

**PHASE II ENVIRONMENTAL SITE  
ASSESSMENT REPORT**

For the

**FORMER DRY CLEANER OPERATION  
PINE KNOB SQUARE  
7558 HIGHWAY 73  
DENVER, LINCOLN COUNTY  
NORTH CAROLINA**

Prepared for

**PILOT KNOB SQUARE 154, LLC  
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Prepared by

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PSI PROJECT NO. 0511202

October 13, 2010



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## 1.0 EXECUTIVE SUMMARY

The subject property is comprised of one land parcel identified by Lincoln County Property Identification Number 4602-62-5341, totaling approximately 2.15 acres. It is improved with a single-story structure that encompasses an approximately 20,031 square foot neighborhood shopping center with space for 10 tenants. The improvements are of masonry construction with masonry exterior walls on a reinforced concrete foundation; the building has a single-ply roof. The improvements are on 2.15 acres and parking is provided for 113 vehicles (5.64 spaces per 1,000 square feet). It is approximately 17 miles north of the Charlotte central business district and approximately one-half mile west of Lake Norman State Park. The property has frontage and visibility on the south side NC Highway 73, a major local arterial.

Currently, four of the tenant spaces are occupied. Current tenants located within the plazas include: U.S. 2.50 Cleaners (drop off only), AT&T Cellular retail store, Geppeto's Pizza, and H&R block Tax Services.

The subject property was constructed in its existing configuration in 2004. Prior to 2004, the subject property was vacant wooded land back to at least 1961 with a cleared area near the northeast property corner apparent in 1969.

The findings of PSI's Phase I ESA for the subject property (dated September 14, 2010) indicated the following on-site recognized environmental condition (REC):

- PSI observed a dry cleaning machine within the US 2.50 Cleaners tenant space. Based on information obtained from the on-site manager and the owner of the facility, dry cleaning operations were conducted at the subject property from late 2006 until September/October 2009. During this time, the facility operated one (1) L740-U-2000 closed loop dry cleaning machine that used perchloroethylene (PCE). PSI did not observe any containers of PCE based dry-cleaning products at the facility during the site reconnaissance. PSI also observed no staining on the floor that would indicate spillage or leakage of dry-cleaning solvent. However, the floor in the area of the dry cleaning machine was not epoxy coated.

PSI researched on-line resources of the North Carolina Department of Environment and Natural Resources (NCDENR), Division of Waste Management, Dry-cleaning Solvent Cleanup Program Act Program. Based on review of the database entries, a compliance site visit was conducted by NCDENR in November 2009, and the facility was listed as an active dry cleaner that used PCE based dry-cleaning products.

Additionally, PSI researched the on-line NCDENR dry cleaning remediation database. The site was not listed as a site with a release or as a site that may have a suspected release. PSI also contacted the compliance inspector for the NCDENR, Division of Waste Management, Dry-cleaning Solvent Cleanup Program Act Program. The inspector confirmed the information that was posted on the NCDENR web site. The inspector also informed PSI that the records for the facility are at the NCDENR main office in Raleigh, North Carolina, and we would have to contact Raleigh to arrange a file review.

Based on the presence of the on-site cleaners which conducted dry-cleaning operation for approximately three years, the lack of information regarding the practices that occurred during the time the facility was an active dry cleaners, the former dry cleaning operations are considered to be evidence of a recognized environmental condition in connection with the subject property.

PSI advanced two (2) soil borings at the subject site to investigate subsurface soil quality in the vicinity of the former dry cleaner. The soil borings were advanced using a decontaminated 4¼-inch diameter stainless steel hand auger. Borings were terminated at auger refusal at 9 feet below ground surface (bgs) in Boring B-1 and 27" bgs in Boring B-2. Based on observed field conditions and photoionization detector (PID) readings, three soil samples were selected for laboratory analysis. Groundwater was encountered at approximately 9-feet below the ground surface in Soil Boring SB-1, at an observed interface between the overlaying soil and partially weathered rock. PSI was not able to sample the groundwater due to insufficient yield (less than one-inch of water). As such, groundwater samples were not collected during the Phase II ESA field activities.

Analysis results for soil samples at the subject site report the following:

The laboratory analysis results provided by Environmental Science Corporation (ESC) reported that tetrachloroethene (PCE) was detected at levels exceeding the laboratory minimum detection limits in all three of the submitted soil samples. Acetone was also detected in Soil Sample SB-1-SS-2.

The results of the laboratory analyses indicate that levels of tetrachloroethene were:

- 0.0096 milligrams per kilogram (mg/kg) SB-1-SS-1
- 0.017 mg/kg SB-1-SS-2.
- 0.0017 mg/kg in Soil Sample SB-2-SS-1.

Additionally acetone was detected in the soil sample SB-1-SS-2 at a concentration of 0.083 mg/kg. PSI, in consultation with the laboratory considers the presence of acetone to be laboratory instrument contamination and does not consider the results associated with this compound to be of concern in this Phase II ESA at the levels detected.

The findings of the Phase II Environmental Site Assessment indicate soil samples tested at the subject property have been impacted with the chlorinated solvent tetrachloroethene at concentrations above laboratory detection limits and below the NCDENR Remediation Goals. PSI considers the soil impacts measured at the site to be at levels that discount the possibility of laboratory mis-measurements. Since the results are generally chemically consistent with the historical presence/use of PCE at the site, PSI concludes that the subsurface of the site has been impacted by former on-site dry cleaning operation and the extent is not clear. The extent is not apparent and would require additional effort to determine.

Based on the finds of the Phase II ESA, PSI recommends the following:

- Pilot Knob Square 154, LLC contact the owner of the dry cleaner and have the business owner petition the NCDENR for acceptance into the North Carolina Dry-Cleaning Solvent Cleanup Program. Although this is a voluntary program, the site would not achieve risk-based closure in the event that any future impact is discovered that would require remedial action.
- PSI does not provide legal advice. However, we understand that North Carolina asserts that exceedences of laboratory method detection limits – like some that have been measured at the subject site for this assessment – obligate the property owner in possession of the information to report the results to the State. However, it has been our experience that some attorneys may not agree with this. In any case, PSI is of the opinion that it has no obligation or duty to police/ensure the reporting of the results to the state. We recommend that Pilot Knob Square 154, LLC consult with its environmental attorney to develop its reporting response action.

## 2.0 INTRODUCTION

PSI has conducted a Phase II ESA at the property located at 7558 Highway 73 in Denver, Lincoln County, North Carolina. The Phase II ESA was conducted at the request of Pilot Knob Square 154, LLC and was completed in general accordance with the scope and limitations outlined in PSI's proposal (0511-30019) dated September 17, 2010. The scope of the proposal was authorized by Mr. Ron Mariano of Pilot Knob Square 154, LLC on September 20, 2010.

### 2.1 PURPOSE

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This Phase II ESA was conducted to develop information with respect to the on-site recognized environmental condition assessed, to evaluate whether chlorinated solvents and/or other volatile organic compounds have been released at the property in the area of the on-site dry-cleaning facility. PSI performed the Phase II ESA in general accordance with ASTM Standard E 1903-97, Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process.

### 2.2 SITE DESCRIPTION

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The subject property is comprised of one land parcel identified by Lincoln County Property Identification Number 4602-62-5341, totaling approximately 2.15 acres. It is improved with a single-story structure that encompasses an approximately 20,031 square foot neighborhood shopping center with space for 10 tenants. The improvements are of masonry construction with masonry exterior walls on a reinforced concrete foundation; the building has a single-ply roof. The improvements are on 2.15 acres and parking is provided for 113 vehicles (5.64 spaces per 1,000 square feet). It is approximately 17 miles north of the Charlotte central business district and approximately one-half mile west of Lake Norman State Park. The property has frontage and visibility on the south side NC Highway 73, a major local arterial. A map illustrating the site location has been appended to this report as Figure 1 and Figure 2 is a site vicinity map.

### 2.3 SITE BACKGROUND

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Based on the information obtained during the Phase I ESA conducted by PSI dated September 14, 2010, PSI determined that there is an on-site recognized environmental condition (REC) associated with the on-site dry-cleaning facility at the subject property.

- PSI observed a dry cleaning machine within the US 2.50 Cleaners tenant space. Based on information obtained from the on-site manager and the owner of the facility, dry cleaning operations were conducted at the subject property from late 2006 until September/October 2009. During this time, the facility operated one (1) L740-U-2000 closed loop dry cleaning machine that used perchloroethylene (PCE). PSI did not observe any containers of PCE based dry-cleaning products at the facility during the site reconnaissance. PSI also observed no staining on the floor that would indicate spillage or leakage of dry-cleaning solvent. However, the floor in the area of the dry cleaning machine was not epoxy coated.

PSI researched on-line resources of the North Carolina Department of Environment and Natural Resources (NCDENR), Division of Waste Management, Dry-cleaning Solvent Cleanup Program Act Program. Based on review of the database entries, a compliance site visit was conducted by NCDENR in November 2009, and the facility was listed as an active dry cleaner that used PCE based dry-cleaning products. Additionally, PSI researched the on-line NCDENR dry cleaning remediation database. The site was not listed as a site with a release or as a site that may have a suspected release. PSI also contacted the compliance inspector for the NCDENR, Division of Waste Management, Dry-cleaning Solvent Cleanup Program Act Program. The inspector confirmed the information that was posted on the NCDENR web site. The inspector also informed PSI that the records for the facility are at the NCDENR main office in Raleigh, North Carolina, and we would have to contact Raleigh to arrange a file review.

Based on the presence of the on-site cleaners which conducted dry-cleaning operation for approximately three years, the lack of information regarding the practices that occurred during the time the facility was an active dry cleaners, the former dry cleaning operations are considered to be evidence of a recognized environmental condition in connection with the subject property.

At the request of Pilot Knob Square 154, LLC, PSI conducted a Phase II ESA on the subject property on September 23, 2010.

## **2.4 SITE CHARACTERISTICS**

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PSI reviewed the 1970 United States Geological Survey (USGS) 7.5 Minute Topographic (Topo) "Lake Norman, NC" Quadrangle Map. Based on review of the Topo map, the subject property is situated between 800 feet and 810 feet above mean sea

level. Based on observations made during the site reconnaissance and review of the Topo map, the area appears to be relatively flat with a slight surface slope towards the northwest.

Based on a review of the 2010 Web Soil Survey of Lincoln County produced by the USDA NRCS, the map units in which the subject site is located are referred to as Cecil sandy clay loam (CeB2) and Pacolet sandy clay loam (PeC2).

- CeB2: Cecil sandy clay loam, 2 to 8 percent slopes, moderately eroded. This map unit is found on interfluves, is well drained with moderately high to high permeability.
- PeC2: Pacolet sandy clay loam, 8 to 15 percent slopes, moderately eroded. This map unit is found on ridge hillslopes, is well drained with moderately high to high permeability.

Based on soil samples collected during the Phase II ESA, the soils from ground surface to boring termination were generally consistent between the two borings sampled. From land surface to 9 feet bgs in Soil Boring SB-1 and from land surface to twenty-seven (27) inches bgs in Soil Boring SB-2, the observed lithology was tan to brown clayey silt. Soft weathered rock (tan to white silty sand) was observed at the boring termination of Soil Boring SB-1, measuring approximately 9 feet bgs.

No borings exceeded a depth of nine (9) feet bgs. Hand auger refusal was encountered at nine (9) feet bgs in Soil Boring SB-1 due to contact with partially weathered rock, and some (less than one inch of) groundwater was encountered. An unknown conduit was encountered at approximately 27 inches below grade in Soil Boring SB-2, and therefore the boring was terminated. Due to the proximity of various underground utilities, an alternate boring location was not chosen for Soil Boring SB-2.

It should be noted that the description of subsurface conditions provided herein was derived from on-site observations of soil samples collected at the soil boring locations (as discussed in Section 3.1 of this report). The soil stratigraphy at the subject site was generally consistent between the borings. Detailed lithologic logs of the soil borings completed at the site are provided in Appendix A of this report.

## 3.0 ASSESSMENT ACTIVITIES

### 3.1 SOIL SAMPLING ACTIVITIES

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As part of this Phase II ESA, a total of two (2) soil borings were advanced at the subject site to investigate subsurface soil quality in the vicinity of the former dry cleaner. Field investigation and sampling activities were conducted on September 23, 2010 by Mr. Bryan M. Lucas, Senior Project Manager for PSI. Prior to the commencement of field activities, PSI contacted North Carolina One-Call Center, Inc., a utility locating service, to field verify the location of subsurface utilities on and adjacent to the subject site. Based on PSI's field observations, no on-site service utilities were located in the proposed soil boring locations.

The soil borings were advanced using a decontaminated, 4¼-inch diameter, stainless steel hand auger. The areas of concern were determined to be the location of the dry-cleaning machine and an area southwest of the back door. Soil Boring SB-1 was advanced through the concrete slab inside the building, near the dry cleaning machine. Soil Boring SB-2 was advanced outside, through the asphalt parking lot, near the back door. A map illustrating the soil boring locations is provided as Figure 3.

Samples were collected at discrete intervals at approximately one foot below grade and at a depth determined by the site conditions and the field scientist. Each soil sample collected was field-screened with a photo-ionization detector (PID) for the presence of organic vapors. Samples were field-screened by placing representative portions of each soil sample in containers and then the sample allowed to equilibrate with the ambient air temperature. Following calibration, the PID probe was then inserted into each container to obtain readings. The PID readings detected from soil headspace samples collected from Soil Boring SB-1 ranged from 0.5 parts per million (ppm) to 1.5 ppm. The recorded PID reading from the soil sample collected from Soil Boring SB-2 was 0.5 ppm. The PID is not capable of determining the individual contaminants or their concentrations present in the soil samples, it is used as a screening tool that helps determine the soil samples to be submitted for laboratory analyses.

Hand auger refusal was encountered at approximately 9-feet below ground surface (bgs) in Soil Boring SB-1 (partially weathered rock), and at approximately 27-inches bgs in Soil Boring SB-2 (unknown piping). Based on the observed field conditions and the PID readings, three soil samples were selected for laboratory analysis: Soil Sample SB-1-SS-1 was collected at approximately 9-inches to 15-inches below ground surface (bgs), Soil Sample SB-1-SS-2 was collected at approximately 32-inches to 38-inches

bgs, and Soil Sample SB-2-SS-1 was collected at approximately 12-inches to 16-inches bgs.

Following field examination, each of the soil samples were submitted for laboratory analysis for volatile organic compounds (VOCs) using EPA Method 5035/8260B. Each sample submitted for laboratory analysis was placed in laboratory provided containers, labeled, and placed in a cooler with ice and shipped to Environmental Science Corporation (ESC) in Mt. Juliet, Tennessee utilizing proper chain-of-custody procedures. The results of laboratory analysis are discussed in Section 4.0 of this report.

### **3.2 GROUNDWATER SAMPLING ACTIVITIES**

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Groundwater was encountered at approximately 9-feet below the ground surface in Soil Boring SB-1, at an observed interface between the overlying soil and partially weathered rock. PSI was not able to sample the groundwater due to insufficient yield (less than one-inch of water). As such, groundwater samples were not collected during the Phase II ESA field activities.

## 4.0 ANALYTICAL RESULTS

### 4.1 SOIL ANALYTICAL RESULTS

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Analysis results for soil samples at the subject site report the following:

The laboratory analysis results provided by ESC reported that tetrachloroethene (PCE) was detected at levels exceeding the laboratory minimum detection limits in all three of the submitted soil samples.

The results of the laboratory analyses indicate that levels of tetrachloroethene were:

- 0.0096 milligrams per kilogram (mg/kg) SB-1-SS-1
- 0.017 mg/kg SB-1-SS-2.
- 0.0017 mg/kg in Soil Sample SB-2-SS-1.

Additionally acetone was detected in the soil sample SB-1-SS-2 at a concentration of 0.083 mg/kg. PSI, in consultation with the laboratory considers the presence of acetone to be laboratory instrument contamination and does not consider the results associated with this compound to be of concern in this Phase II ESA at the levels detected..

### 4.2 GROUNDWATER ANALYTICAL RESULTS

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Groundwater samples were not collected or analyzed as previously noted in Section 3.2.

## 5.0 DATA ANALYSIS & INTERPRETATION

The results of laboratory analysis indicate that soil was impacted with PCE in soil boring SB-1 at depths of 9-inches to 15-inches bgs and 32-inches to 38-inches bgs. Soil Boring SB-1 was advanced inside approximately 2-feet to the south of the dry-cleaning machine at the facility. The laboratory results also indicate that soil was impacted with PCE in soil boring SB-2 at depths of 12-inches to 16-inches bgs. Soil Boring SB-2 was advanced outside approximately 4-feet southwest of the back door of the facility. The laboratory results reported no other analytes were detected above laboratory method detection limits except for acetone in soil sample SB-1-SS-2. Acetone is a laboratory chemical used in sample preparation and since the report level is low (0.083 mg/kg) it is possible that there was laboratory instrument contamination during the sample analysis process. Copies of the laboratory analytical results and chain-of-custody forms are provided in Appendix B.

PSI compared the results of laboratory analysis to the Health-Based Soil Remediation Goals (SRGs) established by the North Carolina Department of Environment and Natural Resources (NCDENR), Inactive Hazardous Sites Branch. Based on the laboratory results, none of the three submitted soil samples exhibited levels of PCE over the SRG level of 0.55 mg/kg.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

### 6.1 CONCLUSIONS

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The findings of the Phase II Environmental Site Assessment indicate soil samples tested at the subject property have been impacted with the chlorinated solvent tetrachloroethene at concentrations above laboratory detection limits and below the NCDENR Remediation Goals. PSI considers the soil impacts measured at the site to be at levels that discount the possibility of laboratory mis-measurements. Since the results are generally chemically consistent with the historical presence/use of PCE at the site, PSI concludes that the subsurface of the site has been impacted by former on-site dry cleaning operation and the extent is not clear. The extent is not apparent and would require additional effort to determine.

### 6.2 RECOMMENDATIONS

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Based on the finds of the Phase II ESA, PSI recommends the following:

- Pilot Knob Square 154, LLC contact the owner of the dry cleaner and have the owner of the business petition the NCDENR for acceptance into the North Carolina Dry-Cleaning Solvent Cleanup Program. Although this is a voluntary program, the site would not achieve risk-based closure in the event that any future impact is discovered that would require remedial action.
- PSI does not provide legal advice. However, we understand that North Carolina asserts that exceedences of laboratory method detection limits – like some that have been measured at the subject site for this assessment – obligate the property owner in possession of the information to report the results to the State. However, it has been our experience that some attorneys may not agree with this. In any case, PSI is of the opinion that it has no obligation or duty to police/ensure the reporting of the results to the state. We recommend that Pilot Knob Square 154, LLC consult with its environmental attorney to develop its reporting response action.

## 7.0 WARRANTY

### 7.1 WARRANTY

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PSI warrants that the findings and conclusions reported herein were conducted in general accordance with PSI's proposal number 0511-30019.

This Phase II ESA was performed to provide the client with information regarding apparent indications of recognized environmental conditions relating to the subject property. The findings of this report are limited to the conditions observed and to the information available at the time of the investigation. The assessment and conclusions presented herein were based upon the subjective evaluation of limited data. They may not represent all conditions at the subject site as they reflect the information gathered from specific locations. PSI warrants that the findings and conclusions contained herein have been promulgated in accordance with generally accepted environmental investigation methodology and only for the site described in this report.

Due to the limited nature of the work, there is a possibility that conditions may exist which could not be identified within the scope of this assessment or which were not apparent at the time of report preparation. It is also possible that the testing methods employed at the time of the report may later be superseded by other methods. The description, type, and composition of what are commonly referred to as "hazardous materials or conditions" can also change over time. PSI does not accept responsibility for changes in the state of the art, nor for changes in the scope of various lists of hazardous materials or conditions. PSI believes that the findings and conclusions provided in this report are reasonable.

As directed by the client, PSI did not provide any service to investigate or detect the presence of moisture, mold or other biological contaminants in or around any structure, or any service that was designed or intended to prevent or lower the risk of the occurrence of the amplification of the same. Client acknowledges that mold is ubiquitous to the environment with mold amplification occurring when building materials are impacted by moisture. Client further acknowledges that site conditions are outside of PSI's control, and that mold amplification will likely occur, or continue to occur, in the presence of moisture. As such, PSI cannot and shall not be held responsible for the occurrence or recurrence of mold amplification.

However, no other warranties are implied or expressed.

## **7.2 USE BY THIRD PARTIES**

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This Phase II ESA report was prepared pursuant to PSI's contract with Pilot Knob Square 154, LLC. This contractual relationship included an exchange of information about the subject site that was unique and between PSI and its client and serves as the basis upon which this report was prepared. Because of the importance of the communication between PSI and its client, reliance or any use of this report by anyone other than Pilot Knob Square 154, LLC, for whom it was prepared, is prohibited and therefore not foreseeable to PSI.

Reliance or use by any such third party without explicit authorization in the report does not make said third party a third party beneficiary to PSI's contract with Pilot Knob Square 154, LLC. Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at third party's risk. For the same reasons, no warranties or representations, expressed or implied in this report, are made to any such third party.

Third party reliance letters may be issued on request and payment of the, then current fee for such letters. All third parties relying on PSI's reports, by such reliance, agree to be bound by the proposal and PSI's General Conditions. No reliance by any party is permitted without such agreement, regardless of the content of the reliance letter itself.

## **TABLES**

**TABLE 1**  
**SUMMARY OF FIELD SOIL SCREENING READINGS**

**Pilot Knob Square**  
**7558 Highway 73**  
**Denver, Lincoln County, North Carolina**  
**PSI PROJECT NO. 0511202**

Soil Boring SB-1			Soil Boring SB-2		
		PID			PID
SAMPLE	DEPTH	READING	SAMPLE	DEPTH	READING
ID	(FT)	(PPM)	ID	(FT)	(PPM)
SB-1-SS-1	9" - 15"	0.5	SB-2-SS-1	12" - 18"	0.3
SB-1-SS-2	32" - 38"	1.5			

**Notes:**

FT = Feet

PPM = Parts Per Million

PID = Photo-Ionization Detector

**Table 2: Summary of Soil Sampling Results**

Pilot Knob Square  
 7558 Highway 73  
 Denver, Lincoln County, North Carolina  
 PSI Project No.: 0511202

Analytical Method (e.g., VOC by EPA 8260)					
Containment of Concern					
Sample ID	Date Collected (m/dd/yy)	Location	Sample Depth (inches BGS)	Incident Phase (Closure, 20 Day, LSA, etc.)	8260B
SB-1-SS-1	9/23/2008	Inside Near Machine	9 to 15	Phase II ESA	0.0096
SB-1-SS-2	9/23/2008	Inside Near Machine	32 to 38	Phase II ESA	0.017
SB-2-SS-1	9/23/2008	Outside Near Back Door	12 to 16	Phase II ESA	0.0017
<b>North Carolina Dry Cleaning Solvent Clean-up Program</b>					
					*
<b>North Carolina Inactive Hazardous Waste Section's Soil Remediation Goals</b>					0.55

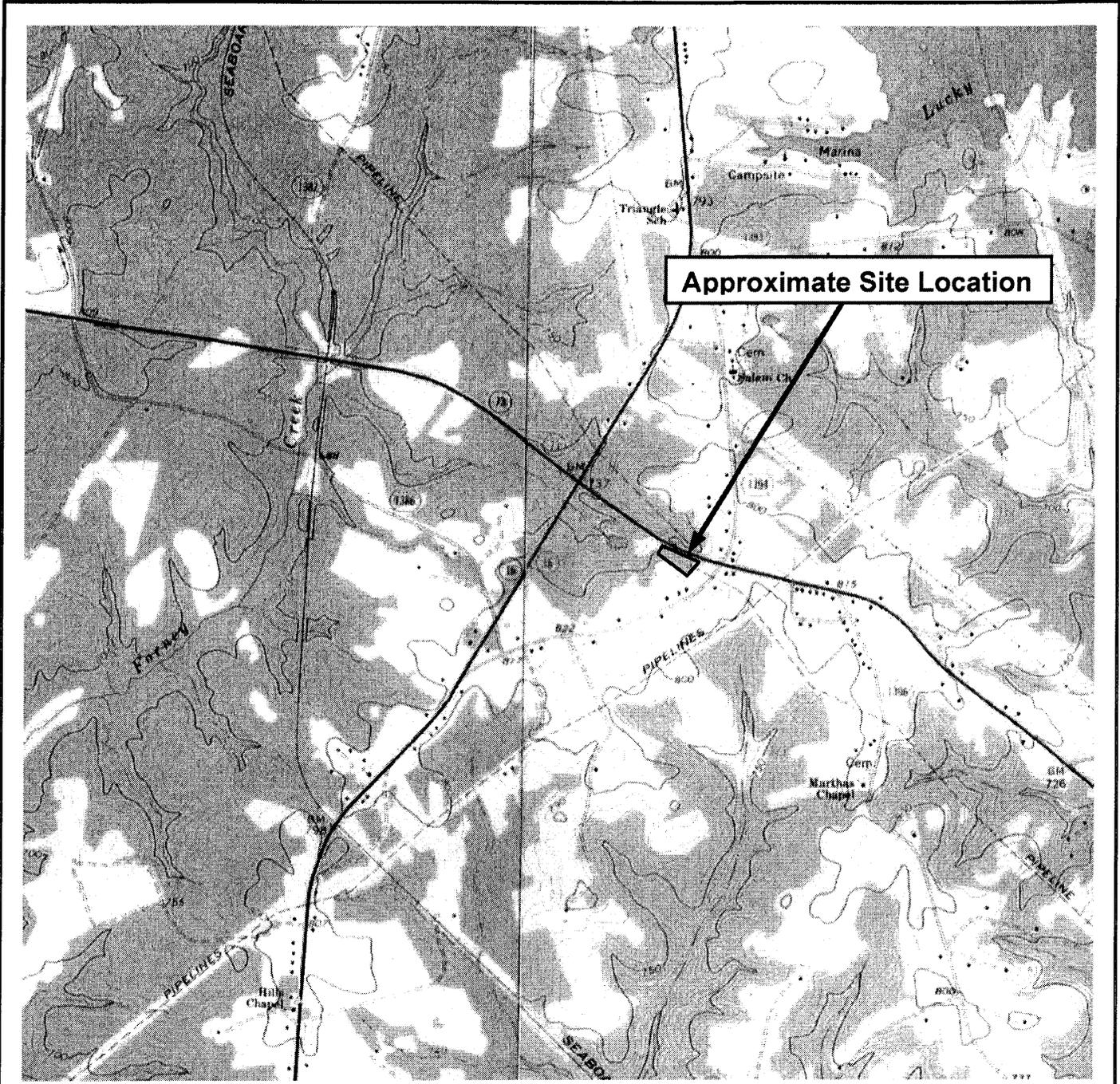
Inches BGS = feet below ground surface

Results reported in mg/kg

mg/kg = milligrams per kilogram

\* = Risk-based levels in reference to the dry cleaning program are determined based on site characteristics and analytical data.

## **FIGURES**



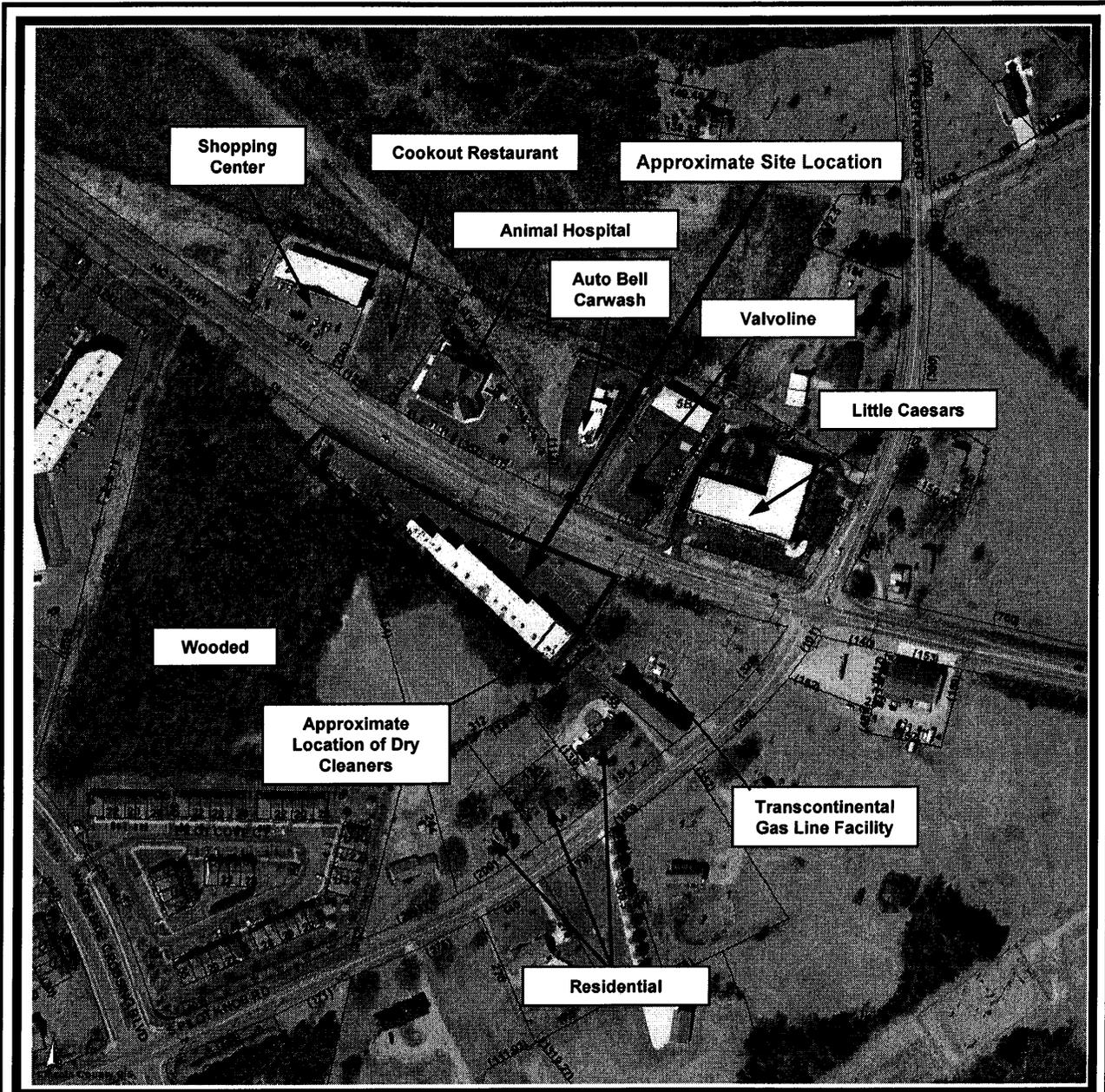
**Project Name:**  
 Pilot Knob Square  
 7558 Highway 73  
 Denver, Lincoln County, North Carolina

**United States Department of the Interior  
 Geological Survey**

**FIGURE 1**  
**"Lake Norman, NC" Quadrangle**  
**North Carolina – Lincoln County**  
**7.5 Minute Series (Topographic)**  
**Dated 1970**

**Project No.:**  
 0511202

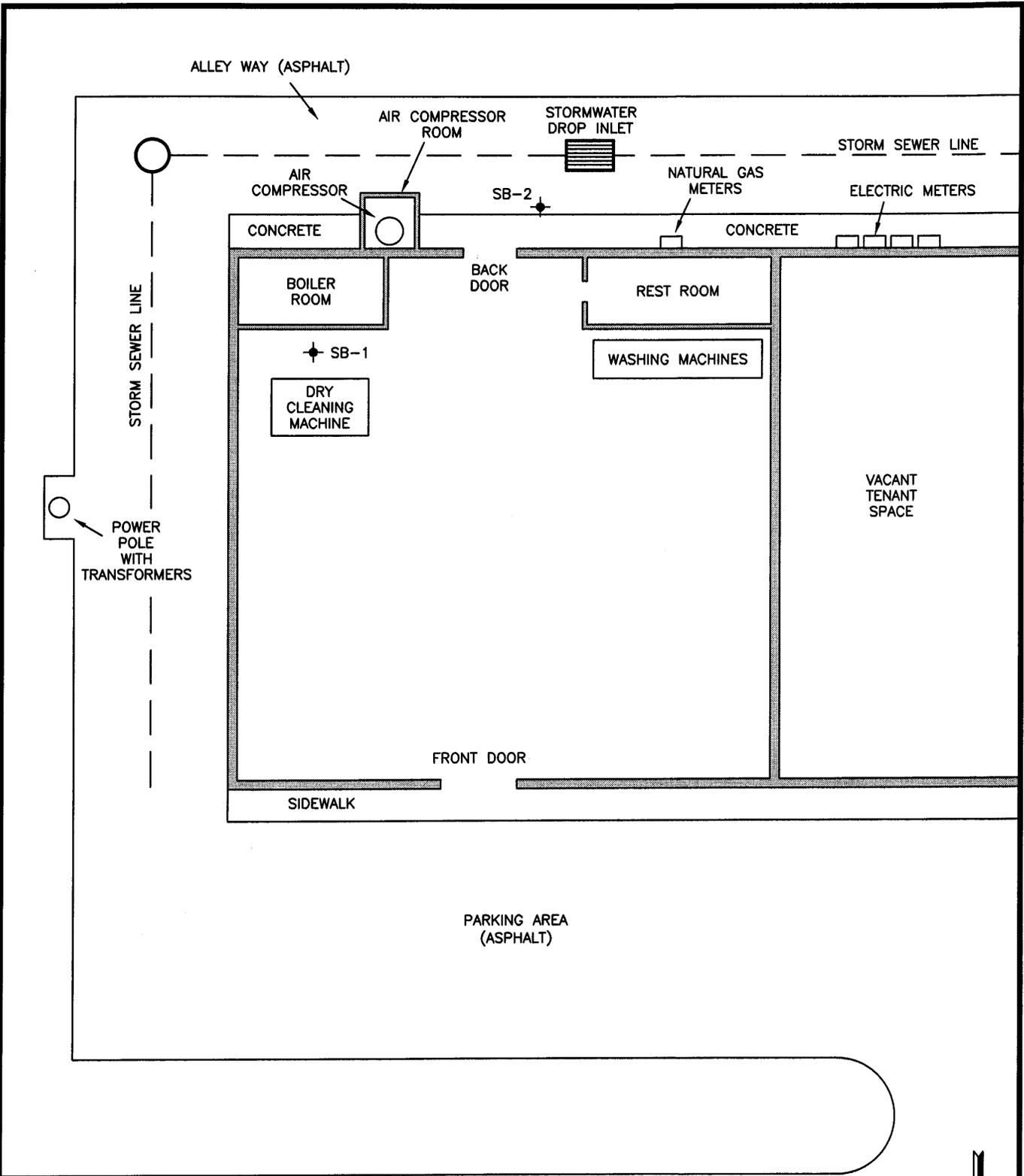
**Date:**  
 October 2010



**Site Vicinity Map**

Source: Lincoln County GIS Mapping System

 <b>Information To Build On</b> <i>Engineering • Consulting • Testing</i>		
Pilot Knob Square 7558 Highway 73 Denver, Lincoln County, North Carolina		
Approximate Scale: Not to Scale	PSI Project No. 0511202	Figure 2



LEGEND:

B-1  SOIL BORING LOCATION

HIGHWAY 73



ALL LOCATIONS ARE APPROXIMATE

 <b>Information To Build On</b> Engineering • Consulting • Testing	<b>Geotechnical Services</b> 5021 West W.T. Harris Blvd. Charlotte, North Carolina 28269 (704) 598-2234 (704) 598-2236 fax	<b>Phase II ESA</b> Pilot Knob Square 7558 Highway 73 Denver, North Carolina	Checked: B. Lucas	Scale: None	Date: 10/7/10	Figure: 3
			Drawn: C. Moran 0511-202.dwg	Project Number: <b>0511202</b>		

**APPENDIX A**  
**SOIL BORING LOGS**

# SOIL BORING LOG, GP-1

**Project Name:** Pilot Knob Square

**Location:** 7558 Highway 73

**Page 1 of 1**

**PSI Project Number:** 0511202

**Logged By:** BML

**Boring Location:** SB-1

**Total Depth:** 9'

**Drilling Equipment/Method:** Stainless Steel Hand Auger

**Date of Drilling:** September 23, 2010

DEPTH	LITHOLOGY	Sample ID	PID	NOTES
	GROUNDSURFACE			
0.5	Concrete Slab			
1.0	Sub-Base (gravel)			
1.5	Tan to brown clayey SILT	SB-1, SS-1	0.5 ppm	
2.0				
2.5				
3.0		SB-1, SS-2	1.5 ppm	
3.5				
4.0				
4.5				
5.0				
5.5				
6.0				
6.5				
7.0				
7.5				
8.0				
8.5				
9.0			Hand Auger Refusal	
<b>BORING TERMINATION</b> Soft Weathered Rock (Tan to white silty SAND)				

**Notes:**

ppm = Parts Per Million

## SOIL BORING LOG, GP-2

**Project Name:** Pilot Knob Square

**Location:** 7558 Highway 73

**Page 1 of 1**

**PSI Project Number:** 0511202

**Logged By:** BML

**Boring Location:** SB-2

**Total Depth:** 27"

**Drilling Equipment/Method:** Stainless Steel Hand Auger

**Date of Drilling:** September 23, 2010

DEPTH	LITHOLOGY	Sample ID	PID	NOTES
	GROUNDSURFACE			
0.5	Asphalt and Sub-Base (Gravel)			
1.0				
1.5		SB-2-SS-1	0.3 ppm	
2.0	Tan to brown clayey SILT			Hand Auger Refusal
2.5				
BORING TERMINATION				

ppm = Parts Per Million

**APPENDIX B**

**LABORATORY REPORT  
CHAIN-OF-CUSTODY RECORD**



12065 Lebanon Rd.  
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(615) 758-5858  
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Est. 1970

Mr. Bryan Lucas  
PSI - Charlotte, NC  
5021 West W T Harris Blvd  
Charlotte, NC 28269

### Report Summary

Thursday September 30, 2010

Report Number: L480827

Samples Received: 09/25/10

Client Project: 0511020

Description: US 250 Cleaners

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

Entire Report Reviewed By:

T. Alan Harvill , ESC Representative

#### Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487  
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140  
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A,  
TX - T104704245, OK-9915

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

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

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Est. 1970

REPORT OF ANALYSIS

September 30, 2010

Mr. Bryan Lucas  
 PSI - Charlotte, NC  
 5021 West W T Harris Blvd  
 Charlotte, NC 28269

ESC Sample # : L480827-01

Date Received : September 25, 2010  
 Description : US 250 Cleaners

Site ID : DENVER, NC

Sample ID : SB-1-SS-1 9-15 IN

Project # : 0511020

Collected By : Bryan M. Lucas  
 Collection Date : 09/23/10 13:45

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	70.3		%	2540G	09/30/10	1
Volatile Organics						
Acetone	BDL	0.071	mg/kg	8260B	09/28/10	1
Acrylonitrile	BDL	0.014	mg/kg	8260B	09/28/10	1
Benzene	BDL	0.0014	mg/kg	8260B	09/28/10	1
Bromobenzene	BDL	0.0014	mg/kg	8260B	09/28/10	1
Bromodichloromethane	BDL	0.0014	mg/kg	8260B	09/28/10	1
Bromoform	BDL	0.0014	mg/kg	8260B	09/28/10	1
Bromomethane	BDL	0.0071	mg/kg	8260B	09/28/10	1
n-Butylbenzene	BDL	0.0014	mg/kg	8260B	09/28/10	1
sec-Butylbenzene	BDL	0.0014	mg/kg	8260B	09/28/10	1
tert-Butylbenzene	BDL	0.0014	mg/kg	8260B	09/28/10	1
Carbon tetrachloride	BDL	0.0014	mg/kg	8260B	09/28/10	1
Chlorobenzene	BDL	0.0014	mg/kg	8260B	09/28/10	1
Chlorodibromomethane	BDL	0.0014	mg/kg	8260B	09/28/10	1
Chloroethane	BDL	0.0071	mg/kg	8260B	09/28/10	1
2-Chloroethyl vinyl ether	BDL	0.071	mg/kg	8260B	09/28/10	1
Chloroform	BDL	0.0071	mg/kg	8260B	09/28/10	1
Chloromethane	BDL	0.0036	mg/kg	8260B	09/28/10	1
2-Chlorotoluene	BDL	0.0014	mg/kg	8260B	09/28/10	1
4-Chlorotoluene	BDL	0.0014	mg/kg	8260B	09/28/10	1
1,2-Dibromo-3-Chloropropane	BDL	0.0071	mg/kg	8260B	09/28/10	1
1,2-Dibromoethane	BDL	0.0014	mg/kg	8260B	09/28/10	1
Dibromomethane	BDL	0.0014	mg/kg	8260B	09/28/10	1
1,2-Dichlorobenzene	BDL	0.0014	mg/kg	8260B	09/28/10	1
1,3-Dichlorobenzene	BDL	0.0014	mg/kg	8260B	09/28/10	1
1,4-Dichlorobenzene	BDL	0.0014	mg/kg	8260B	09/28/10	1
Dichlorodifluoromethane	BDL	0.0071	mg/kg	8260B	09/28/10	1
1,1-Dichloroethane	BDL	0.0014	mg/kg	8260B	09/28/10	1
1,2-Dichloroethane	BDL	0.0014	mg/kg	8260B	09/28/10	1
1,1-Dichloroethene	BDL	0.0014	mg/kg	8260B	09/28/10	1
cis-1,2-Dichloroethene	BDL	0.0014	mg/kg	8260B	09/28/10	1
trans-1,2-Dichloroethene	BDL	0.0014	mg/kg	8260B	09/28/10	1
1,2-Dichloropropane	BDL	0.0014	mg/kg	8260B	09/28/10	1
1,1-Dichloropropene	BDL	0.0014	mg/kg	8260B	09/28/10	1
1,3-Dichloropropane	BDL	0.0014	mg/kg	8260B	09/28/10	1
cis-1,3-Dichloropropene	BDL	0.0014	mg/kg	8260B	09/28/10	1
trans-1,3-Dichloropropene	BDL	0.0014	mg/kg	8260B	09/28/10	1
2,2-Dichloropropane	BDL	0.0014	mg/kg	8260B	09/28/10	1
Di-isopropyl ether	BDL	0.0014	mg/kg	8260B	09/28/10	1
Ethylbenzene	BDL	0.0014	mg/kg	8260B	09/28/10	1
Hexachloro-1,3-butadiene	BDL	0.0014	mg/kg	8260B	09/28/10	1
Isopropylbenzene	BDL	0.0014	mg/kg	8260B	09/28/10	1

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

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 The reported analytical results relate only to the sample submitted



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

September 30, 2010

Mr. Bryan Lucas  
 PSI - Charlotte, NC  
 5021 West W T Harris Blvd  
 Charlotte, NC 28269

ESC Sample # : L480827-01

Date Received : September 25, 2010  
 Description : US 250 Cleaners  
 Sample ID : SB-1-SS-1 9-15 IN

Site ID : DENVER, NC

Collected By : Bryan M. Lucas  
 Collection Date : 09/23/10 13:45

Project # : 0511020

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
p-Isopropyltoluene	BDL	0.0014	mg/kg	8260B	09/28/10	1
2-Butanone (MEK)	BDL	0.014	mg/kg	8260B	09/28/10	1
Methylene Chloride	BDL	0.0071	mg/kg	8260B	09/28/10	1
4-Methyl-2-pentanone (MIBK)	BDL	0.014	mg/kg	8260B	09/28/10	1
Methyl tert-butyl ether	BDL	0.0014	mg/kg	8260B	09/28/10	1
Naphthalene	BDL	0.0071	mg/kg	8260B	09/28/10	1
n-Propylbenzene	BDL	0.0014	mg/kg	8260B	09/28/10	1
Styrene	BDL	0.0014	mg/kg	8260B	09/28/10	1
1,1,1,2-Tetrachloroethane	BDL	0.0014	mg/kg	8260B	09/28/10	1
1,1,2,2-Tetrachloroethane	BDL	0.0014	mg/kg	8260B	09/28/10	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0014	mg/kg	8260B	09/28/10	1
Tetrachloroethene	0.0096	0.0014	mg/kg	8260B	09/28/10	1
Toluene	BDL	0.0071	mg/kg	8260B	09/28/10	1
1,2,3-Trichlorobenzene	BDL	0.0014	mg/kg	8260B	09/28/10	1
1,2,4-Trichlorobenzene	BDL	0.0014	mg/kg	8260B	09/28/10	1
1,1,1-Trichloroethane	BDL	0.0014	mg/kg	8260B	09/28/10	1
1,1,2-Trichloroethane	BDL	0.0014	mg/kg	8260B	09/28/10	1
Trichloroethene	BDL	0.0014	mg/kg	8260B	09/28/10	1
Trichlorofluoromethane	BDL	0.0071	mg/kg	8260B	09/28/10	1
1,2,3-Trichloropropane	BDL	0.0014	mg/kg	8260B	09/28/10	1
1,2,4-Trimethylbenzene	BDL	0.0014	mg/kg	8260B	09/28/10	1
1,2,3-Trimethylbenzene	BDL	0.0014	mg/kg	8260B	09/28/10	1
1,3,5-Trimethylbenzene	BDL	0.0014	mg/kg	8260B	09/28/10	1
Vinyl chloride	BDL	0.0014	mg/kg	8260B	09/28/10	1
Xylenes, Total	BDL	0.0043	mg/kg	8260B	09/28/10	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	09/28/10	1
Dibromofluoromethane	112.		% Rec.	8260B	09/28/10	1
4-Bromofluorobenzene	93.1		% Rec.	8260B	09/28/10	1

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

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REPORT OF ANALYSIS

September 30, 2010

Mr. Bryan Lucas  
 PSI - Charlotte, NC  
 5021 West W T Harris Blvd  
 Charlotte, NC 28269

ESC Sample # : L480827-02

Date Received : September 25, 2010  
 Description : US 250 Cleaners

Site ID : DENVER, NC

Sample ID : SB-1-SS-2 32-38 IN

Project # : 0511020

Collected By : Bryan M. Lucas  
 Collection Date : 09/23/10 14:05

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	66.8		%	2540G	09/30/10	1
Volatile Organics						
Acetone	0.083	0.075	mg/kg	8260B	09/28/10	1
Acrylonitrile	BDL	0.015	mg/kg	8260B	09/28/10	1
Benzene	BDL	0.0015	mg/kg	8260B	09/28/10	1
Bromobenzene	BDL	0.0015	mg/kg	8260B	09/28/10	1
Bromodichloromethane	BDL	0.0015	mg/kg	8260B	09/28/10	1
Bromoform	BDL	0.0015	mg/kg	8260B	09/28/10	1
Bromomethane	BDL	0.0075	mg/kg	8260B	09/28/10	1
n-Butylbenzene	BDL	0.0015	mg/kg	8260B	09/28/10	1
sec-Butylbenzene	BDL	0.0015	mg/kg	8260B	09/28/10	1
tert-Butylbenzene	BDL	0.0015	mg/kg	8260B	09/28/10	1
Carbon tetrachloride	BDL	0.0015	mg/kg	8260B	09/28/10	1
Chlorobenzene	BDL	0.0015	mg/kg	8260B	09/28/10	1
Chlorodibromomethane	BDL	0.0015	mg/kg	8260B	09/28/10	1
Chloroethane	BDL	0.0075	mg/kg	8260B	09/28/10	1
2-Chloroethyl vinyl ether	BDL	0.075	mg/kg	8260B	09/28/10	1
Chloroform	BDL	0.0075	mg/kg	8260B	09/28/10	1
Chloromethane	BDL	0.0037	mg/kg	8260B	09/28/10	1
2-Chlorotoluene	BDL	0.0015	mg/kg	8260B	09/28/10	1
4-Chlorotoluene	BDL	0.0015	mg/kg	8260B	09/28/10	1
1,2-Dibromo-3-Chloropropane	BDL	0.0075	mg/kg	8260B	09/28/10	1
1,2-Dibromoethane	BDL	0.0015	mg/kg	8260B	09/28/10	1
Dibromomethane	BDL	0.0015	mg/kg	8260B	09/28/10	1
1,2-Dichlorobenzene	BDL	0.0015	mg/kg	8260B	09/28/10	1
1,3-Dichlorobenzene	BDL	0.0015	mg/kg	8260B	09/28/10	1
1,4-Dichlorobenzene	BDL	0.0015	mg/kg	8260B	09/28/10	1
Dichlorodifluoromethane	BDL	0.0075	mg/kg	8260B	09/28/10	1
1,1-Dichloroethane	BDL	0.0015	mg/kg	8260B	09/28/10	1
1,2-Dichloroethane	BDL	0.0015	mg/kg	8260B	09/28/10	1
1,1-Dichloroethene	BDL	0.0015	mg/kg	8260B	09/28/10	1
cis-1,2-Dichloroethene	BDL	0.0015	mg/kg	8260B	09/28/10	1
trans-1,2-Dichloroethene	BDL	0.0015	mg/kg	8260B	09/28/10	1
1,2-Dichloropropane	BDL	0.0015	mg/kg	8260B	09/28/10	1
1,1-Dichloropropene	BDL	0.0015	mg/kg	8260B	09/28/10	1
1,3-Dichloropropane	BDL	0.0015	mg/kg	8260B	09/28/10	1
cis-1,3-Dichloropropene	BDL	0.0015	mg/kg	8260B	09/28/10	1
trans-1,3-Dichloropropene	BDL	0.0015	mg/kg	8260B	09/28/10	1
2,2-Dichloropropane	BDL	0.0015	mg/kg	8260B	09/28/10	1
Di-isopropyl ether	BDL	0.0015	mg/kg	8260B	09/28/10	1
Ethylbenzene	BDL	0.0015	mg/kg	8260B	09/28/10	1
Hexachloro-1,3-butadiene	BDL	0.0015	mg/kg	8260B	09/28/10	1
Isopropylbenzene	BDL	0.0015	mg/kg	8260B	09/28/10	1

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

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REPORT OF ANALYSIS

September 30, 2010

Mr. Bryan Lucas  
 PSI - Charlotte, NC  
 5021 West W T Harris Blvd  
 Charlotte, NC 28269

ESC Sample # : L480827-02

Date Received : September 25, 2010  
 Description : US 250 Cleaners  
 Sample ID : SB-1-SS-2 32-38 IN

Site ID : DENVER, NC

Collected By : Bryan M. Lucas  
 Collection Date : 09/23/10 14:05

Project # : 0511020

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
p-Isopropyltoluene	BDL	0.0015	mg/kg	8260B	09/28/10	1
2-Butanone (MEK)	BDL	0.015	mg/kg	8260B	09/28/10	1
Methylene Chloride	BDL	0.0075	mg/kg	8260B	09/28/10	1
4-Methyl-2-pentanone (MIBK)	BDL	0.015	mg/kg	8260B	09/28/10	1
Methyl tert-butyl ether	BDL	0.0015	mg/kg	8260B	09/28/10	1
Naphthalene	BDL	0.0075	mg/kg	8260B	09/28/10	1
n-Propylbenzene	BDL	0.0015	mg/kg	8260B	09/28/10	1
Styrene	BDL	0.0015	mg/kg	8260B	09/28/10	1
1,1,1,2-Tetrachloroethane	BDL	0.0015	mg/kg	8260B	09/28/10	1
1,1,2,2-Tetrachloroethane	BDL	0.0015	mg/kg	8260B	09/28/10	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0015	mg/kg	8260B	09/28/10	1
Tetrachloroethene	0.017	0.0015	mg/kg	8260B	09/28/10	1
Toluene	BDL	0.0075	mg/kg	8260B	09/28/10	1
1,2,3-Trichlorobenzene	BDL	0.0015	mg/kg	8260B	09/28/10	1
1,2,4-Trichlorobenzene	BDL	0.0015	mg/kg	8260B	09/28/10	1
1,1,1-Trichloroethane	BDL	0.0015	mg/kg	8260B	09/28/10	1
1,1,2-Trichloroethane	BDL	0.0015	mg/kg	8260B	09/28/10	1
Trichloroethene	BDL	0.0015	mg/kg	8260B	09/28/10	1
Trichlorofluoromethane	BDL	0.0075	mg/kg	8260B	09/28/10	1
1,2,3-Trichloropropane	BDL	0.0015	mg/kg	8260B	09/28/10	1
1,2,4-Trimethylbenzene	BDL	0.0015	mg/kg	8260B	09/28/10	1
1,2,3-Trimethylbenzene	BDL	0.0015	mg/kg	8260B	09/28/10	1
1,3,5-Trimethylbenzene	BDL	0.0015	mg/kg	8260B	09/28/10	1
Vinyl chloride	BDL	0.0015	mg/kg	8260B	09/28/10	1
Xylenes, Total	BDL	0.0045	mg/kg	8260B	09/28/10	1
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	09/28/10	1
Dibromofluoromethane	115.		% Rec.	8260B	09/28/10	1
4-Bromofluorobenzene	91.7		% Rec.	8260B	09/28/10	1

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

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REPORT OF ANALYSIS

September 30, 2010

Mr. Bryan Lucas  
 PSI - Charlotte, NC  
 5021 West W T Harris Blvd  
 Charlotte, NC 28269

ESC Sample # : L480827-03

Date Received : September 25, 2010  
 Description : US 250 Cleaners  
 Sample ID : SB-2-SS-1 12-16 IN

Site ID : DENVER, NC

Collected By : Bryan M. Lucas  
 Collection Date : 09/23/10 15:48

Project # : 0511020

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	74.6		%	2540G	09/30/10	1
Volatile Organics						
Acetone	BDL	0.067	mg/kg	8260B	09/28/10	1
Acrylonitrile	BDL	0.013	mg/kg	8260B	09/28/10	1
Benzene	BDL	0.0013	mg/kg	8260B	09/28/10	1
Bromobenzene	BDL	0.0013	mg/kg	8260B	09/28/10	1
Bromodichloromethane	BDL	0.0013	mg/kg	8260B	09/28/10	1
Bromoform	BDL	0.0013	mg/kg	8260B	09/28/10	1
Bromomethane	BDL	0.0067	mg/kg	8260B	09/28/10	1
n-Butylbenzene	BDL	0.0013	mg/kg	8260B	09/28/10	1
sec-Butylbenzene	BDL	0.0013	mg/kg	8260B	09/28/10	1
tert-Butylbenzene	BDL	0.0013	mg/kg	8260B	09/28/10	1
Carbon tetrachloride	BDL	0.0013	mg/kg	8260B	09/28/10	1
Chlorobenzene	BDL	0.0013	mg/kg	8260B	09/28/10	1
Chlorodibromomethane	BDL	0.0013	mg/kg	8260B	09/28/10	1
Chloroethane	BDL	0.0067	mg/kg	8260B	09/28/10	1
2-Chloroethyl vinyl ether	BDL	0.067	mg/kg	8260B	09/28/10	1
Chloroform	BDL	0.0067	mg/kg	8260B	09/28/10	1
Chloromethane	BDL	0.0034	mg/kg	8260B	09/28/10	1
2-Chlorotoluene	BDL	0.0013	mg/kg	8260B	09/28/10	1
4-Chlorotoluene	BDL	0.0013	mg/kg	8260B	09/28/10	1
1,2-Dibromo-3-Chloropropane	BDL	0.0067	mg/kg	8260B	09/28/10	1
1,2-Dibromoethane	BDL	0.0013	mg/kg	8260B	09/28/10	1
Dibromomethane	BDL	0.0013	mg/kg	8260B	09/28/10	1
1,2-Dichlorobenzene	BDL	0.0013	mg/kg	8260B	09/28/10	1
1,3-Dichlorobenzene	BDL	0.0013	mg/kg	8260B	09/28/10	1
1,4-Dichlorobenzene	BDL	0.0013	mg/kg	8260B	09/28/10	1
Dichlorodifluoromethane	BDL	0.0067	mg/kg	8260B	09/28/10	1
1,1-Dichloroethane	BDL	0.0013	mg/kg	8260B	09/28/10	1
1,2-Dichloroethane	BDL	0.0013	mg/kg	8260B	09/28/10	1
1,1-Dichloroethene	BDL	0.0013	mg/kg	8260B	09/28/10	1
cis-1,2-Dichloroethene	BDL	0.0013	mg/kg	8260B	09/28/10	1
trans-1,2-Dichloroethene	BDL	0.0013	mg/kg	8260B	09/28/10	1
1,2-Dichloropropane	BDL	0.0013	mg/kg	8260B	09/28/10	1
1,1-Dichloropropene	BDL	0.0013	mg/kg	8260B	09/28/10	1
1,3-Dichloropropane	BDL	0.0013	mg/kg	8260B	09/28/10	1
cis-1,3-Dichloropropene	BDL	0.0013	mg/kg	8260B	09/28/10	1
trans-1,3-Dichloropropene	BDL	0.0013	mg/kg	8260B	09/28/10	1
2,2-Dichloropropane	BDL	0.0013	mg/kg	8260B	09/28/10	1
Di-isopropyl ether	BDL	0.0013	mg/kg	8260B	09/28/10	1
Ethylbenzene	BDL	0.0013	mg/kg	8260B	09/28/10	1
Hexachloro-1,3-butadiene	BDL	0.0013	mg/kg	8260B	09/28/10	1
Isopropylbenzene	BDL	0.0013	mg/kg	8260B	09/28/10	1

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

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REPORT OF ANALYSIS

September 30, 2010

Mr. Bryan Lucas  
 PSI - Charlotte, NC  
 5021 West W T Harris Blvd  
 Charlotte, NC 28269

ESC Sample # : L480827-03

Date Received : September 25, 2010  
 Description : US 250 Cleaners

Site ID : DENVER, NC

Sample ID : SB-2-SS-1 12-16 IN

Project # : 0511020

Collected By : Bryan M. Lucas  
 Collection Date : 09/23/10 15:48

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
p-Isopropyltoluene	BDL	0.0013	mg/kg	8260B	09/28/10	1
2-Butanone (MEK)	BDL	0.013	mg/kg	8260B	09/28/10	1
Methylene Chloride	BDL	0.0067	mg/kg	8260B	09/28/10	1
4-Methyl-2-pentanone (MIBK)	BDL	0.013	mg/kg	8260B	09/28/10	1
Methyl tert-butyl ether	BDL	0.0013	mg/kg	8260B	09/28/10	1
Naphthalene	BDL	0.0067	mg/kg	8260B	09/28/10	1
n-Propylbenzene	BDL	0.0013	mg/kg	8260B	09/28/10	1
Styrene	BDL	0.0013	mg/kg	8260B	09/28/10	1
1,1,1,2-Tetrachloroethane	BDL	0.0013	mg/kg	8260B	09/28/10	1
1,1,2,2-Tetrachloroethane	BDL	0.0013	mg/kg	8260B	09/28/10	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0013	mg/kg	8260B	09/28/10	1
Tetrachloroethene	0.0017	0.0013	mg/kg	8260B	09/28/10	1
Toluene	BDL	0.0067	mg/kg	8260B	09/28/10	1
1,2,3-Trichlorobenzene	BDL	0.0013	mg/kg	8260B	09/28/10	1
1,2,4-Trichlorobenzene	BDL	0.0013	mg/kg	8260B	09/28/10	1
1,1,1-Trichloroethane	BDL	0.0013	mg/kg	8260B	09/28/10	1
1,1,2-Trichloroethane	BDL	0.0013	mg/kg	8260B	09/28/10	1
Trichloroethene	BDL	0.0013	mg/kg	8260B	09/28/10	1
Trichlorofluoromethane	BDL	0.0067	mg/kg	8260B	09/28/10	1
1,2,3-Trichloropropane	BDL	0.0013	mg/kg	8260B	09/28/10	1
1,2,4-Trimethylbenzene	BDL	0.0013	mg/kg	8260B	09/28/10	1
1,2,3-Trimethylbenzene	BDL	0.0013	mg/kg	8260B	09/28/10	1
1,3,5-Trimethylbenzene	BDL	0.0013	mg/kg	8260B	09/28/10	1
Vinyl chloride	BDL	0.0013	mg/kg	8260B	09/28/10	1
Xylenes, Total	BDL	0.0040	mg/kg	8260B	09/28/10	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	09/28/10	1
Dibromofluoromethane	109.		% Rec.	8260B	09/28/10	1
4-Bromofluorobenzene	93.8		% Rec.	8260B	09/28/10	1

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

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

The reported analytical results relate only to the sample submitted

Reported: 09/30/10 14:31 Printed: 09/30/10 14:32

Summary of Remarks For Samples Printed  
09/30/10 at 14:32:19

TSR Signing Reports: 350  
R5 - Desired TAT

Report all waters in ug/L; Paperless client, charge for trip blanks - jeh 7/20/06

Sample: L480827-01 Account: PSICNC Received: 09/25/10 09:00 Due Date: 10/01/10 00:00 RPT Date: 09/30/10 14:31

Sample: L480827-02 Account: PSICNC Received: 09/25/10 09:00 Due Date: 10/01/10 00:00 RPT Date: 09/30/10 14:31

Sample: L480827-03 Account: PSICNC Received: 09/25/10 09:00 Due Date: 10/01/10 00:00 RPT Date: 09/30/10 14:31



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L480827

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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

September 30, 2010

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
1,1,1,2-Tetrachloroethane	< .001	mg/kg			WG500236	09/28/10 13:15
1,1,1-Trichloroethane	< .001	mg/kg			WG500236	09/28/10 13:15
1,1,2,2-Tetrachloroethane	< .001	mg/kg			WG500236	09/28/10 13:15
1,1,2-Trichloroethane	< .001	mg/kg			WG500236	09/28/10 13:15
1,1,2-Trichloro-1,2,2-trifluoroethane	< .001	mg/kg			WG500236	09/28/10 13:15
1,1-Dichloroethane	< .001	mg/kg			WG500236	09/28/10 13:15
1,1-Dichloroethene	< .001	mg/kg			WG500236	09/28/10 13:15
1,1-Dichloropropene	< .001	mg/kg			WG500236	09/28/10 13:15
1,2,3-Trichlorobenzene	< .001	mg/kg			WG500236	09/28/10 13:15
1,2,3-Trichloropropane	< .001	mg/kg			WG500236	09/28/10 13:15
1,2,3-Trimethylbenzene	< .001	mg/kg			WG500236	09/28/10 13:15
1,2,4-Trichlorobenzene	< .001	mg/kg			WG500236	09/28/10 13:15
1,2,4-Trimethylbenzene	< .001	mg/kg			WG500236	09/28/10 13:15
1,2-Dibromo-3-Chloropropane	< .005	mg/kg			WG500236	09/28/10 13:15
1,2-Dibromoethane	< .001	mg/kg			WG500236	09/28/10 13:15
1,2-Dichlorobenzene	< .001	mg/kg			WG500236	09/28/10 13:15
1,2-Dichloroethane	< .001	mg/kg			WG500236	09/28/10 13:15
1,2-Dichloropropane	< .001	mg/kg			WG500236	09/28/10 13:15
1,3,5-Trimethylbenzene	< .001	mg/kg			WG500236	09/28/10 13:15
1,3-Dichlorobenzene	< .001	mg/kg			WG500236	09/28/10 13:15
1,3-Dichloropropane	< .001	mg/kg			WG500236	09/28/10 13:15
1,4-Dichlorobenzene	< .001	mg/kg			WG500236	09/28/10 13:15
2,2-Dichloropropane	< .001	mg/kg			WG500236	09/28/10 13:15
2-Butanone (MEK)	< .01	mg/kg			WG500236	09/28/10 13:15
2-Chloroethyl vinyl ether	< .001	mg/kg			WG500236	09/28/10 13:15
2-Chlorotoluene	< .001	mg/kg			WG500236	09/28/10 13:15
4-Chlorotoluene	< .001	mg/kg			WG500236	09/28/10 13:15
4-Methyl-2-pentanone (MIBK)	< .01	mg/kg			WG500236	09/28/10 13:15
Acetone	< .05	mg/kg			WG500236	09/28/10 13:15
Acrylonitrile	< .01	mg/kg			WG500236	09/28/10 13:15
Benzene	< .001	mg/kg			WG500236	09/28/10 13:15
Bromobenzene	< .001	mg/kg			WG500236	09/28/10 13:15
Bromodichloromethane	< .001	mg/kg			WG500236	09/28/10 13:15
Bromoform	< .001	mg/kg			WG500236	09/28/10 13:15
Bromomethane	< .005	mg/kg			WG500236	09/28/10 13:15
Carbon tetrachloride	< .001	mg/kg			WG500236	09/28/10 13:15
Chlorobenzene	< .001	mg/kg			WG500236	09/28/10 13:15
Chlorodibromomethane	< .001	mg/kg			WG500236	09/28/10 13:15
Chloroethane	< .005	mg/kg			WG500236	09/28/10 13:15
Chloroform	< .005	mg/kg			WG500236	09/28/10 13:15
Chloromethane	< .0025	mg/kg			WG500236	09/28/10 13:15
cis-1,2-Dichloroethene	< .001	mg/kg			WG500236	09/28/10 13:15
cis-1,3-Dichloropropene	< .001	mg/kg			WG500236	09/28/10 13:15
Di-isopropyl ether	< .001	mg/kg			WG500236	09/28/10 13:15
Dibromomethane	< .001	mg/kg			WG500236	09/28/10 13:15
Dichlorodifluoromethane	< .005	mg/kg			WG500236	09/28/10 13:15
Ethylbenzene	< .001	mg/kg			WG500236	09/28/10 13:15
Hexachloro-1,3-butadiene	< .001	mg/kg			WG500236	09/28/10 13:15
Isopropylbenzene	< .001	mg/kg			WG500236	09/28/10 13:15
Methyl tert-butyl ether	< .001	mg/kg			WG500236	09/28/10 13:15
Methylene Chloride	< .005	mg/kg			WG500236	09/28/10 13:15
n-Butylbenzene	< .001	mg/kg			WG500236	09/28/10 13:15
n-Propylbenzene	< .001	mg/kg			WG500236	09/28/10 13:15
Naphthalene	< .005	mg/kg			WG500236	09/28/10 13:15
p-Isopropyltoluene	< .001	mg/kg			WG500236	09/28/10 13:15
sec-Butylbenzene	< .001	mg/kg			WG500236	09/28/10 13:15
Styrene	< .001	mg/kg			WG500236	09/28/10 13:15
tert-Butylbenzene	< .001	mg/kg			WG500236	09/28/10 13:15
Tetrachloroethene	< .001	mg/kg			WG500236	09/28/10 13:15

\* Performance of this Analyte is outside of established criteria.  
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Est. 1970

September 30, 2010

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Toluene	< .005	mg/kg			WG500236	09/28/10 13:15
trans-1,2-Dichloroethene	< .001	mg/kg			WG500236	09/28/10 13:15
trans-1,3-Dichloropropene	< .001	mg/kg			WG500236	09/28/10 13:15
Trichloroethene	< .001	mg/kg			WG500236	09/28/10 13:15
Trichlorofluoromethane	< .005	mg/kg			WG500236	09/28/10 13:15
Vinyl chloride	< .001	mg/kg			WG500236	09/28/10 13:15
Xylenes, Total	< .003	mg/kg			WG500236	09/28/10 13:15
4-Bromofluorobenzene		% Rec.	91.51	59-140	WG500236	09/28/10 13:15
Dibromofluoromethane		% Rec.	108.3	63-139	WG500236	09/28/10 13:15
Toluene-d8		% Rec.	100.3	84-116	WG500236	09/28/10 13:15
Total Solids	< .1	%			WG500786	09/30/10 11:15

Analyte	Units	Duplicate			Limit	Ref Samp	Batch
		Result	Duplicate	RPD			
Total Solids	%	83.0	82.5	0.535	5	L480810-02	WG500786

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
1,1,1,2-Tetrachloroethane	mg/kg	.025	0.0245	98.0	73-134	WG500236
1,1,1-Trichloroethane	mg/kg	.025	0.0236	94.4	62-135	WG500236
1,1,2,2-Tetrachloroethane	mg/kg	.025	0.0257	103.	74-129	WG500236
1,1,2-Trichloroethane	mg/kg	.025	0.0255	102.	77-124	WG500236
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	.025	0.0270	108.	49-155	WG500236
1,1-Dichloroethane	mg/kg	.025	0.0238	95.3	61-134	WG500236
1,1-Dichloroethene	mg/kg	.025	0.0261	104.	53-136	WG500236
1,1-Dichloropropene	mg/kg	.025	0.0249	99.4	63-132	WG500236
1,2,3-Trichlorobenzene	mg/kg	.025	0.0238	95.3	62-146	WG500236
1,2,3-Trichloropropane	mg/kg	.025	0.0245	98.0	70-133	WG500236
1,2,3-Trimethylbenzene	mg/kg	.025	0.0244	97.4	73-126	WG500236
1,2,4-Trichlorobenzene	mg/kg	.025	0.0228	91.0	61-148	WG500236
1,2,4-Trimethylbenzene	mg/kg	.025	0.0239	95.5	68-135	WG500236
1,2-Dibromo-3-Chloropropane	mg/kg	.025	0.0228	91.2	61-134	WG500236
1,2-Dibromoethane	mg/kg	.025	0.0248	99.2	76-127	WG500236
1,2-Dichlorobenzene	mg/kg	.025	0.0241	96.3	77-123	WG500236
1,2-Dichloroethane	mg/kg	.025	0.0241	96.2	58-141	WG500236
1,2-Dichloropropane	mg/kg	.025	0.0236	94.3	71-128	WG500236
1,3,5-Trimethylbenzene	mg/kg	.025	0.0240	95.9	71-133	WG500236
1,3-Dichlorobenzene	mg/kg	.025	0.0241	96.6	71-132	WG500236
1,3-Dichloropropane	mg/kg	.025	0.0242	96.7	76-120	WG500236
1,4-Dichlorobenzene	mg/kg	.025	0.0242	96.8	72-123	WG500236
2,2-Dichloropropane	mg/kg	.025	0.0202	80.9	50-147	WG500236
2-Butanone (MEK)	mg/kg	.125	0.124	99.2	51-131	WG500236
2-Chloroethyl vinyl ether	mg/kg	.125	0.0912	73.0	0-188	WG500236
2-Chlorotoluene	mg/kg	.025	0.0237	94.7	73-128	WG500236
4-Chlorotoluene	mg/kg	.025	0.0233	93.4	72-129	WG500236
4-Methyl-2-pentanone (MIBK)	mg/kg	.125	0.119	95.4	61-143	WG500236
Acetone	mg/kg	.125	0.122	97.9	44-140	WG500236
Acrylonitrile	mg/kg	.125	0.127	102.	55-143	WG500236
Benzene	mg/kg	.025	0.0250	100.	65-128	WG500236
Bromobenzene	mg/kg	.025	0.0232	92.7	75-123	WG500236
Bromodichloromethane	mg/kg	.025	0.0246	98.4	66-126	WG500236
Bromoform	mg/kg	.025	0.0250	99.8	64-139	WG500236
Bromomethane	mg/kg	.025	0.0261	105.	41-175	WG500236
Carbon tetrachloride	mg/kg	.025	0.0223	89.4	60-140	WG500236
Chlorobenzene	mg/kg	.025	0.0242	96.9	75-125	WG500236

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Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
Chlorodibromomethane	mg/kg	.025	0.0245	98.1	72-137	WG500236
Chloroethane	mg/kg	.025	0.0252	101.	44-159	WG500236
Chloroform	mg/kg	.025	0.0254	101.	63-123	WG500236
Chloromethane	mg/kg	.025	0.0213	85.4	42-149	WG500236
cis-1,2-Dichloroethene	mg/kg	.025	0.0247	98.8	71-129	WG500236
cis-1,3-Dichloropropene	mg/kg	.025	0.0236	94.5	73-132	WG500236
Di-isopropyl ether	mg/kg	.025	0.0233	93.4	59-143	WG500236
Dibromomethane	mg/kg	.025	0.0255	102.	70-130	WG500236
Dichlorodifluoromethane	mg/kg	.025	0.0184	73.7	26-186	WG500236
Ethylbenzene	mg/kg	.025	0.0242	96.9	74-128	WG500236
Hexachloro-1,3-butadiene	mg/kg	.025	0.0219	87.4	65-137	WG500236
Isopropylbenzene	mg/kg	.025	0.0236	94.5	73-130	WG500236
Methyl tert-butyl ether	mg/kg	.025	0.0221	88.5	44-148	WG500236
Methylene Chloride	mg/kg	.025	0.0245	97.9	57-129	WG500236
n-Butylbenzene	mg/kg	.025	0.0246	98.5	60-145	WG500236
n-Propylbenzene	mg/kg	.025	0.0244	97.5	71-132	WG500236
Naphthalene	mg/kg	.025	0.0229	91.6	61-142	WG500236
p-Isopropyltoluene	mg/kg	.025	0.0242	96.7	67-138	WG500236
sec-Butylbenzene	mg/kg	.025	0.0242	97.0	71-134	WG500236
Styrene	mg/kg	.025	0.0236	94.5	76-133	WG500236
tert-Butylbenzene	mg/kg	.025	0.0236	94.5	72-132	WG500236
Tetrachloroethene	mg/kg	.025	0.0242	96.7	65-135	WG500236
Toluene	mg/kg	.025	0.0241	96.6	70-120	WG500236
trans-1,2-Dichloroethene	mg/kg	.025	0.0244	97.6	61-133	WG500236
trans-1,3-Dichloropropene	mg/kg	.025	0.0234	93.4	70-135	WG500236
Trichloroethene	mg/kg	.025	0.0239	95.7	71-126	WG500236
Trichlorofluoromethane	mg/kg	.025	0.0288	115.	52-147	WG500236
Vinyl chloride	mg/kg	.025	0.0232	92.8	50-151	WG500236
Xylenes, Total	mg/kg	.075	0.0723	96.3	74-127	WG500236
4-Bromofluorobenzene				93.19	59-140	WG500236
Dibromofluoromethane				106.9	63-139	WG500236
Toluene-d8				101.3	84-116	WG500236
Total Solids	%	50	50.0	100.	85-115	WG500786

Analyte	Units	Laboratory Control Result	Sample Ref	Duplicate %Rec	Limit	RPD	Limit	Batch
1,1,1,2-Tetrachloroethane	mg/kg	0.0242	0.0245	97.0	73-134	1.04	20	WG500236
1,1,1-Trichloroethane	mg/kg	0.0232	0.0236	93.0	62-135	1.71	20	WG500236
1,1,2,2-Tetrachloroethane	mg/kg	0.0256	0.0257	102.	74-129	0.680	20	WG500236
1,1,2-Trichloroethane	mg/kg	0.0255	0.0255	102.	77-124	0.0400	20	WG500236
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	0.0278	0.0270	111.	49-155	2.91	20	WG500236
1,1-Dichloroethane	mg/kg	0.0241	0.0238	96.0	61-134	1.23	20	WG500236
1,1-Dichloroethene	mg/kg	0.0266	0.0261	106.	53-136	2.04	20	WG500236
1,1-Dichloropropene	mg/kg	0.0250	0.0249	100.	63-132	0.460	20	WG500236
1,2,3-Trichlorobenzene	mg/kg	0.0245	0.0238	98.0	62-146	2.68	20	WG500236
1,2,3-Trichloropropane	mg/kg	0.0244	0.0245	97.0	70-133	0.570	20	WG500236
1,2,3-Trimethylbenzene	mg/kg	0.0245	0.0244	98.0	73-126	0.440	20	WG500236
1,2,4-Trichlorobenzene	mg/kg	0.0239	0.0228	95.0	61-148	4.77	20	WG500236
1,2,4-Trimethylbenzene	mg/kg	0.0240	0.0239	96.0	68-135	0.390	20	WG500236
1,2-Dibromo-3-Chloropropane	mg/kg	0.0234	0.0228	94.0	61-134	2.75	21	WG500236
1,2-Dibromoethane	mg/kg	0.0248	0.0248	99.0	76-127	0.100	20	WG500236
1,2-Dichlorobenzene	mg/kg	0.0246	0.0241	98.0	77-123	1.99	20	WG500236
1,2-Dichloroethane	mg/kg	0.0245	0.0241	98.0	58-141	1.95	20	WG500236
1,2-Dichloropropane	mg/kg	0.0238	0.0236	95.0	71-128	0.920	20	WG500236
1,3,5-Trimethylbenzene	mg/kg	0.0242	0.0240	97.0	71-133	0.730	20	WG500236
1,3-Dichlorobenzene	mg/kg	0.0245	0.0241	98.0	71-132	1.41	20	WG500236

\* Performance of this Analyte is outside of established criteria.  
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September 30, 2010

Analyte	Units	Laboratory Control		Sample Duplicate		Limit	RPD	Limit	Batch
		Result	Ref	%Rec					
1,3-Dichloropropane	mg/kg	0.0236	0.0242	94.0		76-120	2.24	20	WG500236
1,4-Dichlorobenzene	mg/kg	0.0248	0.0242	99.0		72-123	2.50	20	WG500236
2,2-Dichloropropane	mg/kg	0.0206	0.0202	82.0		50-147	2.05	20	WG500236
2-Butanone (MEK)	mg/kg	0.125	0.124	100.		51-131	1.00	25	WG500236
2-Chloroethyl vinyl ether	mg/kg	0.0832	0.0912	66.0		0-188	9.17	39	WG500236
2-Chlorotoluene	mg/kg	0.0239	0.0237	95.0		73-128	0.830	20	WG500236
4-Chlorotoluene	mg/kg	0.0234	0.0233	94.0		72-129	0.390	20	WG500236
4-Methyl-2-pentanone (MIBK)	mg/kg	0.121	0.119	96.0		61-143	1.17	23	WG500236
Acetone	mg/kg	0.122	0.122	98.0		44-140	0.0900	25	WG500236
Acrylonitrile	mg/kg	0.127	0.127	102.		55-143	0.0200	20	WG500236
Benzene	mg/kg	0.0251	0.0250	100.		65-128	0.0500	20	WG500236
Bromobenzene	mg/kg	0.0232	0.0232	93.0		75-123	0.200	20	WG500236
Bromodichloromethane	mg/kg	0.0247	0.0246	99.0		66-126	0.340	20	WG500236
Bromoform	mg/kg	0.0246	0.0250	98.0		64-139	1.47	20	WG500236
Bromomethane	mg/kg	0.0255	0.0261	102.		41-175	2.46	20	WG500236
Carbon tetrachloride	mg/kg	0.0225	0.0223	90.0		60-140	0.620	20	WG500236
Chlorobenzene	mg/kg	0.0241	0.0242	96.0		75-125	0.470	20	WG500236
Chlorodibromomethane	mg/kg	0.0245	0.0245	98.0		72-137	0.110	20	WG500236
Chloroethane	mg/kg	0.0246	0.0252	98.0		44-159	2.43	20	WG500236
Chloroform	mg/kg	0.0248	0.0254	99.0		63-123	2.34	20	WG500236
Chloromethane	mg/kg	0.0213	0.0213	85.0		42-149	0.280	20	WG500236
cis-1,2-Dichloroethene	mg/kg	0.0253	0.0247	101.		71-129	2.43	20	WG500236
cis-1,3-Dichloropropene	mg/kg	0.0236	0.0236	94.0		73-132	0.190	20	WG500236
Di-isopropyl ether	mg/kg	0.0235	0.0233	94.0		59-143	0.630	20	WG500236
Dibromomethane	mg/kg	0.0245	0.0255	98.0		70-130	3.96	20	WG500236
Dichlorodifluoromethane	mg/kg	0.0185	0.0184	74.0		26-186	0.600	22	WG500236
Ethylbenzene	mg/kg	0.0242	0.0242	97.0		74-128	0.240	20	WG500236
Hexachloro-1,3-butadiene	mg/kg	0.0232	0.0219	93.0		65-137	6.08	20	WG500236
Isopropylbenzene	mg/kg	0.0237	0.0236	95.0		73-130	0.240	20	WG500236
Methyl tert-butyl ether	mg/kg	0.0221	0.0221	88.0		44-148	0.140	20	WG500236
Methylene Chloride	mg/kg	0.0242	0.0245	97.0		57-129	0.960	20	WG500236
n-Butylbenzene	mg/kg	0.0250	0.0246	100.		60-145	1.40	20	WG500236
n-Propylbenzene	mg/kg	0.0247	0.0244	99.0		71-132	1.44	20	WG500236
Naphthalene	mg/kg	0.0244	0.0229	98.0		61-142	6.51	20	WG500236
p-Isopropyltoluene	mg/kg	0.0247	0.0242	99.0		67-138	2.09	20	WG500236
sec-Butylbenzene	mg/kg	0.0246	0.0242	98.0		71-134	1.39	20	WG500236
Styrene	mg/kg	0.0238	0.0236	95.0		76-133	0.870	20	WG500236
tert-Butylbenzene	mg/kg	0.0240	0.0236	96.0		72-132	1.71	20	WG500236
Tetrachloroethene	mg/kg	0.0240	0.0242	96.0		65-135	0.500	20	WG500236
Toluene	mg/kg	0.0244	0.0241	98.0		70-120	1.19	20	WG500236
trans-1,2-Dichloroethene	mg/kg	0.0248	0.0244	99.0		61-133	1.79	20	WG500236
trans-1,3-Dichloropropene	mg/kg	0.0241	0.0234	96.0		70-135	3.02	20	WG500236
Trichloroethene	mg/kg	0.0242	0.0239	97.0		71-126	1.25	20	WG500236
Trichlorofluoromethane	mg/kg	0.0292	0.0288	117.		52-147	1.62	20	WG500236
Vinyl chloride	mg/kg	0.0232	0.0232	93.0		50-151	0	20	WG500236
Xylenes, Total	mg/kg	0.0724	0.0723	96.0		74-127	0.130	20	WG500236
4-Bromofluorobenzene				93.09		59-140			WG500236
Dibromofluoromethane				105.7		63-139			WG500236
Toluene-d8				100.4		84-116			WG500236

Analyte	Units	MS Res	Matrix Spike		% Rec	Limit	Ref Samp	Batch
			Ref Res	TV				
1,1,1,2-Tetrachloroethane	mg/kg	0.0237	0	.025	94.8	29-145	L480827-01	WG500236
1,1,1-Trichloroethane	mg/kg	0.0234	0	.025	93.7	23-147	L480827-01	WG500236
1,1,2,2-Tetrachloroethane	mg/kg	0.0275	0	.025	110.	18-150	L480827-01	WG500236
1,1,2-Trichloroethane	mg/kg	0.0257	0	.025	103.	35-140	L480827-01	WG500236
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	0.0230	0	.025	92.0	10-145	L480827-01	WG500236
1,1-Dichloroethane	mg/kg	0.0243	0	.025	97.1	24-148	L480827-01	WG500236

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Analyte	Units	MS Res	Matrix Spike		% Rec	Limit	Ref Samp	Batch
			Ref Res	TV				
1,1-Dichloroethene	mg/kg	0.0241	0	.025	96.4	10-149	L480827-01	WG500236
1,1-Dichloropropene	mg/kg	0.0251	0	.025	100.	10-141	L480827-01	WG500236
1,2,3-Trichlorobenzene	mg/kg	0.0245	0	.025	97.9	10-129	L480827-01	WG500236
1,2,3-Trichloropropene	mg/kg	0.0271	0	.025	108.	30-148	L480827-01	WG500236
1,2,3-Trimethylbenzene	mg/kg	0.0232	0	.025	93.0	10-137	L480827-01	WG500236
1,2,4-Trichlorobenzene	mg/kg	0.0234	0	.025	93.4	10-119	L480827-01	WG500236
1,2,4-Trimethylbenzene	mg/kg	0.0229	0	.025	91.6	10-145	L480827-01	WG500236
1,2-Dibromo-3-Chloropropane	mg/kg	0.0273	0	.025	109.	19-145	L480827-01	WG500236
1,2-Dibromoethane	mg/kg	0.0254	0	.025	101.	24-145	L480827-01	WG500236
1,2-Dichlorobenzene	mg/kg	0.0236	0	.025	94.3	12-130	L480827-01	WG500236
1,2-Dichloroethane	mg/kg	0.0248	0	.025	99.1	21-155	L480827-01	WG500236
1,2-Dichloropropene	mg/kg	0.0234	0	.025	93.7	28-144	L480827-01	WG500236
1,3,5-Trimethylbenzene	mg/kg	0.0230	0	.025	92.2	10-135	L480827-01	WG500236
1,3-Dichlorobenzene	mg/kg	0.0234	0	.025	93.4	10-129	L480827-01	WG500236
1,3-Dichloropropane	mg/kg	0.0239	0	.025	95.7	31-137	L480827-01	WG500236
1,4-Dichlorobenzene	mg/kg	0.0239	0	.025	95.4	10-121	L480827-01	WG500236
2,2-Dichloropropane	mg/kg	0.0209	0	.025	83.5	18-144	L480827-01	WG500236
2-Butanone (MEK)	mg/kg	0.143	0	.125	114.	21-143	L480827-01	WG500236
2-Chloroethyl vinyl ether	mg/kg	0.0888	0	.125	71.0	0-176	L480827-01	WG500236
2-Chlorotoluene	mg/kg	0.0232	0	.025	92.6	10-132	L480827-01	WG500236
4-Chlorotoluene	mg/kg	0.0228	0	.025	91.0	10-129	L480827-01	WG500236
4-Methyl-2-pentanone (MIBK)	mg/kg	0.144	0	.125	115.	31-151	L480827-01	WG500236
Acetone	mg/kg	0.128	0	.125	103.	13-158	L480827-01	WG500236
Acrylonitrile	mg/kg	0.149	0	.125	119.	20-154	L480827-01	WG500236
Benzene	mg/kg	0.0252	0	.025	101.	16-143	L480827-01	WG500236
Bromobenzene	mg/kg	0.0223	0	.025	89.1	14-135	L480827-01	WG500236
Bromodichloromethane	mg/kg	0.0245	0	.025	97.9	27-139	L480827-01	WG500236
Bromoform	mg/kg	0.0255	0	.025	102.	21-144	L480827-01	WG500236
Bromomethane	mg/kg	0.0277	0	.025	111.	0-180	L480827-01	WG500236
Carbon tetrachloride	mg/kg	0.0230	0	.025	92.1	12-149	L480827-01	WG500236
Chlorobenzene	mg/kg	0.0232	0	.025	92.9	17-134	L480827-01	WG500236
Chlorodibromomethane	mg/kg	0.0240	0	.025	96.2	28-147	L480827-01	WG500236
Chloroethane	mg/kg	0.0269	0	.025	107.	0-172	L480827-01	WG500236
Chloroform	mg/kg	0.0250	0	.025	99.9	28-138	L480827-01	WG500236
Chloromethane	mg/kg	0.0244	0	.025	97.5	10-158	L480827-01	WG500236
cis-1,2-Dichloroethene	mg/kg	0.0254	0	.025	101.	21-147	L480827-01	WG500236
cis-1,3-Dichloropropene	mg/kg	0.0238	0	.025	95.4	17-145	L480827-01	WG500236
Di-isopropyl ether	mg/kg	0.0233	0	.025	93.1	31-153	L480827-01	WG500236
Dibromomethane	mg/kg	0.0260	0	.025	104.	24-147	L480827-01	WG500236
Dichlorodifluoromethane	mg/kg	0.0243	0	.025	97.3	0-192	L480827-01	WG500236
Ethylbenzene	mg/kg	0.0230	0	.025	92.0	12-137	L480827-01	WG500236
Hexachloro-1,3-butadiene	mg/kg	0.0212	0	.025	84.6	10-123	L480827-01	WG500236
Isopropylbenzene	mg/kg	0.0228	0	.025	91.2	14-134	L480827-01	WG500236
Methyl tert-butyl ether	mg/kg	0.0235	0	.025	93.9	21-157	L480827-01	WG500236
Methylene Chloride	mg/kg	0.0258	0	.025	103.	12-149	L480827-01	WG500236
n-Butylbenzene	mg/kg	0.0238	0	.025	95.3	10-130	L480827-01	WG500236
n-Propylbenzene	mg/kg	0.0236	0	.025	94.3	10-130	L480827-01	WG500236
Naphthalene	mg/kg	0.0260	0	.025	104.	0-146	L480827-01	WG500236
p-Isopropyltoluene	mg/kg	0.0235	0	.025	94.1	10-131	L480827-01	WG500236
sec-Butylbenzene	mg/kg	0.0234	0	.025	93.7	10-134	L480827-01	WG500236
Styrene	mg/kg	0.0211	0	.025	84.6	10-140	L480827-01	WG500236
tert-Butylbenzene	mg/kg	0.0231	0	.025	92.3	11-137	L480827-01	WG500236
Tetrachloroethene	mg/kg	0.0232	0.00670	.025	65.9	10-131	L480827-01	WG500236
Toluene	mg/kg	0.0239	0	.025	95.8	12-136	L480827-01	WG500236
trans-1,2-Dichloroethene	mg/kg	0.0250	0	.025	100.	10-143	L480827-01	WG500236
trans-1,3-Dichloropropene	mg/kg	0.0237	0	.025	95.0	16-147	L480827-01	WG500236
Trichloroethene	mg/kg	0.0237	0	.025	95.0	10-155	L480827-01	WG500236
Trichlorofluoromethane	mg/kg	0.0314	0	.025	126.	10-154	L480827-01	WG500236
Vinyl chloride	mg/kg	0.0259	0	.025	103.	10-159	L480827-01	WG500236

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Tax I.D. 62-0814289

Est. 1970

September 30, 2010

Analyte	Units	MS Res	Matrix Spike			Limit	Ref Samp	Batch
			Ref Res	TV	% Rec			
Xylenes, Total	mg/kg	0.0695	0	.075	92.7	10-138	L480827-01	WG500236
4-Bromofluorobenzene					92.26	59-140		WG500236
Dibromofluoromethane					108.0	63-139		WG500236
Toluene-d8					101.5	84-116		WG500236

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit Ref Samp	Batch	
			Ref	%Rec					
1,1,1,2-Tetrachloroethane	mg/kg	0.0238	0.0237	95.0	29-145	0.200	31	L480827-01	WG500236
1,1,1-Trichloroethane	mg/kg	0.0242	0.0234	96.8	23-147	3.29	32	L480827-01	WG500236
1,1,2,2-Tetrachloroethane	mg/kg	0.0271	0.0275	108.	18-150	1.44	33	L480827-01	WG500236
1,1,2-Trichloroethane	mg/kg	0.0259	0.0257	104.	35-140	0.800	29	L480827-01	WG500236
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	0.0255	0.0230	102.	10-145	10.4	35	L480827-01	WG500236
1,1-Dichloroethane	mg/kg	0.0245	0.0243	98.0	24-148	0.870	31	L480827-01	WG500236
1,1-Dichloroethene	mg/kg	0.0282	0.0241	113.	10-149	15.8	34	L480827-01	WG500236
1,1-Dichloropropene	mg/kg	0.0258	0.0251	103.	10-141	2.96	34	L480827-01	WG500236
1,2,3-Trichlorobenzene	mg/kg	0.0243	0.0245	97.2	10-129	0.750	43	L480827-01	WG500236
1,2,3-Trichloropropane	mg/kg	0.0260	0.0271	104.	30-148	3.94	32	L480827-01	WG500236
1,2,3-Trimethylbenzene	mg/kg	0.0239	0.0232	95.5	10-137	2.68	36	L480827-01	WG500236
1,2,4-Trichlorobenzene	mg/kg	0.0233	0.0234	93.2	10-119	0.230	44	L480827-01	WG500236
1,2,4-Trimethylbenzene	mg/kg	0.0235	0.0229	93.9	10-145	2.51	41	L480827-01	WG500236
1,2-Dibromo-3-Chloropropane	mg/kg	0.0262	0.0273	105.	19-145	3.82	35	L480827-01	WG500236
1,2-Dibromoethane	mg/kg	0.0253	0.0254	101.	24-145	0.110	31	L480827-01	WG500236
1,2-Dichlorobenzene	mg/kg	0.0235	0.0236	94.0	12-130	0.310	35	L480827-01	WG500236
1,2-Dichloroethane	mg/kg	0.0251	0.0248	100.	21-155	1.25	29	L480827-01	WG500236
1,2-Dichloropropane	mg/kg	0.0241	0.0234	96.2	28-144	2.66	30	L480827-01	WG500236
1,3,5-Trimethylbenzene	mg/kg	0.0234	0.0230	93.4	10-135	1.35	39	L480827-01	WG500236
1,3-Dichlorobenzene	mg/kg	0.0237	0.0234	94.7	10-129	1.37	38	L480827-01	WG500236
1,3-Dichloropropane	mg/kg	0.0242	0.0239	96.8	31-137	1.05	29	L480827-01	WG500236
1,4-Dichlorobenzene	mg/kg	0.0238	0.0239	95.2	10-121	0.190	36	L480827-01	WG500236
2,2-Dichloropropane	mg/kg	0.0211	0.0209	84.4	18-144	1.14	32	L480827-01	WG500236
2-Butanone (MEK)	mg/kg	0.132	0.143	106.	21-143	8.14	37	L480827-01	WG500236
2-Chloroethyl vinyl ether	mg/kg	0.0679	0.0888	54.3	0-176	26.7	50	L480827-01	WG500236
2-Chlorotoluene	mg/kg	0.0228	0.0232	91.0	10-132	1.77	37	L480827-01	WG500236
4-Chlorotoluene	mg/kg	0.0229	0.0228	91.4	10-129	0.450	38	L480827-01	WG500236
4-Methyl-2-pentanone (MIBK)	mg/kg	0.131	0.144	105.	31-151	9.36	36	L480827-01	WG500236
Acetone	mg/kg	0.120	0.128	96.2	13-158	6.61	34	L480827-01	WG500236
Acrylonitrile	mg/kg	0.141	0.149	112.	20-154	5.88	35	L480827-01	WG500236
Benzene	mg/kg	0.0254	0.0252	102.	16-143	1.03	31	L480827-01	WG500236
Bromobenzene	mg/kg	0.0226	0.0223	90.2	14-135	1.24	39	L480827-01	WG500236
Bromodichloromethane	mg/kg	0.0242	0.0245	96.6	27-139	1.31	30	L480827-01	WG500236
Bromoform	mg/kg	0.0256	0.0255	102.	21-144	0.0300	34	L480827-01	WG500236
Bromomethane	mg/kg	0.0293	0.0277	117.	0-180	5.42	41	L480827-01	WG500236
Carbon tetrachloride	mg/kg	0.0233	0.0230	93.1	12-149	1.13	34	L480827-01	WG500236
Chlorobenzene	mg/kg	0.0238	0.0232	95.1	17-134	2.34	34	L480827-01	WG500236
Chlorodibromomethane	mg/kg	0.0244	0.0240	97.6	28-147	1.50	32	L480827-01	WG500236
Chloroethane	mg/kg	0.0274	0.0269	109.	0-172	1.86	38	L480827-01	WG500236
Chloroform	mg/kg	0.0253	0.0250	101.	28-138	1.20	30	L480827-01	WG500236
Chloromethane	mg/kg	0.0254	0.0244	102.	10-158	4.09	35	L480827-01	WG500236
cis-1,2-Dichloroethene	mg/kg	0.0254	0.0254	101.	21-147	0	31	L480827-01	WG500236
cis-1,3-Dichloropropene	mg/kg	0.0238	0.0238	95.2	17-145	0.150	32	L480827-01	WG500236
Di-isopropyl ether	mg/kg	0.0237	0.0233	94.9	31-153	1.87	29	L480827-01	WG500236
Dibromomethane	mg/kg	0.0256	0.0260	102.	24-147	1.32	30	L480827-01	WG500236
Dichlorodifluoromethane	mg/kg	0.0251	0.0243	100.	0-192	3.31	38	L480827-01	WG500236
Ethylbenzene	mg/kg	0.0236	0.0230	94.6	12-137	2.72	36	L480827-01	WG500236
Hexachloro-1,3-butadiene	mg/kg	0.0213	0.0212	85.3	10-123	0.770	50	L480827-01	WG500236
Isopropylbenzene	mg/kg	0.0232	0.0228	92.9	14-134	1.82	37	L480827-01	WG500236
Methyl tert-butyl ether	mg/kg	0.0232	0.0235	92.8	21-157	1.26	31	L480827-01	WG500236
Methylene Chloride	mg/kg	0.0258	0.0258	103.	12-149	0.180	31	L480827-01	WG500236

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Analyte	Units	MSD	Matrix Spike Ref	Duplicate %Rec	Limit	RPD	Limit	Ref Samp	Batch
n-Butylbenzene	mg/kg	0.0239	0.0238	95.4	10-130	0.0900	48	L480827-01	WG500236
n-Propylbenzene	mg/kg	0.0239	0.0236	95.6	10-130	1.37	40	L480827-01	WG500236
Naphthalene	mg/kg	0.0252	0.0260	101.	0-146	3.06	43	L480827-01	WG500236
p-Isopropyltoluene	mg/kg	0.0237	0.0235	94.6	10-131	0.620	43	L480827-01	WG500236
sec-Butylbenzene	mg/kg	0.0237	0.0234	94.7	10-134	1.07	43	L480827-01	WG500236
Styrene	mg/kg	0.0217	0.0211	86.7	10-140	2.44	35	L480827-01	WG500236
tert-Butylbenzene	mg/kg	0.0232	0.0231	92.7	11-137	0.490	39	L480827-01	WG500236
Tetrachloroethene	mg/kg	0.0234	0.0232	66.8	10-131	0.970	35	L480827-01	WG500236
Toluene	mg/kg	0.0242	0.0239	96.9	12-136	1.17	32	L480827-01	WG500236
trans-1,2-Dichloroethene	mg/kg	0.0252	0.0250	101.	10-143	0.860	33	L480827-01	WG500236
trans-1,3-Dichloropropene	mg/kg	0.0235	0.0237	93.8	16-147	1.18	32	L480827-01	WG500236
Trichloroethene	mg/kg	0.0242	0.0237	96.7	10-155	1.79	33	L480827-01	WG500236
Trichlorofluoromethane	mg/kg	0.0319	0.0314	128.	10-154	1.61	32	L480827-01	WG500236
Vinyl chloride	mg/kg	0.0264	0.0259	105.	10-159	1.90	36	L480827-01	WG500236
Xylenes, Total	mg/kg	0.0701	0.0695	93.4	10-138	0.790	36	L480827-01	WG500236
4-Bromofluorobenzene				92.71	59-140				WG500236
Dibromofluoromethane				108.4	63-139				WG500236
Toluene-d8				100.5	84-116				WG500236

Batch number / Run number / Sample number cross reference

WG500236: R1398868: L480827-01 02 03  
 WG500786: R1402354: L480827-01 02 03

\* \* Calculations are performed prior to rounding of reported values .  
 \* Performance of this Analyte is outside of established criteria.  
 For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



YOUR LAB OF CHOICE

PSI - Charlotte, NC  
Mr. Bryan Lucas  
5021 West W T Harris Blvd  
Charlotte, NC 28269

Quality Assurance Report  
Level II

L480827

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

Tax I.D. 62-0814289

Est. 1970

September 30, 2010

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

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

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

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

Company Name/Address:  
**PSI - Charlotte, NC**  
 5021 West W T Harris Blvd  
 Charlotte, NC 28269

Report to: **BRYAN M. LUCAS**  
 Project Description: **US 250 CLEANERS**  
 Phone: (704) 598-2234  
 FAX: (704) 598-2236  
 Collected by: **BRYAN M. LUCAS**

Alternate billing information:  
 Email to: **BYRN.LUCAS@PSI.USIA.COM**  
 City/State Collected: **DENVER, NC**  
 ESC Key:  
 P.O.#:

Client Project #: **0511202**  
 Site/Facility ID#:  
**Rush?** (Lab MUST Be Notified)  
 \_\_\_ Same Day ..... 200%  
 \_\_\_ Next Day ..... 100%  
 \_\_\_ Two Day ..... 50%  
 \_\_\_ Three Day ..... 25%

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Date Results Needed:		No. of Cntrs	Remarks/Contaminant	Sample # (lab only)
						Email? ___ No ___ Yes	FAX? ___ No ___ Yes			
SB-1-SS-1	GRAB	SS	9"-15"	9/23/10	1345			4		480827-9
SB-1-SS-2	GRAB	SS	32"-38"	9/23/10	1405			4		02
SB-2-SS-1	GRAB	SS	12"-16"	9/23/10	1548			4		03

\*Matrix SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other  
 Remarks: pH \_\_\_\_\_ Temp \_\_\_\_\_

Relinquished by: (Signature) \_\_\_\_\_ Date: 9/24/10 18:00  
 Relinquished by: (Signature) \_\_\_\_\_ Date: \_\_\_\_\_  
 Relinquished by: (Signature) \_\_\_\_\_ Date: \_\_\_\_\_

Received by: (Signature) \_\_\_\_\_ Date: 9/24/10 18:00  
 Received by: (Signature) \_\_\_\_\_ Date: \_\_\_\_\_  
 Received by: (Signature) **Greg Starman** Date: 9-25-10 9:00

Temp. 34  
 Bottles Received: 12  
 Date: 9-25-10 9:00

Condition: **COCS1** (lab use only)  
 pH Checked: \_\_\_\_\_ MCF: \_\_\_\_\_

Prepared by:  
**ENVIRONMENTAL SCIENCE CORP.**  
 12065 Lebanon Road  
 Mt. Juliet, TN 37122  
 Phone (615) 758-5858  
 Phone (800) 767-5859  
 FAX (615) 758-5859  
**F076**

Chain of Custody  
 Page 1 of 1

Analysis/Container/Preservative