratory analyses. A chain of custody was maintained for all of the soil samples.

#### 2.1.1.2 Monitoring Well Construction

Four soil borings were completed as groundwater monitoring wells GEI-MW-13, GEI-MW-15, GEI-MW-16 and GEI-MW-17. The monitoring wells were constructed of 2-inch inside diameter, flush-threaded polyvinyl chloride (PVC) screen and solid PVC riser. These wells were installed using the hollow-stem auger drill rig. The wells were installed with 10 feet of #10 slot screen at depths ranging from 11.4 to 14.3 feet below grade, where the screen was set to straddle the water table. The annular space between the well screen and borehole wall, from the bottom of the boring to approximately 1 foot above the top of the screen, was filled with chemically inert filter sand to promote sufficient groundwater flow to the wells and to minimize the passage of any fine-grained formational material into the wells. An approximately 2-foot-thick bentonite clay seal was placed directly above the sand pack. The remaining annular space was filled to grade with native material. A concrete pad was constructed around each well at the ground surface and fitted with a flush-mounted curb box, locking cap, and lock. Well construction details are provided in the boring logs (Appendix A).



# 2.1.2 Groundwater Sampling

The four groundwater monitoring wells, discussed in subsection 2.1.1.2 of this report and two previously existing groundwater monitoring wells (MW-1 and MW-2), were sampled on February 27, 2009 as described below.

## 2.1.2.1 Gauging

Prior to groundwater purging and sampling, the monitoring wells were gauged for depth to groundwater. GEI personnel used an electronic interface probe (EIP) to measure the distance from the highest point on the PVC riser to the groundwater table within each well.

# 2.1.2.2 Purging

Prior to groundwater sampling, the monitoring wells were purged at rates that minimize or eliminate significant drawdown in accordance with the guidelines set forth in *Low Stress* (*low flow*) *Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells* (EPA Region I, 1996). A peristaltic pump with dedicated polyethylene and silicone tubing was used to purge one tubing volume of groundwater from each well. Upon removal of one tubing volume, water quality was monitored and recorded with a Horiba U-22 meter for pH, temperature, specific conductivity, oxidation-reduction potential (Eh), dissolved oxygen, and turbidity at five-minute intervals to determine well stability. When stability was reached (pH was within 0.1 standard units, temperature was within 0.5°C, Eh and specific conductivity were within 10% for three consecutive readings) the groundwater was sampled.

## 2.1.2.3 Groundwater Sampling

After each well was purged, groundwater samples were collected and contained in glassware provided by the laboratory and maintained at approximately 4° Celsius. Samples were collected using dedicated tubing and a peristaltic pump (approximate pumping rate: 100 milliliters per minute [mL/min]). A chain of custody was maintained for the groundwater samples.

# **Phase III Field Investigation**

The Phase III portion of the field investigation was designed to delineate the extent of impacted soil and groundwater encountered during the Phase II field investigation. The Phase II field investigation identified the following impacts at the subject property:

• The concentrations of dieldrin in soil samples SS-1 and SS-3 were above the GA Pollutant Mobility Criteria (PMC).



• The concentrations of lead and several semi-VOCs (polycyclic aromatic hydrocarbons [PAHs]) in groundwater at well GEI-MW-17 were above the CTDEP surface water protection criteria (SWPC).

# 2.2 Field Methods

# 2.2.1 Subsurface Soil Borings & Temporary GW Micro Well Installation

Columbia Environmental Drilling was subcontracted to advance soil borings and install temporary groundwater micro wells. Seven soil borings were advanced to the groundwater table using a GeoProbe<sup>TM</sup> type hydraulic drill rig. Soil samples were screened for signs of impact from the four foot long two inch diameter macrocore sampling tubes equipped with an acetate liner. One inch diameter PVC micro wells were installed in these seven borings. A rotary auger drill rig was used to install one two inch diameter PVC groundwater monitoring well (GEI-MW-18). Twenty seven surface soil hand borings were advanced using a hand auger. The following table outlines the constituents of concern (COC) and sampling locations associated with each Phase III AOC.

Area of Concern	Constituents of Concern	Sample Locations
Two 2,000-gallon UST	Lead	TW-1 through TW-7 and
graves located east of the		GEI-MW-15
building on site		
Abandoned 10,000-	Semi-VOCs (PAHs)	TW-1 through TW-7 and
gallon fuel oil USTs		GEI-MW-15
Pesticides in shallow	Pesticides	SS-1, SS-3 at six inches
soils		and two fbg. SS-2, SS-4
		through SS-22 and SS-
		24 through SS-27 at six
		inches below grade. Also
		MW-18.

#### 2.2.1.1 Soil Borings

The objective of these borings is to assess the extent of PAH, lead, and pesticide impacted soil and to assess if these impacts present a threat to the groundwater on site.

On March 19, 2009 a hollow-stem auger drill rig was used to advance a boring and install monitoring well GEI-MW-18. The boring was advanced to a depth of 16 fbg. The well was constructed of 10 feet of two inch diameter PVC well screen and six feet of two inch diameter PVC riser. The screen was set to straddle the groundwater table.

Soil samples were collected on March 19, 2009 from the previous locations of (Phase II) SS-1 and SS-3. Soil samples were collected from six inches below grade and from two fbg.



Soil samples were collected from SS-2, SS-4 through SS-22, and SS-24 through SS-27 from a depth of six inches below grade.

On March 20, 2009 a GeoProbe<sup>TM</sup> type hydraulic drill rig was used to advance borings TW-1 through TW-7. Soil samples were collected using a four foot long, two inch diameter steel macrocore sampler with an acetate liner. Continuous macrocore soil samples were collected from the ground surface to bottom of boring. The borings ranged in total depth from approximately 8 fbg to approximately 12 fbg. Soil samples collected were visually examined, screened with the PID, and logged in the field by GEI personnel.

One soil sample from each of the borings (SS-2, SS-4 through SS-22, and SS-24 through SS-27) and two soil samples from SS-1 and SS-3 were placed in laboratory-supplied glassware, maintained at approximately 4° Celsius, and submitted for laboratory analyses. A chain of custody was maintained for all of the soil samples.

# 2.2.1.2 Monitoring Well Construction

One soil boring was completed as groundwater monitoring well GEI-MW-18. The monitoring well was constructed of 2-inch inside diameter, flush-threaded PVC screen and solid PVC riser. This well was installed using the hollow-stem auger drill rig. The well was installed with 10 feet of #10 slot screen at a depth 16fbg, where the screen was set to straddle the water table. The annular space between the well screen and borehole wall, from the bottom of the boring to approximately 1 foot above the top of the screen, was filled with chemically inert filter sand to promote sufficient groundwater flow to the well and to minimize the passage of any fine-grained formational material into the well. An approximately 2-foot-thick bentonite clay seal was placed directly above the sand pack. The remaining annular space was filled to grade with native material. A concrete pad was constructed around the well at the ground surface and fitted with a flush-mounted curb box, locking cap, and lock.

Seven soil borings were completed as temporary groundwater micro wells (TW-1 through TW-7). The micro wells were constructed of 1-inch diameter, flush-threaded PVC screen and solid PVC riser. These wells were installed using a GeoProbe<sup>TM</sup> type drill rig. The wells were installed with 10 feet of #10 slot screen at a depth that ranged between 8 and 12 fbg, where the screen was set to straddle the water table. The well screens in these wells were installed for the purpose of collecting a one-time grab sample of groundwater. The well screens were removed upon completion of the groundwater sampling activities.



# 2.2.2 Groundwater Sampling

The seven micro wells, discussed in subsection 2.2.1.2 of this report, and one groundwater monitoring wells GEI-MW-15 (that was installed during the Phase II portion of this FI), were sampled on March 20, 2009 as described below. The one groundwater monitoring well, discussed in subsection 2.2.1.2 of this report, was sampled on March 24, 2009 as described below.

# 2.2.2.1 Gauging

Prior to groundwater purging and sampling, the monitoring/micro wells were gauged for depth to groundwater. GEI personnel used an EIP to measure the distance from the highest point on the PVC riser to the groundwater table within each well.

# 2.2.2.2 **Purging**

Prior to groundwater sampling, the monitoring/micro wells were purged at rates that minimize or eliminate significant drawdown in accordance with the guidelines set forth in *Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells* (EPA Region I, 1996). A peristaltic pump with dedicated polyethylene and silicone tubing was used to purge one tubing volume of groundwater from each well. Upon removal of one tubing volume, water quality was monitored and recorded with a Horiba U-22 meter for pH, temperature, specific conductivity, oxidation-reduction potential (Eh), dissolved oxygen, and turbidity at five-minute intervals to determine well stability. When stability was reached (pH was within 0.1 standard units, temperature was within 0.5°C, Eh and specific conductivity were within 10% for three consecutive readings) the groundwater was sampled.

#### 2.2.2.3 Groundwater Sampling

After each well was purged, groundwater samples were collected and contained in glassware provided by the laboratory and maintained at approximately 4° Celsius. Samples were collected using dedicated tubing and a peristaltic pump (approximate pumping rate: 100 mL/min). A chain of custody was maintained for the groundwater samples.



# 3. Physical Characteristics of the Site

This section of the report discusses the physical characteristics of the study area from both regional and Site-specific perspectives.

# 3.1 Land Use in the Site Vicinity

The following is a description of land use in the area of the Site:

- South: Vacant land, Town property.
- East: Residential buildings, except for a warehouse at 100, Oak Street.
- North: Commercial, Service Garage Monaco & Sons Motor Sales Inc.
- West: Wooded and then a Light Industrial building.

The exterior portion of the site is predominately paved. Some unpaved areas exist to the east of the building on site and there is a grass covered and partially wooded area to the west of the building.

The subject property is located in an industrial and residential portion of Glastonbury. Beyond the adjacent land uses discussed above, the following other environmentally significant land use data was found within ½ mile of the Site: there are six sites that are known to have had leaking underground storage tank (LUST) incidents. Based on the distance and location of the LUST sites listed, the potential for the sites to have impacted the subject property is considered low.

# 3.2 Local Groundwater Use

The subject property and vicinity are supplied potable water by the Metropolitan District Commission (MDC).

There are two public water supply sources approximately 1 mile west of the site. These water supply sources are distant from the site and would not be influenced by any release onsite. Groundwater below and near the Site is classified by the CTDEP as a GA groundwater area (CTDEP, 1993). The GA classification indicates groundwater within a public water supply watershed or within the area of influence of public water supply wells.



This CTDEP designation indicates groundwater that is suitable for direct human consumption without treatment (CTDEP 1996).

# 3.3 Surface Water Hydrology

Based on the topography of the site and vicinity, local groundwater flow is inferred to be toward the west/southwest toward Hubbard Brook.

# 3.3.1 Surface Water

This surface water is classified by the CTDEP as "BA." An "A" classification is suitable to be used as a potential drinking water supply, fish and wildlife habitat, recreational use, agricultural supply, industrial supply, and other legitimate uses, including navigation. Surface water within a "BA" classification may not be meeting criteria or one or more designated uses. The water quality goal is achievement of class "A" criteria and attainment of class "A" designated uses. The closest mapped surface water body is Hubbard Brook and its impoundments, Williams Pond and Roser Ponds approximately 1,000 feet to the south.

# 3.4 Regional Geology and Site Stratigraphy

According to the 1964 USGS Map of the Surficial Geology of the Glastonbury Quadrangle, Connecticut, the subject property is underlain by Glacial Lake Hitchcock Deposits. These deposits are made up of lacustrine sands overlying very fine sand, silt and clay.

# 3.5 Site-Specific Geology and Site Stratigraphy

Site geology, as determined through direct logging of split-spoon samples, is provided in this subsection. Complete details are presented within the boring logs in Appendix A.

A layer of fill material consisting of poorly sorted red sandy soil including approximately 5 percent gravel and approximately 15 percent silt makes up the uppermost stratigraphic unit at the Site. The deepest boring was advanced to approximately 15 fbg. Groundwater was encountered at depths ranging from 2.5 to 11 feet below grade. No bedrock was encountered in any of the borings.

## 3.6 Groundwater Flow

The direction of groundwater flow is controlled mainly by topography. However, flow is also influenced by aquifer type, depth to bedrock, watercourses near the Site, groundwater use, and subsurface structures. Generally, groundwater flows from topographic high points to low points. Based on the observed topography and the site specific groundwater elevation measurements, groundwater on Site flows to the west/northwest toward Hubbard Brook. Groundwater contours are included in Figure 3.



# 4. Nature and Extent of Contamination

This section of the report presents the physical observations made during the field investigation, the analytical results, and an assessment of the contamination at the Site. The sample locations from the Phase II/III FI are included on Figure 2. The various media and the potential impacts to each media are discussed separately in the following subsections.

# 4.1 Subsurface Soils

This subsection describes and discusses the findings of subsurface-soil investigations at the Site. Subsurface soils at the Site were evaluated through observations made during the installation of soil borings, and through the chemical analysis of subsurface-soil samples. Soil boring logs are provided in Appendix A.

# 4.1.1 Physical Observations

No evidence of soil staining or chemical/petroleum odors were observed in the subsurfacesoil samples collected on site. The headspace PID readings indicated no concentrations of VOCs in any of the soil samples collected.

# 4.1.2 Chemical Analysis

## 4.1.2.1 Phase II Field Investigation

The soil samples collected from SB-1 through SB-7, SB-10, GEI-MW-13, SB-14 and SB-101 (the duplicate of SB-10) were analyzed for VOCs by EPA Method 8260B. Soil samples collected from SB-1, SB-8 through 12, GEI-MW-13, SB-14, and SB-101 were analyzed for total petroleum hydrocarbons (TPH) by the Connecticut extractable TPH (ETPH) Method. The soil samples collected from SB-2 through SB-7 were analyzed for lead by the synthetic precipitation leaching procedure (SPLP) Method. The soil samples collected from GEI-MW-13 and SB-14 were analyzed for the 8 RCRA metals by EPA Method 3050B. The soil samples collected from SB-1, SB-8 through SB-12, GEI-MW-13, SB-14, and SB-101were analyzed for semi-VOCs by EPA Method 8270. The soil samples collected from SB-8 and SB-9 were analyzed for polychlorinated biphenyls (PCB) by EPA Method 8082. The soil samples collected from SS-1, SS-2, and SS-3 were analyzed for Herbicides and pesticides by EPA Methods 8051A and 8081A, respectively.



The locations of the samples are presented in Figure 2 and a summary of the soil analytical data is presented in Table 1. Detailed results are presented in the laboratory analytical reports included in Appendix B.

Semi-VOCs were detected in the soil samples collected from borings SB-1, SB-9, SB-11, and SB-14 at concentrations below the applicable CTDEP RSRs.

Several of the 8 RCRA metals were detected in soil samples GEI-MW-13 and SB-14 at concentrations below the applicable CTDEP RSRs.

ETPH was detected in soil samples SB-1 and SB-14 at concentrations below the applicable CTDEP RSRs.

The pesticide dieldrin was detected at a concentration above the CTDEP GA Pollutant Mobility Criteria (GAPMC), but below the CTDEP Residential Direct Exposure Criteria (RESDEC) in soil samples SS-1 and SS-3.

None of the other parameters analyzed were detected in any of the soil samples.

# 4.1.2.2 Phase III Field Investigation

Due to the results of the pesticide analysis on soil samples collected as part of the Phase II FI, on March 19, 2009, the soil samples from SS-1, SS-3 through SS-22, and SS-24 through SS-27 were analyzed for pesticides by the SPLP Method. Dieldrin was detected in soil samples SS-4 through SS-8 and SS-27 at concentrations below the applicable CTDEP RSRs. None of the other parameters analyzed were detected in any of the soil samples. The concentrations of dieldrin in these soil samples do not warrant additional investigation or remediation.

# 4.2 Groundwater

This subsection describes and discusses the findings of groundwater investigations at the Site. Groundwater at the Site was evaluated through the chemical analysis of groundwater samples.

# 4.2.1 Chemical Analysis

# 4.2.1.1 Phase II Field Investigation

On February 27, 2009, groundwater samples were collected from monitoring wells MW-1, MW-2, GEI-MW-13, GEI-MW-15, GEI-MW-16, and GEI-MW-17 during the Phase II FI. All six groundwater samples were analyzed for VOCs by EPA Method 8260. Groundwater samples MW-1, MW-2, GEI-MW-13, GEI-MW-15, and GEI-MW-16 were analyzed for



TPH by the ETPH Method. Groundwater samples GEI-MW-16 and GEI-MW-17 were analyzed for Semi-VOCs by EPA Method 8270. Groundwater samples GEI-MW-13 and GEI-MW-16 were analyzed for the 8 RCRA total metals by the 6000/7000 series. Groundwater samples GEI-MW-15 and GEI-MW-17 were analyzed for lead by the 6000/7000 series.

The locations of the samples are presented in Figure 2 and a summary of the groundwater analytical data is presented in Table 3. Detailed results are presented in the laboratory analytical reports included in Appendix B.

Several PAHs and lead were detected in groundwater sample GEI-MW-17 at concentrations above the SWPC. No other concentrations of PAHs or lead were detected above the applicable CTDEP RSRs in any of the samples.

No VOCs, ETPH, or the remainder of the 8 RCRA metals were detected at concentrations above the CTDEP RSRs.

The concentrations of some of the PAHs and lead in sample GEI-MW-17 do warrant some type of remediation.

## 4.2.1.2 Phase III Field Investigation

On March 20, 2009, Groundwater samples were collected from temporary micro wells TW-1 through TW-7 and groundwater monitoring well GEI-MW-15 during the Phase III FI. All eight samples were analyzed for semi-VOCs (PAHs) by EPA Method 8270 and for lead by the 6000/7000 series. The concentrations of PAHs in all eight groundwater samples were below the laboratory detection limits. The concentration of lead in groundwater samples TW-1 and TW-3 were above the SWPC. The concentration of lead in TW-4 was above the laboratory detection limit but below the applicable CTDEP RSRs. There were no other detections of lead in the remaining groundwater samples. The concentration of lead in TW-1 and TW-3 warrant some type of remediation.

On March 24, 2009, a groundwater sample was collected from groundwater monitoring well GEI-MW-18. The groundwater sample was analyzed for pesticides by EPA Method 8081A. The concentrations of pesticides in groundwater sample GEI-MW-18 were below the laboratory detection limits. The concentration of pesticides in this groundwater sample does not warrant further investigation or remediation.



# 5. Discussion, Conclusions and Recommendations

A Phase II/III FI was conducted at the Aero Med facility located at 95 Oak Street in Glastonbury, Connecticut. The purpose of the Phase II portion of the FI was to assess if the subsurface environment on site has been impacted by current or previous activities in the areas of concern identified in the April 2008 GEI Phase I ESA report.

Semi-VOCs and TPH were detected in several soil samples during the Phase II portion of this FI at concentrations below the applicable CTDEP RSRs. The pesticide dieldrin was detected in shallow soil samples SS-1 and SS-3 at concentrations above the CTDEP GAPMC.

Several Semi-VOCs and lead were detected in groundwater sample GEI-MW-17 at concentrations above the SWPC.

Due to the concentrations of dieldrin in shallow soils west of the building on site and the concentrations of semi-VOCs and lead in the groundwater east of the building on site, GEI proposed a Phase III FI to delineate the extent of the soil and groundwater impact.

The concentration of dieldrin in the shallow soil samples (Phase II FI) was below the CTDEP RESDEC but above the GAPMC. Therefore, the Phase III FI focused on potential dieldrin impact to the groundwater not to direct exposure. GEI collected soil samples at the SS-1 and SS-3 sample locations at six inches below grade (the original sample depth) and at two fbg and analyzed the samples for pesticides by the SPLP Method. In addition, GEI collected shallow (six inches below grade) soil samples in a grid pattern to the west of the building on site. The results of the SPLP analysis indicated that the dieldrin on site is statistically insignificant.

GEI installed groundwater monitoring well GEI-MW-18 at the location of the highest soil concentration of dieldrin (SS-3). A groundwater sample from this well was analyzed for pesticides and the results indicated no detectable dieldrin in the groundwater sample. Therefore, GEI recommends no additional investigation or remediation regarding dieldrin on site. We do however recommend that the soil be handled appropriately during any future excavation or redevelopment of the property.

To assess the extent of PAH impacted groundwater, GEI advanced seven borings in the area of GEI-MW-17 and the 10,000 gallon abandoned fuel oil UST (the suspected source of the PAHs).



Groundwater samples were collected from seven temporary micro wells installed in the seven borings and from GEI-MW-15. The results of the laboratory analysis indicated no detectable concentrations of PAHs. GEI recommends that the limited PAH impacted soil in the area of GEI-MW-17 be excavated and removed during the planned construction activities on site. Confirmation soil samples should be collected and analyzed for semi-VOCs at the conclusion of the excavation activities.

To assess the extent of lead impacted groundwater, GEI had the eight groundwater samples mentioned above analyzed for lead. The results of the analysis indicated concentrations of lead in two of the wells above the SWPC. Due to the locations of the impacted groundwater samples TW-1 and TW-3, the excavation of the soil mentioned above should include much of the lead impacted media. Since the original source of the lead (two 2,000-gallon gasoline USTs) has been removed, GEI does not recommend any additional remediation beyond the planned excavation.

GEI recommends the proper handling of soils, in the area of well GEI-MW-17 and the area of pesticide impacted soil to the west of the building on site, during any excavation activities in those areas.



# **Tables**



# Table 1 Phase II Soil Analytical Results 95 Oak Street Sampling Date: 2-20-09

Sample Name:		GA/GA	SB-1	SB-1	SB-8	SB-9	SB-10	SB-101	SB-11	SB-12	GEI-MW-13	SB-14	SS-1	SS-2	SS-3
Sample Interval:	RES	Α	(30")	(30")	(11)	(10-11)	(9-10)	(9-10)	(3.5-4)	(3-4)					
Sample Date:	DEC	PMC	2/20/2009	2/20/2009	2/20/2009	2/20/2009	2/20/2009	2/20/2009	2/20/2009	2/20/2009	2/20/2009	2/20/2009	2/20/2009	2/20/2009	2/20/2009
SVOCs (mg/kg)															
Acenaphthene	1000	8.4	0.368	0.368	ND< 0.10	0.209	ND< 0.10	NA	NA	NA					
Anthracene	1000	40	0.435	0.435	ND< 0.10	0.262	ND< 0.10	NA	NA	NA					
Benzo(a)anthracene	1	1	0.896	0.896	ND< 0.10	0.470	ND< 0.10	ND< 0.10	0.130	ND< 0.10	ND< 0.10	0.105	NA	NA	NA
Benzo(b)fluoranthene	1	1	0.950	0.95	ND< 0.10	0.193	ND< 0.10	NA	NA	NA					
Benzo(k)fluoranthene	8.4	1	0.844	0.844	ND< 0.10	0.286	ND< 0.10	NA	NA	NA					
Benzo(g,h,i)perylene	1,00	4.2	0.556	0.556	ND< 0.50	NA	NA	NA							
Benzo(a)pyrene	1	1	0.869	0.869	ND< 0.10	0.355	ND< 0.10	ND< 0.10	0.144	ND< 0.10	ND< 0.10	ND< 0.10	NA	NA	NA
Carbazole	NE	NE	0.319	0.319	ND< 0.10	0.125	ND< 0.10	NA	NA	NA					
Chrysene	84	1	0.911	0.911	ND< 0.10	0.406	ND< 0.10	ND< 0.10	0.118	ND< 0.10	ND< 0.10	0.109	NA	NA	NA
Fluoranthene	1000	5.6	2.790	2.79	ND< 0.10	1.130	ND< 0.10	ND< 0.10	0.207	ND< 0.10	ND< 0.10	0.221	NA	NA	NA
Fluorene	1000	5.6	0.229	0.229	ND< 0.10	0.128	ND< 0.10	NA	NA	NA					
Naphthalene	1000	5.6	0.151	0.151	ND< 0.10	0.124	ND< 0.10	NA	NA	NA					
Phenanthrene	1000	4	1.830	1.83	ND< 0.10	0.921	ND< 0.10	0.119	NA	NA	NA				
Pyrene	1000	4	2.120	2.12	ND< 0.10	0.938	ND< 0.10	ND< 0.10	0.193	ND< 0.10	ND< 0.10	0.201	NA	NA	NA
Pesticides (mg/kg)															
4,4'-DDT	1.8	NE	NA	ND< 50	ND< 50	0.113									
Dieldrin	0.038	0.007	NA	0.010	ND< 5	0.019									
Metals (mg/kg)															
Arsenic	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.9	2.4	NA	NA	NA
Barium	4,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	37	39	NA	NA	NA
Chromium, Total	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.5	12.2	NA	NA	NA
Lead	400 <sup>(4)</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.3	4.5	NA	NA	NA
Mercury	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND< 0.02	0.03	NA	NA	NA
Other (mg/kg)															
ETPH	500	500	87	87	ND< 50	96	NA	NA	NA						



H:\WPROC\Project\Glastonbury,Town of\PhII.III95 Oak Street\ Table195Oak\_Street\_Glas.\_Soils\_hits\_table-GAI Table

# Table 1 Phase II Soil Analytical Results 95 Oak Street Glastonbury, CT

#### Notes:

Data for these sampling events have not been validated. Qualifiers are Lab Qualifiers.

mg/kg - milligrams/kilogram or parts per million (ppm)

SVOCs - semivolatile organic compounds

GA/GAA - means an area where the ground-water classification is GA/GAA

Res DEC - Residential direct exposure criteria means the concentrations identified as residential direct exposure criteria in Appendix A to sections 22a-133k-1 through 22a-133k-3 of the Regulations of Connecticut State Agencies.

PMC - Pollutant mobility criteria means the concentrations identified in Appendix B to sections 22a-133k-1through 22a-133k-3 of the Regulations of Connecticut State Agencies or any alternative pollutant mobility criteria approved by the Commissioner pursuant to subsection 22a-133k-2(d) of the Regulations of Connecticut State Agencies.

#### # - Criteria based on detection limits

(4) - Codified criterion for Lead RDEC is 500 ppm, but the recommended cleanup criterion is 400 ppm to be protective of human health")

NA - not applicable

NE - not established

ND - Not Detected

Bolding indicates a detected result value

Shading and bolding indicates that the detected result value exceeds the Remediation Standard it was compared to



# Table 2 Phase III Soil Analytical Results Town of Glastonbury 95 Oak Street Sampling Date: 3/19/09

San	ple Name:	SS-1	SS-1	SS-3	SS-3	SS-4	SS-5	SS-6
Sample Inte	erval (feet):	(2)	(6)	(2)	(6)	(6)	(6)	(6)
Sa	mple Date: GWI	PC 3/19/2009	3/19/2009	3/19/2009	3/19/2009	3/19/2009	3/19/2009	3/19/2009
SPLP Pesticides (mg/L)								
Dieldrin	0.0	2 0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00006	0.00008	0.00011

#### Notes:

mg/L - miligrams per liter or ppm

SPLP - Synthetic Precipitate Leaching Procedure

**GWPC - Ground-water Protection Criteria** 

Bolding indicates a detected result value

# **Laboratory Qualifiers:**



## Unvalidated

# Table 2 Phase III Soil Analytical Results Town of Glastonbury 95 Oak Street Sampling Date: 3/19/09

Sample Nam	<b>e</b> :	SS-7	SS-8	SS-9	SS-10	SS-11	SS-12	SS-13	SS-14
Sample Interval (fee	):	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Sample Dat	: GWPC	3/19/2009	3/19/2009	3/19/2009	3/19/2009	3/19/2009	3/19/2009	3/19/2009	3/19/2009
SPLP Pesticides (mg/L)									
Dieldrin	0.02	0.00018	0.00005	0.00002 U					

#### Notes:

mg/L - miligrams per liter or ppm

SPLP - Synthetic Precipitate Leaching Procedure

**GWPC** - Ground-water Protection Criteria

Bolding indicates a detected result value

# **Laboratory Qualifiers:**



## Unvalidated

# Table 2 Phase III Soil Analytical Results Town of Glastonbury 95 Oak Street Sampling Date: 3/19/09

Sample Name	:	SS-15	SS-16	SS-17	SS-18	SS-19	SS-20	SS-21	SS-22	
Sample Interval (feet)	:	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	
Sample Date	: GWPC	3/19/2009	3/19/2009	3/19/2009	3/19/2009	3/19/2009	3/19/2009	3/19/2009	3/19/2009	
SPLP Pesticides (mg/L)										
Dieldrin	0.02	0.00002 U								

#### Notes:

mg/L - miligrams per liter or ppm

SPLP - Synthetic Precipitate Leaching Procedure

**GWPC - Ground-water Protection Criteria** 

Bolding indicates a detected result value

# **Laboratory Qualifiers:**



## Unvalidated

# Table 2 Phase III Soil Analytical Results Town of Glastonbury 95 Oak Street Sampling Date: 3/19/09

Sample Name:		SS-24	SS-25	SS-26	SS-27
Sample Interval (feet):		(6)	(6)	(6)	(6)
Sample Date:	GWPC	3/19/2009	3/19/2009	3/19/2009	3/19/2009
SPLP Pesticides (mg/L)					
Dieldrin	0.02	0.00002 U	0.00002 U	0.00002 U	0.00003

## Notes:

mg/L - miligrams per liter or ppm

SPLP - Synthetic Precipitate Leaching Procedure

**GWPC - Ground-water Protection Criteria** 

Bolding indicates a detected result value

# **Laboratory Qualifiers:**



# Table 3 Groundwater Analytical Results Town of Glastonbury 95 Oak Street Sampling Dates: 2/27/09, 3/20/09 and 3/24/09

Sample Name: Sample Date:	SWPC	Proposed RES GWVC	GEI-MW-13 2/27/2009	GEI-MW-15 2/27/2009	GEI-MW-16 2/27/2009	GEI-MW-17 2/27/2009	GEI-MW-1 2/27/2009	MW-2 2/27/2009	MW-15 3/20/2009			
Non-carcinogenic PAHs (ug/L)												
Fluoranthene	3700	NE	NA	NA	5 U	6.0	NA	NA	5 U			
Phenanthrene	0.077	NE	NA	NA	0.07 U	2.81	NA	NA	0.07 U			
Pyrene	110000	NE	NA	NA	5 U	5.0	NA	NA	5 U			
Carcinogenic PAHs (ug/L)												
Benz[a]anthracene	0.3	NE	NA	NA	0.06 U	2.87	NA	NA	0.06 U			
Benzo[a]pyrene	0.3	NE	NA	NA	0.2 U	2.9	NA	NA	0.2 U			
Benzo[b]fluoranthene	0.3	NE	NA	NA	0.08 U	3.69	NA	NA	0.08 U			
Benzo[k]fluoranthene	0.3	NE	NA	NA	0.3 U	1.2	NA	NA	0.3 U			
Indeno[1,2,3-cd]pyrene	SS-0.49	NE	NA	NA	1 U	5.0	NA	NA	1 U			
Total Metals (ug/L)												
Barium	SS-4540	NE	100	NA	100 U	NA	NA	NA	NA			
Lead (method 6010)	13	NE	5 U	5 U	5 U	62	NA	NA	NA			
Lead (method 200.7)	13	NE	NA	NA	NA	NA	NA	NA	5 U			



# Table 3 Groundwater Analytical Results Town of Glastonbury 95 Oak Street Sampling Dates: 2/27/09, 3/20/09 and 3/24/09

Sample Name: Sample Date:		Proposed RES GWVC	MW-18 3/24/2009	TW-1 3/20/2009	TW-2 3/20/2009	TW-3 3/20/2009	TW-4 3/20/2009	TW-5 3/20/2009	TW-6 3/20/2009	TW-7 3/20/2009		
Non-carcinogenic PAHs (ug/L)												
Fluoranthene	3700	NE	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U		
Phenanthrene	0.077	NE	NA	0.07 U								
Pyrene	110000	NE	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U		
Carcinogenic PAHs (ug/L)												
Benz[a]anthracene	0.3	NE	NA	0.06 U								
Benzo[a]pyrene	0.3	NE	NA	0.2 U								
Benzo[b]fluoranthene	0.3	NE	NA	0.08 U								
Benzo[k]fluoranthene	0.3	NE	NA	0.3 U								
Indeno[1,2,3-cd]pyrene	SS-0.49	NE	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U		
Total Metals (ug/L)												
Barium	SS-4540	NE	NA	NA	NA	NA	NA	NA	NA	NA		
Lead (method 6010)	13	NE	NA	NA	NA	NA	NA	NA	NA	NA		
Lead (method 200.7)	13	NE	NA	24	5 U	32	11	5 U	5 U	5 U		



# Table 3 Groundwater Analytical Results Town of Glastonbury 95 Oak Street Sampling Dates: 2/27/09, 3/20/09 and 3/24/09

#### Notes:

ug/L - micrograms per liter

PAHs - polycyclic aromatic hydrocarbons

SWPC: Surface Water Protection Criteria

Res GWVC - Residential volatilization criteria means the concentrations identified as residential volatilization criteria in Appendices E and F to sections 22a-133k-1 through 22a-133k-3 of the Regulations of Connecticut State Agencies.

NA - not applicable

NE - not established

SS - if statewide criteria have not been established, but site specific criteria are available, this is denoted by the prefix "SS" and the most conservative site specific value are listed.

Bolding indicates a detected result value

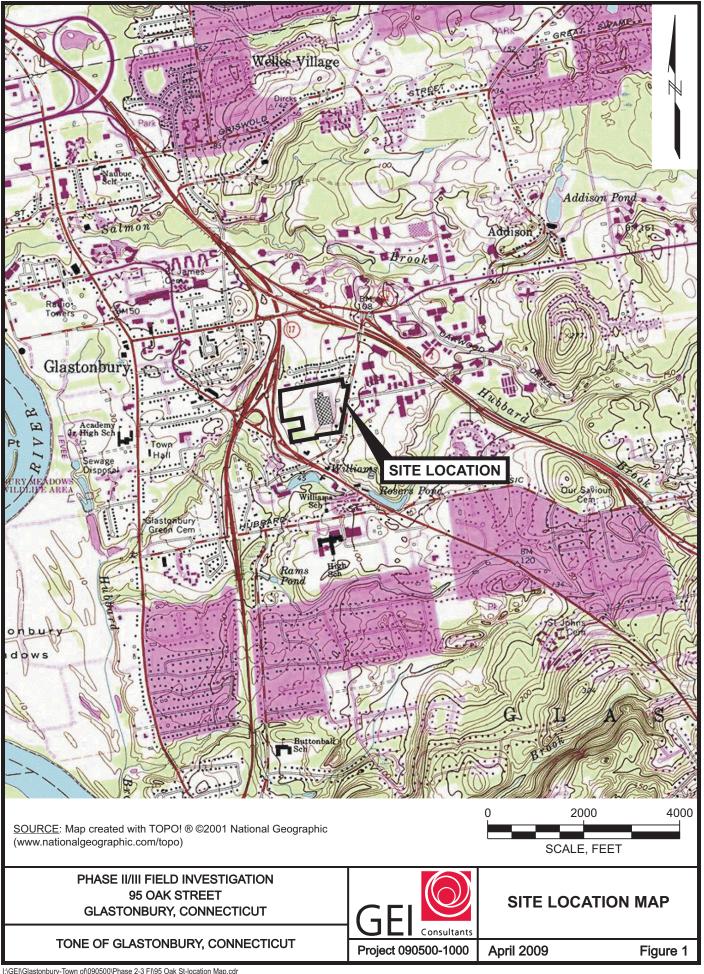
Shading and bolding indicates that the detected result value exceeds the Remediation Standard it was compared to

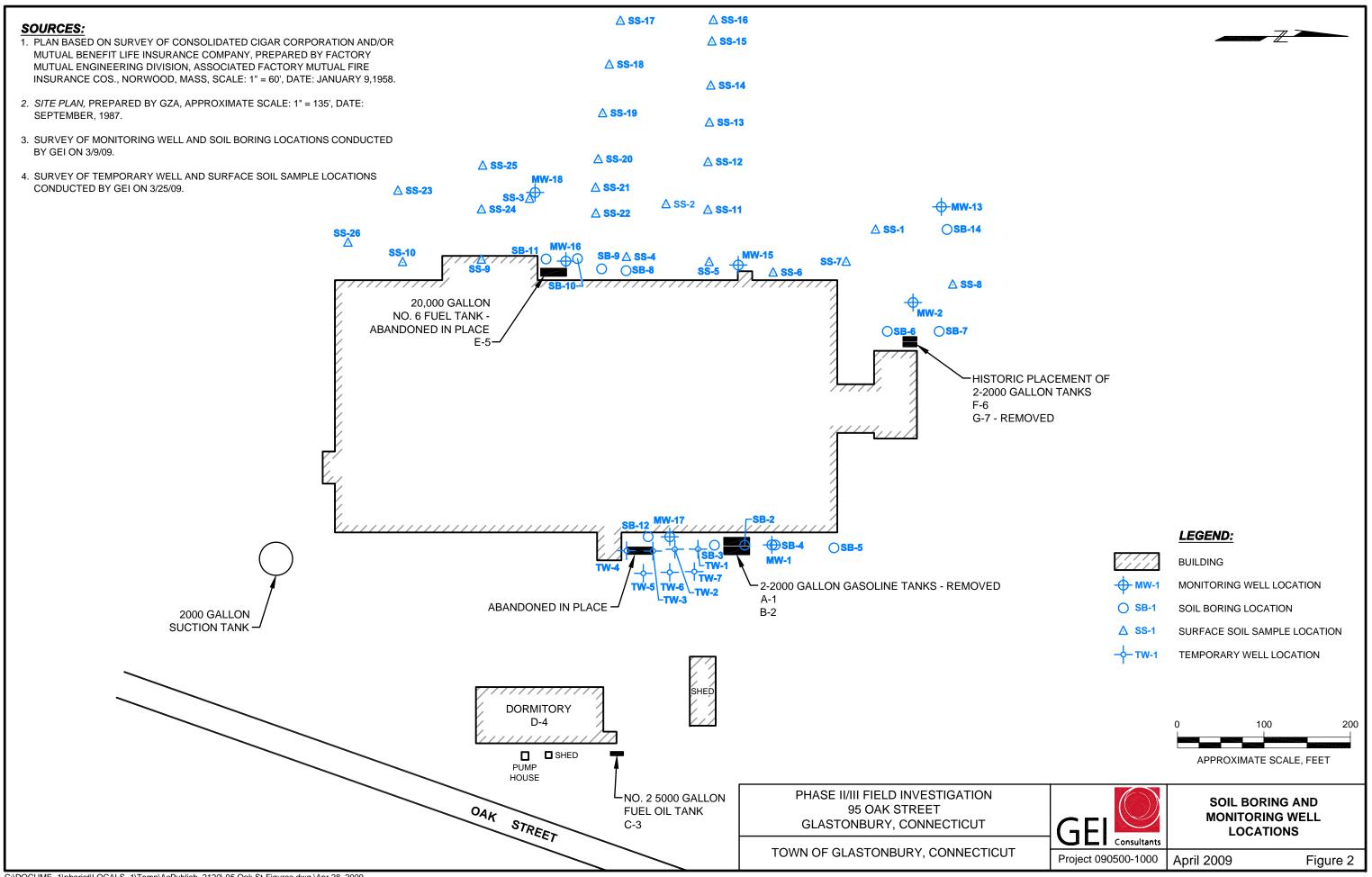
#### **Laboratory Qualifiers:**

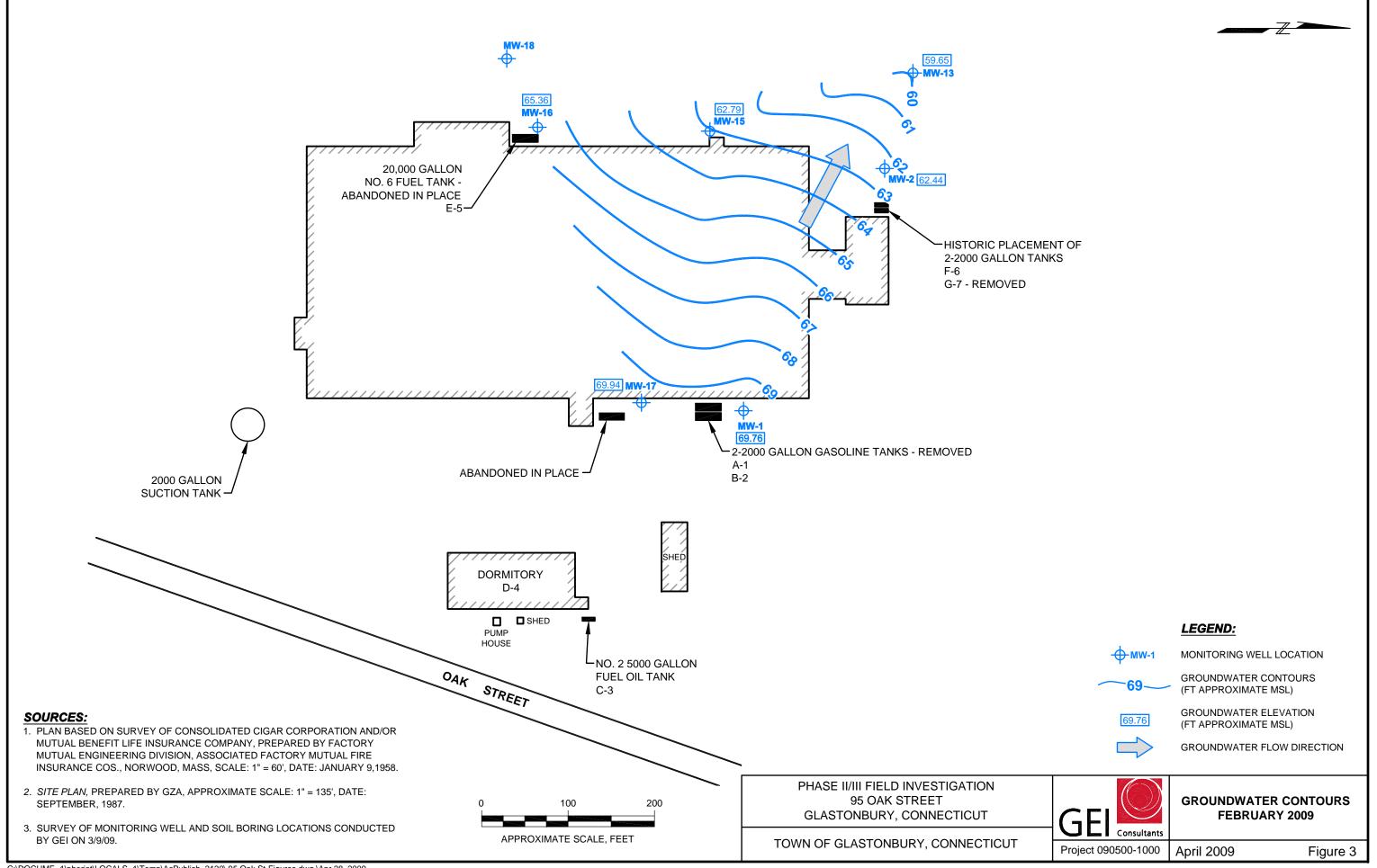


# **Figures**









PHASE II & III FIELD INVESTIGATION TOWN OF GLASTONBURY 95 OAK STREET GLASTONBURY, CONNECTICUT APRIL 14, 2009

# Appendix A

**Soil Boring Completion Logs** 



CLIENT: Town of Glastonbury

PROJECT NAMEse II 95 Oak Street, Glastonbur PAGE

Glastonbury, Connecticut CITY/STATE: 090500 GEI PROJECT NUMBER:

1 of 1

SB-1

**BORING LOG** 

**GROUND SURFACE ELEVATION (FT):** LOCATION: EASTING: TOTAL DEPTH (FT): 10.00 NORTHING: DRILLED BY: Columbia Environmental Drilling / Chris McKin MATUM VERT. / HORZ.: DATE START / END: \_2/19/2009 - 2/19/2009 LOGGED BY: Jessie McCusker DRILLING DETAILS: Geoprobe WATER LEVEL DEPTHS (FT): ▼ 2.50

			SAM	IPLE I	NFO	er.		
	PTH T.	TYPE and NO.	PEN FT.	REC IN.	PID (ppm)	STRATA	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	0							0 - 0.5 Topsoil. 0.5 - 2.4 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, ~5% gravel; ~15% silt, dry, reddish brown.
- - -	5		1.0		0		SB-1 (30")	2.4 - 2.5 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, ~5% gravel; ~15% silt, dry, red. 2.5 - 4 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, ~5% gravel; ~15% silt, damp, reddish brown. 4 - 8 POORLY GRADED SAND WITH SILT AND GRAVEL; ~15% sand, ~5% gravel; ~80% silt, moist, reddish brown.
	10							8 - 10 POORLY GRADED SAND WITH SILT AND GRAVEL; ~15% sand, ~5% gravel; ~80% silt, wet, reddish brown.

Bottom of borehole at 10.0 feet.

#### NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
IN. = INCHES
PLO = PETROLEUM LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
TLO = TAR LIKE ODOR

HEADSPACE)

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR SLO = SULFUR LIKE ODOR MLO = MUSTY LIKE ODOR

BORING LOG PHASE II 95 OAK STREET GPJ GEI CONSULTANTS, GDT 4/10/09

ENVIRONMENTAL

CLIENT: Town of Glastonbury

PROJECT NAMEse II 95 Oak Street, Glastonbur PAGE

CITY/STATE: Glastonbury, Connecticut **GEI PROJECT NUMBER:** 090500

1 of 1

SB-2

**BORING LOG** 

**GROUND SURFACE ELEVATION (FT):** LOCATION: **EASTING:** TOTAL DEPTH (FT): 11.00 NORTHING: DRILLED BY: Columbia Environmental Drilling / Chris McKintox/TUM VERT. / HORZ.: DATE START / END: 2/19/2009 - 2/19/2009 LOGGED BY: Jessie McCusker DRILLING DETAILS: Geoprobe WATER LEVEL DEPTHS (FT): ¥. 8.00

			SAM	PLE II	NFO	<b>,</b>	<b>∢</b>	
1	DEPTH FT.	TYPE and NO.	PEN FT.	REC IN.	PID (ppm)	STRATA	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	- 5		1.0		0		SB-2 (4-5)	0 - 0.5 Topsoil. 0.5 - 2 POORLY GRADED SAND WITH SILT AND GRAVEL; fine, ~85% sand, fine; ~15% silt, moist, brown.  2 - 4 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine to medium, ~5% gravel, fine; ~15% silt, moist, reddish brown.  4 - 6 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine to medium, ~5% gravel, fine; ~15% silt, moist, reddish brown.  6 - 8 POORLY GRADED SAND WITH SILT AND GRAVEL; fine, ~20% sand, fine; ~80% silt, wet, brown.  8 - 11 POORLY GRADED SAND WITH SILT AND GRAVEL; fine, ~20% sand, fine; ~80% silt, saturated, brown.

Bottom of borehole at 11.0 feet.

#### NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL | ppm = PARTS PER MILLION | NLO = NAPHTHALENE LIKE ODOR | PROTECTION DETECTOR READING (JAR | FT. = FEET | TLO = TAR LIKE ODOR | TLO = TAR LIKE ODOR

HEADSPACE)

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

NORTHING:

GEI Consultants, Inc. 455 Winding Brook Road Glastonbury, CT 06033 (860) 368-5300 CLIENT: Town of Glastonbury

PROJECT NAMEse II 95 Oak Street, Glastonbury CT

LOCATION:

Glastonbury, Connecticut GEI PROJECT NUMBER: 090500

1 of 1

SB-3

**BORING LOG** 

GROUND SURFACE ELEVATION (FT):

**EASTING:** 

TOTAL DEPTH (FT): 8.00

DRILLED BY: Columbia Environmental Drilling / Chris McKinneyTUM VERT. / HORZ.:

DATE START / END: 2/19/2009 - 2/19/2009 LOGGED BY: Jessie McCusker

CITY/STATE:

DRILLING DETAILS: Geoprobe

WATER LEVEL DEPTHS (FT): ▼ 4.00

	SAMPLE INFO						
DEPTH FT.	TYPE and NO.	PEN FT.	REC IN.	STRAT/	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION	
- 0				7. Y		0 - 1 Topsoil.	
-		3.0			SB-3 (2-3)	1 - 4 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine to medium, ~5% gravel, fine; ~10% silt, moist, brown.	
<b>Ā</b>							
_ 5						4 - 7 POORLY GRADED SAND WITH SILT AND GRAVEL; ~90% sand, fine to medium; ~10% silt, moist, brown.	
_							
						7 - 8 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine; ~20% silt, saturated, brown.  Bottom of borehole at 8.0 feet.	

NOTES:

REC = RECOVERY LENGTH OF SAMPLE

FT. = FEET

ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR

SLO = SULFUR LIKE ODOR MLO = MUSTY LIKE ODOR

ENVIRONMENTAL BORING LOG PHASE II 95 OAK STREET.GPJ GEI CONSULTANTS.GDT 4/10/09

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL PRINT = PARTS PER MILLION IN. = INCHES | PARTS PER MILLION | NLO = NAPHTHALENE LIKE ODOR | PLO = PETROLEUM LIKE ODOR | PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

TLO = TAR LIKE ODOR CLO = CHEMICAL LIKE ODOR



CLIENT: Town of Glastonbury

PROJECT NAMEse II 95 Oak Street, Glastonbur

CITY/STATE: Glastonbury, Connecticut **GEI PROJECT NUMBER:** 090500

1 of 1

**SB-4** 

BORING LOG

**GROUND SURFACE ELEVATION (FT):** 

NORTHING:

**EASTING:** 

LOCATION:

TOTAL DEPTH (FT): 8.00

DRILLED BY: Columbia Environmental Drilling / Chris McKintoyTUM VERT. / HORZ.: LOGGED BY: Jessie McCusker

DATE START / END: 2/19/2009 - 2/19/2009

DRILLING DETAILS: Geoprobe

WATER LEVEL DEPTHS (FT): ¥ 7.00

	SA	MPLE	INFO	4					
DEPTH FT.	TYPE and NO.	PEN FT.	REC IN.	STRAT,	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION			
5		0.5			SB-4 (5.5-6)	0 - 0.5 Topsoil. 0.5 - 2 POORLY GRADED SAND WITH SILT AND GRAVEL; ~85% sand, fine; ~15% silt, damp, brown.  2 - 4 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine; ~20% silt, moist, brown.  4 - 5 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine; ~20% silt, moist, brown.  5 - 6 POORLY GRADED SAND WITH SILT AND GRAVEL; ~70% sand, fine; ~30% silt, moist, brown.  6 - 7 POORLY GRADED SAND WITH SILT AND GRAVEL; ~70% sand, fine to medium; ~30% silt, moist, brown.  7 - 8 POORLY GRADED SAND WITH SILT AND GRAVEL; ~30% sand; ~70% silt, moist, brown.  Bottom of borehole at 8.0 feet.			

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
RIN. = INCHES
RICHES
REC = PENETRATION LENGTH OF SAMPLE
RIN. = INCHES
RICHES
RIC

PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR SLO = SULFUR LIKE ODOR MLO = MUSTY LIKE ODOR

BORING LOG PHASE II 95 OAK STREET.GPJ GEI CONSULTANTS.GDT



CLIENT: Town of Glastonbury

PROJECT NAMEse II 95 Oak Street, Glastonbur CITY/STATE: Glastonbury, Connecticut

GEI PROJECT NUMBER:

PÅĞE 1 of 1

SB-5

**BORING LOG** 

**GROUND SURFACE ELEVATION (FT):** 

NORTHING:

**EASTING:** 

LOCATION:

TOTAL DEPTH (FT): 8.00

DRILLED BY: Columbia Environmental Drilling / Chris McKinfbyTUM VERT. / HORZ.: LOGGED BY: Jessie McCusker

DATE START / END: 2/19/2009 - 2/19/2009

DRILLING DETAILS: Geoprobe

·	SAN	SAMPLE INFO				
DEPTH FT.	IH TYPE		ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION		
		1.0			SB-5 (3-4)	0 - 1 Topsoil.  1 - 2 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine, ~5% gravel; ~15% silt, moist, brown.  2 - 4 POORLY GRADED SAND WITH SILT AND GRAVEL; ~90% sand, fine; ~10% silt, moist, brown.  4 - 5 POORLY GRADED SAND WITH SILT AND GRAVEL; ~85% sand, fine to medium; ~15% silt, saturated, brown.  5 - 7 POORLY GRADED SAND WITH SILT AND GRAVEL; ~25% sand, fine; ~75% silt, saturated, brown.  7 - 8 POORLY GRADED SAND WITH SILT AND GRAVEL; ~25% sand, fine; ~75% silt, saturated, brown.

#### NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
RIN. = INCHES
RIN. = INCHES
RIN. = INCHES
RIN. = INCHES
RIN. = FEET
RIN. = FEET
RIN. = TAR LIKE ODOR
RIN. = TAR LIKE ODOR

HEADSPACE)

TLO = TAR LIKE ODOR CLO = CHEMICAL LIKE ODOR

ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR SLO = SULFUR LIKE ODOR MLO = MUSTY LIKE ODOR

PHASE II 95 OAK STREET, GPJ GEI CONSULTANTS, GDT



NORTHING:

GEI Consultants, Inc. 455 Winding Brook Road Glastonbury, CT 06033 (860) 368-5300

**EASTING:** 

CLIENT: Town of Glastonbury

GEI PROJECT NUMBER:

PROJECT NAMEse II 95 Oak Street, Glastonbur

1 of 1

SB-6

**BORING LOG** 

GROUND SURFACE ELEVATION (FT):

LOCATION:

TOTAL DEPTH (FT): 11.00

Glastonbury, Connecticut

090500

DRILLED BY: Columbia Environmental Drilling / Chris McKinneyTUM VERT. / HORZ.:

DATE START / END: 2/19/2009 - 2/19/2009 LOGGED BY: Jessie McCusker

CITY/STATE:

DRILLING DETAILS: Geoprobe

WATER LEVEL DEPTHS (FT): ▼ 11.00

				- ,- ,	
	SAI	SAMPLE INFO			
DEPTH FT.	TYPE and NO.	PEN FT.	REC IN.	STRATA	SOIL / BEDROCK DESCRIPTION
0 					0 - 0.5 Topsoil. 0.5 - 4 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine to coarse, ~10% gravel, fine; ~10% silt, moist, brown.
_ 5 					4 - 8 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine to medium, ~5% gravel, fine; ~15% silt, moist, brown.
_					8 - 10 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine to coarse, ~5% gravel, fine; ~15% silt, moist, brown.
10	<u> </u>	0.5			10 - 11 POORLY GRADED SAND WITH SILT AND GRAVEL; ~70% sand; ~30% silt, damp, brown.
1		<u></u>		1 . 1311	Bottom of borehole at 11.0 feet.

#### NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL ppm = PARTS PER MILLION REC = RECOVERY LENGTH OF SAMPLE IN. = INCHES

REC = RECOVERY LENGTH OF SAMPLE

PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

FT. = FEET

NLO = NAPHTHALENE LIKE ODOR

PLO = PETROLEUM LIKE ODOR TLO = TAR LIKE ODOR

CLO = CHEMICAL LIKE ODOR

ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR SLO = SULFUR LIKE ODOR

MLO = MUSTY LIKE ODOR

ENVIRONMENTAL BORING LOG PHASE II 95 OAK STREET GPJ GEI CONSULTANTS GDT 4/10/09

C	L			9	
U	L	Ì	Cons	ultan	1

CLIENT: Town of Glastonbury

PROJECT NAMEse II 95 Oak Street, Glastonbur PAGE Glastonbury, Connecticut CITY/STATE:

GELPROJECT NUMBER:

1 of 1

SB-7

**BORING LOG** 

Consultants	GEI PR	OJECT NUMBER:	090500		
GROUND SURFACE ELEV	ATION (FT):	LOCATION			
NORTHING:	EASTING:	TOTAL DE	PTH (FT): 11.00		
DRILLED BY: Columbia E	Environmental Drilling / Ch	ris McKinaDayTUM VE	RT. / HORZ.:		
LOGGED BY: Jessie McC	usker	DATE STAI	RT / END: <u>2/19/2</u>	009 - 2/19/2009	
DRILLING DETAILS: Geo	probe				
WATER LEVEL DEPTHS (F	T): ¥ 9.00				

	SAN	SAMPLE INFO				
DEPTH FT.	TYPE and NO.	PEN FT.	REC IN.	STRAT,	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
- 0 -						0 - 0.5 0.5 - 4 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine to medium, ~5% gravel, fine; ~10% silt, moist, brown.
_ _ 5						4 - 8 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine to coarse, ~10% gravel, fine; ~10% silt, moist, brown.
  <b>Y</b>						8 - 10 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine to coarse, ~10% gravel, fine; ~10% silt, wet, brown.
— 10 _		1.0			SB-7 (10-11)	10 - 11 POORLY GRADED SAND WITH SILT AND GRAVEL; ~15% sand, fine; ~85% silt, saturated, brown.

Bottom of borehole at 11.0 feet.

#### NOTES:

BORING LOG PHASE II 95 OAK STREET.GPJ GEI CONSULTANTS.GDT 4/10/09

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PHOTOIONIZATION DETECTOR READING (JAR

ppm = PARTS PER MILLION
NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR

HEADSPACE)

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

CLIENT: Town of Glastonbury

PROJECT NAMEse II 95 Oak Street, Glastonbury CT

Glastonbury, Connecticut CITY/STATE: GEI PROJECT NUMBER: 090500

1 of 1

SB-8

**BORING LOG** 

	WATER OF		
GROUND SUF	FACE ELEVATION (FT):	LOCATION:	
NORTHING:	EASTING:	TOTAL DEPTH (FT):	12.00
DRILLED BY:	Columbia Environmental Drilling / Chris McKi	n இசு TUM VERT. / HOR	Z.:
LOGGED BY:	Jessie McCusker	DATE START / END:	2/19/2009 - 2/19/2009
DRILLING DE	TAILS: Geoprobe		

WATER LEVEL DEPTHS (FT): ¥ 11.00

		SAN	IPLE II	NFO	4		
DEPTH FT.	TYPE and NO.	PEN FT.	REC IN.	PID (ppm)	STRATA	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
0 							0 - 0.5 0.5 - 4 POORLY GRADED SAND WITH SILT AND GRAVEL; fine, ~80% sand, fine; ~20% silt, moist, brown.
_ 5 _							4 - 8 POORLY GRADED SAND WITH SILT AND GRAVEL; ~75% sand, fine to medium, ~10% gravel, fine; ~15% silt, moist, brown.
- - - 10							8 - 11 POORLY GRADED SAND WITH SILT AND GRAVEL; ~75% sand, fine to medium, ~10% gravel, fine; ~15% silt, moist, brown.
<u>*</u>		1.0		0		SB-8 (11)	11 - 12 POORLY GRADED SAND WITH SILT AND GRAVEL; ~60% sand, fine; ~40% silt, saturated, brown.  Bottom of borehole at 12.0 feet.

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
IN. = INCHES
PLO = PETROLEUM LIKE ODOR
PLO = PETROLEUM LIKE ODOR
PLO = TAR LIKE ODOR
TLO = TAR LIKE ODOR

REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR
HEADSPACE)

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR



CLIENT: Town of Glastonbury

PROJECT NAMEse II 95 Oak Street, Glastonbur

Glastonbury, Connecticut CITY/STATE: 090500 GEI PROJECT NUMBER:

PAGE 1 of 1

**SB-9** 

**BORING LOG** 

**GROUND SURFACE ELEVATION (FT):** 

NORTHING:

**EASTING:** 

LOCATION:

TOTAL DEPTH (FT): 12.00

DRILLED BY: Columbia Environmental Drilling / Chris McKin DeyTUM VERT. / HORZ.:

LOGGED BY: Jessie McCusker DATE START / END: \_2/19/2009 - 2/19/2009

DRILLING DETAILS: Geoprobe

WATER LEVEL DEPTHS (FT): ▼ 9.00

		SAM	IPLE II	NFO	ا ـــ ا	ĺ	·
DEPTH FT.	TYPE and NO. FT. REC PID YELLOW	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION				
- - -							0 - 0.5 Moist, Topsoil. 0.5 - 4 POORLY GRADED SAND WITH SILT AND GRAVEL; ~75% sand, fine to medium, ~10% gravel; ~15% silt, moist, brown.
- - 5 -							4 - 5 POORLY GRADED SAND WITH SILT AND GRAVEL; ~75% sand, fine to medium, ~10% gravel; ~15% silt, moist, brown. 5 - 6 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine; ~20% silt, moist, dark brown. 6 - 8 POORLY GRADED SAND WITH SILT AND GRAVEL; ~85% sand, fine; ~15% silt, moist, brown.
- <u>F</u> 10		1.0		0		SB-9 (10-11)	8 - 9 POORLY GRADED SAND WITH SILT AND GRAVEL; ~85% sand, fine to medium; ~15% silt, moist, brown. 9 - 9.5 POORLY GRADED SAND WITH SILT AND GRAVEL; ~95% sand, fine to medium; ~5% silt, saturated, brown. 9.5 - 12 POORLY GRADED SAND WITH SILT AND GRAVEL; fine, ~20% sand, fine to medium; ~70% silt, saturated, brown.

Bottom of borehole at 12.0 feet.

# NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL REC = RECOVERY LENGTH OF SAMPLE PID = PHOTOIONIZATION DETECTOR READING (JAR

HEADSPACE)

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

Consultants

GEI Consultants, Inc. 455 Winding Brook Road Glastonbury, CT 06033 (860) 368-5300

CLIENT: Town of Glastonbury

PROJECT NAMEse II 95 Oak Street, Glastonbury PAGE

CITY/STATE: Glastonbury, Connecticut GEI PROJECT NUMBER:

1 of 1

SB-10

BORING LOG

GROUND SURFACE ELEVATION (FT): NORTHING: **EASTING:**  LOCATION:

TOTAL DEPTH (FT): 12.00

DRILLED BY: Columbia Environmental Drilling / Chris McKin DayTUM VERT. / HORZ.:

LOGGED BY: Jessie McCusker

DATE START / END: 2/19/2009 - 2/19/2009

DRILLING DETAILS: Geoprobe

WATER LEVEL DEPTHS (FT):

		<u> </u>	SAM	IPLE I	NFO	_						
	PTH T.	TYPE and NO.	and FEN		PID (ppm)	STRATA	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION				
	0							0 - 0.5 TOPSOIL. 0.5 - 4 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine sand; ~15% silt, damp, brown.				
	5							4 - 7 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine sand; ~15% silt, damp, brown.				
_								7 - 8 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine sand; ~15% silt, wet, brown. 8 - 9 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine sand; ~15% silt, wet, brown.				
	10		1.0		0		SB-10 (9-10)	9 - 10 POORLY GRADED SAND WITH SILT AND GRAVEL; ~85% sand, fine sand; ~15% silt, saturated, brown. 10 - 12 SILT WITH SAND; ~30% sand, silt; ~70% silt, moist, brown.				

Bottom of borehole at 12.0 feet.

#### NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
NIN. = INCHES
PID = PHOTOIONIZATION DETECTOR READING (JAR)
PT. = FEET
NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR

HEADSPACE)

TLO = TAR LIKE ODOR CLO = CHEMICAL LIKE ODOR

ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR

SLO = SULFUR LIKE ODOR MLO = MUSTY LIKE ODOR

BORING LOG PHASE II 95 OAK STREET.GPJ GEI CONSULTANTS.GDT 4/10/09

G	ΓI	
U	ᄔ	Consultant

CLIENT: Town of Glastonbury

PROJECT NAMEse II 95 Oak Street, Glastonbur PAGE

Glastonbury, Connecticut CITY/STATE: GEI PROJECT NUMBER: 090500

1 of 1

**SB-11** 

**BORING LOG** 

Cons	suitants					
GROUND SUR	FACE ELEVATION (FT):	LOCATION:				
NORTHING: _	EASTING:	TOTAL DEPTH (FT): 8.00				
DRILLED BY:	Columbia Environmental Dril	lling / Chris McKinteyTUM VERT. / HORZ.:				
LOGGED BY:	Jessie McCusker	DATE START / END: 2/19/2009 - 2/19/2009				
DRILLING DET	AILS: Geoprobe					
WATER LEVEL	_ DEPTHS (FT):					

		SAM	IPLE II	NFO	-	ANALYZED SAMPLE ID	
DEPTH FT.	TYPE and NO.	PEN FT.	REC IN.	PID (ppm)	STRATA		SOIL / BEDROCK DESCRIPTION
		0.5		0		SB-11 (3.5-4)	0 - 0.5 TOPSOIL. 0.5 - 2 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine to medium, ~5% gravel; ~15%, wet, brown.  2 - 4 POORLY GRADED SAND WITH SILT AND GRAVEL; ~85% sand, fine sand; ~15%, moist, brown.  4 - 6 POORLY GRADED SAND WITH SILT AND GRAVEL; ~85% sand, fine to medium; ~15%, moist, brown.  6 - 8 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine to medium, ~5% gravel; ~15%, wet, brown.

Bottom of borehole at 8.0 feet.

#### NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
IN. = INCHES
PLO = PETROLEUM LIKE ODOR
PLO = PETROLEUM LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
TLO = TAR LIKE ODOR

REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR
HEADSPACE)

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

CLIENT: Town of Glastonbury

PROJECT NAMESe II 95 Oak Street, Glastonbury, CT

CITY/STATE: Glastonbury, Connecticut GEI PROJECT NUMBER:

1 of 1

SB-12

**BORING LOG** 

Consultants	OZI I NOVZOT NOMBZIV	
GROUND SURFACE ELEVATION (FT):	LOCATION:	
NORTHING: EASTING:	TOTAL DEPTH (FT): 8.00	
DRILLED BY: Columbia Environmental Dri	Iling / Chris McKintox/TUM VERT. / HORZ.:	
LOGGED BY: Jessie McCusker	DATE START / END: _2/19/2009 - 2/19/2009	
DRILLING DETAILS: Geoprobe		
WATER LEVEL DEPTHS (FT):		

		SAM	PLE II	NFO		ANALYZED SAMPLE ID	A CONTRACTOR OF THE CONTRACTOR		
DEPTH FT.	TYPE and NO.	PEN FT.	REC IN.	PID (ppm)	STRATA		SOIL / BEDROCK DESCRIPTION		
- 0 5 5		1.0		0		SB-12 (3-4)	0 - 0.5 TOPSOIL. 0.5 - 2.4 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, ~5% gravel; ~15% silt, dry, reddish brown.  2.4 - 2.5 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, ~5% gravel; ~15% silt, dry, red. 2.5 - 4 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, ~5% gravel; ~15% silt, damp, reddish brown.		

Bottom of borehole at 8.0 feet.

#### NOTES:

HEADSPACE)

TLO = TAR LIKE ODOR CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR SLO = SULFUR LIKE ODOR MLO = MUSTY LIKE ODOR

BORING LOG PHASE II 95 OAK STREET. GPJ GEI CONSULTANTS. GDT 4/10/09



CLIENT: Town of Glastonbury

PROJECT NATITES II 95 Oak Street, Glastonbury PAGE

CITY/STATE: Glastonbury, Connecticut GEI PROJECT NUMBER:

SB-14

**BORING LOG** 

**GROUND SURFACE ELEVATION (FT):** 

NORTHING: **EASTING:**  LOCATION:

TOTAL DEPTH (FT): 6.00

DRILLED BY: Columbia Environmental Drilling / Chris McKintoy/TUM VERT. / HORZ.: LOGGED BY: Jessie McCusker

DATE START / END: 2/20/2009 - 2/20/2009

1 of 1

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

		SAM	PLE I	NFO	⋖					
DEPTH FT.	TYPE and NO.	PEN FT.	REC IN.	PID (ppm)	STRAT/	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION			
- 0					0 - 0.25 TOPSOIL. 0.25 - 2 POORLY GRADED SAND WITH SILT AND GRAVEL; ~85% sand, fine to medium; ~15%, damp, brown.					
							2 - 4 POORLY GRADED SAND WITH SILT AND GRAVEL; ~85% sand, fine to medium; ~15%, damp, brown.			
- 5		2.0		0		SB-14 (4-6)	4 - 6 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, fine sand; ~20%, saturated, brown.			

Bottom of borehole at 6.0 feet.

#### NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PHOTOIONIZATION DETECTOR READING (JAR)

PEN = PENETRATION LENGTH OF SAMPLE
IN. = INCHES
PLO = PETROLEUM LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR

PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

PLO = PETROLEUM LIKE ODOR TLO = TAR LIKE ODOR CLO = CHEMICAL LIKE ODOR

CLIENT: Town of Glastonbury

PROJECT NAMESe II 95 Oak Street, Glastonbur PAGE

CITY/STATE: Glastonbury, Connecticut GEI PROJECT NUMBER:

1 of 1

MW-13

**BORING LOG** 

**GROUND SURFACE ELEVATION (FT):** LOCATION: TOTAL DEPTH (FT): 14.00 NORTHING: **EASTING:** DRILLED BY: Columbia Environmental Drilling / Chris McKinneDATUM VERT. / HORZ.: DATE START / END: 2/20/2009 - 2/20/2009 LOGGED BY: Jessie McCusker DRILLING DETAILS: Hollow Stem Auger WATER LEVEL DEPTHS (FT): \_

DEPTH FT.	TVDE	PEN REC FT. IN.		¥.	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
- 5 - 10		1.0			MW-13 (6-7)	0 - 0.25 TOPSOIL. 0.25 - 2 POORLY GRADED SAND WITH SILT AND GRAVEL; ~90% sand, fine to medium; ~10%, damp, brown.  2 - 4 POORLY GRADED SAND WITH SILT AND GRAVEL; ~90% sand, fine to medium; ~10%, damp, brown.  4 - 6 POORLY GRADED SAND WITH SILT AND GRAVEL; ~90% sand, fine to medium; ~10%, wet, brown.  6 - 7 POORLY GRADED SAND WITH SILT AND GRAVEL; ~90% sand, fine; ~10%, saturated, brown.  7 - 8 SILT WITH SAND; ~30% sand, fine; ~70%, moist, brown.  8 - 14 SILT WITH SAND; ~40% sand, fine; ~60%, wet, brown.	

Bottom of borehole at 14.0 feet.

#### NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PHOTOIONIZATION DETECTOR READING (JAR

PD = PARTS PER MILLION
NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
TLO = TAR LIKE ODOR

PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

TLO = TAR LIKE ODOR CLO = CHEMICAL LIKE ODOR

ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR

OLO = ORGANIC LIKE ODOR SLO = SULFUR LIKE ODOR MLO = MUSTY LIKE ODOR

GEI	Consulian
GROUND	SURFAC
NORTHIN	G:

CLIENT: Town of Glastonbury

PROJECT NAMEse II 95 Oak Street, Glastonbury, CT

CITY/STATE: Glastonbury, Connecticut

1 of 1

MW-15

**BORING LOG** 

Consultants	GELPROJECT NOWBER: 090500
GROUND SURFACE ELEVATION (FT):	LOCATION:
NORTHING: EASTING:	TOTAL DEPTH (FT): 15.00
DRILLED BY: Columbia Environmental Drilli	ng / Chris McKinneDATUM VERT. / HORZ.:
LOGGED BY: Jessie McCusker	DATE START / END: 2/20/2009 - 2/20/2009
DRILLING DÉTAILS: Hollow Stem Auger	
WATER LEVEL DEPTHS (FT):	

ľ				SAMPLE INFO			
	DEPTH FT.			STRATA	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS	
	- 0					0 - 0.25 TOPSOIL. 0.25 - 4 POORLY GRADED SAND WITH SILT AND GRAVEL; ~85% sand, ~5% gravel; ~10% silt, damp, brown.	
	- 5					4 - 8 POORLY GRADED SAND WITH SILT AND GRAVEL; ~80% sand, ~5% gravel; ~15% silt, moist, brown.	
	– 10					8 - 12 POORLY GRADED SAND WITH SILT; ~80% sand; ~20% silt, wet, brown.	
U.U.U.09						12 - 15 POORLY GRADED SAND WITH SILT; ~80% sand; ~20% silt, wet, brown.	
2	- 15 <sup> </sup>	ı <b>I</b>			<u> </u>	Bottom of borehole at 15.0 feet.	la real la Real

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR)

PDM = PARTS PER MILLION
NLO = NAPHTHAŁENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR HEADSPACE)

TLO = TAR LIKE ODOR CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

			0510		Stanta Inc	CLIENT: Town	of Glaston	huru		BORING LOG
GE	Cons	Witants	455 V	Vindin onbur	iltants, Inc. ng Brook Road y, CT 06033 5300	PROJECT NAM	ise II 95 Oa Glastonb	k Street, Glastonbur ury, Connecticut 090500	PAGE 1 of 1	MW-16
GROUNI	SURF	ACE	ELEV	ATIC	ON (FT):		LOCATIO	N:		
NORTHII	NG: _				EASTING:	. / Ob. de MaiGas	TOTAL D	EPTH (FT): 14.00		
LOGGE					onmentai Driii er	ing / Chris McKini	DATE ST	ART / END: _2/20/2	009 - 2/20	/2009
DRILLIN	G DET	AILS:	Holl	ow S	Stem Auger					
WATER	LEVEL	DEP1	THS (F	T): _	·					
	SA	MPLE	INFO	-						
DEPTH FT.	TYPE and NO.	PEN FT.	REC IN.	STRATA		:	SOIL / BED DESCRIP			CONSTRUCTION DETAILS
5						SOIL. % sand; ~15% silt, sand; ~15% silt, n	, ,			
	•				Bottom of bo	rehole at 14.0 fee	t.			
REC = REC PID = PHO	OVERY L	ENGTH ATION (	OF SAM	MPLE	LER OR CORE BA	ARREL ppm = PARTS IN. = INCHES FT. = FEET	PER MILLION	NLO = NAPHTHALENE I PLO = PETROLEUM LIK TLO = TAR LIKE ODOR CLO = CHEMICAL LIKE O ALO = ASPHALT LIKE O	E ODOR DDOR	C/LO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR SLO = SULFUR LIKE ODOR MLO = MUSTY LIKE ODOR

G	匚	
U	L	Consultan

GEI Consultants, Inc. 455 Winding Brook Road Glastonbury, CT 06033 CLIENT: Town of Glastonbury

PROJECT NAMEse II 95 Oak Street, Glastonbury, CT

**BORING LOG** 

GE	Cons	sultants	, ,	368	5300	CITY/STATE: GEI PROJECT N		, Connecticut 090500	1 of 1		MW-17
NORTHI DRILLEI LOGGEI DRILLIN	NG: _ D BY: D BY: G DET	Colu Jess AILS:	mbia ie Mc	Env Cust	EASTING:	lling / Chris McKi	TOTAL DEP nDAYTUM VER DATE STAR	TH (FT): <u>12.00</u> T. / HORZ.: T / END: <u>2/20/2</u> 0	009 - <u>2/</u> 2	20/2009	
DEPTH FT.	TYPE and NO.		REC IN.	ATA		S	SOIL / BEDRO DESCRIPTIO				WELL CONSTRUCTION DETAILS
0 						SOIL. 6 gravel, ~30% sai gravel, ~40% sand					

Bottom of borehole at 12.0 feet.

#### NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR
HEADSPACE)

PD = PARTS PER MILLION
NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TE FEET
TLO = TAR LIKE ODOR
CLO = CHEMICAL LIKE ODOR

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

PHASE II & III FIELD INVESTIGATION TOWN OF GLASTONBURY 95 OAK STREET GLASTONBURY, CONNECTICUT APRIL 14, 2009

# **Appendix B**

**Laboratory Analytical Results and Chain-of-Custody Forms** 



March 09, 2009

GEI Consultants Inc. 455 Winding Brook Drive, Suite 201 Glastonbury, CT 06033

Attn: Mr. Ryan Acosta

Please find attached laboratory report(s) for the samples submitted on: February 27, 2009.

All pertinent information for this analysis is located on the report. Should it be necessary to contact us regarding billing or the test results, please have the following information readily available:

Lab No.

0209347

PO/Job No.

: 090500

Invoice No.

158356

Customer No.: 121

Please contact us if you have any questions.

Very truly yours,

Stephen J. Franco Laboratory Director

PH-0547



STEPHEN I. FRANCO Laboratory Director PHONE © 203/634-3731

www.ctl-web.com / ctestlab@erols.com

165 GRACEY AVENUE MERIDEN, CT @ 06451

Client Name: GEI Consultants CTL Lab No.: 0209347

Report Date: 03/06/09 PO/ Job No.: 090500

# **RESULTS OF ANALYSIS**

#### **Total Metals**

 Matrix Type :
 W
 W
 W
 W

 CTL Sample No.:
 2880
 2881
 2882
 2883

 Field ID :
 GEI-MW-13
 GEI-MW-15
 GEI-MW-16
 GEI-MW-17

Parameters MDL

1710-				
0.05	BDL		BDL	
0.1	0.1		BDL	
0.005	BDL		BDL	
0.05	BDL		BDL	
0.005	BDL	BDL	BDL	0.062
0.002	BDL		BDL	
0.01	BDL	<b>19-1-1-19</b>	BDL	
0.01	BDL		BDL	
	0.05 0.1 0.005 0.05 0.005 0.002 0.01	0.05         BDL           0.1         0.1           0.005         BDL           0.05         BDL           0.005         BDL           0.002         BDL           0.01         BDL	0.05         BDL            0.1         0.1            0.005         BDL            0.005         BDL            0.005         BDL         BDL           0.002         BDL            0.01         BDL	0.05         BDL          BDL           0.1         0.1          BDL           0.005         BDL          BDL           0.05         BDL          BDL           0.005         BDL         BDL         BDL           0.002         BDL          BDL           0.01         BDL          BDL

MDL= Method Detection Level BDL= Below Detection Level

Matrix Type: W = Water/Aqueous S= Soil/Solid O= Oil/Hydrocarbon

Client Name: GEI Consultants

CTL Lab No.: 0209347

Job/PO No.: 090500

Report. Date: 03/06/09

Date Extracted: 03/06/09

Date Analyzed: 03/06/09

Analyst: BM

# **RESULTS OF ANALYSIS**

Matrix Type: W

# CT ETPH

-mg/L

Field ID	CTL#	MDL		 	
MW-2	2879	0.10	BDL		
GEI-MW-13	2880	0.10	BDL		
GEI-MW-15	2881	0.10	BDL		·
GEI-MW-16	2882	0.10	BDL		
GEI-MW-1	2884	0.10	BDL		

MDL= Method Detection Level / BDL= Below Detection Level

Matrix Type: W= Water/Aqueous S= Soil/Solid O= Oil/Hydrocarbon

CTL Lab No.: 0209347 Date Analyzed: 03/04/09 Job/PO No.: 090500 Analyst: KM

Report Date: 03/06/09

# EPA METHOD 8260B GC/MS Date Samples Rec'd: 02/27/09

 Matrix Type
 W
 W
 W

 CTL Sample #:
 2879
 2880
 2881
 2882

 Field ID:
 MW-2
 GEI-MW-13
 GEI-MW-15
 GEI-MW-16

Results of Analysis-ug/L					
Parameters	MDL				
Dichlorodifluoromethane	1	BDL	BDL	BDL	BDL
Chloromethane	1	BDL	BDL	BDL	BDL
Vinyl chloride	1	BDL	BDL	BDL	BDL
Chloroethane	1	BDL	BDL	BDL	BDL
Bromomethane	1	BDL	BDL	BDL	BDL
Trichlorofluoromethane	1	BDL	BDL	BDL	BDL
1,1-Dichloroethylene	1	BDL	BDL	BDL	BDL
Methylene chloride	1	BDL	BDL	BDL	BDL
t-1,2-Dichloroethylene	1	BDL	BDL	BDL	BDL
1,1-Dichloroethane	1	BDL	BDL	BDL	BDL
2,2-Dichloropropane	1	BDL	BDL	BDL	BDL
cis-1,2-Dichloroethylene	1	BDL	BDL	BDL	BDL
Chloroform	1	, BDL	BDL	BDL	BDL
Bromochloromethane	1	BDL	BDL	BDL	BDL
1,1,1-Trichloroethane	1	BDL	BDL	BDL	BDL
1,1-Dichloropropylene	1	BDL	BDL	BDL	BDL
Carbon tetrachloride	1	BDL	BDL	BDL	BDL
Benzene	1	BDL	BDL	BDL	BDL
1,2-Dichloroethane	1	BDL	BDL	BDL	BDL
Trichloroethylene	1	BDL	BDL	BDL	BDL
1,2-Dichloropropane	1	BDL	BDL	BDL	BDL
Bromodichloromethane	1	BDL	BDL	BDL	BDL
Dibromomethane	1	BDL	BDL	BDL	BDL
cis-1,3-Dichloropropylene	1	BDL	BDL	BDL	BDL
Toluene	1	BDL	BDL	BDL	BDL
t-1,3-Dichloropropylene	1	BDL	BDL_	BDL	BDL
1,1,2-Trichloroethane	1	BDL	BDL	BDL	BDL
Tetrachloroethylene	1	BDL	BDL	BDL	BDL
1,3-Dichloropropane	1	BDL	BDL	BDL	BDL
Dibromochloromethane	1	BDL	BDL	BDL	BDL
1,2-Dibromoethane (EDB)	1	BDL	BDL	BDL	BDL
Chlorobenzene	1	BDL	BDL	BDL	BDL
Ethylbenzene	1	BDL	BDL	BDL.	BDL
1,1,1,2-Tetrachloroethane	1	BDL	BDL	BDL	BDL
p/m-Xylene	1	BDL	BDL	BDL	BDL
o-Xylene	1	BDL	BDL	BDL	BDL

MDL= Method Detection Level BDL= Below Detection Level

Matrix Type: W= Water/Aqueous S= Soil/Solid O= Oil/Hydrocarbon

Report Date: 03/06/09

D. 1 C . 1 . D - 14 . 00/07/00

# EPA METHOD 8260B GC/MS Date Samples Rec'd: 02/27/09

 Matrix Type
 W
 W
 W

 CTL Sample #:
 2879
 2880
 2881
 2882

 Field ID :
 MW-2
 GEI-MW-13
 GEI-MW-15
 GEI-MW-16

Results of Analysis-ug/L

Results of Analysis-ug/L	· · · · · ·				
Parameters	MDL				
Styrene	1	BDL	BDL	BDL	BDL
Bromoform	1	BDL	BDL	BDL	BDL
Isopropylbenzene	1	BDL	BDL	BDL.	BDL
1,1,2,2-Tetrachloroethane	1	BDL	BDL	BDL	BDL
Bromobenzene	1	BDL	. BDL	BDL	BDL
1,2,3-Trichloropropane	1	BDL	BDL	BDL	BDL
n-Propylbenzene	1	BDL	BDL	BDL	BDL,
2-Chlorotoluene	1	BDL	BDL	BDL	BDL
1,3,5-Trimethylbenzene	1	BDL	BDL	BDL	BDL
4-Chlorotoluene	1	BDL	BDL	BDL	BDL
tert-Butylbenzene	1	BDL	BDL	BDL	BDL
1,2,4-Trimethylbenzene	1	BDL	BDL	BDL	BDL,
sec-Butylbenzene	1	BDL	BDL	BDL	BDL
p-lsopropyltoluene	1	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene	1	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	1	BDL	BDL	BDL	BDL
n-Butylbenzene	1	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	1	BDL	BDL	BDL	BDL
1,2-Dibromo-3-chloropropane	1	BDL	BDL	BDL	BDL
1,2,4-Trichlorobenzene	1	BDL	BDL	BDL	BDL
Hexachlorobutadiene	10	BDL	BDL	BDL	BDL
Naphthalene	10	BDL	BDL	BDL	BDL
1,2,3-Trichlorobenzene	1	BDL	BDL	BDL	BDL
Methyl ethyl ketone	10	BDL	BDL	BDL	BDL
Methyl butyl ketone	10	BDL	BDL	BDL	BDL
Methyl isobutyl ketone	10	BDL	BDL	BDL	BDL
MTBE	11	BDL	BDL	BDL	BDL
1,2-Dichloroethane-d4 (SR)		97	94	97	96
Toluene-d8 (SR)		100	99	. 101	99
p-Bromofluorobenzene (SR)		101	101	100	99

MDL= Method Detection Level BDL= Below Detection Level

Matrix Type: W= Water/Aqueous S= Soil/Solid O= Oil/Hydrocarbon

**SR** = Surrogate Recovery-Percent

CTL Lab No.: 0209347 Job/PO No.: 090500

Report Date: 03/06/09

Date Analyzed: 03/04/09

Analyst: KM

# **EPA METHOD 8260B GC/MS**

Date Samples Rec'd: 02/27/09

Matrix Type CTL Sample #: W 2883 W 2884

W 2885

Field ID:

GEI-MW-17

GEI-MW-1

Trip Blank

Results of Analysis-ug/L					
Parameters	MDL				
Dichlorodifluoromethane	1	BDL	BDL	BDL	
Chloromethane	1	BDL	BDL	BDL.	· · · · · · · · · · · · · · · · · · ·
Vinyl chloride	1	BDL.	BDL	BDL	
Chloroethane	1	BDL	BDL	BDL	
Bromomethane	1	BDL ·	BDL	BDL	
Trichlorofluoromethane	1	BDL	BDL	BDL	
1,1-Dichloroethylene	1	BDL	BDL	BDL	
Methylene chloride	1	BDL	BDL	BDL	
t-1,2-Dichloroethylene	1	BDL	BDL	BDL	
1,1-Dichloroethane	1	BDL	BDL	BDL	
2,2-Dichloropropane	1	BDL	BDL	BDL	
cis-1,2-Dichloroethylene	1	BDL.	BDL	BDL.	
Chloroform	1	BDL	BDL	BDL	
Bromochloromethane	1	BDL	BDL	BDL	
1,1,1-Trichloroethane	1	BDL	BDL	BDL	
1,1-Dichloropropylene	1	BDL	BDL	BDL	
Carbon tetrachloride	1	BDL	BDL	BDL	
Benzene	1	BDL	BDL	BDL	
1,2-Dichloroethane	1	BDL	BDL	BDL	
Trichloroethylene	1	BDL	BDL	BDL	
1,2-Dichloropropane	1	BDL	BDL	BDL	
Bromodichloromethane	1	BDL	BDL	BDL	
Dibromomethane	1	BDL	BDL	BDL	
cis-1,3-Dichloropropylene	1	BDL	BDL	BDL	
Toluene	1	BDL	BDL	BDL	
t-1,3-Dichloropropylene	1	BDL	BDL	BDL	
1,1,2-Trichloroethane	1	BDL	BDL	BDL	
Tetrachloroethylene	1	BDL	BDL	BDL	
1,3-Dichloropropane	1	BDL	BDL	BDL	
Dibromochloromethane	1	BDL	BDL	BDL	
1,2-Dibromoethane (EDB)	1	BDL	BDL	BDL	
Chlorobenzene	1	BDL	BDL	BDL	
Ethylbenzene	1	BDL	BDL	BDL	
1,1,1,2-Tetrachloroethane	1	BDL	BDL	BDL	
p/m-Xylene	1	BDL	BDL	BDL	
o-Xylene	1	BDL	BDL	BDL	

MDL= Method Detection Level BDL= Below Detection Level

Matrix Type: W= Water/Aqueous S= Soil/Solid O= Oil/Hydrocarbon

CTL Lab No.: 0209347

Job/PO No. : 090500 Report Date : 03/06/09 Date Analyzed: 03/04/09

Analyst: KM

#### **EPA METHOD 8260B GC/MS**

Date Samples Rec'd: 02/27/09

Matrix Type CTL Sample #:

W 2883 W 2884

W 2885

Field ID:

GEI-MW-17

GEI-MW-1

Trip Blank

Results of Analysis-ug/L

Parameters	MDL				
Styrene	1	BDL	BDL	BDL	
Bromoform	1	BDL	BDL	BDL	
Isopropylbenzene	1	BDL	BDL	BDL	
1,1,2,2-Tetrachloroethane	1	BDL	BDL	BDL	
Bromobenzene	1.	BDL	BDL	BDL	
1,2,3-Trichloropropane	1	BDL	BDL	BDL	
n-Propylbenzene	1	BDL	BDL	BDL	
2-Chlorotoluene	1	BDL	BDL	BDL.	
1,3,5-Trimethylbenzene	1	BDL	BDL	BDL	
4-Chlorotoluene	1	BDL	BDL	BDL	
tert-Butylbenzene	1	BDL	BDL	BDL	
1,2,4-Trimethylbenzene	1	BDL	BDL	BDL	
sec-Butylbenzene	1	BDL	BDL	BDL	
p-Isopropyltoluene	1	BDL	BDL	BDL	
1,3-Dichlorobenzene	1	BDL	BDL	BDL	
1,4-Dichlorobenzene	1	BDL	BDL	BDL	
n-Butylbenzene	1	BDL	BDL	BDL	
1,2-Dichlorobenzene	1	BDL	BDL	BDL	
1,2-Dibromo-3-chloropropane	1	BDL	BDL	BDL	
1,2,4-Trichlorobenzene	1	BDL	BDL	BDL	
Hexachlorobutadiene	10	BDL	BDL	BDL	
Naphthalene	10	BDL	BDL	BDL	
1,2,3-Trichlorobenzene	1	BDL	BDL	BDL	
Methyl ethyl ketone	10	BDL	BDL	BDL	
Methyl butyl ketone	10	BDL	BDL	BDL	
Methyl isobutyl ketone	10	BDL	BDL	BDL	
MTBE	1	BDL	BDL	BDL	
1,2-Dichloroethane-d4 (SR)		94	94	97	
Toluene-d8 (SR)		98	101	99	
p-Bromofluorobenzene (SR)		104	106	100	

MDL= Method Detection Level BDL= Below Detection Level

Matrix Type: W= Water/Aqueous S= Soil/Solid O= Oil/Hydrocarbon

SR = Surrogate Recovery-Percent

Date Extracted: 03/03/09

CTL Lab No.: 0209347

Date Analyzed: 03/05/09

Job/PO No.: 090500 Report Date: 03/06/09

Analyst: YK

**EPA METHOD 8270C Modified** 

Date Samples Rec'd: 02/27/09

Matrix Type:

W

W

CTL Sample #:

2882

2883

Field ID:

GEI-MW-16

GEI-MW-17

Results of Analysis-ug/L

Parameters	MDL				
N-Nitrosodiphenylamine	5	BDL	BDL		
Phenol	20	BDL	BDL		
2,4,6-Trichlorophenol	20	BDL _	BDL		
Bis(2-chloroethoxy)methane	5	BDL	BDL		
Bis(2-Chloroethyl)ether	5	BDL	BDL		
2-Chlorophenol	20	BDL	BDL		
1,3-Dichlorobenzene	5	BDL	BDL		
1,4-Dichlorobenzene	5	BDL,	BDL.		
1,2-Dichlorobenzene	5	BDL	BDL		
Bis(2chloroisopropyl)ether	5	BDL	BDL		
N-Nitrosodi-n-propylamine	5	BDL	BDL		
Hexachloroethane	3	BDL	BDL		
Nitrobenzene	5	BDL.	BDL		
Isophorone	5	BDL	BDL		
2-Nitrophenol	20	BDL	BDL		
2,4-Dimethylphenol	20	BDL	BDL		
1,2,4-Trichlorobenzene	5	BDL	BDL		
Naphthalene	5	BDL	BDL		
2,4-Dichlorophenol	20	BDL	BDL		
Hexachlorobutadiene	5	BDL	BDL		
2-Methylnaphthalene	5	BDL	BDL		
4-Chloro-3-methylphenol	20	BDL	BDL		
Hexachlorocyclopentadiene	5	BDL	BDL		
2-Chloronaphthalene	5	BDL	BDL	-	
Dimethyl phthalate	5	BDL	BDL		
Acenaphthylene	0.3	BDL	BDL		
2,4-Dinitrotoluene	5	BDL	BDL		
Acenaphthene	5	BDL.	BDL		
2,4-Dinitrophenol	20	BDL	BDL		
2,6-Dinitrotoluene	5	BDL	BDL		
4-Nitrophenol	20	BDL	BDL		
Diethyl phthalate	5	BDL	BDL		
Fluorene	5	BDL	BDL		
4-Chlorophenyl phenylether	5	BDL	BDL		
N-Nitrosodimethylamine	5	BDL	BDL		

MDL= Method Detection Level BDL = Below Detection Level

Matrix Types: W = Water/Aqueous S= Soil/Solid O= Oil/Hydrocarbon

Date Extracted: 03/03/09

Date Analyzed: 03/05/09

Job/PO No.: 090500

CTL Lab No.: 0209347

Analyst: YK

Report Date: 03/06/09

# **EPA METHOD 8270C Modified**

Date Samples Rec'd: 02/27/09

Matrix Type:

W 2882 W

CTL Sample #: Field ID:

2883

GEI-MW-16

GEI-MW-17

Results of Analysis-ug/L

Results of Analysis-ug/L				
Parameters	MDL			
2-Methyl-46-dinitrophenol	20	BDL	BDL_	
4-Bromophenylphenyl ether	5	BDL	BDL	
Hexachlorobenzene	0.07	BDL.	BDL	
Pentachlorophenol	5	BDL	BDL	
Phenanthrene	0.07	BDL	2.81	
Anthracene	5	BDL	BDL	
Carbazole	5	BDL	BDL,	
Di-n-butyl phthalate	5	BDL	BDL	
Fluoranthene	5	BDL	6.0	
Benzidine	5	BDL	BDL	
Pyrene	5	BDL	5.0	
Butylbenzyl phthalate	5	BDL	BDL	
Benzo(a)anthracene	0.06	BDL	2.87	·
Chrysene	4	BDL	BDL	
Bis(2-ethylhexyl)phthalate	2	BDL	BDL	
Di-n-octyl phthalate	5	BDL	BDL	
Benzo(b)fluoranthene	0.08	BDL	3.69	
Benzo(k)fluoranthene	0.3	BDL	1.2	
Benzo(a)pyrene	0.2	BDL	2.9	
Indeno(1,2,3-cd)pyrene	1	BDL	5.0	
Dibenzo(a,h)anthracene	1	BDL	BDL	
Benzo(ghi)perylene	20	BDL	BDL	
2-Fluorophenol (SR)		100	109	
Phenol-d6 (SR)		99	112	
Nitrobenzene-d5 (SR)		111	122	
2-Fluororbiphenyl (SR)		98	106	
2,4,6-Tribromophenol (SR)		95	100	
p-Terpenyl-dly (SR)		106	97	

MDL= Method Detection Level BDL = Below Detection Level

Matrix Types: W = Water/Aqueous S= Soil/Solid O= Oil/Hydrocarbon

SR = Surrogate Recovery-Percent

April 02, 2009

GEI Consultants Inc. 455 Winding Brook Drive, Suite 201 Glastonbury, CT 06033

Attn: Mr. Gary ladarola

Please find attached laboratory report(s) for the samples submitted on: **March 20, 2009.** 

All pertinent information for this analysis is located on the report. Should it be necessary to contact us regarding billing or the test results, please have the following information readily available:

Lab No.

0309263

PO/Job No.

: S836-090500

Invoice No.

158688

Customer No. : 121

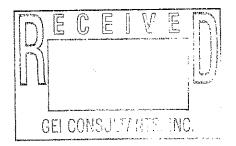
GEI CONSULTANTS, INC.

Please contact us if you have any questions.

Very truly yours,

Stephen JaFranco
Laboratory Director

PH-0547





STEPHEN J. FRANCO
Laboratory Director
PHONE 203/634-3731

www.ctl-web.com / ctestlab@erols.com 165 GRACEY AVENUE MERIDEN, CT 06451

Client Name: GEI Consultants, Inc.

Report Date: 04/01/2009

CTL Lab No.:

0309263

PO No:

S836-090500

Analyst:

CP

**RESULTS OF ANALYSIS** 

Matrix Type:

CTL Sample No.:

Field ID:

**Parameters** 

Lead, Total-mg/L

WATER

WATER

WATER

WATER 3937

3934 TW-1 3935 TW-2 3936 TW-3

TW-4

Tested R

Date

03/26/2009

**RL** 9 0.005

0.024

BDL

0.032

0.011 200.7

RL=Reporting Level BDL = Below Detection Level

Client Name: GEl Consultants, Inc.

Report Date: 04/01/2009

CTL Lab No.:

0309263

\$836-090500

PO No: Analyst:

CP

RESULTS OF ANALYSIS

Matrix Type:

WATER

WATER

WATER

WATER

CTL Sample No.:

3938 TW-5 3939

3940

3941

Field ID:

Date

TW-6

TW-7

MW-15

**Parameters** 

Tested

RL

Method #

 Lead, Total-mg/L
 03/26/2009
 0.005
 BDL
 BDL
 BDL
 BDL
 BDL
 200.7

Client Name: GEI Consultants, Inc.

CTL Lab No.:

0309263

Report Date: 04/01/2009

PO No:

S836-090500

Analyst:

SJF

#### **RESULTS OF ANALYSIS**

# EPA Method 8270C SVOC GC/MS

Matrix Type: CTL Sample No.: WATER 3934 TW-1 WATER 3935 WATER 3936 WATER 3937

Field ID:

TW-2 03/30/2009 TW-3

TW-4

Date Analyzed: Date Extracted: 03/30/2009 03/25/2009

03/25/2009

03/30/2009 03/25/2009 03/30/2009 03/25/2009

Parameters	Units	RL				
1,2,4-Trichlorobenzene	ppb	5	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	ppb	5	BDL	BDL	BDL	BDL
1,2-Diphenylhydrazine	ppb	5	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene	ppb	5	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	ppb	5	BDL	BDL.	BDL	BDL
2,4-Dichlorophenol	ppb	20	BDL	BDL	BDL	BDL
2,4-Dimethylphenol	ppb	20	BDL	BDL	BDL	BDL
2,4-Dinitrophenol	ppb	20	BDL.	BDL	BDL	BDL
2,4-Dinitrotoluene	ppb	5	BDL	BDL	BDL	BDL
2,6-Dinitrotoluene	ppb	5	BDL	BDL	BDL	BDL
2-Chloronaphthalene	ppb	5	BDL	BDL	BDL	BDL
2-Chlorophenol	ppb	20	BDL	BDL	BDL	BDL
2-Methylnaphthalene	ppb	5	BDL	BDL	BDL	BDL
2-Nitrophenol	ppb	20	BDL	BDL	BDL	BDL
3,3-Dichlorobenzidine	ppb	5	BDL	BDL	BDL	BDL
4,6-Dinitro-2-methylphenol	ppb	20	BDL	BDL	BDL	BDL
4-Bromophenyl-phenylether	ppb	5	BDL	BDL	BDL	BDL
4-Chloro-3-methylphenol	ppb	20	BDL	BDL	BDL	BDL
4-Chlorophenyl phenylether	ppb	5	BDL	BDL	BDL	BDL
4-Nitrophenol	ppb	20	BDL	BDL	BDL	BDL
Acenaphthene	ppb	0.3	BDL	BDL	BDL	BDL
Acenaphthylene	ppb	5	BDL	BDL	BDL	BDL
Acetophenone	ppb	5	BDL	BDL	BDL	BDL
Anthracene	ppb	5	BDL	BDL	BDL	BDL
Benzidine	ppb	5	BDL	BDL	BDL	BDL
Benzo(a)anthracene	ppb	0.06	BDL	BDL	BDL	BDL
Benzo(a)pyrene	ppb	0.2	BDL	BDL	BDL	BDL
Benzo(b)fluoranthene	ppb	0.08	BDL	BDL	BDL	BDL
Benzo(g,h,i)Perylene	ppb	20	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	ppb	0.3	BDL	BDL	BDL	BDL
bis(2-Chloroethoxy) methane	ppb	5	BDL	BDL	BDL	BDL
bis(2-Chloroethyl) Ether	ppb	5	BDL	BDL	BDL	BDL
Bis(2-chloroisopropyl) ether	ppb	5	BDL	BDL	BDL	BDL
bis-(2-Ethylhexyl) phthalate	ppb	20	BDL	BDL	BDL	BDL

RL=Reporting Level BDL = Below Detection Level

Client Name: GEI Consultants, Inc.

CTL Lab No.:

0309263

S836-090500

Report Date: 04/01/2009

PO No: Analyst:

SJF

# RESULTS OF ANALYSIS

# EPA Method 8270C SVOC GC/MS

Matrix Type: CTL Sample No.: WATER 3934

WATER 3935

WATER 3936

WATER 3937

Field ID:

TW-1

TW-2 03/30/2009

TW-3 03/30/2009

TW-4 03/30/2009

Date Analyzed: Date Extracted: 03/30/2009 03/25/2009

03/25/2009

03/25/2009

03/25/2009

Parameters	Units	RL				
Butylbenzylphthalate	ppb	5	BDL	BDL	BDL	BDL
Carbazole	ppb	5	BDL	BDL	BDL	BDL
Chrysene	ppb	4	BDL	BDL	BDL	BDL
Dibenzo(a,h)Anthracene	ppb	1	BDL	BDL	BDL	BDL
Diethylphthalate	ppb	5	BDL	BDL	BDL	BDL
Dimethylphthalate	ppb	5	BDL	BDL	BDL	BDL
Di-n-Butylphthalate	ppb	5	BDL	BDL	BDL	BDL
Di-n-octylphthalate	ppb	5	BDL	BDL	BDL	BDL
Fluoranthene	ppb	5	BDL	BDL	BDL	BDL
Fluorene	ppb	5	BDL	BDL	BDL	BDL
Hexachlorobenzene	ppb	0.07	BDL	BDL	BDL	BDL
Hexachlorobutadiene	ppb	5	BDL	BDL	BDL	BDL
Hexachlorocyclopentadiene	ppb	5	BDL	BDL	BDL	BDL
Hexachloroethane	ppb	3	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)Pyrene	ppb	1	BDL	BDL	BDL	BDL
Isophorone	ppb	5	BDL	BDL	BDL	BDL
Naphthalene	dqq	5	BDL	BDL	BDL	BDL
Nitrobenzene	dqq	5	BDL	BDL	BDL	BDL
N-Nitrosodimethylamine	ppb	5	BDL	BDL	BDL	BDL
N-Nitroso-di-n-propylamine	ppb	5	BDL	BDL.	BDL	BDL
N-Nitrosodiphenylamine	ppb	5	BDL	BDL	BDL	BDL
Pentachlorophenol	ppb	20	BDL	BDL	BDL	BDL
Phenanthrene	ppb	0.07	BDL	BDL	BDL_	BDL
Phenol	ppb	20	BDL	BDL	BDL	BDL
Pyrene	ppb	5	BDL	BDL	BDL	BDL
2,4,6-Trichlorophenol	ppb	20	BDL	BDL	BDL	BDL
2-Fluorophenol	%		73	69	83	78
Phenol-d6	%		84	86	96	92
Nitrobenzene-d5	%		105	110	121	108
2-Fluorobiphenyl	%		94	97	98	98
2,4,6-Tribromophenol	%		107	130	116	106
p-Terphenyl-d14	%		103	103	100	104

RL=Reporting Level BDL = Below Detection Level

Client Name: GEI Consultants, Inc.

CTL Lab No.: PO No:

0309263

\$836-090500

Report Date: 04/01/2009

Analyst:

SJF

### RESULTS OF ANALYSIS

# EPA Method 8270C SVOC GC/MS

Matrix Type: CTL Sample No.:

Field ID:

Date Analyzed: Date Extracted: WATER

3938 TW-5 WATER 3939 TW-6

WATER 3940 TW-7

3941 MW-15

WATER

03/31/2009 03/31/2009 03/31/2009 03/31/2009 03/25/2009 03/25/2009 03/25/2009 03/25/2009

Parameters	Units	RL				
1,2,4-Trichlorobenzene	ppb	5	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	ppb	5	BDL	BDL	BDL	BDL
1,2-Diphenylhydrazine	ppb	5	BDL	BDL	BDL	BDL.
1,3-Dichlorobenzene	ppb	5	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	ppb	5	BDL	BDL	BDL	BDL
2,4-Dichlorophenol	ppb	20	BDL.	BDL	BDL	BDL
2,4-Dimethylphenol	ppb	20	BDL.	BDL	BDL	BDL
2,4-Dinitrophenol	ppb	20	BDL	BDL	BDL	BDL
2,4-Dinitrotoluene	ppb	5	BDL	BDL	BDL	BDL
2,6-Dinitrotoluene	ppb	5	BDL	BDL	BDL	BDL_
2-Chloronaphthalene	ppb	5	BDL	BDL	BDL	BDL
2-Chlorophenol	ppb	20	BDL	BDL	BDL	BDL.
2-Methylnaphthalene	ppb	· 5	BDL	BDL	BDL	BDL
2-Nitrophenol	ppb	20	BDL	BDL	BDL	BDL
3,3-Dichlorobenzidine	ppb	5	BDL.	BDL	BDL	BDL.
4,6-Dinitro-2-methylphenol	ppb	20	BDL	BDL.	BDL	BDL
4-Bromophenyl-phenylether	ppb	5	BDL	BDL	BDL	BDL
4-Chloro-3-methylphenol	ppb	20	BDL	BDL	BDL	BDL
4-Chlorophenyl phenylether	ppb	5	BDL	BDL	BDL	BDL
4-Nitrophenol	ppb	20	BDL	BDL	BDL	BDL
Acenaphthene	ppb	0.3	BDL	BDL	BDL	BDL
Acenaphthylene	ppb	5	BDL	BDL	BDL	BDL
Acetophenone	ppb	5	BDL	BDL	BDL	BDL
Anthracene	ppb	5	BDL	BDL	BDL	BDL
Benzidine	ppb	5	BDL	BDL	BDL	BDL
Benzo(a)anthracene	ppb	0.06	BDL	BDL	BDL	BDL
Benzo(a)pyrene	ppb	0.2	BDL	BDL	BDL	BDL
Benzo(b)fluoranthene	ppb	0.08	BDL	BDL.	BDL	BDL
Benzo(g,h,i)Perylene	ppb	20	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	ppb	0.3	BDL	BDL	BDL	BDL
bis(2-Chloroethoxy) methane	ppb	5	BDL	BDL	BDL	BDL.
bis(2-Chloroethyl) Ether	ppb	5	BDL	BDL	BDL	BDL
Bis(2-chloroisopropyl) ether	ppb	5	BDL	BDL	BDL	BDL
bis-(2-Ethylhexyl) phthalate	ppb	20	BDL	BDL	BDL	BDL

RL=Reporting Level BDL = Below Detection Level

Date Samples Received: 03/20/2009

Client Name: GEI Consultants, Inc.

CTL Lab No.:

0309263

S836-090500

Report Date: 04/01/2009

PO No: Analyst:

SJF

## **RESULTS OF ANALYSIS**

# EPA Method 8270C SVOC GC/MS

Matrix Type: CTL Sample No.: WATER 3938

WATER 3939

WATER 3940

WATER 3941

Field ID:

TW-5

TW-6 03/31/2009

TW-7 03/31/2009

MW-15 03/31/2009

Date Analyzed: Date Extracted: 03/31/2009 03/25/2009

03/25/2009

03/25/2009

03/25/2009

Parameters	Units	RL				
			BDI	BDL	BDL	BDL
Butylbenzylphthalate	ppb	5	BDL	BDL	BDL	BDL
Carbazole	ppb	5	BDL			
Chrysene	ppb	4	BDL	BDL	BDL	BDL BDL
Dibenzo(a,h)Anthracene	ppb	1	BDL	BDL	BDL	
Diethylphthalate	ppb	5	BDL	BDL	BDL.	BDL
Dimethylphthalate	ppb	5	BDL	BDL	BDL	BDL
Di-n-Butylphthalate	ppb	5	BDL	BDL	BDL	BDL
Di-n-octylphthalate	ppb	5	BDL	BDL	BDL	BDL
Fluoranthene	ppb	5	BDL	BDL	BDL	BDL
Fluorene	ppb	5	BDL	BDL	BDL	BDL
Hexachlorobenzene	ppb	0.07	BDL	BDL	BDL	BDL.
Hexachlorobutadiene	ppb	5	BDL	BDL	BDL.	BDL
Hexachlorocyclopentadiene	ppb	5	BDL	BDL	BDL	BDL
Hexachloroethane	ppb	3	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)Pyrene	ppb	1	BDL	BDL	BDL	BDL
Isophorone	ppb	5	BDL	BDL	BDL	BDL
Naphthalene	ppb	5	BDL	BDL	BDL	BDL
Nitrobenzene	ppb	5	BDL	BDL	BDL	BDL
N-Nitrosodimethylamine	ppb	5	BDL	BDL	BDL	BDL
N-Nitroso-di-n-propylamine	ppb	5	BDL	BDL	BDL	BDL
N-Nitrosodiphenylamine	ppb	5	BDL	BDL	BDL	BDL
Pentachlorophenol	ppb	20	BDL	BDL	BDL	BDL
Phenanthrene	ppb	0.07	BDL	BDL	BDL	BDL
Phenol	ppb	20	BDL	BDL	BDL	BDL
Pyrene	ppb	5	BDL	BDL	BDL	BDL
2,4,6-Trichlorophenol	ppb	20	BDL	BDL	BDL	BDL.
2-Fluorophenol	%		72	76	76	83
Phenol-d6	%		90	84	79	89
Nitrobenzene-d5	%		116	116	113	116
2-Fluorobiphenyl	%		99	98	97	98
2,4,6-Tribromophenol	%		119	119	113	117
p-Terphenyl-d14	%		103	104	100	100

RL=Reporting Level BDL = Below Detection Level

Date Samples Received: 03/20/2009

Client Name: GEI Consultants, Inc.

CTL Lab No.:

0309263

PO No:

S836-090500

Report Date: 04/01/2009

Analyst:

SJF

## RESULTS OF ANALYSIS

# EPA Method 8270C SVOC GC/MS

Matrix Type:

WATER

CTL Sample No.:

3942

Field ID:

Blank

Date Analyzed:

03/31/2009

Date Extracted:

03/25/2009

Parameters	Units	RL.				
1,2,4-Trichlorobenzene	ppb	5	BDL			
1,2-Dichlorobenzene	ppb	5	BDL.			
1,2-Diphenylhydrazine	ppb	5	BDL.		<del></del>	
1,3-Dichlorobenzene	ppb	5	BDL			u
1,4-Dichlorobenzene	ppb	5	BDL			
2,4-Dichlorophenol	ppb	20	BDL			
2,4-Dimethylphenol	ppb	20	BDL			
2,4-Dinitrophenol	ppb	20	BDL		==	
2,4-Dinitrotoluene	ppb	5	BDL			
2,6-Dinitrotoluene	ppb	5	BDL			
2-Chloronaphthalene	ppb	5	BDL		ме	
2-Chlorophenol	ppb	20	BDL			
2-Methylnaphthalene	ppb	5	BDL			
2-Nitrophenol	ppb	20	BDL			
3,3-Dichlorobenzidine	ppb	5	BDL		38	
4,6-Dinitro-2-methylphenol	ppb	20	BDL			
4-Bromophenyl-phenylether	ppb	5	BDL			
4-Chloro-3-methylphenol	ppb	20	BDL			
4-Chlorophenyl phenylether	ppb	5	BDL		77	
4-Nitrophenol	ppb	20	BDL			
Acenaphthene	ppb	0.3	BDL			
Acenaphthylene	ppb	5	BDL			
Acetophenone	ppb	5	BDL	ме		
Anthracene	ppb	5	BDL			
Benzidine	ppb	5	BDL			
Benzo(a)anthracene	ppb	0.06	BDL			
Benzo(a)pyrene	ppb	0.2	BDL			
Benzo(b)fluoranthene	ppb	0.08	BDL			
Benzo(g,h,i)Perylene	ppb	20	BDL			
Benzo(k)fluoranthene	ppb	0.3	BDL			
bis(2-Chloroethoxy) methane	ppb	5	BDL			
bis(2-Chloroethyl) Ether	ppb	5	BDL			
Bis(2-chloroisopropyl) ether	ppb	5	BDL.		7.7	
bis-(2-Ethylhexyl) phthalate	ppb	20	BDL			

RL=Reporting Level BDL = Below Detection Level

Date Samples Received: 03/20/2009

Client Name: GEI Consultants, Inc.

CTL Lab No.: 0309263

PO No:

S836-090500

Report Date: 04/01/2009 An

Analyst:

SJF

## **RESULTS OF ANALYSIS**

# EPA Method 8270C SVOC GC/MS

Matrix Type:

WATER

CTL Sample No.:

3942

Field ID:

Blank

Date Analyzed:

03/31/2009

Date Extracted:

03/25/2009

Parameters	Units	RL				
Butylbenzylphthalate	ppb	5	BDL	=-	34 M	
Carbazole	ppb	5	BDL		38.84	
Chrysene	ppb	4	BDL			
Dibenzo(a,h)Anthracene	ppb	1	BDL			
Diethylphthalate	ppb	5	BDL			
Dimethylphthalate	dqq	5	BDL			
Di-n-Butylphthalate	ppb	5	BDL		_	uz us
Di-n-octylphthalate	ppb	5	BDL			
Fluoranthene	ppb	5	BDL			
Fluorene	ppb	5	BDL			
Hexachlorobenzene	ppb	0.07	BDL	**		
Hexachlorobutadiene	ppb	5	BDL			
Hexachlorocyclopentadiene	ppb	5 、	BDL			
Hexachloroethane	ppb	3	BDL		mare .	
Indeno(1,2,3-cd)Pyrene	ppb	1	BDL			
Isophorone	ppb	5	BDL		==	
Naphthalene	ppb	5	BDL			
Nitrobenzene	ppb	5	BDL			
N-Nitrosodimethylamine	ppb	5	BDL			
N-Nitroso-di-n-propylamine	ppb	5	BDL			
N-Nitrosodiphenylamine	ppb	5	BDL			
Pentachlorophenol	ppb	20	BDL		rem	
Phenanthrene	ppb	0.07	BDL			
Phenol	ppb	20	BDL.		-	
Pyrene	ppb	5	BDL	77		
2,4,6-Trichlorophenol	ppb	20	BDL			7.7
2-Fluorophenol	%		79			
Phenol-d6	%		82			
Nitrobenzene-d5	%		105	·		79 79
2-Fluorobiphenyl	%		98			777
2,4,6-Tribromophenol	%		99		icu	
p-Terphenyl-d14	%		97			

RL=Reporting Level BDL = Below Detection Level

March 04, 2009

GEI Consultants Inc. 455 Winding Brook Drive, Suite 201 Glastonbury, CT 06033

Attn: Mr. Gary ladarola

Please find attached laboratory report(s) for the samples submitted on: **February 20, 2009.** 

All pertinent information for this analysis is located on the report. Should it be necessary to contact us regarding billing or the test results, please have the following information readily available:

**Lab No.** : 0209261

**PO/Job No.** : \$828 (090500)

**Invoice No.** : 158280

Customer No. : 121

Please contact us if you have any questions.

Very truly yours,

Stephen J. Franco Laboratory Director PH-0547



STEPHEN J. FRANCO
Laboratory Director

PHONE 203/634-3731

www.ctl-web.com / ctestlab@erols.com 165 GRACEY AVENUE MERIDEN, CT 06451

LAB NUMBER : 0209261 JOB NUMBER : \$828 (090500) REPORT DATE : 03/02/09

DATE SAMPLES RECEIVED: 02/20/09
DATE SAMPLES ANALYZED: 02/25-02/27/09

ANALYST: MH, SP

## MASS ANALYSIS by EPA 3050B

		MATRIX TYPE CTL SAMPLE No. FIELD ID		S 2589 SB-14	
PARAMETER	UNITS	MDL			
Arsenic	mg/kg	1.0	1.9	2.4	
Barium	mg/kg	5	37	39	
Cadmium	mg/kg	0.5	BDL	BDL	
Chromium, Total	mg/kg	0.5	6.5	12.2	
Lead	mg/kg	0.5	2.3	4.5	
Mercury `	mg/kg	0.02	BDL	0.03	
Selenium	mg/kg	0.5	BDL	BDL	
Silver	mg/kg	0.2	BDL	BDL	

MDL=METHOD DETECTION LEVEL BDL=BELOW DETECTION LEVEL

LAB NUMBER : 0209261 JOB NUMBER : S828 (090500) REPORT DATE : 03/02/09

DATE SAMPLES RECEIVED : 02/20/09 DATE SAMPLES TESTED : 02/26/09 ANALYST : SP

## **RESULTS OF ANALYSIS**

SPLP EPA 1312

Sample Matrix: S

LEAD

- mg/L

Field ID	CTL#	MDL		 	
SB-2 (4-5)	2576	0.005	BDL		
SB-3 (2-3)	2577	0.005	BDL		
SB-4 (5.5-6)	2578	0.005	BDL		
SB-5 (3-4)	2579	0.005	BDL		
SB-6 (10.5-11)	2580	0.005	BDL		
SB-7 (10-11)	2581	0.005	BDL		

MDL=METHOD DETECTION LEVEL BDL=BELOW DETECTION LEVEL

LAB NUMBER: 0209261

JOB NUMBER: \$828 (090500)

**REPORT DATE: 03/02/09** 

DATE SAMPLES RECEIVED: 02/20/09 DATE SAMPLES EXTRACTED: 02/26/09 DATE SAMPLES TESTED: 02/26/09

ANALYST: LP

## **RESULTS OF ANALYSIS**

Sample Matrix: S

**CT ETPH** 

- mg/kg

Field ID	CTL#	MDL			
SB-1 (30")	2575	50	87		
SB-8 (11)	2582	50	BDL		
SB-9 (10-11)	2583	50	BDL		
SB-10 (9-10)	. 2584	50	BDL	,	
SB-101 (9-10)	2585	50	BDL		
SB-11 (3.5-4)	2586	50	BDL		
SB-12 (3-4)	2587	50	BDL		
GEI-MW-13	2588	50	BDL		
SB-14	2589	50	96		

MDL=METHOD DETECTION LEVEL BDL=BELOW DETECTION LEVEL

LAB NUMBER: 0209261 JOB NUMBER: S828 (090500) REPORT DATE: 03/02/09

DATE SAMPLES RECEIVED: 02/20/09 DATE SAMPLES EXTRACTED: 02/24/09 DATE SAMPLES ANALYZED: 02/26/09

ANALYST: SE

## EPA Method 8082

	MATRIX TY CTL SAMP FIELD ID		S 2582 SB-8 (11)	S 2583 SB-9 (10-11)	
PARAMETER	UNITS	MDL			
PCB, Total	mg/kg	1	BDL	BDL	

MDL=METHOD DETECTION LEVEL BDL=BELOW DETECTION LEVEL

LAB NUMBER: 0209261 JOB NUMBER: S828 (090500)

REPORT DATE: 03/02/09

DATE SAMPLES RECEIVED: 02/20/09
DATE SAMPLES EXTRACTED: 02/24/09
DATE SAMPLES ANALYZED: 02/26/09
ANALYST: SM, SE

## EPA METHOD 608/8081A

	MATRIX TYPE CTL SAMPLE NO. FIELD ID		S 2590 SS-1	\$ 2591 \$\$-2	\$ 2592 \$\$-3	
PARAMETER	UNITS	MDL				
Aldrin	ug/kg	25	BDL	BDL	BDL	
a-BHC	ug/kg	50	BDL	BDL	BDL	
b-BHC	ug/kg	50	BDL	BDL	BDL	
d-BHC	ug/kg	50	BDL	BDL.	BDL	
Lindane	ug/kg	20	BDL	BDL	BDL	
Chlordane	ug/kg	50	BDL	BDL	BDL	
4,4'-DDD	ug/kg	50	BDL	BDL	BDL	
4,4'-DDE	ug/kg	50	BDL	BDL	BDL	
4,4'-DDT	ug/kg	50	BDL	BDL	113	
Dieldrin	ug/kg	5	10	BDL	19	
Endosulfan I	ug/kg	100	BDL	BDL	BDL	
Endosulfan II	ug/kg	100	BDL	BDL	BDL	
Endosulfan Sulfate	ug/kg	100	BDL	BDL	BDL	
Endrin	ug/kg	50	BDL.	BDL	BDL	
Endrin Aldehyde	ug/kg	50	BDL	BDL	BDL -	
Heptachlor	ug/kg	10	BDL	BDL	BDL	
Heptachlor Epoxide	ug/kg	20	BDL	BDL	BDL	
Methoxychlor	ug/kg	50	BDL	BDL	BDL	
Toxaphene	ug/kg	500	BDL	BDL	BDL	

MDL=METHOD DETECTION LEVEL BDL=BELOW DETECTION LEVEL

LAB NUMBER : 0209261 JOB NUMBER : S828 (090500) REPORT DATE : 03/02/09

THE OTT BATTE TO OF CENTER

DATE SAMPLES RECEIVED: 02/20/09 DATE SAMPLES EXTRACTED: 02/24/09 DATE SAMPLES ANALYZED: 02/26/09 ANALYST: SM

### **EPA METHOD 8151A**

		MATRIX TYPE CTL SAMPLE No. FIELD ID		S 2591 SS-2	\$ 2592 SS-3	
PARAMETER	UNITS	MDL				
2,4-D	ug/kg	50	BDL	BDL	BDL	
2,4-DB	ug/kg	50	BDL	BDL	BDL	
2,4,5-T	ug/kg	50	BDL	BDL	BDL	
2,4,5-TP	ug/kg	50	BDL	BDL	BDL	
Dalapon	ug/kg	50	BDL	· BDL	BDL ·	
Dicamba	ug/kg	50	BDL	BDL	BDL	
Dichloroprop	ug/kg	50	BDL	BDL	BDL	
Dinoseb	ug/kg	50	BDL	BDL	BDL	
MCPP	ug/kg	2000	BDL	BDL	BDL	
MCPA	ug/kg	2000	BDL	BDL	BDL	

MDL=METHOD DETECTION LEVEL BDL=BELOW DETECTION LEVEL

LAB NUMBER : 0209261 JOB NUMBER : S828 (090500) REPORT DATE : 03/02/09

DATE SAMPLES RECEIVED: 02/20/09
DATE SAMPLES EXTRACTED: 02/19-02/20/09
DATE SAMPLES ANALYZED: 02/23/09
EPA 5035 PRESERVATION: Sodium Bisulfate

ANALYST: YK

## **EPA METHOD 5035/8260B GC/MS**

	MATRIX TYPE		S	S	s	s
	CTL SAMPLE NO.:		2575	2576	2577	2578
	FIELD ID:		SB-1 (30")	SB-2 (4-5)	SB-3 (2-3)	SB-4 (5.5-6)
			, ,		' '	, ,
PARAMETER	UNITS	MDL				
Dichlorodifluoromethane	μg/kg	10	BDL	BDL	BDL	BDL
Chloromethane	μg/kg	10	BDL	BDL	BDL	BDL
Vinyl chloride	μg/kg	10	BDL	BDL	BDL	BDL
Chloroethane	μg/kg	10	BDL	BDL	BDL	BDL
Bromomethane	μg/kg	10	BDL	BDL	BDL	BDL
Trichlorofluoromethane	μg/kg	10	BDL	BDL	BDL	BDL
1,1-Dichloroethylene	μg/kg_	10	BDL	BDL	BDL	BDL
Methylene chloride	μg/kg	10	BDL	BDL	BDL	BDL.
t-1,2-Dichloroethylene	μg/kg	10	BDL	BDL	BDL	BDL
1,1-Dichloroethane	μg/kg	10	BDL	BDL	BDL	BDL
2,2-Dichloropropane	μg/kg	10	BDL	BDL	BDL	BDL
cis-1,2-Dichioroethylene	µg/kg	10	BDL	BDL.	BDL	BDL
Chloroform	μg/kg	10	BDL	BDL	BDL	BDL
Bromochloromethane	μg/kg	10	BDL	BDL	BDL	BDL
1,1,1-Trichloroethane	µg/kg	10	BDL	BDL.	BDL	BDL
1,1-Dichloropropytene	μg/kg	10	BDL	BDL	BDL	BDL
Carbon tetrachloride	μg/kg	10	BDL	BDL	BDL	BDL
Benzene	μg/kg	10	BDL	BDL	BDL	BDL
1,2-Dichloroethane	μg/kg	10	BDL	BDL.	BDL	BDL
Trichloroethylene	μg/kg	10	BDL	BDL	BDL	BDL
1,2-Dichloropropane	μg/kg	10	BDL	BDL	BDL	BDL
Bromodichloromethane	μg/kg	10	BDL	BDL	BDL	BDL
Dibromomethane	μg/kg	10	BDL	BDL	BDL	BDL.
cis-1,3-Dichloropropylene	µg/kg	10	BDL	BDL	BDL	BDL
Toluene	µg/kg	10	BDL	BDL	BDL	BDL
t-1,3-Dichloropropylene	μg/kg	10	BDL	BDL	BDL	BDL
1,1,2-Trichloroethane	μg/kg	10	BDL	BDL	BDL	BDL
Tetrachloroethylene	µg/kg	10	BDL	BDL	BDL	BDL
1,3-Dichloropropane	µg/kg	10	BDL	BDL	BDL	BDL
Dibromochloromethane	μg/kg	10	BDL	BDL	BDL	BDL
1,2-Dibromoethane (EDB)	µg/kg	10	BDL	BDL	BDL	BDL
Chlorobenzene	μg/kg	10	BDL	BDL,	BDL	BDL
Ethylbenzene	μg/kg	10	BDL	BDL	BDL	BDL
1,1,1,2-Tetrachloroethane	μg/kg	10	BDL	BDL	BDL	BDL
p/m-Xylene	µg/kg	10	BDL	BDL	BDL.	BDL
o-Xylene	μg/kg	10	BDL	BDL	BDL	BDL

LAB NUMBER : 0209261 JOB NUMBER : S828 (090500) REPORT DATE : 03/02/09

DATE SAMPLES RECEIVED: 02/20/09
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DATE SAMPLES ANALYZED: 02/23/09
EPA 5035 PRESERVATION: Sodium Bisulfate

ANALYST: YK

### **EPA METHOD 5035/8260B GC/MS**

MATRIX TYPE: CTL SAMPLE NO.: FIELD ID:			S 2575 SB-1 (30")	S 2576 SB-2 (4-5)	S 2577 SB-3 (2-3)	S 2578 SB-4 (5.5-6)
PARAMETER	UNITS	MDL			,	
Styrene	µg/kg	10	BDL	BDL	BDL.	BDL
Bromoform	µg/kg	10	BDL	BDL	BDL	BDL
Isopropylbenzene	µg/kg	10	BDL	BDL	BDL	BDL
1,1,2,2-Tetrachloroethane	µg/kg	10	BDL	BDL.	BDL	BDL
Bromobenzene	μg/kg	10	BDL	BDL	BDL	BDL
1,2,3-Trichloropropane	μg/kg	10	BDL	BDL	BDL	BDL
n-Propylbenzene	μg/kg	10	BDL	BDL	BDL	BDL
2-Chlorotoluene	μg/kg	10	BDL	BDL	BDL	BDL
1,3,5-Trimethylbenzene	μg/kg	10	BDL	8DL	BDL	BDL,
4-Chlorotoluene	μg/kg	10	BDL	BDL	BDL	BDL
tert-Butylbenzene	μg/kg	10	BDL	BDL	. BDL	BDL
1,2,4-Trimethylbenzene	μg/kg	10	BDL	8DL	BDL	BDL
sec-Butylbenzene	μg/kg	10	BDL	BDL	BDL	BDL
p-Isopropyltoluene	μg/kg	10	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene	μg/kg	10	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	μg/kg	10	BDL	BDL	BDL	BDL
n-Butylbenzene	μg/kg	10	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	μg/kg	10	BDL	BDL	BDL	BDL
1,2-Dibromo-3-chloropropane	μg/kg	10	BDL	BDL	BDL	BDL
1,2,4-Trichiorobenzene	μg/kg	10	BDL	BDL	BDL	BDL
Hexachiorobutadiene	µg/kg	50	BDL	BDL	BDL	BDL
Naphthalene	μg/kg	50	BDL	BDL	BDL	BDL
1,2,3-Trichlorobenzene	μg/kg	10	BDL	BDL	BDL	BDL
Methyl ethyl ketone	μg/kg	50	BDL	BDL	BDL	BDL
Methyl butyl ketone	μg/kg	50	BDL	BDL	BDL	BDL
Methyl isobutyl ketone	μg/kg	50	BDL	BDL	BDL	BDL
MTBE	μg/kg	10	BDL	BDL	BDL	BDL
1,2-Dichloroethane-d4 (SR)	%		96	97	99	97
Toluene-d8 (SR)	%		94	92	93	90
p-Bromofluorobenzene (SR)	%		97	99	95	98

MDL=METHOD DETECTION LEVEL BDL=BELOW DETECTION LEVEL SR=SURROGATE RECOVERY

LAB NUMBER : 0209261 JOB NUMBER : S828 (090500) REPORT DATE : 03/02/09

DATE SAMPLES RECEIVED: 02/20/09
DATE SAMPLES EXTRACTED: 02/19-02/20/09
DATE SAMPLES ANALYZED: 02/23/09
EPA 5035 PRESERVATION: Sodium Bisulfate

ANALYST: YK

## **EPA METHOD 5035/8260B GC/MS**

	MATRIX TYPE: CTL SAMPLE NO.:		S 2579	\$ 2580	S 2581	S 2584
	FIELD ID:		SB-5 (3-4)	SB-6 (10.5-11)	SB-7 (10-11)	SB-10 (9-10)
PARAMETER	UNITS	MDL				
Dichlorodifluoromethane	μg/kg	10	BDL	BDL	BDL	BDL
Chloromethane	μg/kg	10	BDL	BDL	BDL	BDL
Vinyl chloride	μg/kg	10	BDL	BDL	BDL	BDL
Chloroethane	μg/kg	10	BDL	BDL	BDL	BDL
Bromomethane	µg/kg	10	BDL	BDL	BDL	BDL
Trichlorofluoromethane	μg/kg	10	BDL	BDL	BDL	BDL
1,1-Dichloroethylene	μg/kg	10	BDL	BDL	BDL	BDL
Methylene chloride	μg/kg	10	BDL	BDL	BDL	BDL
t-1,2-Dichloroethylene	μg/kg	10	BDL	BDL	BDL	BDL
1,1-Dichloroethane	μg/kg	10	BDL	BDL	BDL	BDL
2,2-Dichloropropane	μg/kg	10	BDL	BDL	BDL	BDL
cis-1,2-Dichloroethylene	μg/kg	10	BDL	BDL	BDL	BDL
Chloroform	μg/kg	10	BDL	BDL	BDL	BDL
Bromochloromethane	μg/kg	10	BDL	BDL	BDL	BDL
1,1,1-Trichloroethane	µg/kg	10	BDL	BDL	BDL	BDL
1,1-Dichloropropylene	μg/kg	10	BDL	BDL	BDL	BDL
Carbon tetrachloride	μg/kg	10	BDL	BDL	BDL	BDL
Benzene	μg/kg	10	BDL	BDL	BDL	BDL
1,2-Dichloroethane	μg/kg	10	BDL	BDL	BDL	BDL
Trichloroethylene	μg/kg	10	BDL	BDL	BDL	BDL
1,2-Dichloropropane	μg/kg	10	BDL	BDL	BDL	BDL
Bromodichloromethane	μg/kg	_10	BDL	BDL	BDL	BDL
Dibromomethane	µg/kg	10	BDL	BDL	BDL	BDL
cis-1,3-Dichloropropylene	µg/kg	10	BDL	BDL	BDL	BDL
Toluene	μg/kg	10	BDL	BDL	BDL	BDL
i-1,3-Dichloropropylene	μg/kg	10	BDL	BDL	BDL	BDL
1,1,2-Trichloroethane	µg/kg	10	BDL	BDL	BDL	BDL
Tetrachloroethylene	µg/kg	10	BDL	BDL	BDL	BDL
1,3-Dichloropropane	µg/kg	10	BDL	BDL	BDL	BDL
Dibromochloromethane	μg/kg	10	BDL	BDL	BDL	BDL
1,2-Dibromoethane (EDB)	µg/kg	10	BDL	BDL	BDL	BDL
Chlorobenzene	μg/kg	10	BDL	BDL	BDL	BDL
Ethylbenzene	µg/kg	10	BDL	BDL	BDL	BDL
1,1,1,2-Tetrachloroethane	µg/kg	10	BDL	BDL	BDL	BDL
o/m-Xylene	μg/kg	10	BDL	BDL	BDL	BDL
o-Xylene	μg/kg	10	BDL	BDL	BDL	BDL

LAB NUMBER: 0209261 JOB NUMBER: \$828 (090500) REPORT DATE: 03/02/09

DATE SAMPLES RECEIVED: 02/20/09 DATE SAMPLES EXTRACTED: 02/19-02/20/09 DATE SAMPLES ANALYZED: 02/23/09 EPA 5035 PRESERVATION: Sodium Bisulfate

ANALYST: YK

### **EPA METHOD 5035/8260B GC/MS**

	MATRIX TYPE: SAMPLE NO.: FIELD ID:		S 2579 SB-5 (3-4)	S 2580 SB-6 (10.5-11)	S 2581 SB-7 (10-11)	S 2584 SB-10 (9-10)
PARAMETER	UNITS	MDL				
		10	BDL	BDL.	BDL	BDL
Styrene	µg/kg	10	BDL	BDL	BDL	BDL
Bromoform	µg/kg µg/kg	10	BDL	BDL	BDL	BDL
Isopropylbenzene	ug/kg ug/kg	10	BDL	BDL	BDL	BDL
1,1,2,2-Tetrachloroethane		10	BDL BDL	BDL	BDL	BDL
Bromobenzene	µg/kg		BDL	BDL	BDL	BDL
1,2,3-Trichloropropane	ha/ka	10		BDL BDL	BDL	BDL
n-Propylbenzene	μg/kg	10	BDL		BDL BDL	BDL
2-Chlorotoluene	µg/kg	10	BDL	BDL	BDL	BDL
1,3,5-Trimethylbenzene	µg/kg	10	BDL	BDL		
4-Chlorotoluene	μg/kg	10	BDL	BDL	BDL BDL	BDL
tert-Butylbenzene	μg/kg	10	BDL	BDL		BDL
1,2,4-Trimethylbenzene	μg/kg	10	BDL	BDL	BDL	BDL
sec-Butylbenzene	μg/kg	10	BDL	BDL	BDL	BDL
p-Isopropyltoluene	μg/kg-	10	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene	μg/kg	10	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	μg/kg	10	BDL	BDL	BDL	BDL
n-Butylbenzene	µg/kg	10	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	μg/kg	10	BDL	BDL	BDL	BDL
1,2-Dibromo-3-chloropropane	μg/kg	10	BDL	BDL	BDL	BDL
1,2,4-Trichlorobenzene	μg/kg	10	BDL	BDL	BDL	BDL
Hexachlorobutadiene	μg/kg	50_	BDL	BDL	BDL	BDL
Naphthalene	µg/kg	50	BDL	BDL	BDL	BDL
1,2,3-Trichlorobenzene	μg/kg	10	BDL	BDL	BDL	BDL
Methyl ethyl ketone	µg/kg	50	BDL	BDL	BDL	BDL
Methyl butyl ketone	μg/kg	50	BDL	BDL	BDL	BDL
Methyl isobutyl ketone	μg/kg	50	BDL	BDL	BDL	BDL
MTBE	µg/kg	10	BDL	BDL	BDL,	BDL
1.2-Dichloroethane-d4 (SR)	%		98	98	102	92
Toluene-d8 (SR)	%		93	90	91	93
p-Bromofluorobenzene (SR)	%		99	99	100	98

MDL=METHOD DETECTION LEVEL BDL=BELOW DETECTION LEVEL SR=SURROGATE RECOVERY

LAB NUMBER : 0209261 JOB NUMBER : S828 (090500) REPORT DATE : 03/02/09

DATE SAMPLES RECEIVED : 02/20/09
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DATE SAMPLES ANALYZED : 02/23/09
EPA 5035 PRESERVATION : Sodium Bisulfate

ANALYST: YK

## **EPA METHOD 5035/8260B GC/MS**

	MATRIX TYPE:		S 2585	S 2588	S 2589	
. 1	CTL SAMPLE NO.: FIELD ID:		2585 SB-101 (9-10)	GEI-MW-13	\$B-14	
PARAMETER	UNITS	MDL				
Dichlorodifluoromethane	μg/kg	10	BDL	BDL	BDL .	
Chloromethane	μg/kg	10	BDL	BDL	BDL	<u> </u>
Vinyl chloride	μg/kg	10	BDL	BDL	BDL	·
Chloroethane	μg/kg	10	BDL	BDL	BDL	
Bromomethane	μg/kg	10	BDL	BDL	BDL.	
Trichlorofluoromethane	μg/kg	10	BDL	BDL	BDL	
1,1-Dichloroethylene	ug/kg	10	BDL	BDL	BDL	
Methylene chloride	µg/kg	10	BDL	BDL.	BDL	
t-1,2-Dichloroethylene	ug/kg	10	BDL.	BDL	BDL	
1,1-Dichloroethane	µg/kg	10	BDL	BDL	BDL	
2,2-Dichloropropane	μg/kg	10	BDL	BDL	BDL	
cis-1,2-Dichloroethylene	μg/kg	10	BDL	BDL	BDL	
Chloroform	μg/kg	10	BDL	BDL	BDL	
Bromochloromethane	μg/kg	10	BDL	BDL	BDL	
1.1.1-Trichloroethane	μg/kg	10	BDL	BDL	BDL	1
1,1-Dichloropropylene	μg/kg	10	BDL	BDL	BDL	
Carbon tetrachloride	μg/kg	10	BDL.	BDL	BDL	
Benzene	µg/kg	10	BDL	BDL	BDL	
1.2-Dichloroethane	μg/kg	10	BDL	BDL	BDL	
Trichloroethylene	μg/kg	10	BDL	BDL	BDL	
1,2-Dichloropropane	μg/kg	10	BDL	BDL	BDL	
Bromodichloromethane	μg/kg	10	BDL	BDL	BDL,	
Dibromomethane	µg/kg	10	BDL	BDL	BDL	
cis-1,3-Dichloropropylene	μg/kg	10	BDL	BDL	BDL	
Toluene	μg/kg	10	BDL	BDL	BDL	
t-1,3-Dichloropropylene	μg/kg	10	BDL	BDL	BDL	
1.1.2-Trichloroethane	µg/kg	10	BDL	BDL	BDL.	
Tetrachloroethylene	μg/kg	10	BDL	BDL	BDL	
1.3-Dichloropropane	μg/kg	10	BDL	BDL.	BDL	
Dibromochloromethane	µg/kg	10	BDL	BDL	BDL_	
1.2-Dibromoethane (EDB)	μg/kg	10	BDL	BDL	BDL	
Chlorobenzene	μg/kg	10	BDL	BDL	BDL	
Ethylbenzene	μg/kg	10	BDL	BDL	BDL	
1,1,1,2-Tetrachloroethane	μg/kg	10	BDL	BDL	BDL	
p/m-Xylene	µg/kg	10	BDL	BDL	BDL	
o-Xylene	μg/kg	10	BDL	BDL	BOL	

LAB NUMBER : 0209261 JOB NUMBER : S828 (090500) REPORT DATE : 03/02/09

DATE SAMPLES RECEIVED : 02/20/09
DATE SAMPLES EXTRACTED : 02/19-02/20/09
DATE SAMPLES ANALYZED : 02/23/09
EPA 5035 PRESERVATION : Sodium Bisulfate
ANALYST : YK

## **EPA METHOD 5035/8260B GC/MS**

MATRIX TYPE: CTL SAMPLE NO.: FIELD ID:			S 2585 SB-101 (9-10)	S 2588 GEI-MW-13	S 2589 SB-14	
PARAMETER	UNITS	MDL				O Total Control Contro
Styrene	µg/kg	10	BDL	BDL	BDL	
Bromoform	μg/kg	10	BDL	BDL	BDL	
Isopropylbenzene	μg/kg	10	BDL	BDL	BDL	
1,1,2,2-Tetrachloroethane	μg/kg	10	BDL	BDL	BDL	
Bromoberizene	ug/kg	10	BDL.	BDL	BDL	
1,2,3-Trichloropropane	ug/kg	10	BDL	BDL	BDL	
n-Propylbenzene	ug/kg	10	BDL	BDL	BDL.	
2-Chlorotoluene	µg/kg	10	BDL	BDL	BDL	
1.3.5-Trimethylbenzene	ug/kg	10	BDL	BDL	BDL	
4-Chlorotoluene	µg/kg	10	BDL.	BDL	BDL	
tert-Butylbenzene	μg/kg	10	BDL	BDL	BDL	
1,2,4-Trimethylbenzene	μg/kg	10	BDL	BDL.	BDL	
sec-Butylbenzene	μg/kg	10	BDL.	BDL	BDL	
p-Isopropyltoluene	μg/kg	10	BDL	BDL	BDL	
1,3-Dichlorobenzene	µg/kg	10	BDL	BDL	BDL	
1.4-Dichlorobenzene	µg/kg	10	BDL	BDL	BDL	
n-Butylbenzene	μg/kg	10	BDL	BDL	BDL	
1.2-Dichlorobenzene	μg/kg	10	BDL	BDL	BDL	
1,2-Dibromo-3-chloropropane	μg/kg	10	BDL	BDL.	BDL.	
1,2,4-Trichlorobenzene	μg/kg	10	BDL	BDL	BDL	
Hexachlorobutadiene	µg/kg	50	BDL	BDL	BDL	
Naphthalene	µg/kg	50	BDL	BDL.	BDL ·	
1,2,3-Trichlorobenzene	µg/kg	10	BDL	BDL	BDL	
Methyl ethyl ketone	µg/kg	50	BDL	BDL	BDL	
Methyl butyl ketone	µg/kg	50	BDL.	BDL	BDL	
Methyl isobutyl ketone	μg/kg	50	BDL	BDL	BDL	
MTBE	μg/kg	10	BDL	BDL	BDL	
1,2-Dichloroethane-d4 (SR)	%		95	91	94	
Toluene-d8 (SR)	%		91	89	93	
p-Bromofluorobenzene (SR)	%		100	100	112	

MDL=METHOD DETECTION LEVEL BDL=BELOW DETECTION LEVEL SR=SURROGATE RECOVERY

LAB NUMBER: 0209261

JOB NUMBER: S828 (090500)

REPORT DATE: 03/02/09

DATE SAMPLES RECEIVED: 02/20/09 DATE SAMPLES EXTRACTED: 02/25/09 DATE SAMPLES ANALYZED: 02/26/09 ANALYST: KM

## **EPA Method 8270 Modified**

MATRIX TYPE CTL SAMPLE NO. FIELD ID			S 2575 SB-1 (30")	S 2582 SB-8 (11)	S 2583 SB-9 (10-11)	S 2584 SB-10 (9-10)
PARAMETER	UNITS	MDL				
Acenaphthene	ug/kg	100	368.0	BDL	209.0	BDL
Acenaphthylene	ug/kg	100	BDL	BDL	BDL	BDL
Anthracene	ug/kg	100	435.0	BDL	262.0	BDL
Benzidine	ug/kg	100	BDL	BDL	BDL	BDL
Benzo(a)anthracene	ug/kg	100	896.0	BDL	470.0	BDL
Benzo(b)fluoranthene	ug/kg	. 100	950.0	BDL	193.0	BDL
Benzo(k)fluoranthene	ug/kg	100	844.0	BDL	. 286.0	BDL
Bis(2-chloroethyl) ether	ug/kg	100	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene	ug/kg	500	556.0	BDL	BDL	BDL
Bis(2-chloroisopropyl) ether	ug/kg	100	BDL	BDL	BDL	BDL
Benzo(a)pyrene	ug/kg	100	869.0	BDL	355.0	BDL
Bis-(2-ethylhexyl) phthalate	ug/kg	500	BDL	BDL	BDL	BDL
4-Bromophenylphenylether	ug/kg	100	BDL	BDL	BDL	BDL
bis(2-Chloroethoxy) methane	ug/kg	100	BDL	BDL	BDL	BDL
Butylbenzyl phthalate	ug/kg	100	BDL	BDL	BDL	BDL
Carbazole	ug/kg	100	319.0	BDL	125.0	BDL
2-Chloronaphthalene	ug/kg	100	BDL	BDL	BDL	BDL
4-Chlorophenyl phenyl ether	ug/kg	100	BDL.	BDL	BDL	BDL
Chrysene	ug/kg	100	911.0	BDL	406.0	BDL
Dibenzo(a,h) anthracene	ug/kg	500	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	ug/kg	100	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene	ug/kg	100	BDL	BDL	BDL	BDL.
1,4-Dichlorobenzene	ug/kg	100	BDL	BDL	BDL	BDL
3,3-Dichlorobenzidine	ug/kg	100	BDL	BDL	BDL	BDL
Diethyl phthalate	ug/kg	100	BDL	BDL	BDL	BDL
Dimethyl phthalate	ug/kg	100	BDL	BDL	BDL	BDL
Di-n-Butyl phthalate	ug/kg	100	BDL	BDL	BDL	BDL
2,4-Dinitrotoluene	ug/kg	100	BDL	BDL	BDL	BDL
2,6-Dinitrotoluene	ug/kg	100	BDL	BDL	BDL	BDL
Di-n-octyl phthalate	ug/kg	100	BDL	BDL	BDL	BDL
1,2-Diphenylhydrazine	ug/kg	100	BDL	BDL	BDL	BDL
Fluoranthene	ug/kg	100	2,790.0	BDL	1,130.0	BDL
Fluorene	ug/kg	100	229.0	BDL	128.0	BDL
Hexachlorobenzene	ug/kg	100	BDL	BDL	BDL	BDL

LAB NUMBER: 0209261

JOB NUMBER: S828 (090500)

REPORT DATE: 03/02/09

DATE SAMPLES RECEIVED: 02/20/09 DATE SAMPLES EXTRACTED: 02/25/09 DATE SAMPLES ANALYZED: 02/26/09

ANALYST: KM

### **EPA Method 8270 Modified**

	MATRIX TYPE CTL SAMPLE NO. FIELD ID		S 2575 SB-1 (30")	S 2582 SB-8 (11)	S 2583 SB-9 (10-11)	S 2584 SB-10 (9-10)
PARAMETER	UNITS	MDL				
Hexachlorobutadiene	ug/kg	100	BDL	BDL	BDL	BDL
Hexachlorocyclopentadiene	ug/kg	100	BDL	BDL	BDL	BDL
Hexachloroethane	ug/kg	100	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd) pyrene	ug/kg	500	BDL	BDL	BDL	BDL
Isophorone	ug/kg	100	` BDL	BDL	BDL	BDL
2-Methylnaphthalene	ug/kg	100	BDL	BDL	BDL	BDL
Naphthalene	ug/kg	100	151.0	BDL	124.0	BDL
Nitrobenzene	ug/kg	100	BDL	BDL	BDL	BDL
N-Nitrosodimethylamine	ug/kg	100	BDL	BDL	BDL	BDL
N-Nitroso-di-n-propylamine	ug/kg	100	BDL	BDL	BDL	BDL
N-Nitrosodiphenylamine	ug/kg	100	BDL	BDL	BDL	BDL
Phenanthrene	ug/kg	100	1,830.0	BDL	921.0	BDL
Pyrene	ug/kg	100	2,120.0	BDL	938.0	BDL
1,2,4-Trichlorobenzene	ug/kg	100	BDL	BDL	BDL	BDL
2-Chlorophenol	ug/kg	500	BDL	BDL	BDL	BDL
2,4-Dichlorophenol	ug/kg	500	BDL	BDL	BDL	BDL
2,4-Dimethylphenol	ug/kg	500	BDL	BDL	BDL	BDL
4,6-Dinitro-2-methylphenol	ug/kg	500	BDL	BDL	BDL	BDL
2,4-Dinitrophenol	ug/kg	500	BDL	BDL	BDL	BDL
2-Nitrophenol	ug/kg	500	BDL	BDL	BDL	BDL
4-Nitrophenol	ug/kg	500	BDL	BDL	BDL	BDL
4-Chloro-3-methylphenol	ug/kg	500	BDL	BDL	BDL	BDL
Pentachlorophenol	ug/kg	500	BDL	BDL	BDL	BDL
Phenol	ug/kg	500	BDL	BDL	BDL	BDL
2,4,6-Trichlorophenol	ug/kg	500	BDL	BDL	BDL	BDL
Phenol-d6 (SR)	%		105	100	101	105
Nitrobenzene-d5 (SR)	%		94	106	104	107
2-Fluorobiphenyl (SR)	%		99	99	101	104
2,4,6-Tribromophenol (SR)	%		92	95	92	96
p-Terphenyl-d14 (SR)	%		108	98	104	95

MDL=METHOD DETECTION LEVEL BDL=BELOW DETECTION LEVEL SR=SURROGATE RECOVERY

MATRIX TYPES
W=WATER/AQUEOUS
S=SOIL/SOLID

LAB NUMBER: 0209261

JOB NUMBER: \$828 (090500)

REPORT DATE: 03/02/09

DATE SAMPLES RECEIVED: 02/20/09 DATE SAMPLES EXTRACTED: 02/25/09 DATE SAMPLES ANALYZED: 02/26/09

ANALYST: KM

## EPA Method 8270 Modified

СТЬ	S 2585 SB-101 (9-10)	S 2586 SB-11 (3.5-4)	S 2587 SB-12 (3-4)	S 2588 GEI-MW-13		
PARAMETER	UNITS	MDL				
Acenaphthene	ug/kg	100	BDL	BDL	BDL	BDL
Acenaphthylene	ug/kg	100	BDL	BDL	BDL	BDL
Anthracene	ug/kg	100	BDL	BDL	BDL	BDL
Benzidine	ug/kg	100	BDL	BDL	BDL	BDL
Benzo(a)anthracene	ug/kg	100	BDL	130.0	BDL	BDL
Benzo(b)fluoranthene	ug/kg	100	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	ug/kg	100	BDL	BDL	BDL	BDL
Bis(2-chloroethyl) ether	ug/kg	100	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene	ug/kg	500	BDL	BDL	BDL	BDL
Bis(2-chloroisopropyl) ether	ug/kg	100	BDL	BDL	BDL	BDL
Benzo(a)pyrene	ug/kg	100	BDL	144.0	BDL	BDL
Bis-(2-ethylhexyl) phthalate	ug/kg	500	BDL	BDL	BDL	BDL
4-Bromophenylphenylether	ug/kg	100	BDL	BDL	BDL	BDL
bis(2-Chloroethoxy) methane	ug/kg	100	BDL	BDL	BDL	BDL
Butylbenzyl phthalate	ug/kg	100	BDL	BDL	BDL	BDL
Carbazole	ug/kg	100	BDL	BDL	BDL	BDL
2-Chloronaphthalene	ug/kg	100	BDL	BDL	BDL	BDL
4-Chloropheлуі phenyl ether	ug/kg	100	BDL	BDL	BDL	BDL
Сhrysепе	ug/kg	100	BDL	118.0	BDL	BDL
Dibenzo(a,h) anthracene	ug/kg	500	BDL.	BDL	BDL	BDL
1,2-Dichlorobenzene	ug/kg	100	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene	ug/kg	100	BDL	BDL	BDL	BDL
1,4-Dichlorobeпzene	ug/kg	100	BDL	BDL	BDL	BDL
3,3-Dichlorobenzidine	ug/kg	100	BDL	BDL	BDL	BDL
Diethyl phthalate	ug/kg	100	BDL	BDL	BDL	BDL
Dimethyl phthalate	ug/kg	100	BDL	BDL	BDL	BDL
Di-n-Butyl phthalate	ug/kg	100	BDL	BDL	BDL	BDL
2,4-Dinitrotoluene	ug/kg	100	BDL	BDL	BDL	BDL
2,6-Dinitrotoluene	ug/kg	100	BDL	BDL	BDL	BDL
Di-n-octyl phthalate	ug/kg	100	BDL	BDL	BDL	BDL
1,2-Diphenylhydraziпе	ug/kg	100	BDL	BDL	BDL	BDL
Fluoranthene	ug/kg	100	BDL	207.0	BDL	BDL
Fluorene	ug/kg	100	BDL	BDL	BDL	BDL
Hexachlorobenzene	ug/kg	100	BDL	BDL	BDL	BDL

LAB NUMBER: 0209261

JOB NUMBER: S828 (090500)

REPORT DATE: 03/02/09

DATE SAMPLES RECEIVED: 02/20/09 DATE SAMPLES EXTRACTED: 02/25/09 DATE SAMPLES ANALYZED: 02/26/09

ANALYST: KM

## EPA Method 8270 Modified

	MATRIX TYPE CTL SAMPLE NO. FIELD ID		S 2585 SB-101 (9-10)	S 2586 SB-11 (3.5-4)	S 2587 SB-12 (3-4)	S 2588 GEI-MW-13
PARAMETER	UNITS	MDL				
Hexachlorobutadiene	ug/kg	100	BDL	BDL	BDL	BDL
Hexachlorocyclopentadiene	ug/kg	100	BDL	BDL	BDL	BDL
Hexachloroethane	ug/kg	100	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd) pyrene	ug/kg	500	BDL	BDL	BDL	BDL
Isophorone	ug/kg	100	BDL	BDL	BDL	BDL
2-Methylnaphthalene	ug/kg	100	BDL	BDL	BDL	BDL
Naphthalene	ug/kg	100	BDL	BDL	BDL	BDL
Nitrobenzene	ug/kg	100	BDL	BDL	BDL	BDL
N-Nitrosodimethylamine	ug/kg	100	BDL	BDL	BDL	BDL
N-Nitroso-di-n-propylamine	ug/kg	100	BDL	BDL	BDL	BDL
N-Nitrosodiphenylamine	ug/kg	100	BDL	BDL	BDL	BDL
Phenanthrene	ug/kg	100	BDL	BDL	BDL	BDL
Pyrene	ug/kg	100	BDL	193.0	BDL	BDL
1,2,4-Trichlorobenzene	ug/kg	100	BDL	BDL	BDL	BDL
2-Chlorophenol	ug/kg	500	BDL	BDL	BDL	BDL
2,4-Dichlorophenol	ug/kg	500	BDL	BDL	BDL	BDL
2,4-Dimethylphenol	ug/kg	500	BDL	BDL	BDL	BDL
4,6-Dinitro-2-methylphenol	ug/kg	500	BDL	BDL	BDL	BDL
2,4-Dinitrophenol	ug/kg	500	BDL	BDL	BDL	BDL
2-Nitrophenol	ug/kg	500	BDL	BDL	BDL BDL	BDL
4-Nitrophenol	ug/kg	500	BDL	BDL	BDL	BDL
4-Chioro-3-methylphenol	ug/kg	500	BDL	BDL	BDL	BDL
Pentachiorophenol	ug/kg	500	BDL	BDL	BDL	BDL
Phenol	ug/kg	500	BDL	BDL	BDL	BDL
2,4,6-Trichlorophenol	ug/kg	500	BDL	BDL	BDL	BDL
Phenol-d6 (SR)	. %		103	100	106	106
Nitrobenzene-d5 (SR)	%		108	105	104	106
2-Fluorobiphenyl (SR)	%		100	101	104	103
2,4,6-Tribromophenol (SR)	%	4770	94	91	92	100
p-Terphenyl-d14 (SR)	%		93	94	94	96

MDL=METHOD DETECTION LEVEL BDL=BELOW DETECTION LEVEL SR=SURROGATE RECOVERY

LAB NUMBER: 0209261 JOB NUMBER: S828 (090500)

REPORT DATE: 03/02/09

DATE SAMPLES RECEIVED: 02/20/09 DATE SAMPLES EXTRACTED: 02/25/09 DATE SAMPLES ANALYZED: 02/26/09

ANALYST: KM

## EPA Method 8270 Modified

MATRIX TYPE CTL SAMPLE NO. FIELD ID			S 2589 SB-14	, which the re-		
PARAMETER	UNITS	MDL		1		
Acenaphthene	ug/kg	100	BDL			
Acenaphthylene	ug/kg	100	BDL			
Anthracene	ug/kg	100	BDL			
Benzidine	ug/kg	100	BDL			
Benzo(a)anthracene	ug/kg	100	105.0			
Benzo(b)fluoranthene	ug/kg	100	BDL			
Benzo(k)fluoranthene	ug/kg	100	BDL			
Bis(2-chloroethyl) ether	ug/kg	100	BDL			
Benzo(g,h,i)perylene	ug/kg	500	BDL			
Bis(2-chloroisopropyl) ether	ug/kg	100	BDL	A=-VIIII		
Benzo(a)pyrene	ug/kg	100	BDL			
Bis-(2-ethylhexyl) phthalate	ug/kg	500	BDL			•
4-Bromophenylphenylether	ug/kg	100	BDL			
bis(2-Chloroethoxy) methane	ug/kg	100	BDL			
Butylbenzyl phthalate	ug/kg	100	BDL			
Carbazole	ug/kg	100	BDL			
2-Chloronaphthalene	ug/kg	100	BDL			
4-Chlorophenyl phenyl ether	ug/kg	100	BDL			
Chrysene	ug/kg	100	109.0			
Dibenzo(a,h) anthracene	ug/kg	500	BDL			
1,2-Dichlorobenzene	ug/kg	100	BDL			
1,3-Dichlorobenzene	ug/kg	100	BDL			,,,,,,
1,4-Dichlorobenzene	ug/kg	100	BDL			
3,3-Dichlorobenzidine	ug/kg	100	BDL			
Diethyl phthalate	ug/kg	100	BDL			
Dimethyl phthalate	ug/kg	100	BDL			
Di-n-Butyl phthalate	ug/kg	100	BDL			
2,4-Dinitrotoluene	ug/kg	100	BDL			
2,6-Dinitrotoluene	ug/kg	100	BDL		**	
Di-n-octyl phthalate	ug/kg	100	BDL			
1,2-Diphenylhydrazine	ug/kg	100	BDL			
Fluoranthene	ug/kg	100	221.0			
Fluorene	ug/kg	100	BDL			
Hexachlorobenzene	ug/kg	100	BDL			

LAB NUMBER: 0209261

JOB NUMBER : S828 (090500)

**REPORT DATE: 03/02/09** 

DATE SAMPLES RECEIVED: 02/20/09 DATE SAMPLES EXTRACTED: 02/25/09 DATE SAMPLES ANALYZED: 02/26/09

ANALYST: KM

## **EPA Method 8270 Modified**

MATRIX TYPE CTL SAMPLE NO. FIELD ID			S 2589 SB-14		
PARAMETER	UNITS	MDL			
Hexachlorobutadiene	ug/kg	100	BDL		
Hexachlorocyclopentadiene	ug/kg	100	BDL		
Hexachloroethane	ug/kg	100	BDL		
Indeno(1,2,3-cd) pyrene	ug/kg	500	BDL		
Isophorone	ug/kg	100	BDL		
2-Methylnaphthalene	ug/kg	100	BDL		,
Naphthalene	ug/kg	100	BDL		
Nitrobenzene	ug/kg	100	BDL		
N-Nitrosodimethylamine	ug/kg	100	BDL		
N-Nitroso-di-n-propylamine	ug/kg	100	BDL		
N-Nitrosodiphenylamine	ug/kg	100	BDL		
Phenanthrene	ug/kg	100	119.0		
Pyrene	ug/kg	100	201.0		
1,2,4-Trichlorobenzene	ug/kg	100	BDL		
2-Chlorophenol	ug/kg	500	BDL		
2,4-Dichlorophenol	ug/kg	500	BDL		
2,4-Dimethylphenol	ug/kg	500	BDL		
4,6-Dinitro-2-methylphenol	ug/kg	500	BDL		
2,4-Dinitrophenol	ug/kg	500	BDL		
2-Nitrophenol	นg/kg	500	BDL		
4-Nitrophenol	ug/kg	500	BDL		
4-Chloro-3-methylphenol	ug/kg	500	BDL		
Pentachlorophenol	ug/kg ·	500	BDL		
Phenol	ug/kg	500	BDL		
2,4,6-Trichlorophenol	ug/kg	500	BDL		
Phenol-d6 (SR)	%		101		
Nitrobenzene-d5 (SR)	%		105		
2-Fluorobiphenyl (SR)	%		101		
2,4,6-Tribromophenol (SR)	%		96		
p-Terphenyl-d14 (SR)	%		93		

MDL=METHOD DETECTION LEVEL BDL=BELOW DETECTION LEVEL SR=SURROGATE RECOVERY

## MATRIX TYPES

W=WATER/AQUEOUS S=SOIL/SOLID

connecticut testing laboratories no
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alyses	Container Type Code				; V=EPA Vial S=Sterile T=Tedlar Bag Wp= Wipe Ev=Empty Vial W≃ Water En=Encore Type	Repelved By Laboratory (Signature) The If Time	Temp C:	Turn Around Time	24 HR* [ 3 Day* [ 5 Day 💸	48 HR* [ 4 Day* [ 10 Day [	*Turnaround times less than " 5 Days" may be subject to priority fee charges.
Requested Analyses	(signature)  (print)  Preserv  Matrix  Code	ew X			Container Types: P = Plastic C = Cube AG = Amber Glass V = EPA Vial Matrix: A = Air W= Water DW = Drinking Water S = Soil Wp= Wipe 5035 Preservation: M = Methanol SB = Sodium Bisulfate Ev = Empty V DATA REPORT TYPE	State EDI	PDF <b>K</b> Email S	Received By: (Signature) Date / Time	Deceived By (Signature)	by: (alguantie)	
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Samples held for 45 days from receipt.

Connecticut Testing Laboratories, Inc. 165 Gracey Ave. / Meriden, CT 06451 Tel. (203) 634-3731 / Fax (203) 630-1336

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	F _			Container Types	: P = Plastic	C = Cube A(	(n	V = EPA V	ial S≖Sterile	t =Tedlar Bag	sag		٠		
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Samples held for 45 days from receipt.

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0209262		5836- 090500 /	Red Word Kign A Rest (print)	Preserv Code Container Type Code	S-19.09 Deep-1700 S		\$5-3 (\$\delta\$)	85-3 (2)	S5-4 (b)	55-5 (6)	SS-6 (b)	(φ) £SS	55-8 (6)	85-9(6)	REPORT INFORMATION Container Types: P = Plastic C = Cube AG = Amber Glass V = EPA Vial S = Sterile T = Tedlar Bag	GRRU TROPROLA Matrix: A = Air W= Water DW = Drinking Water S = Soil Wp= Wipe	Email Report To: Dotto group @ Of I Cansut AMIS. Com 5035 Preservation: M = Methanol SB = Sodium Bisulfate Ev = Empty Vial W = Water En = Encore Type	DATA REPORT TYPE	(Signature)	X other* \( \)\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	GA SWP PDF Email 6	2 bried 120 *Specify	Date / Time	24 HR* 3 Day* 5 Day 🔀	: (Signature) Date / Time Received By: (Signature) Date / Time 48 HR* 10 Day 10 Day
Lab Tracking #: $0.2C$	CTL Client: (FE)	A	Sampler(gr. C.	Lab Use Field ID (pleas	-58-	58-1(2)		(85-3 (3)	(0) 1-55	(1) 5-55	SS-6 (b)	(9) £-SS	(97 8 -58	(9) 6-38	REPORT IN	Send Report To: GARU TENDAROLA	Email Report To: Darka grav		Invoice To:	Fax Report To:	RSR Cafferia (Check One) GWP.	1/1/1	Retifiquished By: (Sigfature)		Relinquished By: (Signature)

Samples held for 45 days from receipt.

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REPORT INFORMATION	Container Types: P = Plastic C = Cube AG = Amber Glass V = EPA Vial	Vial S=Sterile T=Tedlar Bag
Send Report To: Cara Red Terranger A	Matrix: A = Air W= Water DW = Drinking Water S = Soil Wp= Wipe	ed
Email Report To: Data group @ gestlons was ANIS am	5035 Preservation: M ≈ Methanol SB = Sodium Bisulfate Ev = Empty Vial W≃ Water En = Encore Type	oty Vial W≃ Water En = Encore Type
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CTL will not be held liable for incorrectly filled out Chain of Custody Records.		*Turnaround times less than " 5 Days" may be subject to priority fee charges.

Samples held for 45 days from receipt.

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Lab Tracking #:	696500 Requested Analyses	laboratories no la
CTL Client: GE 1 Client PO# S'836  Client PO# S'836  Sampler(#) SECTION (Signal Acost Acost (Print)	(mre)	Mumber of Containers
Lab Use Field ID (please print) Date Time $SS-2D(b)$ $S_19.09$ $bsos/7ab$	Matrix Code	Container Type Code
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SS-24 (b)		
\$5-25 (b) \$5-26 (c)		
\$ -27 (6)		
Send Report To GOOD TO SON S	Container Types: P = Plastic C = Cube AG = Amber Glass V = EPA Vial Matrix: A = Air W = Water DW = Drinking Water S = Soil Wb = Wibe	A Vial S = Sterile T = Tedlar Bag
Email Report To: DATA Group Q Q Q CONSU CTANTS, COM		pty Vial W= Water En = Encore Type
Invoice To:	RCP State EDI	Received By Laboratory: (Signapure)
Fax Report To:  RSR Criteria (Check One)	Excel 🔀 Other*	Samples loed Date Encores Frozen:
(6	*Specify Received By: (Signature) Date / Time	Turn Around Time
	- 4	24 HR* 3 Day* 5 5 Day
Relinquished By: (Signature) Date / Time	Received By: (Signature) Late / Ime	48 HR*
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CTL will not be held liable for incorrectly filled out Chain of Custody Records. Samples held for 45 days from receipt.

Requested Analyses					×	X	: Amber Glass V = EPA Vial S = Sterile T =Tediar Bag tter S = Soil Wp= Wipe um Bisulfate E∨ = Empty Vial W≃ Water En = Encore Type	Received By Laboratery: Bighature) / 2 Police / Time	Camples foed Date Encores Frozen:	Date / Time Turn Around Time	24 HR* 3 Day* 5 Day	Date / Time
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Samples held for 45 days from receipt.

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CTL will not be held liable for incorrectly filled out Chain of Custody Records. Samples held for 45 days from receipt.

\*Turnaround times less than " 5 Days" may be subject to priority fee charges.

Page 2 of 2

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