

# Prioritization Assessment Report Rollins Economy Cleaners

**DSCA ID: 92-0048  
407 W. Peace Street  
Raleigh, Wake County**

## **North Carolina Dry-Cleaning Solvent Cleanup Act Program**

**H&H Job No. DS0-79B  
December 19, 2013**



**SMARTER ENVIRONMENTAL SOLUTIONS**

**#C-1269 Engineering  
#245 Geology**

**Assessment Report Forms  
for  
North Carolina Dry-Cleaning Solvent Cleanup Act Program**

<b>Facility Name:</b>	Rollins Economy Cleaners
	407 W. Peace Street, Raleigh, Wake County
<b>DSCA ID No.:</b>	92-0048
<b>Submittal Date:</b>	December 19, 2013
<b>Prepared By:</b>	Hart & Hickman, PC
	2923 S. Tryon Street, Suite 100, Charlotte, NC 28203

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<b>Assessment Report Forms (Page 1 of 2)</b>		
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Form 2	Site History	<input checked="" type="checkbox"/>
Form 3	Land Use and Receptor Survey	<input checked="" type="checkbox"/>
Form 4	Groundwater Use, Surface Water Use, and Ecological Survey	<input checked="" type="checkbox"/>
Form 5	Site Stratigraphy and Hydrogeology	<input checked="" type="checkbox"/>
Form 6	Non-Aqueous Phase Liquid (NAPL) Information	<input checked="" type="checkbox"/>
<b>Assessment Report Attachments</b>		
Att. 1	Site location map.	<input checked="" type="checkbox"/>
Att. 2	Historical aerial photograph.	<input type="checkbox"/>
Att. 3	Historical maps and fire insurance records.	<input type="checkbox"/>
Att. 4	Facility as-building drawings.	<input type="checkbox"/>
Att. 5	Facility layout diagram indicating the following (if applicable): (i) Service doors, (ii) current and historic location of drycleaning equipment, (iii) solvent/waste storage areas (including ASTs and USTs), (iv) distillation unit, (v) location of septic tank/drainfield or sanitary sewer lateral line, (vi) floor drains, (vii) storm sewer, (viii) expansion joints and cracks in floor, (ix) location of utilities, and (x) location of dumpsters.	<input checked="" type="checkbox"/>
Att. 6	Utility records, including videos of sewer lines and pressure testing.	<input type="checkbox"/>
Att. 7	Scaled vicinity map illustrating surrounding land use within 500 foot and 0.5 mile radii of the site.	<input checked="" type="checkbox"/>
Att. 8	USGS Quad map with plotted water well location(s) within the 1,500 foot and 0.5 mile radii of the site.	<input checked="" type="checkbox"/>
Att. 9	Area geologic map/relevant cross-sections.	<input checked="" type="checkbox"/>
Att. 10	Soil boring logs which must include the following: (i) OVA or other field screening readings, (ii) depth of samples collect, (iii) odor, (iv) staining, (v) blow counts (if applicable), (vi) interval recovery, (vii) structures and/or bedding, (viii) moisture content, and (ix) borehole disposition (abandonment or conversion to monitor well).	<input checked="" type="checkbox"/>
Att. 11	Site map showing location(s) of soil sample(s).	<input checked="" type="checkbox"/>
Att. 12	Soil contaminant concentration maps showing the concentration at each sampling point.	<input type="checkbox"/>
Att. 13	Soil isoconcentration maps.	<input checked="" type="checkbox"/>
Att. 14	Site map showing location(s) of monitoring well(s).	<input type="checkbox"/>
Att. 15	Well completion diagrams and records of construction submitted to state.	<input type="checkbox"/>
Att. 16	Groundwater gradient map.	<input type="checkbox"/>
Att. 17	Groundwater contaminant concentration maps showing the concentration at each sampling point and isoconcentration maps.	<input checked="" type="checkbox"/>
Att. 18	Map showing location(s) of surface water sample(s) (if applicable).	<input type="checkbox"/>
Att. 19	Surface water concentration map showing the concentration at each sampling point (if applicable).	<input checked="" type="checkbox"/>

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<b>Form/Att . No.</b>	<b>Description</b>	<b>Check box if included</b>
<b>Assessment Report Attachments continued (Page 2 of 2)</b>		
Att. 20	Map showing location(s) of water supply well(s) (if applicable).	<input type="checkbox"/>
Att. 21	Laboratory analytical reports including chain-of custody and quality assurance/quality control (QA/QC) documentation.	<input checked="" type="checkbox"/>
Att. 22	Sub-Slab Vapor and Subsurface Soil Gas Contaminant Concentration Map	<input checked="" type="checkbox"/>
Att. 23		<input type="checkbox"/>
Att. 24		<input type="checkbox"/>
Att. 25		<input type="checkbox"/>

Note:

1. All maps must include a bar scale, north arrow, site name, DSCA ID No., and date.

Facility Information

AR Form 1

DSCA ID No.: 92-0048

- Currently operating facility since 1/1/1950
- Previously operating facility since \_\_\_\_\_
- Temporarily out of service from \_\_\_\_\_ to \_\_\_\_\_
- Permanently out of service since \_\_\_\_\_

Provide the name, address and telephone number of the current dry-cleaning business and the dry-cleaning business owner. If no current business at the facility, provide the name and address of the last dry-cleaner doing business at the site.

Facility name: Rollins Economy Cleaners

Facility address (include name of shopping centre and the county where facility is located): 407 W. Peace Street  
Raleigh, Wake County

Facility telephone number (if applicable): (919) 832-2950

Facility Owner's Name: Margie Marie Fuller

Owner's Mailing Address: PO Box 804  
Wendell, NC 27591

Owner's Telephone number: (919) 365-8262

Provide the earliest known date of the facility use for dry-cleaning business and the name of the dry-cleaning business (if applicable).

1/1/1950, Rollins Economy Cleaners

Provide information on businesses that occupied the facility that may use or have used solvents and other chemicals. Identify solvents and chemicals used at the facility (if applicable).

The facility was purchased by Ms. Fuller in March 2003. Based on Sanborn Fire Insurance maps, a dry-cleaning facility was located on the site as early as 1950. The current facility operator reported that a tetrachloroethylene (PCE) transfer dry-cleaning machine and a Stoddard solvent dry-cleaning machine were in use until 1986, at which point a dry-to-dry PCE dry-cleaning machine was installed. Stoddard solvent was stored in an interior aboveground storage tank (AST). The AST is currently mounted to the facility ceiling and is reportedly empty. H&H identified a potential underground storage tank (UST) during utility location activities located outside near the southwest corner of the site building.

Prepared By

I certify that the prioritization assessment is stated in this report was prepared under my supervision.

Christie Zawtock  
Contractor



December 19, 2013

Date

Christie Zawtock, PE

Printed Name

Hart & Hickman, PC

Company Name

DSCA ID No.: 92-0048

Number of dry-cleaning machines used at current or former facility: 3

Type of dry-cleaning machines used at current or former facility (e.g., transfer, dry-to-dry with vented exhaust, etc.).

Transfer PCE and Stoddard solvent machines in use until 1986.  
Dry-to-dry PCE machine in use since 1986.

Type of dry-cleaning solvents used by each type of machine.

Stoddard solvent and PCE

Where are/were the dry-cleaning solvents stored at the facility site? (Machine base tanks, UST(s), AST(s), etc.)

PCE currently stored in base tank; Stoddard formerly stored in AST.

Are chlorinated dry cleaning solvents delivered to the facility by means of a closed, direct-coupled delivery system?

Yes

Are virgin (new) solvents stored in containers other than the dry-cleaning machine?

Yes  No

Are or were any USTs or ASTs used to store any petroleum or hazardous substances other than dry-cleaning solvents at the facility

Yes  No

If yes, provide information about the substance stored, year taken out of service, virgin solvent or waste solvent, etc.

Unknown. An AST formerly used to store Stoddard solvent is located inside the site building. A potential UST (unknown contents) is located outside at the southwest corner of the site building.

What methods of disposal are used or have been used for separator water?

According to the current facility operator, separator water has been disposed of by Safety-Kleen since 1986. Separator water disposal practices prior to 1986 are unknown.

Provide information about the current/historical waste management practices, including types of wastes that are/were generated and how the waste are/were stored and managed.

According to the current facility operator, waste PCE is stored in 5-gallon plastic pails and is disposed of by Safety-Kleen . Waste disposal practices prior to 1986 are unknown.

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**Ground Surface Conditions**

- Unpaved
- Paved                      % area paved: 90
- Any visible cracks in pavement?  Yes  No

**Subsurface Utilities**

In the space provided for additional notes, please indicate the location and distance from soil and/or groundwater contamination to the nearest subsurface utility line and access point (e.g., manhole).

Have the utilities been screened for vapor levels?  Yes  No

If YES, attach documentation of vapor monitoring results.

Indicate which of the following utilities currently act as conduits, or are likely to become conduits, under the columns entitled "Impacted by Release," and "Potentially Impacted by Release," respectively.

	Depth [feet]	Type of Material	Flow Direction	Impacted by Release	Potentially Impacted by Release
<input checked="" type="checkbox"/> Sanitary sewer	Unknown	Unknown	Unknown	Unknown	Unlikely
<input type="checkbox"/> Septic drainfields					
<input checked="" type="checkbox"/> Covered storm sewer	Unknown	Unknown	Unknown	Unknown	Unlikely
<input type="checkbox"/> Open ditch					
<input checked="" type="checkbox"/> Water line	Unknown	Unknown	Unknown	Unknown	Unlikely
<input checked="" type="checkbox"/> Gas line	Unknown	Unknown	Unknown	Unknown	Unlikely
<input type="checkbox"/> Electric line					
<input type="checkbox"/> Telephone line					
<input type="checkbox"/> Other					

**Release Characterization**

Date the release was discovered: 02/07/13  
 Date the release was reported: 03/07/13  
 Type of release (explain): PCE identified in soil and groundwater during a 1% Assessment.

- Has the release been abated?  Yes  No    There is no evidence of on-going releases.
- Is native soil impacted?  Yes  No
- Is groundwater impacted?  Yes  No
- Is surface water impacted?  Yes  No

**Release Discovery**

- UST(s)/AST(s) removal
- Inventory control
- Facility remodeling/Construction activity
- Environmental assessment
- Other (specify)
- Known spill incident
- Citizen complaint
- Assessment on adjacent property
- Unknown

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Source(s) of Release

- |  |   |
|--|---|
| <input type="checkbox"/> Spills/Overfills  | <input type="checkbox"/> Tanks              |
| <input type="checkbox"/> Piping  | <input checked="" type="checkbox"/> Unknown |
| <input type="checkbox"/> Other (specify) <b>PCE and TCE have been detected in soil and groundwater across the site; however, the details regarding the source(s) of the release are unknown.</b> |   |

Chemicals of Concern

- |  |  |
|--|--|
| <input type="checkbox"/> 1,1,1-Trichloroethane           | <input checked="" type="checkbox"/> cis-1,2-Dichloroethylene   |
| <input type="checkbox"/> 1,1,2,2-Tetrachloroethane       | <input checked="" type="checkbox"/> Ethylbenzene               |
| <input type="checkbox"/> 1,1,2-Trichloroethane           | <input type="checkbox"/> Methyl tert-butyl ether (MTBE)        |
| <input type="checkbox"/> 1,1-Dichloroethane              | <input checked="" type="checkbox"/> Naphthalene                |
| <input checked="" type="checkbox"/> 1,1-Dichloroethylene | <input checked="" type="checkbox"/> Tetrachloroethylene        |
| <input type="checkbox"/> 1,2-Dichloroethane (EDC)        | <input checked="" type="checkbox"/> Toluene                    |
| <input checked="" type="checkbox"/> Benzene              | <input checked="" type="checkbox"/> trans-1,2-Dichloroethylene |
| <input type="checkbox"/> Benzo(a)pyrene                  | <input checked="" type="checkbox"/> Trichloroethylene          |
| <input type="checkbox"/> Carbon tetrachloride            | <input checked="" type="checkbox"/> Vinyl chloride             |
| <input checked="" type="checkbox"/> Chloroform           | <input checked="" type="checkbox"/> Xylenes (total)            |
| <input checked="" type="checkbox"/> Others               | <u>Isopropylbenzene</u>  |
| <u>1,2,4-TMB, 1,3,5-TMB</u>                              | <u>n-Butylbenzene, sec-Butylbenzene</u>                        |
| <u>p-Iropropyltoluene</u>                                | <u>tert-Butylbenzene, n-Propylbenzene</u>                      |

Additional Notes

The primary constituents of concern at the site are PCE and its degradation products (TCE, cis-1,2-DCE, trans-1,2-DCE, and VC). These constituents have been detected in soil and/or groundwater above DSCA Tier 1 RBSLs. The presence of these constituents is believed to be associated with a release of the dry-cleaning solvent PCE. In addition, benzene, ethylbenzene, naphthalene, xylenes, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1,1-dichloroethene, isopropylbenzene, n-butylbenzene, n-propylbenzene, p-isopropyltoluene, sec-butylbenzene, and tert-butylbenzene have been detected at the site in soil and/or groundwater at concentrations above DSCA Tier 1 RBSLs/NC 2L groundwater standards. The presence of these constituents is believed to be associated with the historical use of petroleum-based (i.e., Stoddard) dry-cleaning solvents.

In addition to those listed above, toluene, acetone, bromomethane, chloroform, and 4-methyl-2-pentanone have been detected in soil and/or groundwater at concentrations below DSCA Tier 1 RBSLs/NC 2L groundwater standards.



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**Land Use**

On-site Land Use

Residential

Commercial/Industrial

Other

Current

Future

Justify the choice for future land use:

The property is currently an active dry-cleaning facility. There are no current redevelopment plans; however, as part of nearby roadway improvements, the potential exists that the building will be partially or wholly demolished. In this case, the site land use would be a roadway.

Immediate Off-site Land Use (within 500 feet - at a minimum, state whether, residential, commercial/industrial, agricultural, or ecologically sensitive area). Indicate distances to residential/commercial/industrial buildings having basements which are occupied.

North:	Commercial
Northeast:	Commercial
Northwest:	Commercial
South:	Commercial
Southeast:	Commercial
Southwest:	Commercial
West:	Commercial
East:	Commercial

**Receptor Survey**

List the distance and the direction (downgradient, upgradient, or crossgradient) to these facilities within 0.5 mile radius of the site (If necessary provide details in additional notes).

	Distance [feet]	Direction
Nearest residential site:	600	Downgradient
Nearest commercial/industrial site:	On-Site	N/A
If site is vacant, nearest inhabited building:	N/A	N/A
Nearest ecologically sensitive area (agricultural areas, parks/recreational areas, wildlife sanctuaries, wetlands):	1,800	Downgradient
Nearest school, hospital, day care, nursing home etc.:	1,000	Downgradient
Nearest public supply well:	None w/in 1 mile	N/A
Nearest private supply well:	850	Upgradient
Nearest point of exposure (current or potential) for groundwater ingestion:	3,150	Upgradient
Nearest surface water body:	150	Downgradient

**Additional Notes**

Distances to the nearest residential site, ecologically sensitive area (Fred Fletcher Park), and school (Partnership Elementary) are measured from the source property lines to applicable non-source property lines. No public water supply wells were identified during a receptor survey conducted by H&H. Ten private water supply wells were identified within 1 mile of the site. The closest private well is approximately 850 feet east and upgradient of the site. The Pigeon House Branch of Crabtree Creek is located approximately 150 feet northwest and downgradient of the site. The nearest current point of exposure (POE) for groundwater ingestion is water supply well D040771. Other water supply wells closer to the site are used for irrigation. Groundwater flow direction has not been confirmed; thus, directions are estimated.

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Groundwater Use

Is the groundwater used on-site?  Yes  No

If yes, specify the use:

- Potable domestic supply
- Non-potable domestic supply
- Public/Municipal supply
- Industrial supply
- Agriculture
- Other (explain in space provided below)

[Empty text box for other groundwater uses]

Surface Water Use

Is a surface water body present in 1,000 feet radius of the site?  Yes  No

If yes, specify the following:

Type of water body  River  Wet weather creek  Drain ditch  Regular creek  Other:

North Carolina classification of water body C; NSW

Does the water discharges into lake or reservoir?  Yes  No

Surface water use:

- Potable domestic supply
- Non-potable domestic supply
- Public/Municipal supply
- Industrial supply
- Agriculture
- Other (explain in space provided below)

[Empty text box for other surface water uses]

Ecological Receptors and Habitats

1. Are there any ecological receptors or habitats present within 500 feet radius from the site?  Yes  No
2. Are there visible indications of stressed receptors or habitats on or near the site that may be a result of chemical release?  Yes  No

Water Well(s) Information

1. Are there public/municipal water supply wells within 0.5 mile radius from the  Yes  No
2. Are there private water supply wells within 1500 feet radius from the site?  Yes  No

Additional Notes

H&H identified ten private water supply wells within a 1-mile radius of the site based on visual observations and Wake County GIS. Two of the wells are within 1,500 ft: WSW-1 is 850 ft east and upgradient, WSW-2 is 1,380 ft northeast and upgradient. WSW-1 and WSW-2 are irrigation wells.

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**Stratigraphy of Site**

Depth [feet]	Description of Soil
0 to 6-18	Red-brown silty SAND and clayey SAND

Predominant Soil Type: \_\_\_\_\_

Depth [feet]	Type of Bedrock and Geological Formation
6-18 to ?	Injected Gneiss - Raleigh Belt (encountered at depths between 6 and 18 ft)

**Hydrogeology of the Saturated Impacted Zone**

Type of Aquifer?	<input type="radio"/> Confined <input checked="" type="radio"/> Unconfined <input type="radio"/> Perched
Underlying predominant aquifer name:	N/A
Aquifer classification (if applicable):	N/A
Range of groundwater level fluctuations [feet bgs]:	N/A
Average depth to water table/static water level:	N/A
Flow direction:	N/A
Hydraulic gradient (i) [--]:	N/A
Hydraulic conductivity (K) [cm/year]:	N/A
Darcy velocity (K x i) [cm/year-calculated]:	
Groundwater velocity (K x i/Porosity) [cm/year]:	N/A
Annual precipitation (average for last 30 years) [inches/year]:	46.4

**Additional Notes**

According to the Geologic Map of North Carolina dated 1985, the site property lies within the Raleigh Belt of the Piedmont Physiographic Province and overlies injected gneiss.

Average precipitation for Raleigh was obtained from the North Carolina CHRONOS database:  
<http://www.nc-climate.ncsu.edu/cronos>

There are no permanent monitoring wells at the site; therefore, groundwater properties have not been determined.

**Vadose Zone Characteristics**

	<u>Values/Range</u>			<u>Method</u>
Dry bulk density [g/cm <sup>3</sup> ]	<input type="text"/>	<input type="checkbox"/> Estimated	<input type="checkbox"/> Measured	<input type="text"/>
Total porosity [cm <sup>3</sup> /cm <sup>3</sup> ]:	<input type="text"/>	<input type="checkbox"/> Estimated	<input type="checkbox"/> Measured	<input type="text"/>
Effective porosity [cm <sup>3</sup> /cm <sup>3</sup> ]:	<input type="text"/>	<input type="checkbox"/> Estimated	<input type="checkbox"/> Measured	<input type="text"/>
Water content [cm <sup>3</sup> /cm <sup>3</sup> ]:	<input type="text"/>	<input type="checkbox"/> Estimated	<input type="checkbox"/> Measured	<input type="text"/>
Fractional organic carbon content [g-C/g-soil]:	<input type="text"/>	<input type="checkbox"/> Estimated	<input type="checkbox"/> Measured	<input type="text"/>

**Saturated Zone Characteristics**

	<u>Values/Range</u>			<u>Method</u>
Dry bulk density [g/cm <sup>3</sup> ]	<input type="text"/>	<input type="checkbox"/> Estimated	<input type="checkbox"/> Measured	<input type="text"/>
Total porosity [cm <sup>3</sup> /cm <sup>3</sup> ]:	<input type="text"/>	<input type="checkbox"/> Estimated	<input type="checkbox"/> Measured	<input type="text"/>
Effective porosity [cm <sup>3</sup> /cm <sup>3</sup> ]	<input type="text"/>	<input type="checkbox"/> Estimated	<input type="checkbox"/> Measured	<input type="text"/>
Water content [cm <sup>3</sup> /cm <sup>3</sup> ]:	<input type="text"/>	<input type="checkbox"/> Estimated	<input type="checkbox"/> Measured	<input type="text"/>
Fractional organic carbon content [g-C/g-soil]:	<input type="text"/>	<input type="checkbox"/> Estimated	<input type="checkbox"/> Measured	<input type="text"/>

**Additional Notes**

**DSCA ID No.: 92-0048**

Was NAPL discovered at the site:

Yes  No

If Yes, type of NAPL discovered:

LNAPL  DNAPL

**Summary of LNAPL**

Date LNAPL was discovered?

Type of LNAPL discovered (if known):

Number of monitoring wells/points currently at site:

Number of monitoring wells/points containing LNAPL (Note if any, list the monitoring wells/points containing NAPL):

Has LNAPL removal started?

If No, cite reason:

If Yes, specify method of removal (bailer, pump, etc.):

Removal points (MW #, Boring #, etc.):

Total number of recovery events to date:

Total amount of purge-water recovered:

Total amount of LNAPL recovered:

Date of latest LNAPL removal report submitted:

**Summary of DNAPL**

Date DNAPL was discovered?

2/17/2013, 9/16/2013, 9/18/2013

Type of DNAPL discovered (if known):

PCE

Number of monitoring wells/points currently at site:

0 permanent monitoring wells

Number of monitoring wells/points containing DNAPL (Note if any, list the monitoring wells/points containing DNAPL):

3 temporary monitoring wells

Has DNAPL removal started?

No

If No, cite reason:

There are no permanent wells at the site.

If Yes, specify method of removal (bailer, pump, etc.):

N/A

Removal points (MW #, Boring #, etc.):

N/A

Total number of recovery events to date:

N/A

Total amount of purge-water recovered:

N/A

Total amount of DNAPL recovered:

N/A

Date of latest DNAPL removal report submitted:

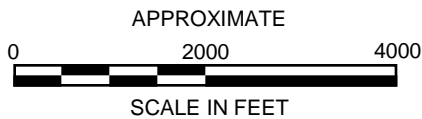
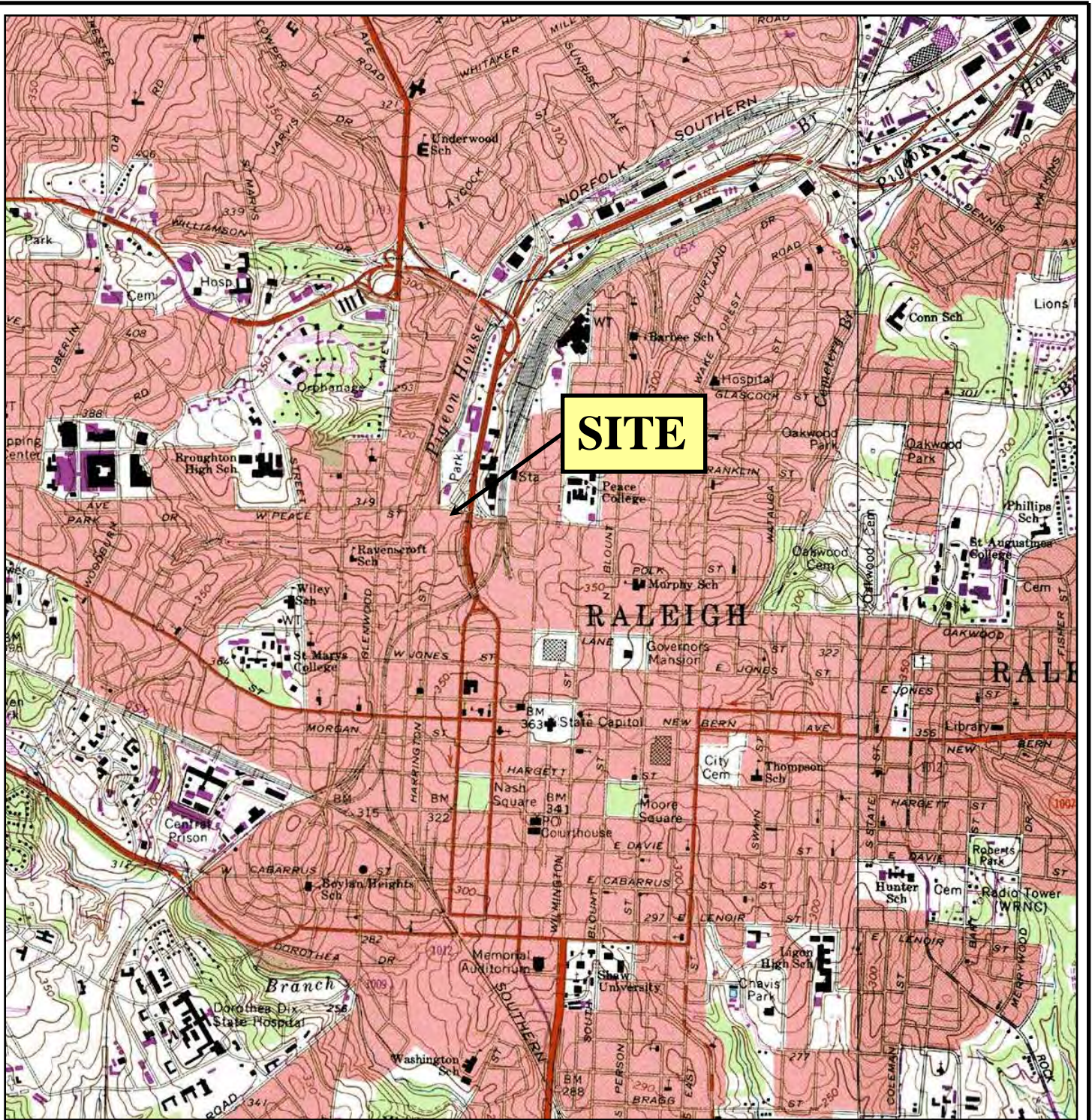
N/A

**Additional Notes**

During February 2013 assessment activities, PCE was detected at a concentration of 955 mg/L in temporary monitoring well TMW-4, located adjacent to the current waste PCE storage area. NAPL was observed in TMW-4 during sampling, and the detected PCE concentration was indicative of NAPL (i.e., it exceeded the solubility limit of 150 mg/L).

During September 2013 assessment activities, concentrations of PCE in temporary monitoring wells TMW-13 and TMW-21 were 27 mg/L and 36 mg/L, respectively. These concentrations are indicative of NAPL (i.e., they exceed 10% of the solubility limit of PCE). TMW-17 is located outside the site building and just northwest of the current PCE dry-cleaning machine/waste PCE storage area. TMW-21 is located on the adjacent property to the east, approximately 50 ft east of the current PCE dry-cleaning machine/waste PCE storage area.


**ATTACHMENT 1**  
**SITE LOCATION MAP**



U.S.G.S. QUADRANGLE MAP

RALEIGH WEST, NC 1988

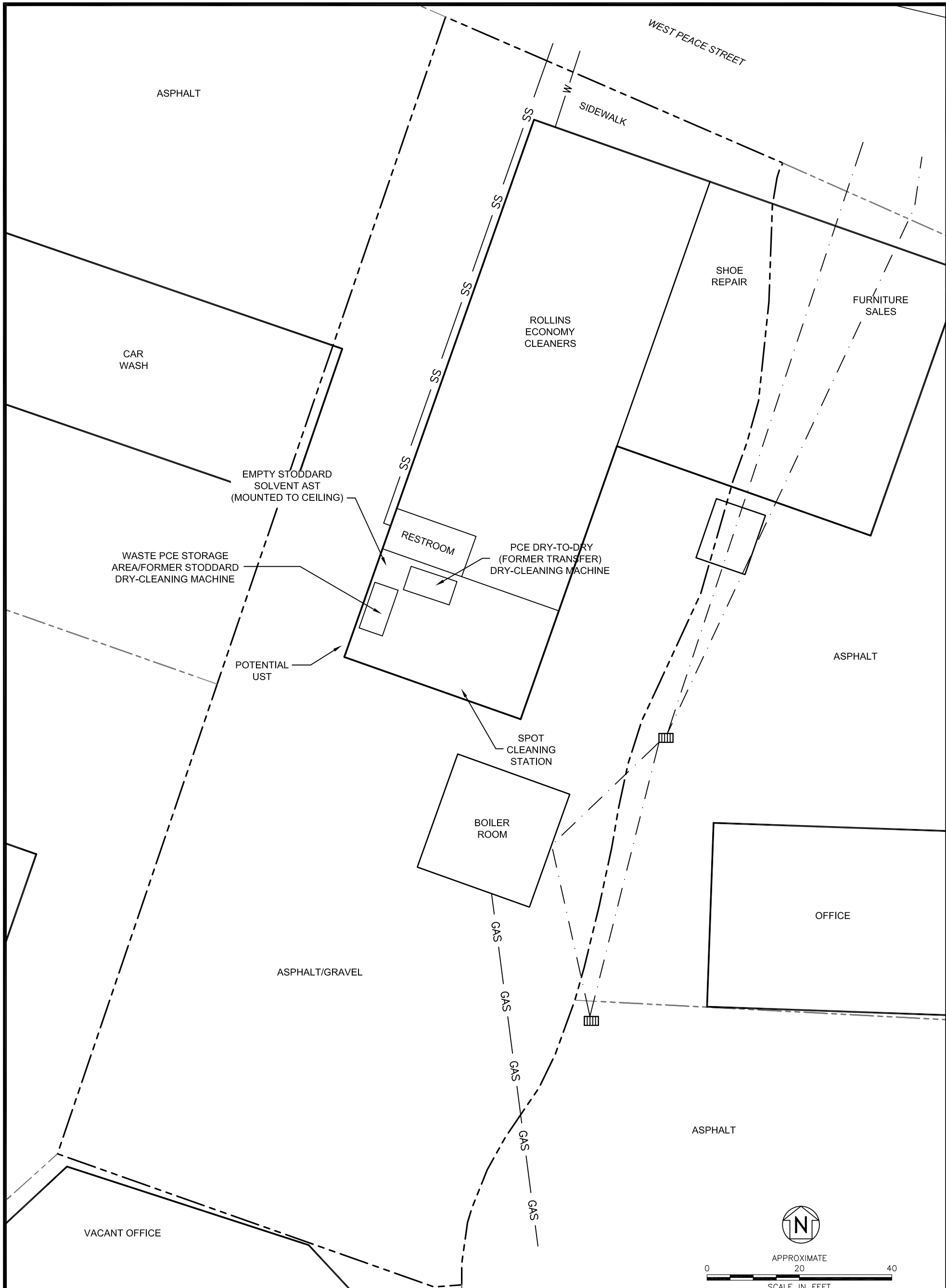
QUADRANGLE  
7.5 MINUTE SERIES (TOPOGRAPHIC)

TITLE	SITE LOCATION MAP	
PROJECT	ROLLINS ECONOMY CLEANERS DSCA ID: 92-0048 407 W. PEACE STREET RALEIGH, WAKE COUNTY	
 2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007 (p) 704-586-0373 (f)		
DATE:	12/19/13	REVISION NO: 0
JOB NO:	DS0-79	ATTACHMENT NO: 1

**ATTACHMENT 5**  
**FACILITY LAYOUT DIAGRAM**

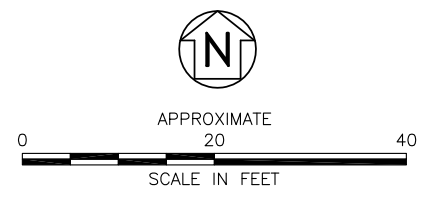


S:\AAA-Master Projects\DSCA - DSO\DSO-79 Rollins Economy Cleaners\Reports\2013-09\_PAI\DC20046\_20131209\_Figures.dwg ATT5: 12/19/2013 11:21:13 AM.



- LEGEND**
- SOURCE PROPERTY BOUNDARY
  - - - PROPERTY PARCEL
  - SOIL SAMPLE LOCATION
  - W — WATER LINE
  - GAS — NATURAL GAS LINE
  - SS — SANITARY SEWER LINE
  - · - · - STORM SEWER LINE
  - ▣ STORM SEWER DROP INLET

**NOTES:**  
 1. BASE MAP DATA FROM WAKE COUNTY GIS.  
 2. STORM SEWER LOCATIONS FROM WAKE COUNTY GIS.



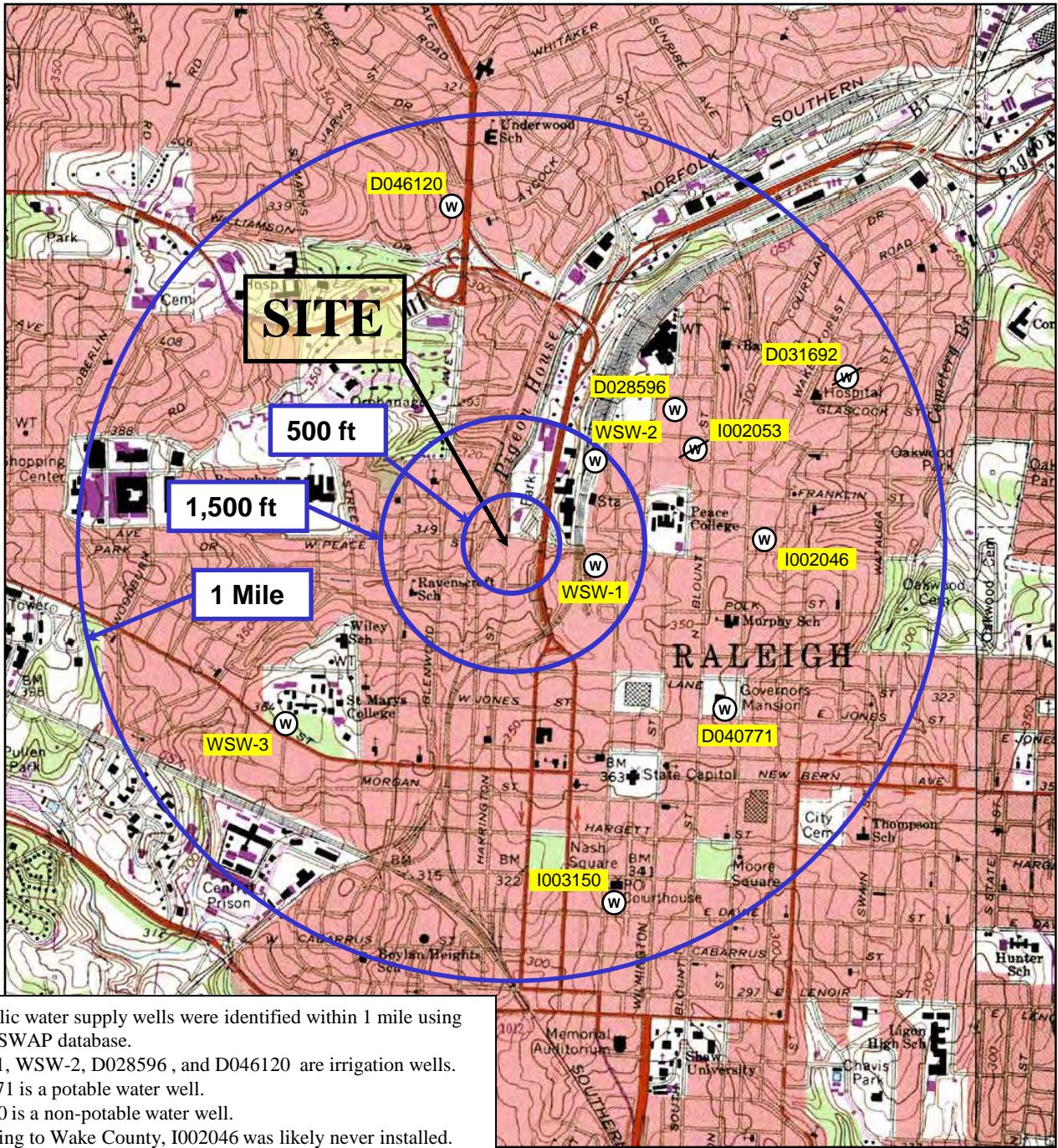
<b>FACILITY LAYOUT DIAGRAM</b>	
<b>ROLLINS ECONOMY CLEANERS</b> <b>DSCA ID: 92-0048</b> 407 W. PEACE ST. RALEIGH, WAKE COUNTY	
2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology	
DATE: 12/18/13	REVISION NO. 0
JOB NO. DSO-79	ATTACHMENT NO. 5

**ATTACHMENT 7**



**VICINITY MAP**

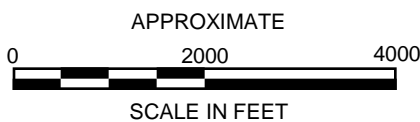


**ATTACHMENT 8**  
**WATER WELL LOCATION MAP**




No public water supply wells were identified within 1 mile using the NCSWAP database.  
 WSW-1, WSW-2, D028596, and D046120 are irrigation wells.  
 D040771 is a potable water well.  
 I003150 is a non-potable water well.  
 According to Wake County, I002046 was likely never installed.  
 Water supply wells were identified visually or using Wake County GIS.

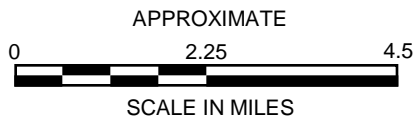
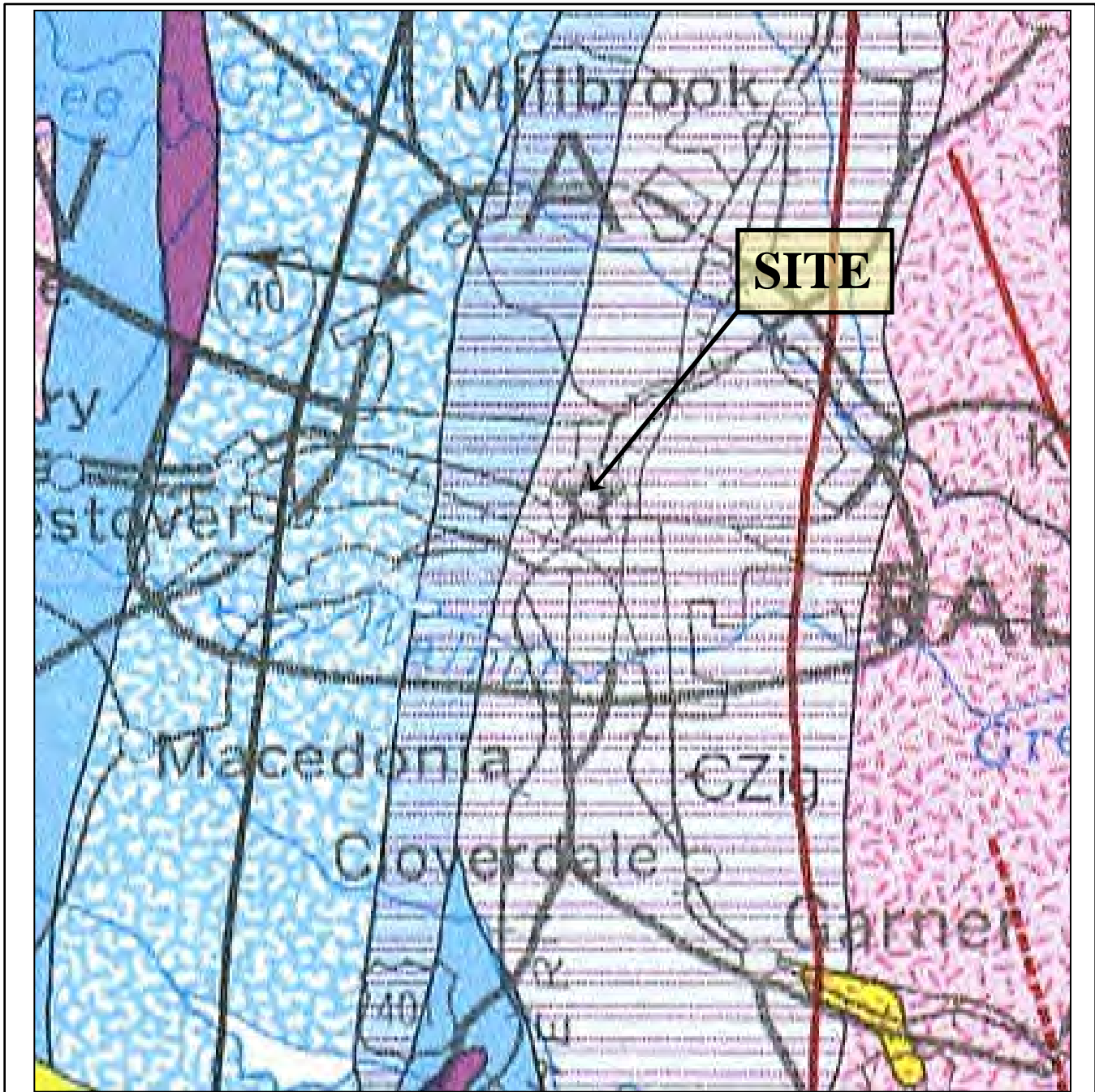
-  WATER SUPPLY WELL
-  ABANDONED WATER SUPPLY WELL



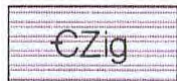
U.S.G.S. QUADRANGLE MAP  
**RALEIGH WEST, NC 1988**  
 QUADRANGLE  
 7.5 MINUTE SERIES (TOPOGRAPHIC)

TITLE	<b>WATER WELL LOCATION MAP</b>	
PROJECT	<b>ROLLINS ECONOMY CLEANERS DSCA ID: 92-0048 407 W. PEACE STREET RALEIGH, WAKE COUNTY</b>	
		2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007 (p) 704-586-0373 (f)
DATE: 12/19/13	REVISION NO: 0	
JOB NO: DS0-79	ATTACHMENT NO: 8	

**ATTACHMENT 9**  
**AREA GEOLOGIC MAP**




**RALEIGH BELT**



**INJECTED GNEISS:** biotite gneiss and schist intruded by numerous sills and dikes of granite, pegmatite, and aplite; minor hornblende gneiss

SOURCE: GEOLOGIC MAP OF NORTH CAROLINA 1985

TITLE	<b>AREA GEOLOGIC MAP</b>	
PROJECT	<b>ROLLINS ECONOMY CLEANERS</b> <b>DSCA ID: 92-0048</b> 407 W. PEACE STREET RALEIGH, WAKE COUNTY	
 2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007 (p) 704-586-0373 (f)		
DATE:	12-4-13	REVISION NO: 0
JOB NO:	DS0-79	ATTACHMENT: 9

**ATTACHMENT 10**  
**SOIL BORING LOGS**





# BORING NUMBER SB-7

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0						Asphalt		0.0
						Moist, Black, SILTY SAND		
2.5		GB	0	42.2				2.5
5.0		GB	0	398		Moist, Gray and Light Brown, CLAYEY SAND		5.0
							Borehole abandoned following sample collection	
7.5			0	487				7.5
			0	160		Wet, Gray, SILTY SAND with Strong Petroleum Odor		
10.0						Bottom of borehole at 10.0 feet.		10.0

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** DPT Sleeves  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/16/13  
**BORING COMPLETED:** 9/16/13  
**TOTAL DEPTH:** 10 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**



# BORING NUMBER SB-8

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Asphalt			0.0
					Moist, Black to Gray, SILTY SAND			
			0	104				
			0	153				
2.5		GB	0	890				2.5
					Moist, Gray and Light Brown, CLAYEY SAND			
			0	946				
			0	1289				
5.0		GB	0	1508				5.0
					Wet, Gray and Light Brown, CLAYEY SAND			
			0	1379				
			0	846				
7.5			0	760				7.5
			0	94.6				
10.0						Bottom of borehole at 10.0 feet.		10.0

Borehole abandoned following sample collection

<b>DRILLING CONTRACTOR:</b> Quantex <b>DRILL RIG/ METHOD:</b> Geoprobe / DPT/Hand Auger <b>SAMPLING METHOD:</b> DPT Sleeves <b>LOGGED BY:</b> MJG <b>DRAWN BY:</b> TAK	<b>BORING STARTED:</b> 9/16/13 <b>BORING COMPLETED:</b> 9/16/13 <b>TOTAL DEPTH:</b> 10 ft. <b>TOP OF CASING ELEV:</b> <b>DEPTH TO WATER:</b>	<b>Remarks:</b>
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# BORING NUMBER SB-9

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners  
**JOB NUMBER:** DS0-79  
**LOCATION:** Raleigh, NC

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Asphalt			0.0
					Moist, Black to Gray, SILTY SAND			
			0	62.2				
			0	84.1				
2.5		GB	0	127				2.5
					Moist, Red and Brown, CLAYEY SILT			
			0	89.9				
					Moist, Gray to Black, SILTY SAND			
			0	120				
5.0		GB	0	197				5.0
					Wet, Gray to Black, CLAYEY SAND			
			0	1088				
7.5			0	1025				7.5
10.0						Bottom of borehole at 10.0 feet.		10.0

Borehole abandoned following sample collection

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** DPT Sleeves  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/16/13  
**BORING COMPLETED:** 9/16/13  
**TOTAL DEPTH:** 10 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**



# BORING NUMBER SB-10

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Asphalt			0.0
					Moist, Black to Gray, SILTY SAND			
			0	107				
			0	662				
2.5		GB	0	1026				2.5
		GB	0	1624		Moist, Red and Brown, CLAYEY SILT		
			0	1232		Moist, Gray to Black, SILTY SAND		
5.0			0	750				5.0
			0	749				
7.5			0	421		Wet, Gray to Black, CLAYEY SAND		7.5
						Bottom of borehole at 8.0 feet.		
10.0								10.0

Borehole abandoned following sample collection

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** DPT Sleeves  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/16/13  
**BORING COMPLETED:** 9/16/13  
**TOTAL DEPTH:** 8 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**



# BORING NUMBER SB-11

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Asphalt			0.0
					Moist, Black to Gray, SILTY SAND			
		GB	0	2.2				
		GB	0	5.8				
2.5			0	3.3				2.5
			0	12.5	Moist, Red and Brown, CLAYEY SILT			
		GB	0	79	Moist, Gray to Black, SILTY SAND			
5.0			0	16				5.0
			0	31.3				
7.5			0	720	Wet, Gray to Black, CLAYEY SAND			7.5
					Bottom of borehole at 8.0 feet.			
10.0								10.0

Borehole abandoned following sample collection

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** DPT Sleeves  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/16/13  
**BORING COMPLETED:** 9/16/13  
**TOTAL DEPTH:** 8 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**



# BORING NUMBER SB-12

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Asphalt			0.0
					Moist, Gray and Black to Brown and Light Brown, SILTY SAND			
			0	14.4				
			0	19				
2.5		GB	0	1014				2.5
		GB	0	242				
			0	13.2				
5.0			0	14.4				5.0
			0	18.5				
7.5			0	491		Wet, Light Brown to Gray, SILTY SAND		7.5
						Bottom of borehole at 8.0 feet.		
10.0								10.0

Borehole abandoned following sample collection

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** DPT Sleeves  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/16/13  
**BORING COMPLETED:** 9/16/13  
**TOTAL DEPTH:** 8 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**



# BORING NUMBER SB-13

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Asphalt			0.0
					Moist, Brown, SILTY SAND			
			0	0.5				
			0	1.5				
2.5		GB	0	5.5				2.5
		GB	0	1.6				
			0	0.4				
5.0			0	0	Wet, Brown, SILTY SAND			5.0
			0	0.6	Wet, Gray, CLAYEY SAND			
7.5			0	0.5				7.5
					Bottom of borehole at 8.0 feet.			
10.0								10.0

Borehole abandoned following sample collection

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** DPT Sleeves  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/16/13  
**BORING COMPLETED:** 9/16/13  
**TOTAL DEPTH:** 8 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**



# BORING NUMBER SB-14

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Asphalt			0.0
					Moist, Gray to Black, SILTY SAND			
			0	0.6				
			0	1.3				
2.5		GB	0	0.4				2.5
					Wet, Brown, SILTY SAND			
			0	0				
					Wet, Brown to Gray and Orange, CLAYEY SAND			
			0	0				
			0	0				
5.0			0	0				5.0
			0	0				
			0	0				
7.5			0	0				7.5
						Bottom of borehole at 8.0 feet.		
10.0								10.0

Borehole abandoned following sample collection

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** DPT Sleeves  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/16/13  
**BORING COMPLETED:** 9/16/13  
**TOTAL DEPTH:** 8 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**





# BORING NUMBER SB-15/TMW-14

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

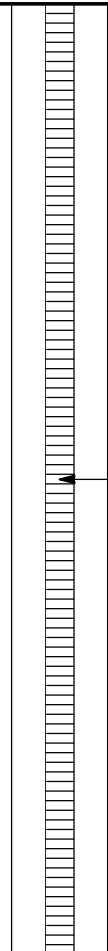
3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Concrete			0.0
			0	4.6	Moist, Light Brown to Brown, SILTY SAND			
			0	15				
2.5		GB	0	20.2	Moist, Brown to Gray, CLAYEY SAND			2.5
		GB	0	12.6				
			0	5.1				
5.0			0	2.4				
			0	1.8				
7.5			0	0.4	Wet, Brown to Gray, CLAYEY SAND			7.5
					Bottom of borehole at 8.0 feet.			
10.0								10.0



1" Dia. Sch. 40 PVC  
0.010" slot screen. Well materials removed and borehole abandoned following sample collection.

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** N/A / Hand Auger  
**SAMPLING METHOD:** Auger Cuttings  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/17/13  
**BORING COMPLETED:** 9/17/13  
**TOTAL DEPTH:** 8 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
Groundwater sample collected from temporary monitoring well



# BORING NUMBER SB-16

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Concrete		0.0	
			0	5	Moist, Red and Brown, SILTY SAND			
		GB	0	48				
2.5			0	26.7	Moist, Brown to Gray, CLAYEY SAND			
		GB	0	70				
			0	84.4	Wet, Brown to Gray, CLAYEY SAND			
5.0		GB	0	64.4				
			0	40.2				
7.5					Bottom of borehole at 7.0 feet.		7.5	
10.0							10.0	

Borehole abandoned following sample collection

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** N/A / Hand Auger  
**SAMPLING METHOD:** Auger Cuttings  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/17/13  
**BORING COMPLETED:** 9/17/13  
**TOTAL DEPTH:** 7 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**



# BORING NUMBER SB-17

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Concrete			0.0
			0	13.9	Moist, Red and Brown to Black, SILTY SAND	[Boring Diagram: 0.0 to 7.0 ft depth]		
			0	51.9				
2.5		GB	0	132				
		GB	0	68.6				
			0	37.2				
			0	24.1				
			0	10.5				
					Wet, Brown to Light Brown, SILTY SAND			
					Bottom of borehole at 7.0 feet.			
7.5								7.5
10.0								10.0

Borehole abandoned following sample collection

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** N/A / Hand Auger  
**SAMPLING METHOD:** Auger Cuttings  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/17/13  
**BORING COMPLETED:** 9/17/13  
**TOTAL DEPTH:** 7 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**



# BORING NUMBER SB-18/TMW-15

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Concrete			0.0
			0	3.1	Moist, Red and Brown to Black, SILTY SAND			
			0	3.2				
2.5		GB	0	15.8	Moist, Gray, CLAYEY SAND			2.5
			0	7.2				
		GB	0	18.3	Wet, Gray, CLAYEY SAND			
5.0			0	9.4				5.0
			0	2.3				
7.5								7.5
10.0								10.0
Bottom of borehole at 11.0 feet.								

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** N/A / Hand Auger  
**SAMPLING METHOD:** Auger Cuttings  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/17/13  
**BORING COMPLETED:** 9/17/13  
**TOTAL DEPTH:** 11 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
Groundwater sample collected from temporary monitoring well



# BORING NUMBER SB-19

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Asphalt			0.0
		GB	0	6.3		Moist, Brown to Black, SILTY SAND	<p>Borehole abandoned following sample collection</p>	
			0	2.1				
2.5			0	2.7				2.5
		GB	0	4.9				
			0	4.2				
5.0			0	8	Moist, Gray, CLAYEY SAND			5.0
			0	9.4	Wet, Gray, CLAYEY SAND			
7.5					Bottom of borehole at 7.0 feet.		7.5	
10.0							10.0	

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** DPT Sleeves  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/18/13  
**BORING COMPLETED:** 9/18/13  
**TOTAL DEPTH:** 7 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**



# BORING NUMBER SB-20

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Topsoil			0.0
					Moist, Brown and Red, SILTY SAND			
		GB	0	35.2				
		GB	0	133				
2.5			0	84				2.5
		GB	0	95.5				
			0	76	Moist, Red and Brown to Gray, CLAYEY SAND			
5.0			0	24	Wet, Red and Brown to Gray, CLAYEY SAND			5.0
					Refusal at 6.0 feet. Bottom of borehole at 6.0 feet.			
7.5								7.5
10.0								10.0

Borehole abandoned following sample collection

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** N/A / Hand Auger  
**SAMPLING METHOD:** Auger Cuttings  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/18/13  
**BORING COMPLETED:** 9/18/13  
**TOTAL DEPTH:** 6 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**



# BORING NUMBER SB-21

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Topsoil			0.0
					Moist, Gray to Black and Brown, SILTY SAND			
			0	0				
			0	2				
2.5		GB	0	234				2.5
		GB	0	1415				
			0	1104	Moist, Red and Brown to Gray, CLAYEY SAND			
5.0			0	434	Wet, Red and Brown to Gray, CLAYEY SAND			5.0
					Refusal at 6.0 feet. Bottom of borehole at 6.0 feet.			
7.5								7.5
10.0								10.0

Borehole abandoned following sample collection

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** N/A / Hand Auger  
**SAMPLING METHOD:** Auger Cuttings  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/18/13  
**BORING COMPLETED:** 9/18/13  
**TOTAL DEPTH:** 6 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**



# BORING NUMBER SB-22

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0		GB	0	253	Concrete		0.0	
			0	261	Moist, Brown, SILTY SAND			
2.5			0	85.1			2.5	
		GB	0	152	Moist, Gray, CLAYEY SAND			
5.0			0	98.1			5.0	
			0	421.4	Wet, Gray, CLAYEY SAND			
7.5			0	1272			7.5	
			0	393				
					Bottom of borehole at 8.0 feet.			
10.0							10.0	

Borehole abandoned following sample collection

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** DPT Sleeves  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/18/13  
**BORING COMPLETED:** 9/18/13  
**TOTAL DEPTH:** 8 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**





# BORING NUMBER SB-23

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Concrete			0.0
			0	950	Moist, Brown to Gray, SILTY SAND			
		GB	0	98.4				
2.5			0	42.7	Moist, Gray, CLAYEY SAND			2.5
		GB	0	48.3				
			0	19.1	Wet, Gray, CLAYEY SAND			5.0
			0	58.6				
			0	11.5				7.5
			0	7.2				
					Bottom of borehole at 8.0 feet.			
10.0								10.0

Borehole abandoned following sample collection

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** DPT Sleeves  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/18/13  
**BORING COMPLETED:** 9/18/13  
**TOTAL DEPTH:** 8 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**



# BORING NUMBER SB-24

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Asphalt			0.0
					Moist, Brown, SILTY SAND with Gravel			
			0	3.8				
			0	5.2				
2.5		GB	0	7.5	Moist, Brown and Red, CLAYEY SAND			2.5
			0	9.7				
		GB	0	12.5				
5.0			0	11.6	Moist, Brown, SILTY SAND			5.0
			0	11				
7.5			0	9.8	Wet, Light Brown, CLAYEY SAND			7.5
						Bottom of borehole at 8.0 feet.		
10.0								10.0

Borehole abandoned following sample collection

<b>DRILLING CONTRACTOR:</b> Quantex <b>DRILL RIG/ METHOD:</b> Geoprobe / DPT/Hand Auger <b>SAMPLING METHOD:</b> DPT Sleeves <b>LOGGED BY:</b> MJG <b>DRAWN BY:</b> TAK	<b>BORING STARTED:</b> 9/19/13 <b>BORING COMPLETED:</b> 9/19/13 <b>TOTAL DEPTH:</b> 8 ft. <b>TOP OF CASING ELEV:</b> <b>DEPTH TO WATER:</b>	<b>Remarks:</b>
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# BORING NUMBER SB-25

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Concrete			0.0
			0	2.8	Moist, Brown to Gray, SILTY SAND			
			0	3.5				
2.5		GB	0	5.4	Wet, Light Brown, CLAYEY SAND			2.5
			0	6				
		GB	0	6.4				
5.0			0	7.5				
			0	7.7	Wet, Light Brown, CLAYEY SAND			
7.5			0	5				
					Bottom of borehole at 8.0 feet.			
10.0								10.0

Borehole abandoned following sample collection

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** DPT Sleeves  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/19/13  
**BORING COMPLETED:** 9/19/13  
**TOTAL DEPTH:** 8 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**



# BORING NUMBER SB-26

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Asphalt			0.0
					FILL: Moist, Brown to Light Brown, Silty Sand			
			0	1.6				
			0	2.8				
2.5		GB	0	3.9				2.5
			0	4.8	Concrete			
		GB	0	4.9	Moist, Brown and Red, SILTY SAND			
5.0			0	4.3				5.0
					Wet, Brown to Gray, CLAYEY SAND			
7.5								7.5
					Bottom of borehole at 8.0 feet.			
10.0								10.0

Borehole abandoned following sample collection

<b>DRILLING CONTRACTOR:</b> Quantex <b>DRILL RIG/ METHOD:</b> Geoprobe / DPT/Hand Auger <b>SAMPLING METHOD:</b> DPT Sleeves <b>LOGGED BY:</b> MJG <b>DRAWN BY:</b> TAK	<b>BORING STARTED:</b> 9/19/13 <b>BORING COMPLETED:</b> 9/19/13 <b>TOTAL DEPTH:</b> 8 ft. <b>TOP OF CASING ELEV:</b> <b>DEPTH TO WATER:</b>	<b>Remarks:</b>
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# BORING NUMBER SB-27

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0		GB			Concrete			0.0
			0	3.5	Moist, Red and Brown to Gray and Black, SILTY SAND		Borehole abandoned following sample collection	
			0	0.5				
2.5			0	0.3				
			0	3.8				
		GB	0	4.1	Wet, Gray, CLAYEY SAND			
5.0			0	1.4				
			0	0.5				
7.5					Bottom of borehole at 7.0 feet.			7.5
10.0								10.0

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** N/A / Hand Auger  
**SAMPLING METHOD:** Auger Cuttings  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/19/13  
**BORING COMPLETED:** 9/19/13  
**TOTAL DEPTH:** 7 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**



# BORING NUMBER SB-28

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Asphalt			0.0
					Moist, Brown, SILTY SAND			
		GB	0	0				
			0	4.1				
2.5			0	1.1				2.5
		GB	0	0.6				
			0	0.5	Moist, Brown to Red, SAND			
5.0			0	0.2	Wet, Gray, CLAYEY SAND			5.0
					Bottom of borehole at 6.0 feet.			
7.5								7.5
10.0								10.0

Borehole abandoned following sample collection

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** N/A / Hand Auger  
**SAMPLING METHOD:** Auger Cuttings  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/19/13  
**BORING COMPLETED:** 9/19/13  
**TOTAL DEPTH:** 6 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**



# BORING NUMBER SB-29

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0		GB	0	0	Concrete		0.0	
			0	0	Moist, Red and Brown, SILTY SAND	<p>Borehole abandoned following sample collection</p>		
2.5			0	0				
		GB	0	0				
5.0			0	0				
			0	0	Wet, Brown to Gray, CLAYEY SAND			
7.5					Bottom of borehole at 7.0 feet.		7.5	
10.0							10.0	

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** N/A / Hand Auger  
**SAMPLING METHOD:** Auger Cuttings  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/20/13  
**BORING COMPLETED:** 9/20/13  
**TOTAL DEPTH:** 7 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**



# BORING NUMBER SGMP-1

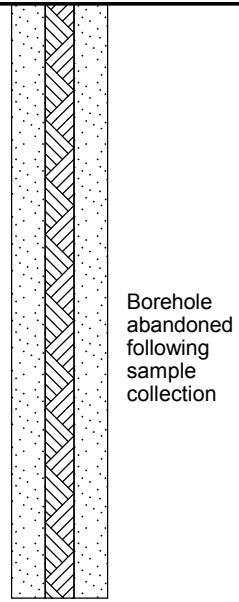
2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners  
**JOB NUMBER:** DS0-79  
**LOCATION:** Raleigh, NC

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Asphalt			0.0
					Moist, Red and Brown, SILTY SAND			
			0	0.1				
			0	0.8				
2.5		GB	0	1.1				2.5
			0	1.4				
		GB	0	1.7	Moist, Light Brown, CLAYEY SAND			
5.0					Bottom of borehole at 5.0 feet.			5.0
7.5								7.5
10.0								10.0



**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** N/A / Hand Auger  
**SAMPLING METHOD:** Auger Cuttings  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/20/13  
**BORING COMPLETED:** 9/20/13  
**TOTAL DEPTH:** 5 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**





# BORING NUMBER SGMP-3

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

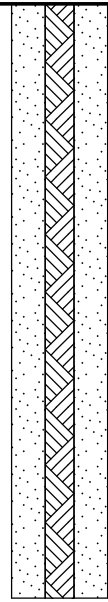
3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Asphalt			0.0
					Moist, Red and Brown, SILTY SAND			
		GB	0	3.1				
		GB	0	3.7				
2.5			0	3.4				2.5
		GB	0	3				
			0	1.8				
5.0						Bottom of borehole at 5.0 feet.		5.0
7.5								7.5
10.0								10.0



Borehole abandoned following sample collection

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** N/A / Hand Auger  
**SAMPLING METHOD:** Auger Cuttings  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/20/13  
**BORING COMPLETED:** 9/20/13  
**TOTAL DEPTH:** 5 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**



# BORING NUMBER SGMP-6

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0.0					Concrete			0.0
			0	15.4	Moist, Brown, SILTY SAND			
			0	2.8				
2.5		GB	0	412				
		GB	0	118				
			0	35.5				
5.0					Bottom of borehole at 5.0 feet.			5.0
7.5								7.5
10.0								10.0

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** N/A / Hand Auger  
**SAMPLING METHOD:** Auger Cuttings  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/20/13  
**BORING COMPLETED:** 9/20/13  
**TOTAL DEPTH:** 5 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**



# BORING NUMBER TMW-7

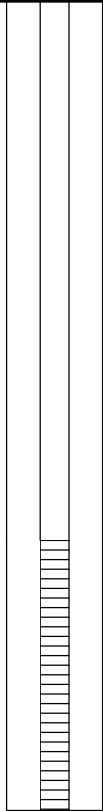
2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
15						Bottom of borehole at 12.0 feet.		15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/16/13  
**BORING COMPLETED:** 9/16/13  
**TOTAL DEPTH:** 12 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
Groundwater sample collected using Geoprobe screen-point sampler

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ



# BORING NUMBER TMW-8

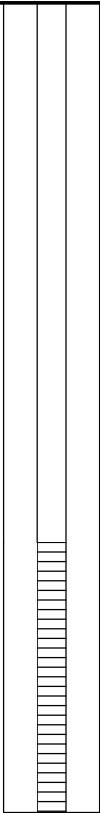
2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
15						Bottom of borehole at 12.0 feet.		15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/16/13  
**BORING COMPLETED:** 9/16/13  
**TOTAL DEPTH:** 12 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
 Groundwater sample collected using Geoprobe screen-point sampler

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ



# BORING NUMBER TMW-9

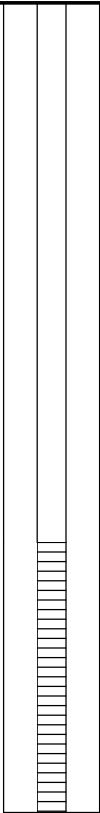
2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
15						Bottom of borehole at 12.0 feet.		15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/16/13  
**BORING COMPLETED:** 9/16/13  
**TOTAL DEPTH:** 12 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
 Groundwater sample collected using Geoprobe screen-point sampler

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ



# BORING NUMBER TMW-10

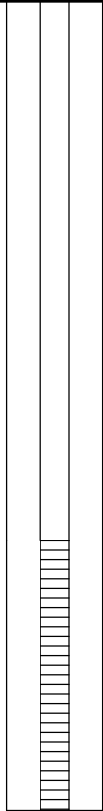
2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
15						Bottom of borehole at 12.0 feet.		15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/16/13  
**BORING COMPLETED:** 9/16/13  
**TOTAL DEPTH:** 12 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
Groundwater sample collected using Geoprobe screen-point sampler

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ



# BORING NUMBER TMW-11

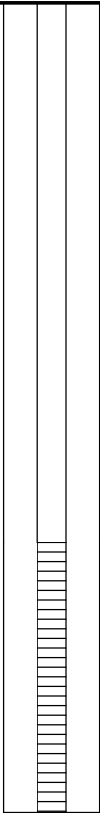
2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
12.0						Bottom of borehole at 12.0 feet.		12.0
15								15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/16/13  
**BORING COMPLETED:** 9/16/13  
**TOTAL DEPTH:** 12 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
 Groundwater sample collected using Geoprobe screen-point sampler

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ



# BORING NUMBER TMW-12

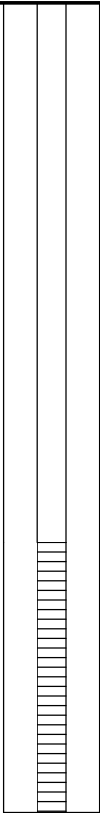
2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
15						Bottom of borehole at 12.0 feet.		15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/16/13  
**BORING COMPLETED:** 9/16/13  
**TOTAL DEPTH:** 12 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
 Groundwater sample collected using Geoprobe screen-point sampler

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ





# BORING NUMBER TMW-13

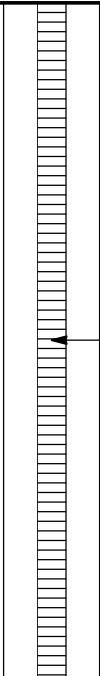
2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10						Bottom of borehole at 10.0 feet.		10
15								15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** N/A / Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/16/13  
**BORING COMPLETED:** 9/16/13  
**TOTAL DEPTH:** 10 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
Groundwater sample collected from temporary monitoring well

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ



# BORING NUMBER TMW-16

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded	<p>1" Dia. Sch. 40 PVC 0.010" slot screen. Well materials removed and borehole abandoned following sample collection.</p>	0
5								5
10								10
15						Bottom of borehole at 11.0 feet.		15

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** N/A / Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/17/13  
**BORING COMPLETED:** 9/17/13  
**TOTAL DEPTH:** 11 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
 Groundwater sample collected from temporary monitoring well



# BORING NUMBER TMW-17

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded	<p>1" Dia. Sch. 40 PVC 0.010" slot screen. Well materials removed and borehole abandoned following sample collection.</p>	0
5								5
10								10
						Bottom of borehole at 11.0 feet.		
15								15

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/16/13  
**BORING COMPLETED:** 9/16/13  
**TOTAL DEPTH:** 11 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
 Groundwater sample collected from temporary monitoring well



# BORING NUMBER TMW-18

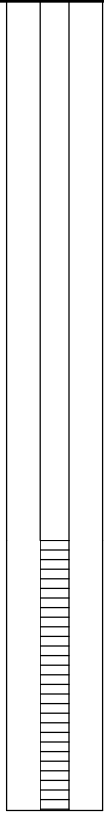
2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
15						Bottom of borehole at 12.0 feet.		15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/17/13  
**BORING COMPLETED:** 9/17/13  
**TOTAL DEPTH:** 12 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
 Groundwater sample collected using Geoprobe screen-point sampler

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ



# BORING NUMBER TMW-19

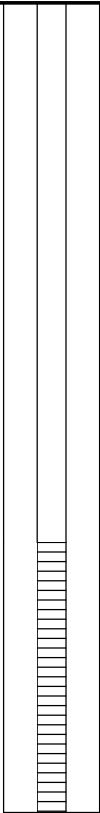
2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
15						Bottom of borehole at 12.0 feet.		15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/17/13  
**BORING COMPLETED:** 9/17/13  
**TOTAL DEPTH:** 12 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
 Groundwater sample collected using Geoprobe screen-point sampler

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ



# BORING NUMBER TMW-20

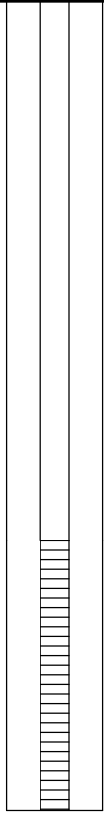
2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
15						Bottom of borehole at 12.0 feet.		15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/17/13  
**BORING COMPLETED:** 9/17/13  
**TOTAL DEPTH:** 12 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
 Groundwater sample collected using Geoprobe screen-point sampler

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ



# BORING NUMBER TMW-21

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded	<p>1" Dia. Sch. 40 PVC 0.010" slot screen. Well materials removed and borehole abandoned following sample collection.</p>	0
5								5
10								10
15						Bottom of borehole at 14.0 feet.		15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/18/13  
**BORING COMPLETED:** 9/18/13  
**TOTAL DEPTH:** 14 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
 Groundwater sample collected from temporary monitoring well



# BORING NUMBER TMW-22

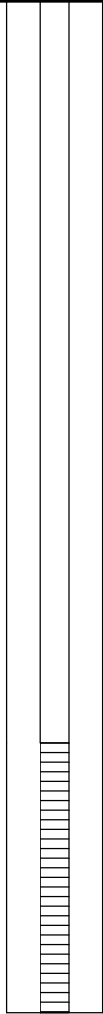
2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
15						Bottom of borehole at 15.0 feet.		15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/18/13  
**BORING COMPLETED:** 9/18/13  
**TOTAL DEPTH:** 15 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
 Groundwater sample collected using Geoprobe screen-point sampler

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ





# BORING NUMBER TMW-23

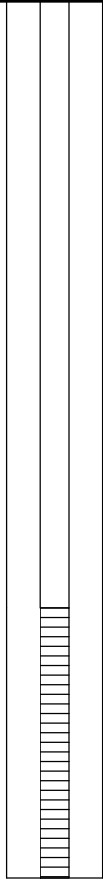
2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
15						Bottom of borehole at 13.0 feet.		15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/18/13  
**BORING COMPLETED:** 9/18/13  
**TOTAL DEPTH:** 13 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
 Groundwater sample collected using Geoprobe screen-point sampler

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ



# BORING NUMBER TMW-24

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

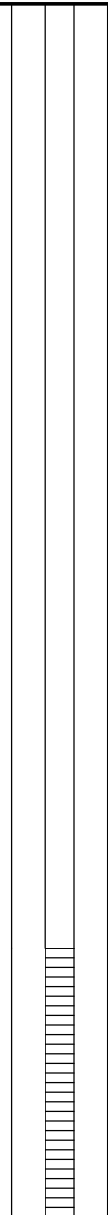
3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
15								15
						Bottom of borehole at 18.0 feet.		



1" Dia. steel screen-point sampler. Borehole abandoned following sample collection.

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/18/13  
**BORING COMPLETED:** 9/18/13  
**TOTAL DEPTH:** 18 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
Groundwater sample collected using Geoprobe screen-point sampler



# BORING NUMBER TMW-25

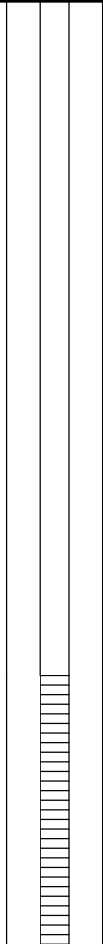
2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
15						Bottom of borehole at 14.0 feet.		15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/18/13  
**BORING COMPLETED:** 9/18/13  
**TOTAL DEPTH:** 14 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
 Groundwater sample collected using Geoprobe screen-point sampler

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

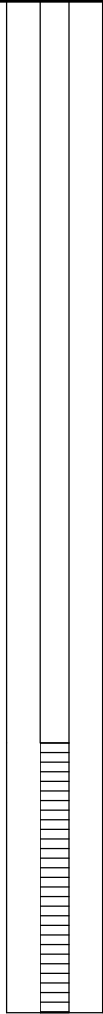


# BORING NUMBER TMW-26

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners  
**JOB NUMBER:** DS0-79  
**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
15						Bottom of borehole at 15.0 feet.		15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/18/13  
**BORING COMPLETED:** 9/18/13  
**TOTAL DEPTH:** 15 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
Groundwater sample collected using Geoprobe screen-point sampler



# BORING NUMBER TMW-27

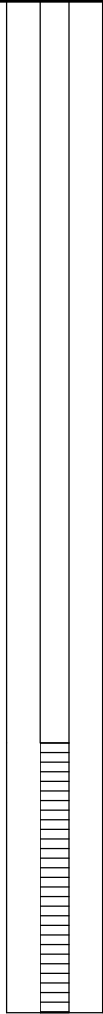
2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
15						Bottom of borehole at 15.0 feet.		15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/18/13  
**BORING COMPLETED:** 9/18/13  
**TOTAL DEPTH:** 15 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
Groundwater sample collected using Geoprobe screen-point sampler



# BORING NUMBER TMW-28

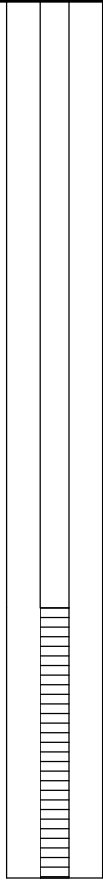
2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
15						Bottom of borehole at 13.0 feet.		15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/18/13  
**BORING COMPLETED:** 9/18/13  
**TOTAL DEPTH:** 13 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
 Groundwater sample collected using Geoprobe screen-point sampler

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ



# BORING NUMBER TMW-29

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

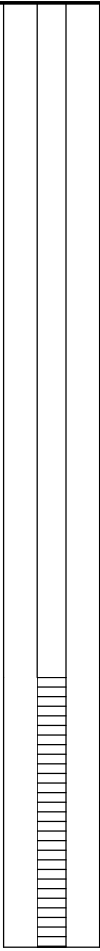
3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
15						Bottom of borehole at 14.0 feet.		15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/19/13  
**BORING COMPLETED:** 9/19/13  
**TOTAL DEPTH:** 14 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
 Groundwater sample collected using Geoprobe screen-point sampler



# BORING NUMBER TMW-30

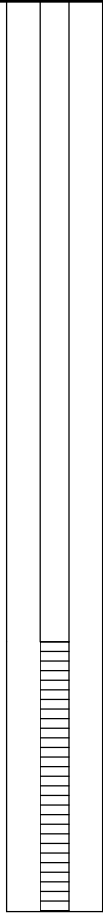
2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
15						Bottom of borehole at 13.5 feet.		15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/19/13  
**BORING COMPLETED:** 9/19/13  
**TOTAL DEPTH:** 13.5 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
 Groundwater sample collected using Geoprobe screen-point sampler

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ





# BORING NUMBER TMW-31

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded	<p>1" Dia. steel screen-point sampler. Borehole abandoned following sample collection.</p>	0
5								5
10								10
15						Bottom of borehole at 14.0 feet.		15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/19/13  
**BORING COMPLETED:** 9/19/13  
**TOTAL DEPTH:** 14 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
 Groundwater sample collected using Geoprobe screen-point sampler

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ



# BORING NUMBER TMW-32

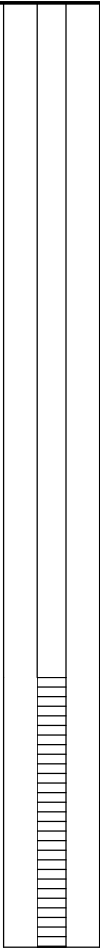
2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
15						Bottom of borehole at 14.0 feet.		15

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/19/13  
**BORING COMPLETED:** 9/19/13  
**TOTAL DEPTH:** 14 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
 Groundwater sample collected using Geoprobe screen-point sampler

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ



# BORING NUMBER TMW-33

2923 South Tryon Street-Suite 100  
Charlotte, North Carolina 28203  
704-586-0007(p) 704-586-0373(f)

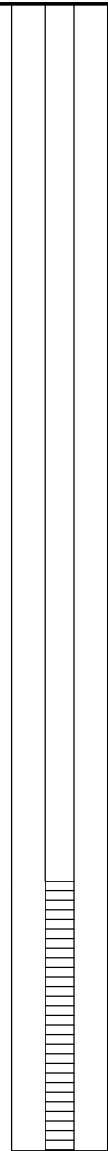
3334 Hillsborough Street  
Raleigh, North Carolina 27607  
919-847-4241(p) 919-847-4261(f)

**PROJECT:** Rollins Economy Cleaners

**JOB NUMBER:** DS0-79

**LOCATION:** Raleigh, NC

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm)		LITHOLOGY	MATERIAL DESCRIPTION	BORING DIAGRAM	DEPTH (ft)
			BKG.	SAMP.				
0						Groundwater sample only - lithology not recorded		0
5								5
10								10
15								15
						Bottom of borehole at 17.0 feet.		



1" Dia. steel screen-point sampler. Borehole abandoned following sample collection.

**DRILLING CONTRACTOR:** Quantex  
**DRILL RIG/ METHOD:** Geoprobe / DPT/Hand Auger  
**SAMPLING METHOD:** N/A  
**LOGGED BY:** MJG  
**DRAWN BY:** TAK

**BORING STARTED:** 9/19/13  
**BORING COMPLETED:** 9/19/13  
**TOTAL DEPTH:** 17 ft.  
**TOP OF CASING ELEV:**  
**DEPTH TO WATER:**

**Remarks:**  
Groundwater sample collected using Geoprobe screen-point sampler

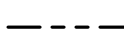
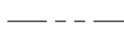

BORING LOG - HART HICKMAN.GDT - 12/4/13 14:06 - S:\AAA-MASTER GINT PROJECTS\DS0-79\_ROLLINS ECONOMY CLEANERS.GPJ

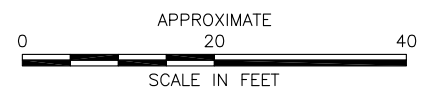
**ATTACHMENT 11**  
**SOIL SAMPLE LOCATION MAP**

WEST PEACE STREET



**LEGEND**

-  SOURCE PROPERTY BOUNDARY
-  PROPERTY PARCEL
-  SOIL SAMPLE LOCATION

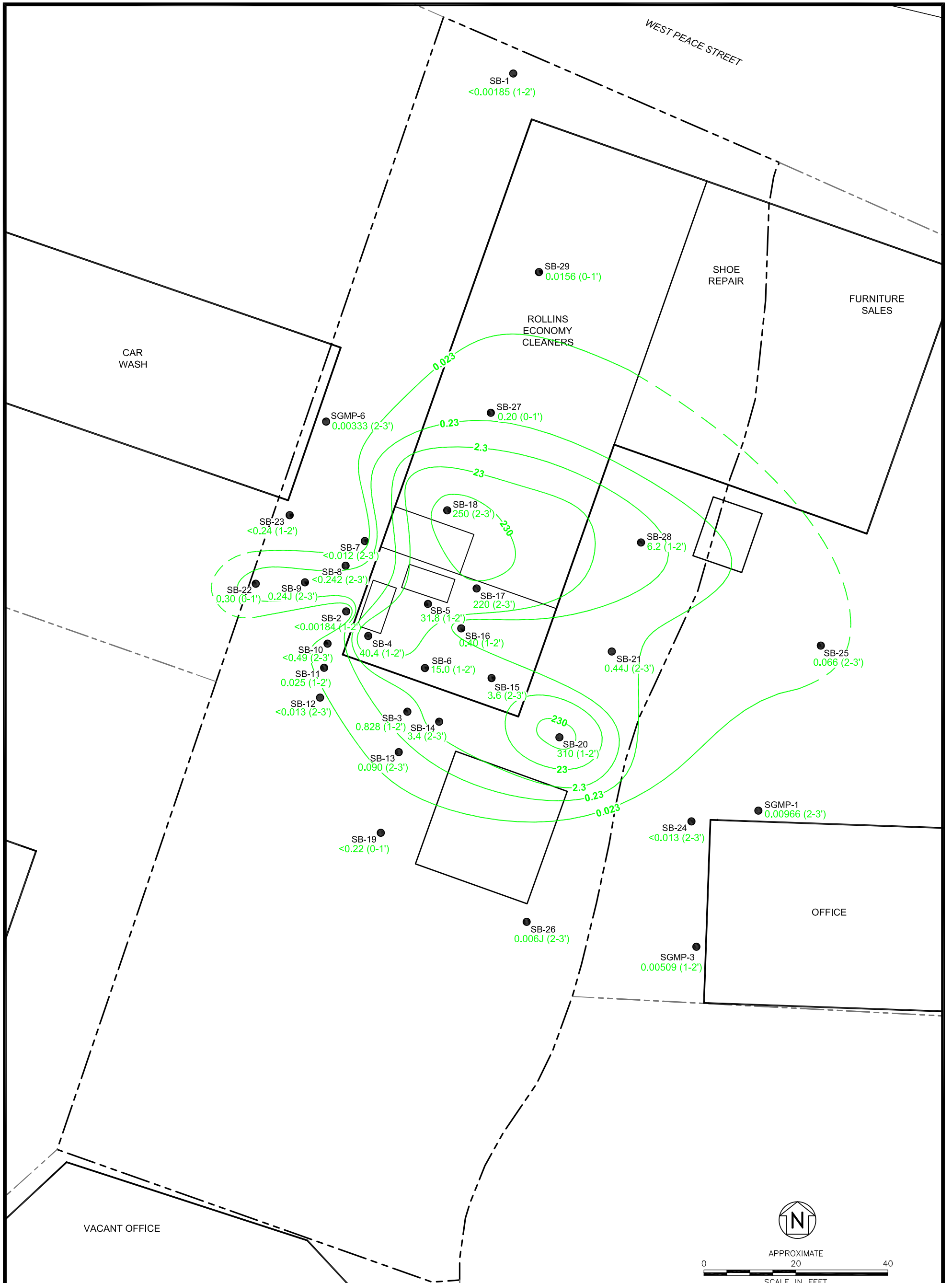


TITLE <b>SOIL SAMPLE LOCATION MAP</b>	
PROJECT <b>ROLLINS ECONOMY CLEANERS</b> <b>DSCA ID: 92-0048</b> 407 W. PEACE ST. RALEIGH, WAKE COUNTY	
 <span style="font-size: small;">2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology</span>	
DATE: 12/18/13	REVISION NO. 0
JOB NO. DS0-79	ATTACHMENT NO. 11

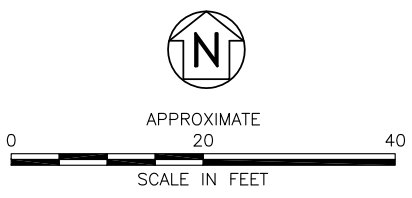
S:\AAA-Master Projects\DSCA - DS0\DS0-79 Rollins Economy Cleaners\Reports\2013-09\_PAI\DCS20048\_20131209\_Figures.dwg ATT11\_12/19/2013 11:21:47 AM

**ATTACHMENT 13**  
**SOIL ISOCONCENTRATION MAPS**

WEST PEACE STREET



VACANT OFFICE



**LEGEND**

- SOURCE PROPERTY BOUNDARY
- - - PROPERTY PARCEL
- SOIL SAMPLE LOCATION
- 0.006J (2-3') PCE CONCENTRATION (mg/kg) AND SAMPLE DEPTH
- 0.23 PCE ISOCONTOUR LINE IN mg/kg (DASHED WHERE INFERRED)

**NOTES:**

1. SOIL SAMPLES FROM SOIL BORINGS SB-1 THROUGH SB-6 COLLECTED ON 02/07/13.
2. SOIL SAMPLES FROM SOIL BORINGS SB-7 THROUGH SB-29, SGMP-1, SGMP-3, AND SGMP-6 COLLECTED ON 09/16/13 TO 09/20/13.
3. J DENOTES ESTIMATED CONCENTRATION BETWEEN LABORATORY REPORTING LIMIT AND METHOD DETECTION LIMIT.

TITLE <b>SURFICIAL SOIL (&lt;3 FT) PCE ISOCONCENTRATION MAP</b>	
PROJECT <b>ROLLINS ECONOMY CLEANERS DSCA ID: 92-0048 407 W. PEACE ST. RALEIGH, WAKE COUNTY</b>	
<small>2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology</small>	
DATE: 11/10/13	REVISION NO. 0
JOB NO. DS0-79	ATTACHMENT NO. 13A

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S:\AAA-Master Projects\DSCA - DSO\DSO-79 Rollins Economy Cleaners\Reports\2013-09\_PAI\DC920046\_20131209\_Figures.dwg, ATTI13B, 12/19/2013 11:23:06 AM.



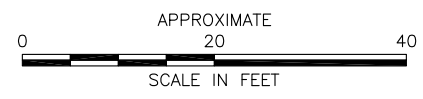
**LEGEND**

- SOURCE PROPERTY BOUNDARY
- - - PROPERTY PARCEL
- SOIL SAMPLE LOCATION

0.0252 (3-4') PCE CONCENTRATION (mg/kg) AND SAMPLE DEPTH

0.23 PCE ISOCONTOUR LINE IN mg/kg (DASHED WHERE INFERRED)

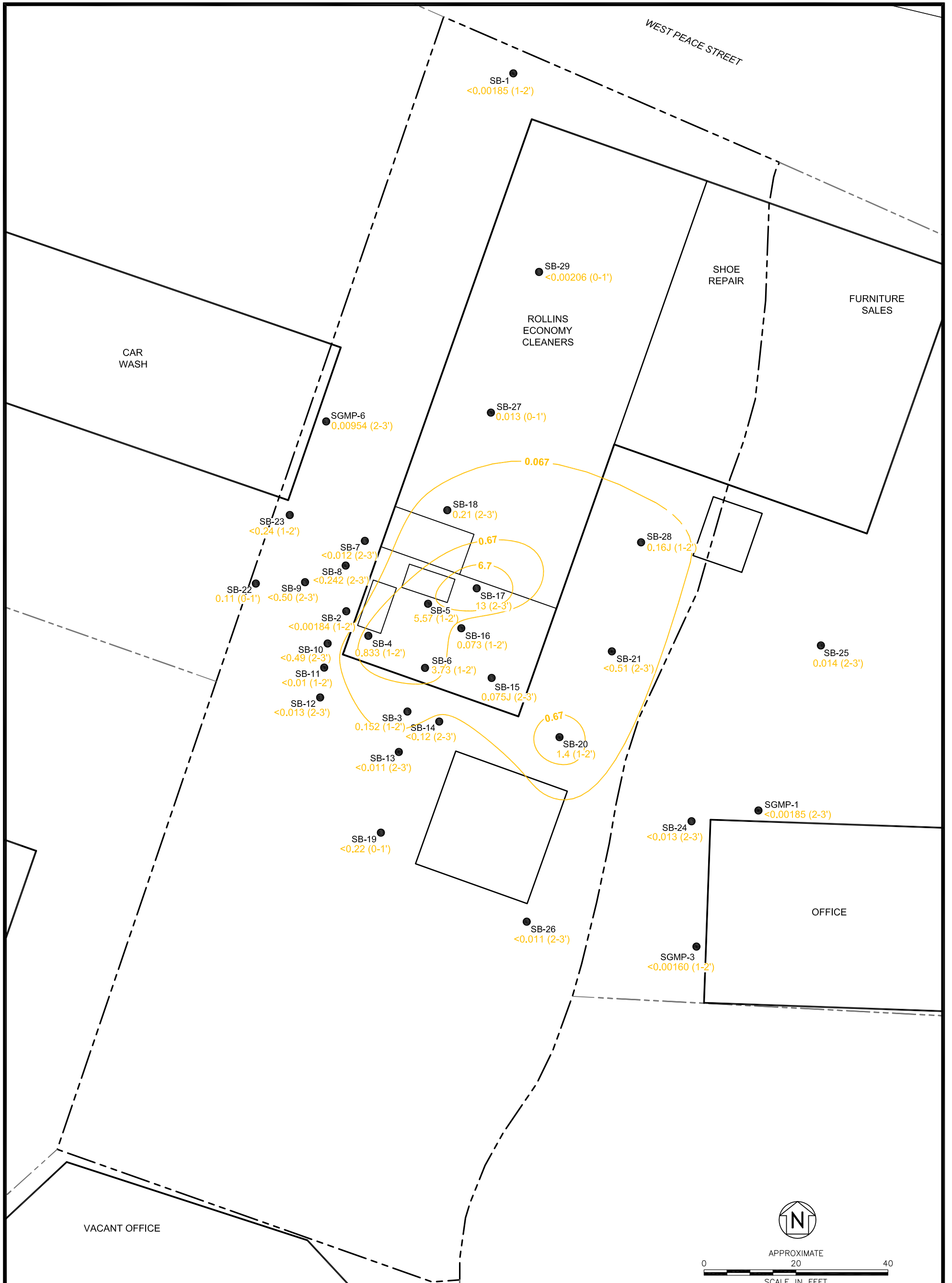
- NOTES:**
1. SOIL SAMPLES FROM SOIL BORINGS SB-1 THROUGH SB-6 COLLECTED ON 02/07/13.
  2. SOIL SAMPLES FROM SOIL BORINGS SB-7 THROUGH SB-29, SGMP-1, SGMP-3, AND SGMP-6 COLLECTED ON 09/16/13 TO 09/20/13.
  3. J DENOTES ESTIMATED CONCENTRATION BETWEEN LABORATORY REPORTING LIMIT AND METHOD DETECTION LIMIT.



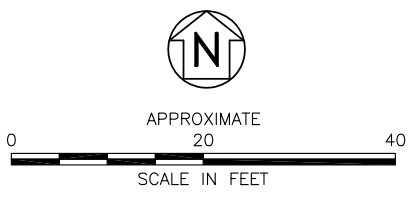
<b>TITLE</b>	
<b>SUBSURFACE SOIL (&gt;3 FT) PCE ISOCONCENTRATION MAP</b>	
<b>PROJECT</b>	
<b>ROLLINS ECONOMY CLEANERS DSCA ID: 92-0048 407 W. PEACE ST. RALEIGH, WAKE COUNTY</b>	
<span style="font-size: small; vertical-align: middle;">2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology</span>	
<b>DATE:</b> 11/10/13	<b>REVISION NO.</b> 0
<b>JOB NO.</b> DSO-79	<b>ATTACHMENT NO.</b> 13B



WEST PEACE STREET



VACANT OFFICE



**LEGEND**

- SOURCE PROPERTY BOUNDARY
- - - PROPERTY PARCEL
- SOIL SAMPLE LOCATION

0.152 (1-2') TCE CONCENTRATION (mg/kg) AND SAMPLE DEPTH

0.67 TCE ISOCONTOUR LINE IN mg/kg (DASHED WHERE INFERRED)

**NOTES:**

1. SOIL SAMPLES FROM SOIL BORINGS SB-1 THROUGH SB-6 COLLECTED ON 02/07/13.
2. SOIL SAMPLES FROM SOIL BORINGS SB-7 THROUGH SB-29, SGMP-1, SGMP-3, AND SGMP-6 COLLECTED ON 09/16/13 TO 09/20/13.
3. J DENOTES ESTIMATED CONCENTRATION BETWEEN LABORATORY REPORTING LIMIT AND METHOD DETECTION LIMIT.

TITLE <b>SURFICIAL SOIL (&lt;3 FT) TCE ISOCONCENTRATION MAP</b>	
PROJECT <b>ROLLINS ECONOMY CLEANERS DSCA ID: 92-0048 407 W. PEACE ST. RALEIGH, WAKE COUNTY</b>	
 <span style="float: right; font-size: small;">2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology</span>	
DATE: 11/10/13	REVISION NO. 0
JOB NO. DS0-79	ATTACHMENT NO. 13C

S:\AAA-Master Projects\DSCA - DSO\DSO-79 Rollins Economy Cleaners\Reports\2013-09\_PAI\DCS20048\_20131209\_Figures.dwg ATT13C 12/19/2013 11:23:37 AM.

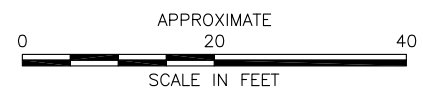
WEST PEACE STREET



**LEGEND**

- SOURCE PROPERTY BOUNDARY
- PROPERTY PARCEL
- SOIL SAMPLE LOCATION
- 0.039 (3-4') TCE CONCENTRATION (mg/kg) AND SAMPLE DEPTH
- 0.67 TCE ISOCONTOUR LINE IN mg/kg (DASHED WHERE INFERRED)

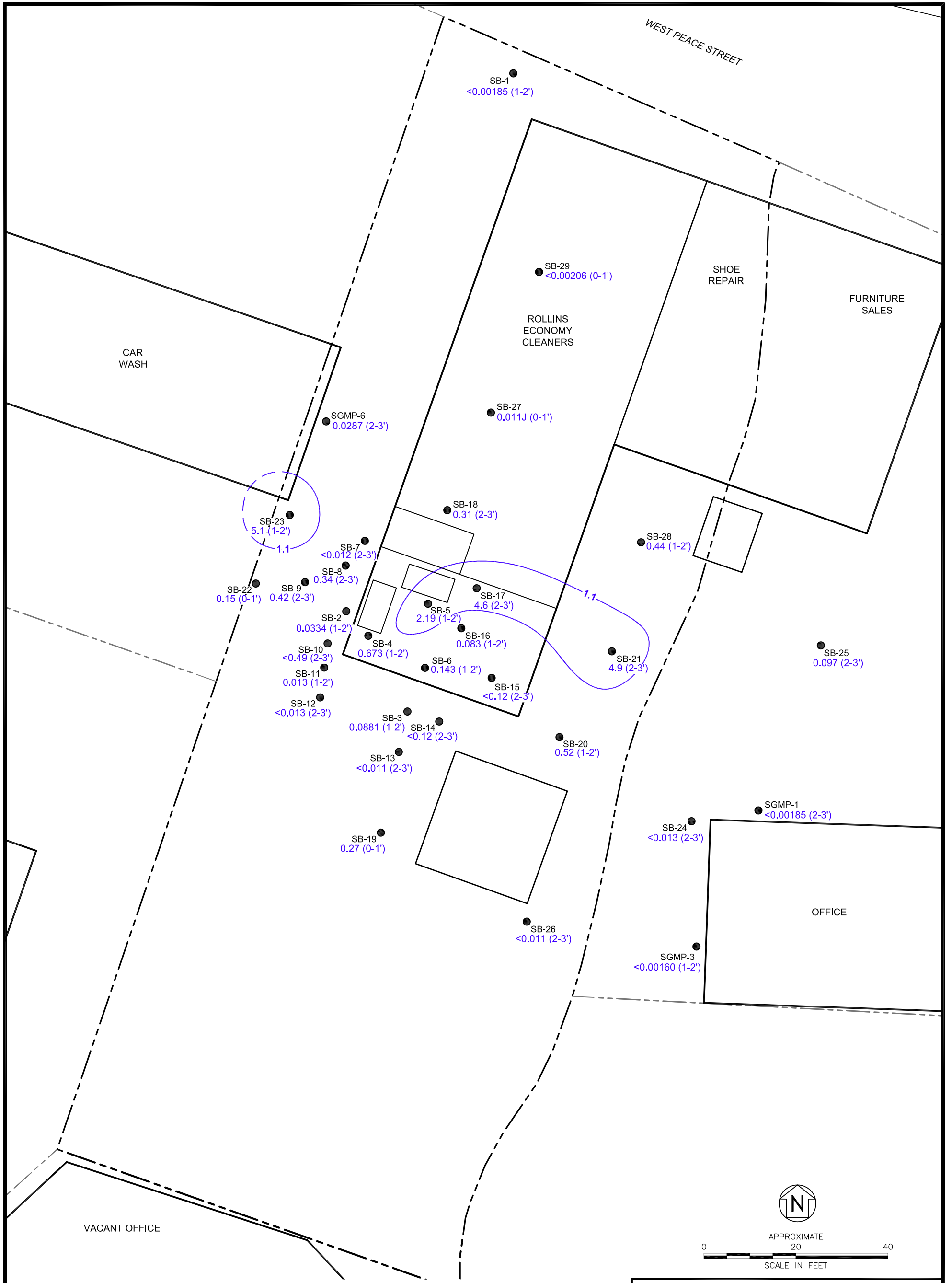
- NOTES:**
1. SOIL SAMPLES FROM SOIL BORINGS SB-1 THROUGH SB-6 COLLECTED ON 02/07/13.
  2. SOIL SAMPLES FROM SOIL BORINGS SB-7 THROUGH SB-29, SGMP-1, SGMP-3, AND SGMP-6 COLLECTED ON 09/16/13 TO 09/20/13.
  3. J DENOTES ESTIMATED CONCENTRATION BETWEEN LABORATORY REPORTING LIMIT AND METHOD DETECTION LIMIT.



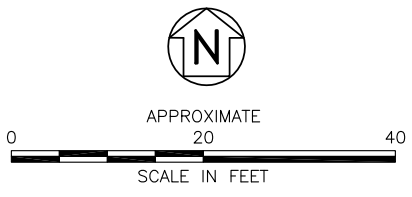
<b>TITLE</b> SUBSURFACE SOIL (>3 FT) TCE ISOCONCENTRATION MAP	
<b>PROJECT</b> ROLLINS ECONOMY CLEANERS DSCA ID: 92-0048 407 W. PEACE ST. RALEIGH, WAKE COUNTY	
2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology	
DATE: 11/10/13	REVISION NO. 0
JOB NO. DS0-79	ATTACHMENT NO. 13D

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WEST PEACE STREET



VACANT OFFICE



**LEGEND**


- SOURCE PROPERTY BOUNDARY
- - - PROPERTY PARCEL
- SOIL SAMPLE LOCATION

0.0881 (1-2') CIS-1,2-DICHLOROETHYLENE CONCENTRATION (mg/kg) AND SAMPLE DEPTH

1.1 CIS-1,2-DICHLOROETHYLENE ISOCONTOUR LINE IN mg/kg (DASHED WHERE INFERRED)

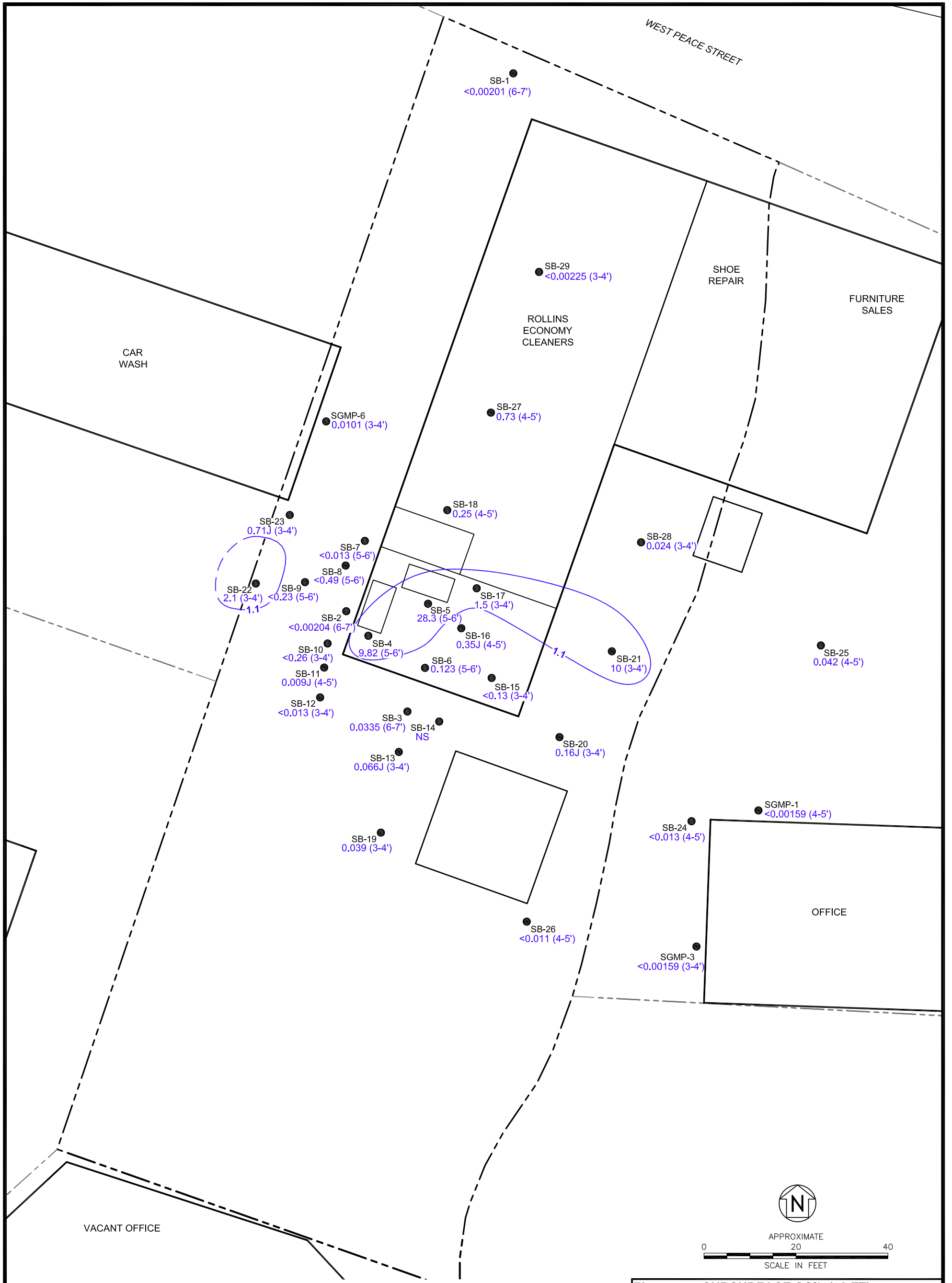
**NOTES:**

1. SOIL SAMPLES FROM SOIL BORINGS SB-1 THROUGH SB-6 COLLECTED ON 02/07/13.
2. SOIL SAMPLES FROM SOIL BORINGS SB-7 THROUGH SB-29, SGMP-1, SGMP-3, AND SGMP-6 COLLECTED ON 09/16/13 TO 09/20/13.
4. J DENOTES ESTIMATED CONCENTRATION BETWEEN LABORATORY REPORTING LIMIT AND METHOD DETECTION LIMIT.

TITLE <b>SURFICIAL SOIL (&lt;3 FT) CIS-1,2-DICHLOROETHYLENE ISOCONCENTRATION MAP</b>	
PROJECT <b>ROLLINS ECONOMY CLEANERS DSCA ID: 92-0048 407 W. PEACE ST. RALEIGH, WAKE COUNTY</b>	
 <span style="float: right; font-size: small;">2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology</span>	
DATE: 11/10/13	REVISION NO. 0
JOB NO. DS0-79	ATTACHMENT NO. 13E

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WEST PEACE STREET



VACANT OFFICE

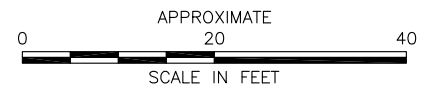
SHOE REPAIR

FURNITURE SALES

ROLLINS ECONOMY CLEANERS

CAR WASH

OFFICE




**LEGEND**

- SOURCE PROPERTY BOUNDARY
- - - PROPERTY PARCEL
- SOIL SAMPLE LOCATION

- 0.123 (5-6') CIS-1,2-DICHLOROETHYLENE CONCENTRATION (mg/kg) AND SAMPLE DEPTH
- 1.1 CIS-1,2-DICHLOROETHYLENE ISOCONTOUR LINE IN mg/kg (DASHED WHERE INFERRED)

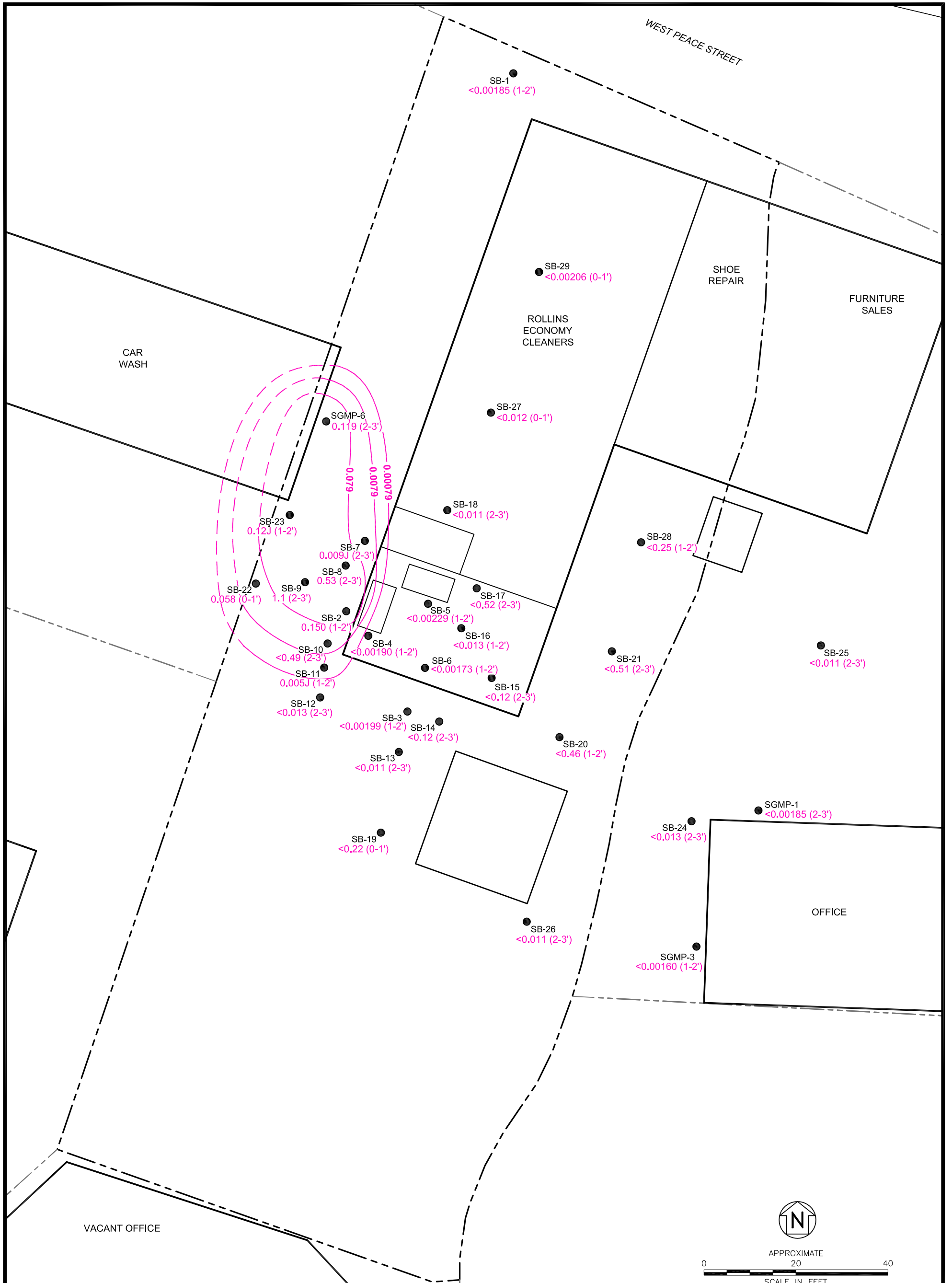
**NOTES:**

1. SOIL SAMPLES FROM SOIL BORINGS SB-1 THROUGH SB-6 COLLECTED ON 02/07/13.
2. SOIL SAMPLES FROM SOIL BORINGS SB-7 THROUGH SB-29, SGMP-1, SGMP-3, AND SGMP-6 COLLECTED ON 09/16/13 TO 09/20/13.
4. J DENOTES ESTIMATED CONCENTRATION BETWEEN LABORATORY REPORTING LIMIT AND METHOD DETECTION LIMIT.

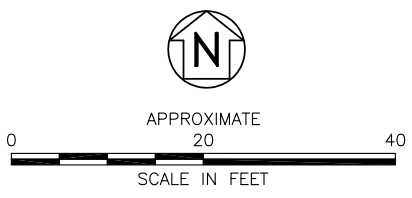
TITLE <b>SUBSURFACE SOIL (&gt;3 FT) CIS-1,2-DICHLOROETHYLENE ISOCONCENTRATION MAP</b>	
PROJECT <b>ROLLINS ECONOMY CLEANERS DSCA ID: 92-0048 407 W. PEACE ST. RALEIGH, WAKE COUNTY</b>	
	
<small>2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology</small>	
DATE: 11/10/13	REVISION NO. 0
JOB NO. DS0-79	ATTACHMENT NO. 13F

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WEST PEACE STREET



VACANT OFFICE



**LEGEND**

- SOURCE PROPERTY BOUNDARY
- - - PROPERTY PARCEL
- SOIL SAMPLE LOCATION

0.150 (1-2') VINYL CHLORIDE CONCENTRATION (mg/kg) AND SAMPLE DEPTH

0.079 VINYL CHLORIDE ISOCONTOUR LINE IN mg/kg (DASHED WHERE INFERRED)

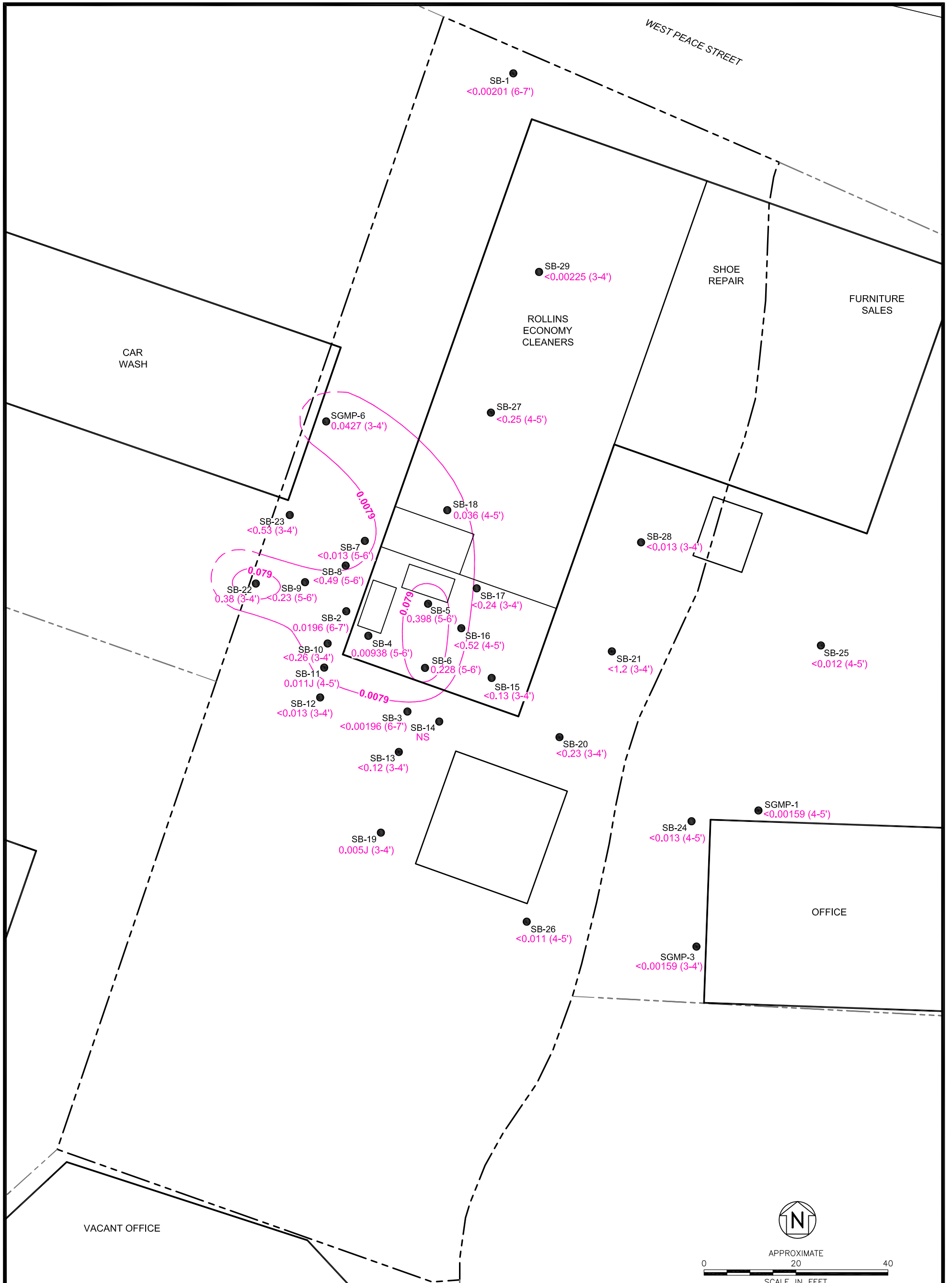
**NOTES:**

1. SOIL SAMPLES FROM SOIL BORINGS SB-1 THROUGH SB-6 COLLECTED ON 02/07/13.
2. SOIL SAMPLES FROM SOIL BORINGS SB-7 THROUGH SB-29, SGMP-1, SGMP-3, AND SGMP-6 COLLECTED ON 09/16/13 TO 09/20/13.
3. J DENOTES ESTIMATED CONCENTRATION BETWEEN LABORATORY REPORTING LIMIT AND METHOD DETECTION LIMIT.

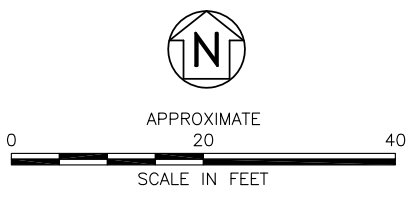
TITLE <b>SURFICIAL SOIL (&lt;3 FT) VINYL CHLORIDE ISOCONCENTRATION MAP</b>	
PROJECT <b>ROLLINS ECONOMY CLEANERS DSCA ID: 92-0048 407 W. PEACE ST. RALEIGH, WAKE COUNTY</b>	
2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology	
DATE: 11/10/13	REVISION NO. 0
JOB NO. DS0-79	ATTACHMENT NO. 13G

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WEST PEACE STREET



VACANT OFFICE



**LEGEND**


- SOURCE PROPERTY BOUNDARY
- - - PROPERTY PARCEL
- SOIL SAMPLE LOCATION

0.0427 (3-4') VINYL CHLORIDE CONCENTRATION (mg/kg) AND SAMPLE DEPTH

0.079 VINYL CHLORIDE ISOCONTOUR LINE IN mg/kg (DASHED WHERE INFERRED)

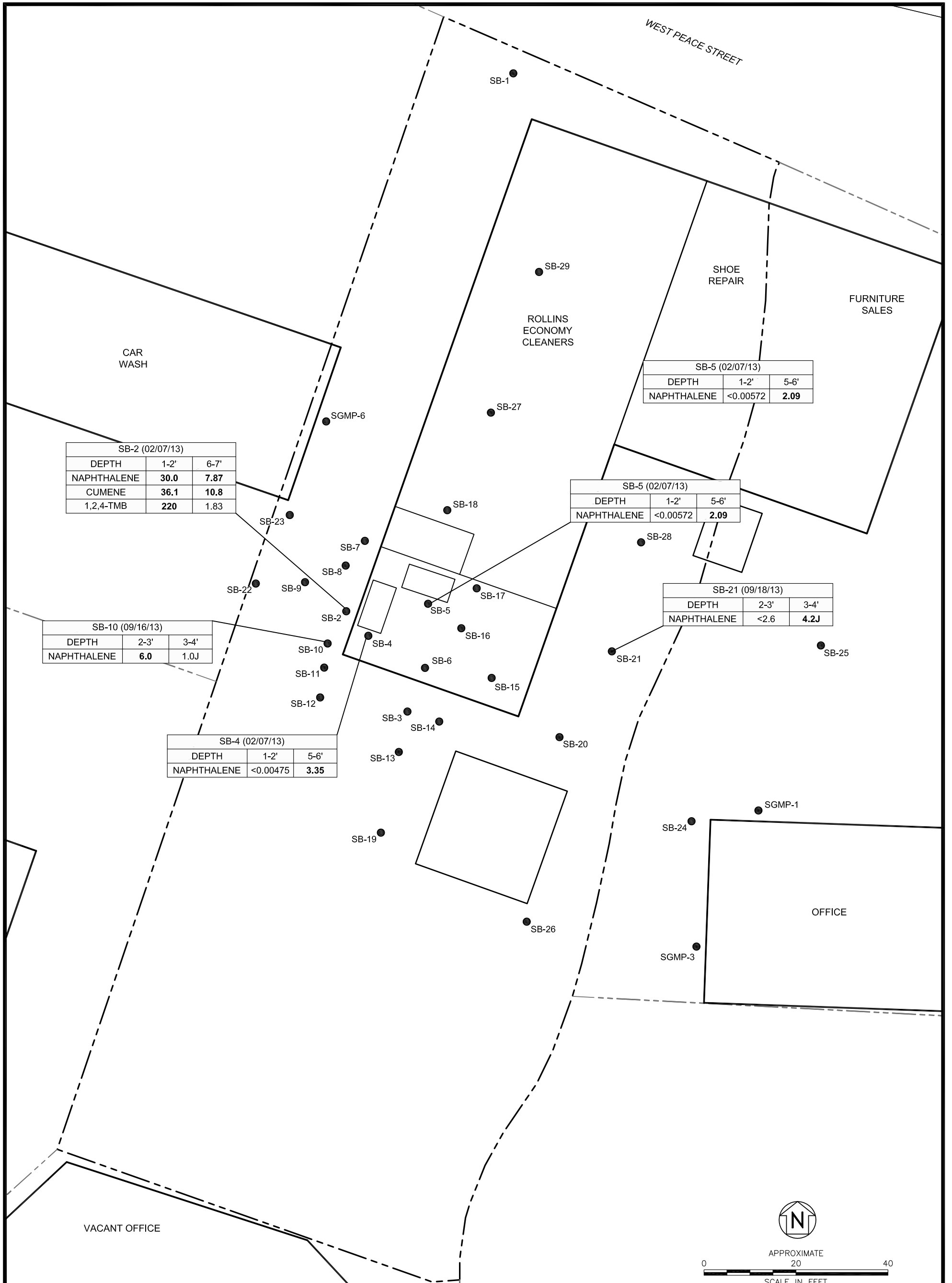
**NOTES:**

1. SOIL SAMPLES FROM SOIL BORINGS SB-1 THROUGH SB-6 COLLECTED ON 02/07/13.
2. SOIL SAMPLES FROM SOIL BORINGS SB-7 THROUGH SB-29, SGMP-1, SGMP-3, AND SGMP-6 COLLECTED ON 09/16/13 TO 09/20/13.
3. J DENOTES ESTIMATED CONCENTRATION BETWEEN LABORATORY REPORTING LIMIT AND METHOD DETECTION LIMIT.

TITLE <b>SUBSURFACE SOIL (&gt;3 FT) VINYL CHLORIDE ISOCONCENTRATION MAP</b>	
PROJECT <b>ROLLINS ECONOMY CLEANERS DSCA ID: 92-0048 407 W. PEACE ST. RALEIGH, WAKE COUNTY</b>	
 <span style="float: right; font-size: small;">2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology</span>	
DATE: 11/10/13	REVISION NO. 0
JOB NO. DS0-79	ATTACHMENT NO. 13H

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WEST PEACE STREET



SB-2 (02/07/13)

DEPTH	1-2'	6-7'
NAPHTHALENE	<b>30.0</b>	<b>7.87</b>
CUMENE	<b>36.1</b>	<b>10.8</b>
1,2,4-TMB	<b>220</b>	<b>1.83</b>

SB-5 (02/07/13)

DEPTH	1-2'	5-6'
NAPHTHALENE	<0.00572	<b>2.09</b>

SB-5 (02/07/13)

DEPTH	1-2'	5-6'
NAPHTHALENE	<0.00572	<b>2.09</b>

SB-21 (09/18/13)

DEPTH	2-3'	3-4'
NAPHTHALENE	<2.6	<b>4.2J</b>

SB-10 (09/16/13)

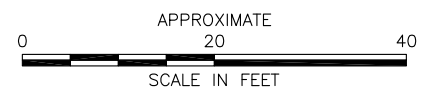
DEPTH	2-3'	3-4'
NAPHTHALENE	<b>6.0</b>	1.0J

SB-4 (02/07/13)

DEPTH	1-2'	5-6'
NAPHTHALENE	<0.00475	<b>3.35</b>

SB-10 (09/16/13)

DEPTH	2-3'	3-4'
NAPHTHALENE	<b>6.0</b>	1.0J



**LEGEND**

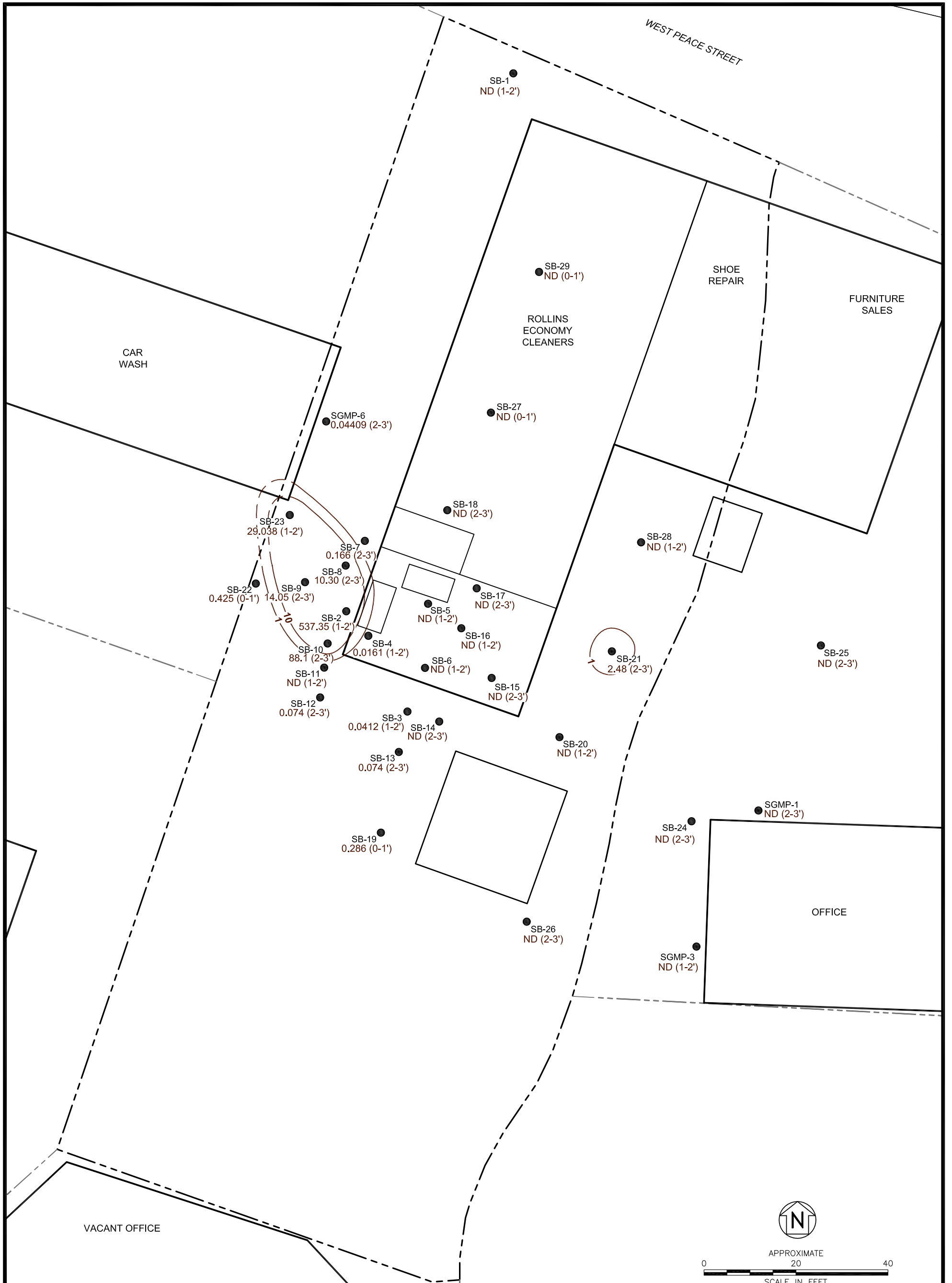
- SOURCE PROPERTY BOUNDARY
- - - PROPERTY PARCEL
- SOIL SAMPLE LOCATION

- NOTES:**
1. SOIL SAMPLES FROM SOIL BORINGS SB-1 THROUGH SB-6 COLLECTED ON 02/07/13.
  2. SOIL SAMPLES FROM SOIL BORINGS SB-7 THROUGH SB-29, SGMP-1, SGMP-3, AND SGMP-6 COLLECTED ON 09/16/13 TO 09/20/13.
  3. **BOLD** INDICATES EXCEEDANCE OF TIER 1 RBSL .
  4. ONLY THOSE PETROLEUM COMPOUNDS ABOVE STANDARDS ARE SHOWN.
  5. 1,2,4-TMB = 1,2,4-TRIMETHYLBENZENE
  6. J DENOTES ESTIMATED CONCENTRATION BETWEEN LABORATORY REPORTING LIMIT AND METHOD DETECTION LIMIT.

<b>TITLE</b> SOIL PETROLEUM COMPOUNDS CONTAMINANT CONCENTRATION MAP	
<b>PROJECT</b> ROLLINS ECONOMY CLEANERS DSCA ID: 92-0048 407 W. PEACE ST. RALEIGH, WAKE COUNTY	
2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology	
DATE: 12/02/13	REVISION NO. 0
JOB NO. DS0-79	ATTACHMENT NO. 131

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WEST PEACE STREET

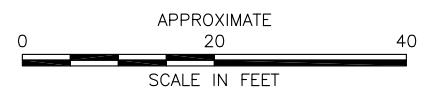



**LEGEND**

- SOURCE PROPERTY BOUNDARY
- - - PROPERTY PARCEL
- SOIL SAMPLE LOCATION
- 0.074 (2-3') TOTAL PETROLEUM CONCENTRATION (mg/kg) AND SAMPLE DEPTH
- 10 TOTAL PETROLEUM ISOCONTOUR LINE IN mg/kg (DASHED WHERE INFERRED)

**NOTES:**

1. SOIL SAMPLES FROM SOIL BORINGS SB-1 THROUGH SB-6 COLLECTED ON 02/07/13.
2. SOIL SAMPLES FROM SOIL BORINGS SB-7 THROUGH SB-29, SGMP-1, SGMP-3, AND SGMP-6 COLLECTED ON 09/16/13 TO 09/20/13.
3. ND = NO PETROLEUM COMPOUNDS DETECTED AT CONCENTRATIONS ABOVE LABORATORY REPORTING LIMITS.
6. J DENOTES ESTIMATED CONCENTRATION BETWEEN LABORATORY REPORTING LIMIT AND METHOD DETECTION LIMIT.



<b>TITLE</b>	
<b>SURFICIAL SOIL (&lt;3 FT) PETROLEUM COMPOUNDS ISOCONCENTRATION MAP</b>	
<b>PROJECT</b>	
<b>ROLLINS ECONOMY CLEANERS DSCA ID: 92-0048 407 W. PEACE ST. RALEIGH, WAKE COUNTY</b>	
	
<small>2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology</small>	
DATE: 12/02/13	REVISION NO. 0
JOB NO. DS0-79	ATTACHMENT NO. 13J



WEST PEACE STREET

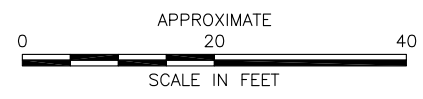



**LEGEND**

- SOURCE PROPERTY BOUNDARY
- - - PROPERTY PARCEL
- SOIL SAMPLE LOCATION
- 0.011 (4-5') TOTAL PETROLEUM CONCENTRATION (mg/kg) AND SAMPLE DEPTH
- 10 TOTAL PETROLEUM ISOCONTOUR LINE IN mg/kg (DASHED WHERE INFERRED)

**NOTES:**

1. SOIL SAMPLES FROM SOIL BORINGS SB-1 THROUGH SB-6 COLLECTED ON 02/07/13.
2. SOIL SAMPLES FROM SOIL BORINGS SB-7 THROUGH SB-29, SGMP-1, SGMP-3, AND SGMP-6 COLLECTED ON 09/16/13 TO 09/20/13.
3. ND = NO PETROLEUM COMPOUNDS DETECTED AT CONCENTRATIONS ABOVE LABORATORY REPORTING LIMITS.
4. NS = NOT SAMPLED.
6. J DENOTES ESTIMATED CONCENTRATION BETWEEN LABORATORY REPORTING LIMIT AND METHOD DETECTION LIMIT.

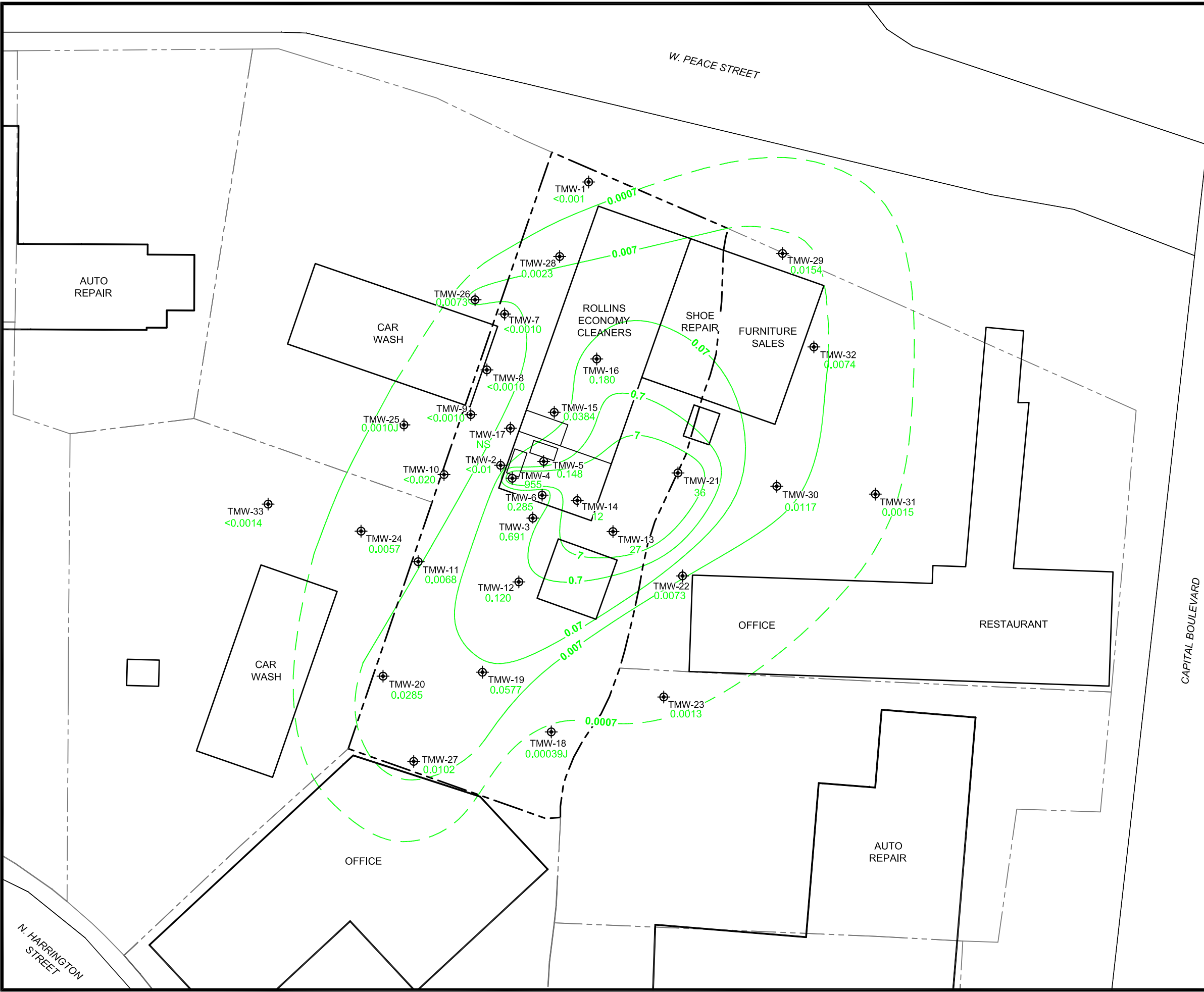


<b>TITLE</b> SUBSURFACE SOIL (>3 FT) PETROLEUM COMPOUNDS ISOCONCENTRATION MAP	
<b>PROJECT</b> ROLLINS ECONOMY CLEANERS DSCA ID: 92-0048 407 W. PEACE ST. RALEIGH, WAKE COUNTY	
 <span style="float: right; font-size: small;">2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology</span>	
DATE: 12/02/13	REVISION NO. 0
JOB NO. DS0-79	ATTACHMENT NO. 13K

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**ATTACHMENT 17**  
**GROUNDWATER ISOCONCENTRATION MAPS**

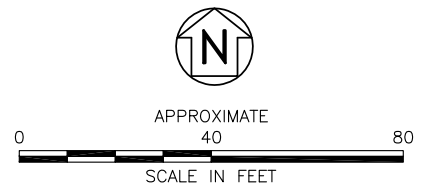
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**LEGEND**

	SOURCE PROPERTY BOUNDARY
	PROPERTY PARCEL
	TEMPORARY MONITORING WELL
0.0074	PCE CONCENTRATION IN mg/L
0.07	PCE ISOCONTOUR LINE IN mg/L (DASHED WHERE INFERRED)

- NOTES:**
- GROUNDWATER SAMPLES FROM TEMPORARY WELLS TMW-1 THROUGH TMW-6 COLLECTED ON 02/07/13.
  - GROUNDWATER SAMPLES FROM TEMPORARY WELLS TMW-7 THROUGH TMW-16 AND TWM-18 THROUGH TMW-33 COLLECTED ON 09/16/13 TO 09/18/13.
  - NS = NOT SAMPLED.
  - J DENOTES ESTIMATED CONCENTRATION BETWEEN LABORATORY REPORTING LIMIT AND METHOD DETECTION LIMIT.



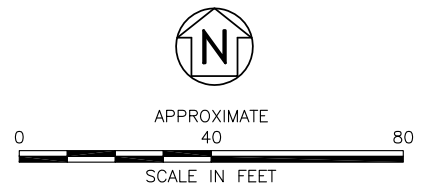
TITLE	<b>GROUNDWATER PCE ISOCONCENTRATION MAP</b>	
PROJECT	<b>ROLLINS ECONOMY CLEANERS DSCA ID: 92-0048 407 W. PEACE ST. RALEIGH, WAKE COUNTY</b>	
		2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology
DATE: 11/10/13	REVISION NO. 0	
JOB NO. DS0-79	ATTACHMENT NO. 17A	

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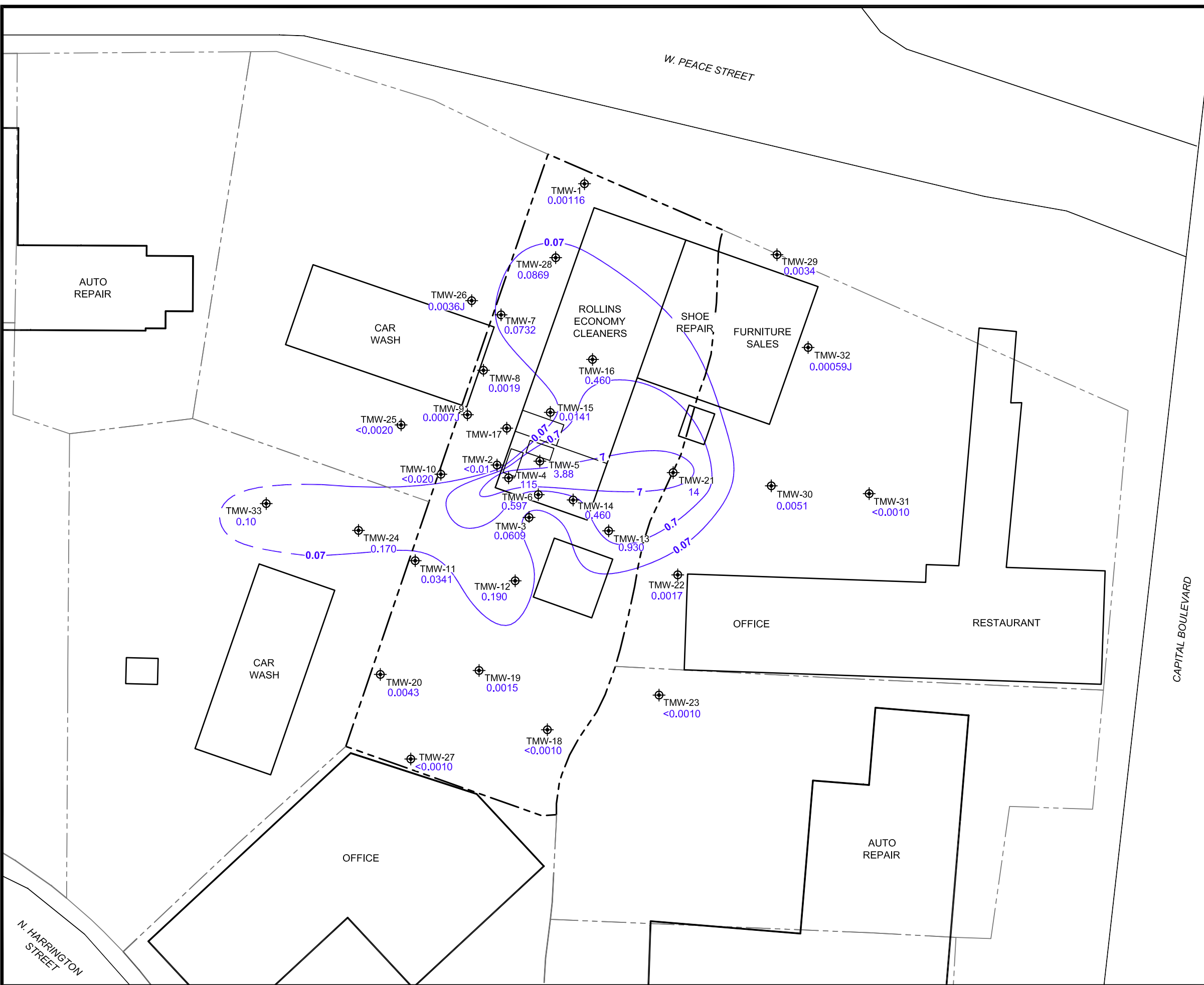
- LEGEND**
- SOURCE PROPERTY BOUNDARY
  - - - PROPERTY PARCEL
  - ⊕ TEMPORARY MONITORING WELL
  - 0.0032 TCE CONCENTRATION IN mg/L
  - 0.01 TCE ISOCONTOUR LINE IN mg/L (DASHED WHERE INFERRED)

- NOTES:**
1. GROUNDWATER SAMPLES FROM TEMPORARY WELLS TMW-1 THROUGH TMW-6 COLLECTED ON 02/07/13.
  2. GROUNDWATER SAMPLES FROM TEMPORARY WELLS TMW-7 THROUGH TMW-16 AND TMW-18 THROUGH TMW-33 COLLECTED ON 09/16/13 TO 09/18/13.
  3. NS = NOT SAMPLED.
  4. J DENOTES ESTIMATED CONCENTRATION BETWEEN LABORATORY REPORTING LIMIT AND METHOD DETECTION LIMIT.



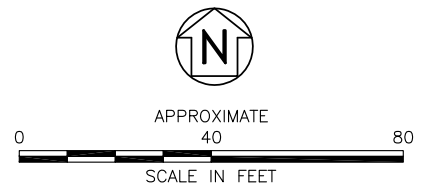
TITLE	<b>GROUNDWATER TCE ISOCONCENTRATION MAP</b>	
PROJECT	<b>ROLLINS ECONOMY CLEANERS</b>	
	<b>DSCA ID: 92-0048</b>	
	<b>407 W. PEACE ST.</b>	
	<b>RALEIGH, WAKE COUNTY</b>	
	<b>hart hickman</b>	2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f)
	<b>SMARTER ENVIRONMENTAL SOLUTIONS</b>	License # C-1269 / #C-245 Geology
DATE:	11/10/13	REVISION NO. 0
JOB NO.	DS0-79	ATTACHMENT NO. 17B


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- LEGEND**
- SOURCE PROPERTY BOUNDARY
  - - - PROPERTY PARCEL
  - ⊕ TEMPORARY MONITORING WELL
  - 0.0034 CIS-1,2-DICHLOROETHYLENE CONCENTRATION IN mg/L
  - 0.07 CIS-1,2-DICHLOROETHYLENE ISOCONTOUR LINE IN mg/L (DASHED WHERE INFERRED)

- NOTES:**
1. GROUNDWATER SAMPLES FROM TEMPORARY WELLS TMW-1 THROUGH TMW-6 COLLECTED ON 02/07/13.
  2. GROUNDWATER SAMPLES FROM TEMPORARY WELLS TMW-7 THROUGH TMW-16 AND TMW-18 THROUGH TMW-33 COLLECTED ON 09/16/13 TO 09/18/13.
  3. NS = NOT SAMPLED.
  4. J DENOTES ESTIMATED CONCENTRATION BETWEEN LABORATORY REPORTING LIMIT AND METHOD DETECTION LIMIT.



<b>GROUNDWATER CIS-1,2-DICHLOROETHYLENE ISOCONCENTRATION MAP</b>	
PROJECT <b>ROLLINS ECONOMY CLEANERS</b>	
DSCA ID: <b>92-0048</b>	
407 W. PEACE ST.	
RALEIGH, WAKE COUNTY	
 2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology	
DATE: 11/10/13	REVISION NO. 0
JOB NO. DS0-79	ATTACHMENT NO. 17C

N. HARRINGTON STREET

W. PEACE STREET

CAPITAL BOULEVARD

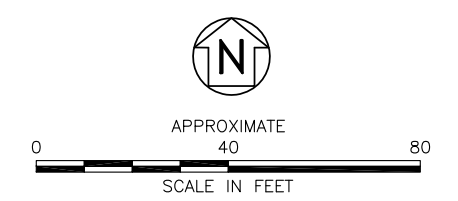
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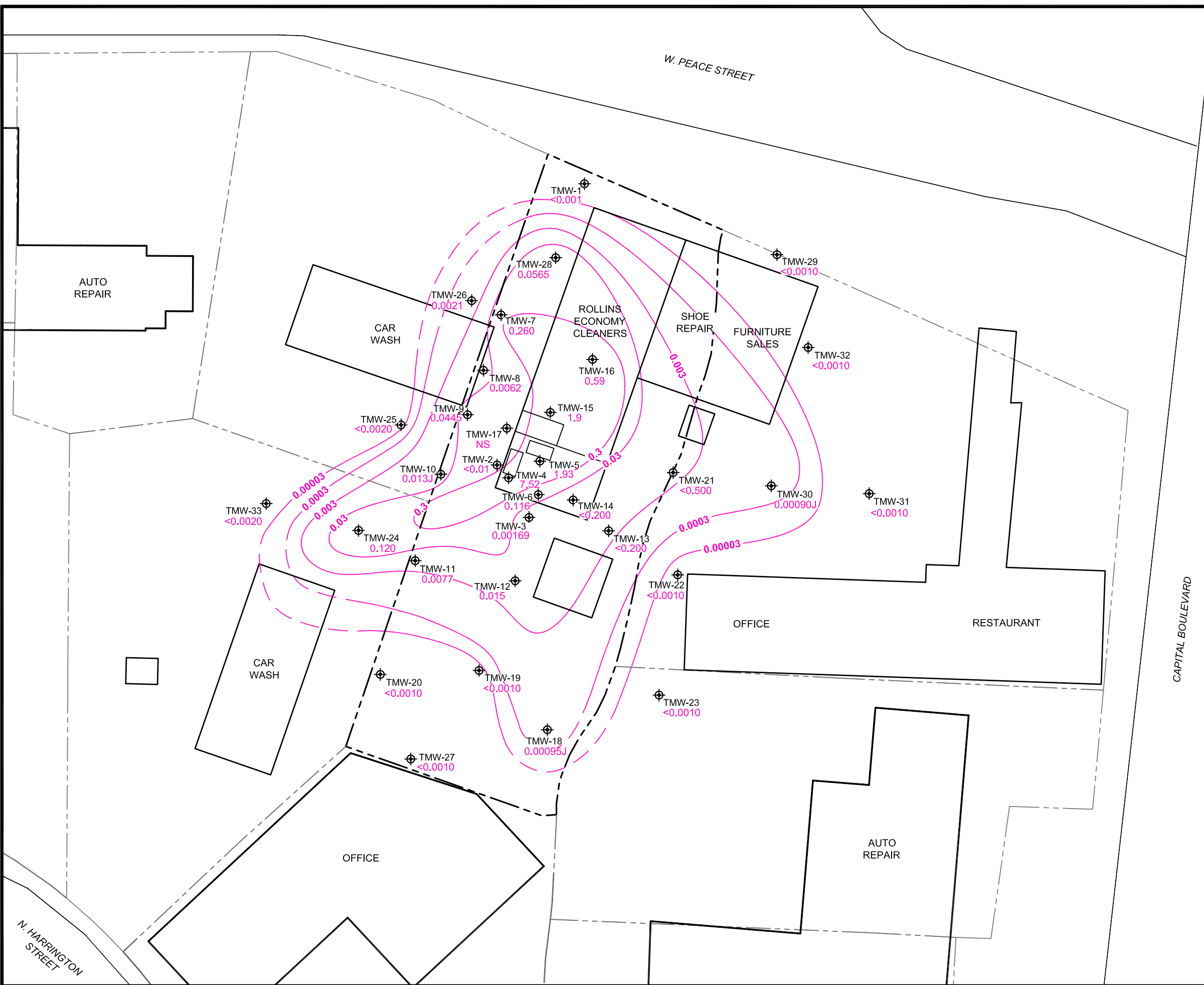
- SOURCE PROPERTY BOUNDARY
- - - PROPERTY PARCEL
- ⊕ TEMPORARY MONITORING WELL
- 0.013 TRANS-1,2-DICHLOROETHYLENE CONCENTRATION IN mg/L
- 0.76 TRANS-1,2-DICHLOROETHYLENE ISOCONTOUR LINE IN mg/L (DASHED WHERE INFERRED)

- NOTES:**
1. GROUNDWATER SAMPLES FROM TEMPORARY WELLS TMW-1 THROUGH TMW-6 COLLECTED ON 02/07/13.
  2. GROUNDWATER SAMPLES FROM TEMPORARY WELLS TMW-7 THROUGH TMW-16 AND TMW-18 THROUGH TMW-33 COLLECTED ON 09/16/13 TO 09/18/13.
  3. NS = NOT SAMPLED.
  4. J DENOTES ESTIMATED CONCENTRATION BETWEEN LABORATORY REPORTING LIMIT AND METHOD DETECTION LIMIT.



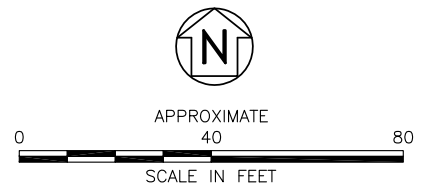
<p><b>TITLE</b></p> <p><b>GROUNDWATER TRANS-1,2-DICHLOROETHYLENE ISOCONCENTRATION MAP</b></p>	
<p><b>PROJECT</b></p> <p><b>ROLLINS ECONOMY CLEANERS DSCA ID: 92-0048 407 W. PEACE ST. RALEIGH, WAKE COUNTY</b></p>	
<p><b>hart hickman</b> 2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology</p>	
<p>DATE: 11/10/13</p>	<p>REVISION NO. 0</p>
<p>JOB NO. DS0-79</p>	<p>ATTACHMENT NO. 17D</p>

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- LEGEND**
- SOURCE PROPERTY BOUNDARY
  - - - PROPERTY PARCEL
  - ⊕ TEMPORARY MONITORING WELL
  - 0.0565 VINYL CHLORIDE CONCENTRATION IN mg/L
  - 0.03 VINYL CHLORIDE ISOCONCENTRATION LINE IN mg/L (DASHED WHERE INFERRED)

- NOTES:**
- GROUNDWATER SAMPLES FROM TEMPORARY WELLS TMW-1 THROUGH TMW-6 COLLECTED ON 02/07/13.
  - GROUNDWATER SAMPLES FROM TEMPORARY WELLS TMW-7 THROUGH TMW-16 AND TWM-18 THROUGH TMW-33 COLLECTED ON 09/16/13 TO 09/18/13.
  - NS = NOT SAMPLED.
  - J DENOTES ESTIMATED CONCENTRATION BETWEEN LABORATORY REPORTING LIMIT AND METHOD DETECTION LIMIT.



TITLE	<b>GROUNDWATER VINYL CHLORIDE ISOCONCENTRATION MAP</b>	
PROJECT	<b>ROLLINS ECONOMY CLEANERS</b>	
	<b>DSCA ID: 92-0048</b>	
	<b>407 W. PEACE ST.</b>	
	<b>RALEIGH, WAKE COUNTY</b>	
	<b>hart hickman</b>	2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology
	<b>SMARTER ENVIRONMENTAL SOLUTIONS</b>	
DATE: 11/10/13	REVISION NO. 0	
JOB NO. DS0-79	ATTACHMENT NO. 17E	

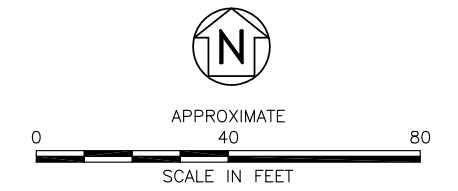
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**LEGEND**

- SOURCE PROPERTY BOUNDARY
- PROPERTY PARCEL
- TEMPORARY MONITORING WELL
- 0.0232 TOTAL PETROLEUM CONCENTRATION IN mg/L
- 0.01 TOTAL PETROLEUM ISOCONTOUR LINE IN mg/L (DASHED WHERE INFERRED)

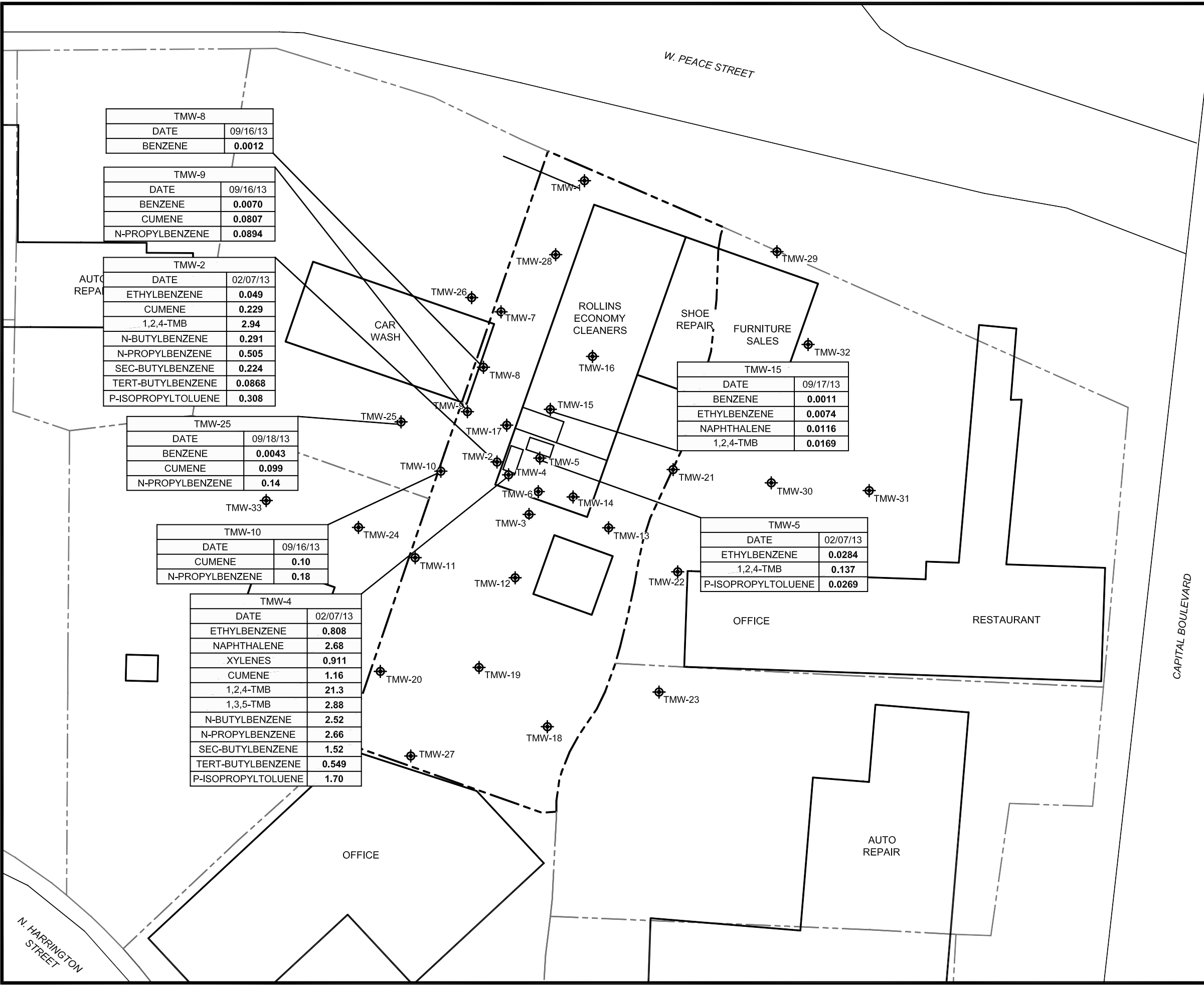
- NOTES:**
1. GROUNDWATER SAMPLES FROM TEMPORARY WELLS TMW-1 THROUGH TMW-6 COLLECTED ON 02/07/13.
  2. GROUNDWATER SAMPLES FROM TEMPORARY WELLS TMW-7 THROUGH TMW-16 AND TWM-18 THROUGH TMW-33 COLLECTED ON 09/16/13 TO 09/18/13.
  3. ND = NO PETROLEUM COMPOUNDS DETECTED AT CONCENTRATIONS ABOVE LABORATORY REPORTING LIMITS.
  4. NS = NOT SAMPLED.



<b>TITLE</b> GROUNDWATER PETROLEUM COMPOUNDS ISOCONCENTRATION MAP	
<b>PROJECT</b> ROLLINS ECONOMY CLEANERS DSCA ID: 92-0048 407 W. PEACE ST. RALEIGH, WAKE COUNTY	
2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology	
DATE: 11/21/13	REVISION NO. 0
JOB NO. DS0-79	ATTACHMENT NO. 17F



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TMW-8	
DATE	09/16/13
BENZENE	<b>0.0012</b>

TMW-9	
DATE	09/16/13
BENZENE	<b>0.0070</b>
CUMENE	<b>0.0807</b>
N-PROPYLBENZENE	<b>0.0894</b>

TMW-2	
DATE	02/07/13
ETHYLBENZENE	<b>0.049</b>
CUMENE	<b>0.229</b>
1,2,4-TMB	<b>2.94</b>
N-BUTYLBENZENE	<b>0.291</b>
N-PROPYLBENZENE	<b>0.505</b>
SEC-BUTYLBENZENE	<b>0.224</b>
TERT-BUTYLBENZENE	<b>0.0868</b>
P-ISOPROPYLTOLUENE	<b>0.308</b>

TMW-25	
DATE	09/18/13
BENZENE	<b>0.0043</b>
CUMENE	<b>0.099</b>
N-PROPYLBENZENE	<b>0.14</b>

TMW-10	
DATE	09/16/13
CUMENE	<b>0.10</b>
N-PROPYLBENZENE	<b>0.18</b>

TMW-4	
DATE	02/07/13
ETHYLBENZENE	<b>0.808</b>
NAPHTHALENE	<b>2.68</b>
XYLENES	<b>0.911</b>
CUMENE	<b>1.16</b>
1,2,4-TMB	<b>21.3</b>
1,3,5-TMB	<b>2.88</b>
N-BUTYLBENZENE	<b>2.52</b>
N-PROPYLBENZENE	<b>2.66</b>
SEC-BUTYLBENZENE	<b>1.52</b>
TERT-BUTYLBENZENE	<b>0.549</b>
P-ISOPROPYLTOLUENE	<b>1.70</b>

TMW-15	
DATE	09/17/13
BENZENE	<b>0.0011</b>
ETHYLBENZENE	<b>0.0074</b>
NAPHTHALENE	<b>0.0116</b>
1,2,4-TMB	<b>0.0169</b>

TMW-5	
DATE	02/07/13
ETHYLBENZENE	<b>0.0284</b>
1,2,4-TMB	<b>0.137</b>
P-ISOPROPYLTOLUENE	<b>0.0269</b>

**LEGEND**

- SOURCE PROPERTY BOUNDARY
- - - PROPERTY PARCEL
- ⊕ TEMPORARY MONITORING WELL

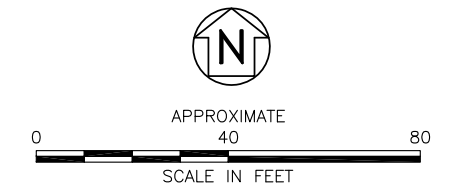
**SAMPLE ID**

TMW-5	
DATE	02/07/13
ETHYLBENZENE	<b>0.0284</b>
1,2,4-TMB	<b>0.137</b>
P-ISOPROPYLTOLUENE	<b>0.0269</b>

**SAMPLE DATE**

CONSTITUENT      CONCENTRATION (mg/L)

- NOTES:**
- GROUNDWATER SAMPLES FROM TEMPORARY WELLS TMW-1 THROUGH TMW-6 COLLECTED ON 02/07/13.
  - GROUNDWATER SAMPLES FROM TEMPORARY WELLS TMW-7 THROUGH TMW-16 AND TWM-18 THROUGH TMW-33 COLLECTED ON 09/16/13 TO 09/18/13.
  - BOLD** INDICATES EXCEEDANCE OF TIER 1 RBSL OR NC 2L STANDARD.
  - ONLY THOSE PETROLEUM COMPOUNDS ABOVE STANDARDS ARE SHOWN.
  - 1,2,4-TMB = 1,2,4-TRIMETHYLBENZENE
  - 1,3,5-TMB = 1,3,5-TRIMETHYLBENZENE

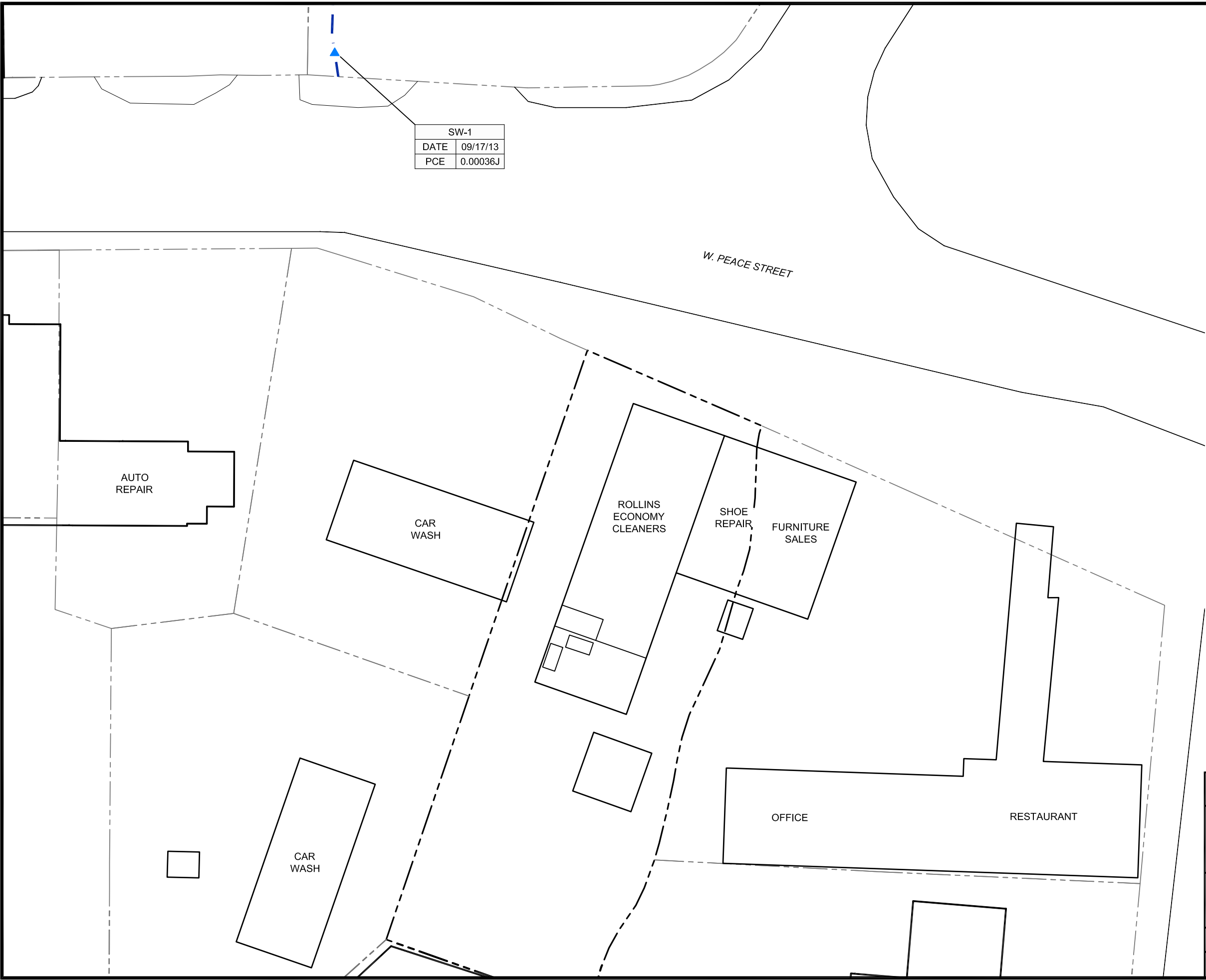


<b>TITLE</b> GROUNDWATER PETROLEUM COMPOUNDS CONTAMINANT CONCENTRATION MAP	
<b>PROJECT</b> ROLLINS ECONOMY CLEANERS DSCA ID: 92-0048 407 W. PEACE ST. RALEIGH, WAKE COUNTY	
2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology	
DATE: 11/21/13	REVISION NO. 0
JOB NO. DS0-79	ATTACHMENT NO. 17G

**ATTACHMENT 19**

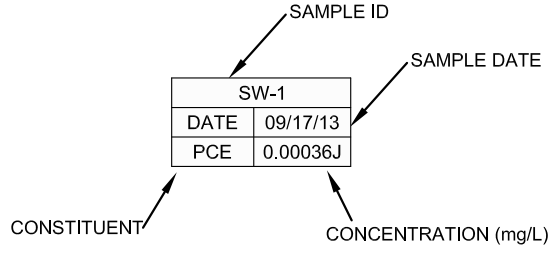
**SURFACE WATER CONTAMINATION CONCENTRATION MAP**

S:\AAA-Master Projects\DSCA - DS0\DS0-79 Rollins Economy Cleaners\Reports\2013-09\_PA\DC920048\_20131205\_Figures.dwg, ATTI19\_12/19/2013 11:32:11 AM, intoster

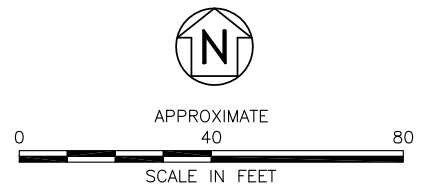


SW-1	
DATE	09/17/13
PCE	0.00036J

- LEGEND**
- SOURCE PROPERTY BOUNDARY
  - - - PROPERTY PARCEL
  - PIGEON HOUSE BRANCH
  - ▲ SURFACE WATER SAMPLE



**NOTES:**  
 1. J DENOTES ESTIMATED CONCENTRATION BETWEEN LABORATORY REPORTING LIMIT AND METHOD DETECTION LIMIT.



<b>TITLE</b>	
<b>SURFACE WATER CONTAMINANT CONCENTRATION MAP</b>	
<b>PROJECT</b>	
<b>ROLLINS ECONOMY CLEANERS</b>	
<b>DSCA ID: 92-0048</b>	
<b>407 W. PEACE ST.</b>	
<b>RALEIGH, WAKE COUNTY</b>	
<b>hart hickman</b>	
2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology	
<b>DATE:</b> 12/09/13	<b>REVISION NO.</b> 0
<b>JOB NO.</b> DS0-79	<b>ATTACHMENT NO.</b> 19

**ATTACHMENT 21**  
**LABORATORY ANALYTICAL DATA**



**KB LABS, INC.**  
6821 SW Archer Road  
Gainesville, Florida 32608

**Telephone (352) 367-0073**

**Fax (352) 378-6491**

Email: [info@kbmobilelabs.com](mailto:info@kbmobilelabs.com)

September 30, 2013

Timothy Klotz  
Hart & Hickman  
3334 Hillsborough St  
Raleigh, NC 27607

**RE: Rollins Economy Cleaners, Raleigh, NC - Final Data Report  
KB Labs Project # 13-103**

Dear Mr. Klotz:

Enclosed is the final report of the on-site analysis performed by KB Labs, Inc. at the above referenced site. Samples were collected and analyzed from September 16 to 19, 2013. Included are a brief project narrative, data report narrative, tables listing quality control results, final analytical results, and sample chain-of-custody form.

KB Labs' mobile laboratory (KB-2) has been inspected by the North Carolina Department of Environment and Natural Resources and is certified by the Division of Water Quality. Our personnel, methodology, proficiency testing, and quality assurance requirements comply with the guidelines of 15 NCAC 2B.0500, 2H.0900 and 2L .0100, .0200, .0300, and 2N .0100 through .0800 and with the consensus standards adopted at the National Environmental Laboratory Accreditation Conference (NELAC). Data for the site referenced above were determined in accordance with published procedures under Test Methods for Evaluating Solid Waste (EPA SW-846, Update III Revised May 1997). Unless otherwise indicated on the quality control narrative accompanying the data report, the quality assurance and quality control procedures performed in conjunction with analysis of groundwater samples demonstrated that the reported data met our requirements for accuracy and precision under NCDENR and NELAC Standards.

If you have any questions, please do not hesitate to call me or Kelly Bergdoll, President of KB Labs, at (352) 472-5830.

Sincerely,

KB Labs, Inc.

Todd Romero  
Director of Operations

*"KB Labs is a small, woman-owned business enterprise."*



KB Labs, Inc.  
6821 SW Archer Road  
Gainesville, FL 32608  
Phone: 352-367-0073  
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Email: [info@kbmobilelabs.com](mailto:info@kbmobilelabs.com)

## **PROJECT NARRATIVE**

### **Project Scope**

From September 16 to 19, 2013, a total of 70 samples (43 soils and 27 water) were analyzed for Hart & Hickman at Rollins Economy Cleaners, Raleigh, NC. The samples were analyzed for vinyl chloride, 1,1-dichloroethene, cis- and trans-1, 2-dichloroethene, trichloroethene, tetrachloroethene, benzene, toluene, ethylbenzene, xylenes, Isopropylbenzene, n-propylbenzene, 1,3,5-trimethylbenzene, tert-butylbenzene, 1,2,4-trimethylbenzene, sec-butylbenzene, p-isopropyltoluene, n-butylbenzene, and naphthalene.

### **NELAP Certification**

KB Mobile Labs Unit KB2: NCDENR Certification Number 632  
KB Labs: (% Solids)

### **Analytical Procedure**

All samples were analyzed using SW846 Method 5030/8260 for waters. Ten (10) milliliters (mL) of water or air (air samples) were purged with helium and the volatile organic compounds (VOCs) were collected on a solid-phase adsorption trap. The adsorption trap was heated and back-purged with helium. The components were then separated by capillary column gas chromatography and measured with a mass spectrometer (GC/MS) operated in the electron impact full-scan mode. The individual VOCs in the samples were measured against corresponding VOC standards.

The soil samples were analyzed using SW846 Method 5030/8260. One (1) gram (g) of soil sample was added to 10 mL of laboratory reagent water, heated and analyzed like a water sample as described above.

Soil data are corrected for percent solid values supplied by KB Labs.

### **Analytical Results**

Laboratory results were provided to the client on an as-completed or next-day basis. Final results of the on-site analyses are provided in a hardcopy report and the results relate only to the actual samples received and analyzed in the laboratory. The data produced and reported in the field has been reviewed and approved for this final report by the Director of Operations for KB Labs.

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## **Uncertainty of Reported Values**

All measurement data presented in this report are subject to a degree of uncertainty and the degree of uncertainty varies with each compound of interest. KB Labs estimates the uncertainty of each measurement using a statistical evaluation of the standard deviation from the mean percent recovery of a number of trials of a given measurement. More specifically, KB Labs maintains historical percent recovery control limits at the 99% confidence level for each analyte of interest. These are calculated as  $\pm 3$  times the standard deviation from the mean of historical measurements of the percent recovery of spikes of the analytes of interest into actual and control sample matrices. For example, if the lower and upper percent recovery control limits for a specific analyte of interest have been determined to be 70 and 100 percent respectively, a reported value of 10.0 ug/L will be with 99% confidence 7.0 to 13.0 ug/L. For more information about KB Labs estimation of uncertainty, contact KB Labs' quality assurance officer and/or request a copy of KB Labs' SOP for determining measurement uncertainty.

## **Quality Control (QC) Data**

Surrogate Recoveries – Table 1 lists the daily analytical sequence and percent recovery results for surrogate compounds, which were added to all analyses. Four (4) surrogate compounds were added to each analysis in order to continually monitor general method performance.

VOC Spike Recoveries – Table 2 lists the percent recovery results for matrix spike and laboratory control samples. A known amount of each target compound was added to selected field samples and to laboratory reagent water in order to monitor the performance of each of the target compounds in the actual matrix and in laboratory reagent water.

Method Blanks – Daily analysis of laboratory reagent water samples was performed in order to monitor the cleanliness of the analytical system.

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## **DATA REPORT NARRATIVE**

1. All sample data has been reviewed and, if required, updated in the Final Data Report for rounding, sample weights, and significant figures.
2. Values between KB Labs Reporting Limit (RL) and Method Detection Limit (MDL) are reported per NCDENR DSCA requirements. All data indicated with J Data Qualifier.
3. Changes for sample ID SB-15 3-4' reported:  
trichloroethene 0.121J changed to 0.060 J mg/kg  
tetrachloroethene 10.5 changed to 5.2 mg/kg
4. Changes for sample ID SB-19 0-1' reported:  
m,p-Xylene 0.78 J changed to 0.078J mg/kg  
naphthalene 0.34 J changed to 0.068J mg/kg
5. Changes for sample ID SB-23 3-4' reported:  
c-1,2-dichloroethene 5.0 changed to 0.71 mg/kg  
tetrachloroethene 0.45J changed to 0.53 U mg/kg  
1,3,5-trimethylbenzene 0.62 changed to 0.53 U mg/kg  
1,2,4-trimethylbenzene 1.7 changed to 0.31J mg/kg  
sec-butylbenzene 0.53 U changed to 0.24 J mg/kg
6. Sample D TMW-8 reported tert-butylbenzene 28.6 changed to 24.0 ug/L.

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**KB LABS, INC.**

**Table 1: Analytical Run Sequence/Surrogate Percent Recoveries**

<b>Client:</b> Hart & Hickman	<b>Driller/Sampler:</b> Hart & Hickman	<b>Analyst:</b> Bob George
<b>Site:</b> Rollins Economy Cleaners	<b>KB Labs Project Manager:</b> Kelly Bergdoll	<b>KB Labs Project No:</b> 13-103
<b>On-site Dates:</b> 9/16/13-9/19/13	<b>Client Project Manager:</b> Timothy Klotz	<b>Matrix:</b> Water/Soil

Sample ID	Date of Analysis	Surrogate % Recovery				Surrogate Control Limits			
		S1*	S2*	S3*	S4*	S1*	S2*	S3*	S4*
TUNE	09/16/13	115	110	93	96	Pass	Pass	Pass	Pass
CCS 50	09/16/13	97	107	98	98	Pass	Pass	Pass	Pass
LCS 20	09/16/13	97	101	99	99	Pass	Pass	Pass	Pass
BLANK	09/16/13	101	96	100	102	Pass	Pass	Pass	Pass
2091613-01A(TMW-7)	09/16/13	102	95	99	104	Pass	Pass	Pass	Pass
2091613-02A(TMW-8)	09/16/13	106	100	97	130	Pass	Pass	Pass	Pass
2091613-03A(TMW-9)	09/16/13	99	91	99	296	Pass	Pass	Pass	> UCL
2091613-04A(TMW-10) 1:20	09/16/13	104	95	99	113	Pass	Pass	Pass	Pass
2091613-05A(TMW-12) 1:10	09/16/13	110	105	102	101	Pass	Pass	Pass	Pass
2091613-06A(TMW-11)	09/16/13	102	99	96	138	Pass	Pass	Pass	> UCL
2091613-05A(TMW-12) MS	09/16/13	98	99	100	96	Pass	Pass	Pass	Pass
2091613-05A(TMW-12) MSD	09/16/13	99	98	101	99	Pass	Pass	Pass	Pass
CCS 50	09/16/13	99	107	100	96	Pass	Pass	Pass	Pass
TUNE	09/17/13	124	115	98	85	Pass	Pass	Pass	Pass
CCS 50	09/17/13	109	117	96	98	Pass	Pass	Pass	Pass
LCS 20	09/17/13	107	103	100	98	Pass	Pass	Pass	Pass
BLANK	09/17/13	108	102	98	97	Pass	Pass	Pass	Pass
SOIL LCS 20	09/17/13	104	102	100	96	Pass	Pass	Pass	Pass
SOIL BLANK	09/17/13	109	98	102	105	Pass	Pass	Pass	Pass
2091613-01B(TMW-7) 1:10	09/17/13	108	94	96	101	Pass	Pass	Pass	Pass
2091613-07A(SB-7 2-3')	09/17/13	110	103	98	205	Pass	Pass	Pass	> UCL
2091613-08A(SB-7 5-6')	09/17/13	108	104	100	256	Pass	Pass	Pass	> UCL
2091613-09A(SB-8 2-3')	09/17/13	107	97	95	219	Pass	Pass	Pass	> UCL
2091613-10A(SB-8 5-6')	09/17/13	108	103	96	115	Pass	Pass	Pass	Pass
2091613-10A(SB-8 5-6')	09/17/13	105	97	99	375	Pass	Pass	Pass	> UCL
2091613-11A(SB-9 2-3')	09/17/13	113	108	88	426	Pass	Pass	Pass	> UCL
2091613-12A(SB-9 5-6')	09/17/13	108	98	93	130	Pass	Pass	Pass	Pass
2091613-13A(SB-10 2-3')	09/17/13	106	99	93	259	Pass	Pass	Pass	> UCL
2091613-14A(SB-10 3-4')	09/17/13	103	94	93	117	Pass	Pass	Pass	Pass
2091613-15A(SB-11 1-2')	09/17/13	110	103	98	112	Pass	Pass	Pass	Pass
2091613-16A(SB-11 4-5')	09/17/13	106	99	97	130	Pass	Pass	Pass	Pass
2091613-01A(TMW-13) 1:200	09/17/13	107	103	94	97	Pass	Pass	Pass	Pass
2091613-02A(TMW-14) 1:200	09/17/13	117	109	100	97	Pass	Pass	Pass	Pass
2091613-03A(SB-12 2-3')	09/17/13	105	98	94	125	Pass	Pass	Pass	Pass
2091613-04A(SB-12 3-4')	09/17/13	106	98	96	99	Pass	Pass	Pass	Pass
2091713-05A(SB-13 2-3')	09/17/13	108	102	99	106	Pass	Pass	Pass	Pass
2091713-03A(SB-12 2-3')	09/17/13	110	103	93	200	Pass	Pass	Pass	> UCL
2091713-06A(SB-13 3-4')	09/17/13	98	93	95	100	Pass	Pass	Pass	Pass

**\*Surrogate Compounds:**

- S1 = Dibromofluoromethane (83% - 125%)
- S2 = 1,2- Dichloroethane-D4 (74% - 130%)
- S3 = Toluene-D8 (87% - 114%)
- S4 = 4-Bromofluorobenzene (71% - 131%)

**KB LABS, INC.**

**Table 1: Analytical Run Sequence/Surrogate Percent Recoveries**

<b>Client:</b> Hart & Hickman	<b>Driller/Sampler:</b> Hart & Hickman	<b>Analyst:</b> Bob George
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<b>On-site Dates:</b> 9/16/13-9/19/13	<b>Client Project Manager:</b> Timothy Klotz	<b>Matrix:</b> Water/Soil

Sample ID	Date of Analysis	Surrogate % Recovery				Surrogate Control Limits			
		S1*	S2*	S3*	S4*	S1*	S2*	S3*	S4*
2091713-07A(SB-14 2-3')	09/17/13	107	100	103	87	Pass	Pass	Pass	Pass
2091713-08A(SB-15 2-3')	09/17/13	105	104	93	95	Pass	Pass	Pass	Pass
2091713-09A(SB-15 3-4')	09/17/13	102	93	94	96	Pass	Pass	Pass	Pass
2091713-14A(SW-1)	09/17/13	106	100	100	106	Pass	Pass	Pass	Pass
2091713-01B(TMW-13) 1:500	09/17/13	110	106	96	98	Pass	Pass	Pass	Pass
2091713-14A(SW-1)MS	09/17/13	109	103	99	91	Pass	Pass	Pass	Pass
2091713-14A(SW-1)MSD	09/17/13	102	95	100	94	Pass	Pass	Pass	Pass
2091713-04A(SB-12 3-4') MS	09/17/13	105	100	100	101	Pass	Pass	Pass	Pass
2091713-04A(SB-12 3-4') MSD	09/17/13	104	102	100	100	Pass	Pass	Pass	Pass
CCS 50	09/17/13	100	102	100	100	Pass	Pass	Pass	Pass
TUNE	09/18/13	113	98	99	97	Pass	Pass	Pass	Pass
CCS 50	09/18/13	104	115	97	98	Pass	Pass	Pass	Pass
LCS 20	09/18/13	107	109	97	94	Pass	Pass	Pass	Pass
BLANK	09/18/13	114	102	99	99	Pass	Pass	Pass	Pass
SOIL LCS 20	09/18/13	105	101	100	97	Pass	Pass	Pass	Pass
SOIL BLANK	09/18/13	105	95	100	101	Pass	Pass	Pass	Pass
2091713-15A(TMW-18)	09/18/13	111	102	98	98	Pass	Pass	Pass	Pass
2091713-16A(TMW-20)	09/18/13	109	98	99	98	Pass	Pass	Pass	Pass
2091713-17A(TMW-19)	09/18/13	108	99	98	102	Pass	Pass	Pass	Pass
2091713-10A(SB-16 1-2')	09/18/13	110	100	100	103	Pass	Pass	Pass	Pass
2091713-11A(SB-16 4-5')	09/18/13	108	100	91	149	Pass	Pass	Pass	> UCL
2091713-12A(SB-17 2-3')	09/18/13	106	95	99	100	Pass	Pass	Pass	Pass
2091713-13A(SB-17 3-4')	09/18/13	107	97	95	101	Pass	Pass	Pass	Pass
2091813-05A(TMW-23)	09/18/13	108	99	98	100	Pass	Pass	Pass	Pass
2091813-06A(TMW-22)	09/18/13	108	98	98	100	Pass	Pass	Pass	Pass
2091813-01A(TMW-16) 1:10	09/18/13	109	101	100	102	Pass	Pass	Pass	Pass
2091813-02A(TMW-15)	09/18/13	108	96	97	150	Pass	Pass	Pass	> UCL
2091813-02A(TMW-15) 1:20	09/18/13	105	95	97	105	Pass	Pass	Pass	Pass
2091713-12A(SB-17 2-3')	09/18/13	107	102	96	101	Pass	Pass	Pass	Pass
2091713-13A(SB-17 3-4')	09/18/13	111	106	97	102	Pass	Pass	Pass	Pass
2091613-11A(SB-9 2-3')	09/18/13	107	103	93	272	Pass	Pass	Pass	> UCL
2091813-03A (SB-18 2-3')	09/18/13	114	107	108	119	Pass	Pass	Pass	Pass
2091813-04A (SB-18 4-5')	09/18/13	112	105	105	109	Pass	Pass	Pass	Pass
2091813-07A(TMW-21) 1:500	09/18/13	107	103	98	100	Pass	Pass	Pass	Pass
2091813-08A(TMW-26) 1:100	09/18/13	109	101	100	101	Pass	Pass	Pass	Pass
2091813-09A(TMW-24) 1:5	09/18/13	107	98	99	100	Pass	Pass	Pass	Pass
2091813-08A(TMW-26) 1:5	09/18/13	108	101	98	100	Pass	Pass	Pass	Pass
2091813-10A(TMW-25) 1:2	09/18/13	107	96	97	193	Pass	Pass	Pass	> UCL

**\*Surrogate Compounds:**

- S1 = Dibromofluoromethane (83% - 125%)
- S2 = 1,2- Dichloroethane-D4 (74% - 130%)
- S3 = Toluene-D8 (87% - 114%)
- S4 = 4-Bromofluorobenzene (71% - 131%)

**KB LABS, INC.**

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<b>Client:</b> Hart & Hickman	<b>Driller/Sampler:</b> Hart & Hickman	<b>Analyst:</b> Bob George
<b>Site:</b> Rollins Economy Cleaners	<b>KB Labs Project Manager:</b> Kelly Bergdoll	<b>KB Labs Project No:</b> 13-103
<b>On-site Dates:</b> 9/16/13-9/19/13	<b>Client Project Manager:</b> Timothy Klotz	<b>Matrix:</b> Water/Soil

Sample ID	Date of Analysis	Surrogate % Recovery				Surrogate Control Limits			
		S1*	S2*	S3*	S4*	S1*	S2*	S3*	S4*
2091813-11A(TMW-27)	09/18/13	107	99	99	101	Pass	Pass	Pass	Pass
CCS 50	09/18/13	107	110	101	97	Pass	Pass	Pass	Pass
BLANK	09/18/13	106	98	99	99	Pass	Pass	Pass	Pass
BLANK	09/18/13	110	101	99	100	Pass	Pass	Pass	Pass
2091813-12A(SB-20 1-2')	09/18/13	108	98	99	102	Pass	Pass	Pass	Pass
2091813-13A(SB-20 3-4')	09/18/13	110	100	95	100	Pass	Pass	Pass	Pass
2091813-05B(TMW-23)MS	09/18/13	103	97	102	96	Pass	Pass	Pass	Pass
2091813-05B(TMW-23)MSD	09/18/13	104	97	100	98	Pass	Pass	Pass	Pass
2091713-10A(SB-16 1-2')MS	09/18/13	105	99	100	100	Pass	Pass	Pass	Pass
2091713-10A(SB-16 1-2')MSD	09/18/13	106	100	102	100	Pass	Pass	Pass	Pass
CCS 50	09/18/13	102	103	100	100	Pass	Pass	Pass	Pass
TUNE	09/19/13	123	101	97	95	Pass	Pass	Pass	Pass
CCS 50	09/19/13	109	108	95	97	Pass	Pass	Pass	Pass
SOIL LCS 20	09/19/13	110	102	98	96	Pass	Pass	Pass	Pass
SOIL BLANK	09/19/13	111	99	98	103	Pass	Pass	Pass	Pass
2091813-03A(SB-18 2-3')	09/19/13	114	102	96	100	Pass	Pass	Pass	Pass
2091813-12A(SB-20 1-2')	09/19/13	118	107	93	100	Pass	Pass	Pass	Pass
2091813-14A(SB-21 2-3')	09/19/13	113	104	94	103	Pass	Pass	Pass	Pass
2091813-15A(SB-21 3-4')	09/19/13	116	107	90	186	Pass	Pass	Pass	> UCL
2091813-16A(SB-19 0-1')	09/19/13	113	103	89	131	Pass	Pass	Pass	Pass
2091813-17A(SB-19 3-4')	09/19/13	109	101	100	110	Pass	Pass	Pass	Pass
2091913-01A(TMW-28)	09/19/13	110	98	97	101	Pass	Pass	Pass	Pass
2091913-01A(TMW-30)	09/19/13	109	99	95	102	Pass	Pass	Pass	Pass
2091913-03A(TMW-29)	09/19/13	108	100	96	100	Pass	Pass	Pass	Pass
2091913-04A(SB-23 1-2')	09/19/13	112	105	85	273	Pass	Pass	< LCL	> UCL
2091913-05A(SB-23 3-4')	09/19/13	106	98	91	112	Pass	Pass	Pass	Pass
2091913-06A(SB-22 0-1')	09/19/13	97	97	94	146	Pass	Pass	Pass	> UCL
2091913-07A(SB-22 3-4')	09/19/13	105	98	87	120	Pass	Pass	Pass	Pass
2091913-08A(SB-24 2-3')	09/19/13	108	96	95	101	Pass	Pass	Pass	Pass
2091913-09A(SB-24 4-5')	09/19/13	113	103	100	110	Pass	Pass	Pass	Pass
2091913-10A(SB-25 2-3')	09/19/13	113	103	98	104	Pass	Pass	Pass	Pass
2091913-11A(SB-25 4-5')	09/19/13	114	104	94	104	Pass	Pass	Pass	Pass
2091913-12A(SB-26 2-3')	09/19/13	111	101	97	102	Pass	Pass	Pass	Pass
2091913-13A(SB-26 4-5')	09/19/13	140	132	94	100	> UCL	> UCL	Pass	Pass
2091913-08A(SB-24 2-3')MS	09/19/13	104	101	98	95	Pass	Pass	Pass	Pass
2091913-08A(SB-24 2-3')MSD	09/19/13	103	99	98	97	Pass	Pass	Pass	Pass
CCS 50	09/19/13	100	106	98	99	Pass	Pass	Pass	Pass
LCS 20	09/19/13	99	99	99	98	Pass	Pass	Pass	Pass

**\*Surrogate Compounds:**

- S1 = Dibromofluoromethane (83% - 125%)
- S2 = 1,2- Dichloroethane-D4 (74% - 130%)
- S3 = Toluene-D8 (87% - 114%)
- S4 = 4-Bromofluorobenzene (71% - 131%)

**KB LABS, INC.**

**Table 1: Analytical Run Sequence/Surrogate Percent Recoveries**

<b>Client:</b> Hart & Hickman	<b>Driller/Sampler:</b> Hart & Hickman	<b>Analyst:</b> Bob George
<b>Site:</b> Rollins Economy Cleaners	<b>KB Labs Project Manager:</b> Kelly Bergdoll	<b>KB Labs Project No:</b> 13-103
<b>On-site Dates:</b> 9/16/13-9/19/13	<b>Client Project Manager:</b> Timothy Klotz	<b>Matrix:</b> Water/Soil

Sample ID	Date of Analysis	Surrogate % Recovery				Surrogate Control Limits			
		S1*	S2*	S3*	S4*	S1*	S2*	S3*	S4*
BLANK	09/19/13	103	98	100	102	Pass	Pass	Pass	Pass
BLANK	09/19/13	104	100	101	103	Pass	Pass	Pass	Pass
2091913-14A(TMW-31)	09/19/13	104	99	101	107	Pass	Pass	Pass	Pass
2091913-15A(TMW-32)	09/19/13	104	98	102	104	Pass	Pass	Pass	Pass
2091913-16A(TMW-33) 1:2	09/19/13	106	99	103	102	Pass	Pass	Pass	Pass
2091913-17A(SB-28 1-2')	09/19/13	106	97	98	103	Pass	Pass	Pass	Pass
2091913-18A(SB-28 3-4')	09/19/13	114	107	109	116	Pass	Pass	Pass	Pass
2091913-19A(SB-27 0-1')	09/19/13	115	106	107	108	Pass	Pass	Pass	Pass
2091913-20A(SB-27 4-5)	09/19/13	126	130	90	97	> UCL	Pass	Pass	Pass
2091913-16A(SB-26 4-5')	09/19/13	108	98	103	104	Pass	Pass	Pass	Pass
2091913-14B(TMW-31)MS	09/19/13	103	99	103	97	Pass	Pass	Pass	Pass
2091913-14B(TMW-31)MSD	09/19/13	100	95	103	98	Pass	Pass	Pass	Pass
CCS 50	09/19/13	99	101	104	100	Pass	Pass	Pass	Pass
<b>Comments:</b>	Although some surrogates may be out of the control percent recovery range, other supporting QC, such as matrix spikes, matrix spike duplicates, method blanks, and laboratory control samples, are performed by KB Labs to further validate reported data. Matrix effect on some 4th surrogate recoveries.								

**\*Surrogate Compounds:**

- S1 = Dibromofluoromethane (83% - 125%)
- S2 = 1,2- Dichloroethane-D4 (74% - 130%)
- S3 = Toluene-D8 (87% - 114%)
- S4 = 4-Bromofluorobenzene (71% - 131%)

**KB LABS, INC.**

**Table 2: VOC Spike Compound Percent Recoveries**

<b>Client:</b> Hart & Hickman	<b>Driller/Sampler:</b> Hart & Hickman	<b>Analyst:</b> Bob George
<b>Site:</b> Rollins Economy Cleaners	<b>KB Labs Project Manager:</b> Kelly Bergdoll	<b>KB Labs Project No.:</b> 13-103
<b>Onsite Dates:</b> 9/16/13-9/19/13	<b>Client Project Manager:</b> Timothy Klotz	<b>Matrix:</b> Water/Soil

**Matrix Spike/Matrix Spike Duplicate (MS/MSD):**

<b>Samples:</b> 2091613-05A(TMW-12)		<b>Date of Analysis:</b> 9/16/2013							
<b>Matrix Spike Compounds</b>	<b>Control Limits</b>			<b>Percent Recoveries</b>			<b>Control Limit Checks</b>		
	<b>Lower</b>	<b>Upper</b>	<b>RPD</b>	<b>MS</b>	<b>MSD</b>	<b>RPD</b>	<b>MS</b>	<b>MSD</b>	<b>RPD</b>
Vinyl Chloride	38	145	20	84	78	7	Pass	Pass	Pass
1,1-Dichloroethene	47	143	20	100	99	2	Pass	Pass	Pass
Trans-1,2-Dichloroethene	48	145	20	95	92	3	Pass	Pass	Pass
Cis-1,2-Dichloroethene	51	147	20	69	68	1	Pass	Pass	Pass
Benzene	71	123	20	91	87	4	Pass	Pass	Pass
Trichloroethene	64	134	20	77	73	6	Pass	Pass	Pass
Toluene	67	130	20	92	87	6	Pass	Pass	Pass
Tetrachloroethene	54	140	20	81	77	5	Pass	Pass	Pass
Ethylbenzene	69	125	20	96	94	2	Pass	Pass	Pass
m,p-Xylene	63	144	20	118	116	1	Pass	Pass	Pass
o-Xylene	74	125	20	106	103	2	Pass	Pass	Pass
Isopropylbenzene(cumene)	56	149	20	113	110	2	Pass	Pass	Pass
n-Propylbenzene	57	139	20	106	102	3	Pass	Pass	Pass
1,3,5-Trimethylbenzene	64	133	20	102	98	4	Pass	Pass	Pass
tert-Butylbenzene	55	137	20	109	106	3	Pass	Pass	Pass
1,2,4-Trimethylbenzene	64	134	20	100	97	3	Pass	Pass	Pass
sec-Butylbenzene	61	133	20	115	112	2	Pass	Pass	Pass
p-Isopropyltoluene	55	146	20	114	110	3	Pass	Pass	Pass
n-Butylbenzene	68	128	20	106	101	4	Pass	Pass	Pass
Naphthalene	35	153	20	85	82	4	Pass	Pass	Pass

**Note:** Control Limits are based on a semi-annual historical evaluation of mobile unit and method guidelines.

<b>Samples:</b> 2091713-04A-04A(SB-12 3-4')		<b>Date of Analysis:</b> 9/17/2013							
<b>Matrix Spike Compounds</b>	<b>Control Limits</b>			<b>Percent Recoveries</b>			<b>Control Limit Checks</b>		
	<b>Lower</b>	<b>Upper</b>	<b>RPD</b>	<b>MS</b>	<b>MSD</b>	<b>RPD</b>	<b>MS</b>	<b>MSD</b>	<b>RPD</b>
Vinyl Chloride	38	145	20	94	96	1	Pass	Pass	Pass
1,1-Dichloroethene	47	143	20	121	117	3	Pass	Pass	Pass
Trans-1,2-Dichloroethene	48	145	20	112	111	2	Pass	Pass	Pass
Cis-1,2-Dichloroethene	51	147	20	96	92	4	Pass	Pass	Pass
Benzene	71	123	20	95	96	1	Pass	Pass	Pass
Trichloroethene	64	134	20	95	98	3	Pass	Pass	Pass
Toluene	67	130	20	97	97	0	Pass	Pass	Pass
Tetrachloroethene	54	140	20	97	96	1	Pass	Pass	Pass
Ethylbenzene	69	125	20	102	100	1	Pass	Pass	Pass
m,p-Xylene	63	144	20	121	120	1	Pass	Pass	Pass
o-Xylene	74	125	20	106	106	0	Pass	Pass	Pass
Isopropylbenzene(cumene)	56	149	20	111	109	2	Pass	Pass	Pass
n-Propylbenzene	57	139	20	102	100	2	Pass	Pass	Pass
1,3,5-Trimethylbenzene	64	133	20	112	112	0	Pass	Pass	Pass
tert-Butylbenzene	55	137	20	107	107	0	Pass	Pass	Pass
1,2,4-Trimethylbenzene	64	134	20	109	110	1	Pass	Pass	Pass
sec-Butylbenzene	61	133	20	113	112	1	Pass	Pass	Pass
p-Isopropyltoluene	55	146	20	112	111	0	Pass	Pass	Pass
n-Butylbenzene	68	128	20	112	111	2	Pass	Pass	Pass
Naphthalene	35	153	20	88	94	7	Pass	Pass	Pass

**Note:** Control Limits are based on a semi-annual historical evaluation of mobile unit and method guidelines.

**KB LABS, INC.**

**Table 2: VOC Spike Compound Percent Recoveries**

<b>Client:</b> Hart & Hickman	<b>Driller/Sampler:</b> Hart & Hickman	<b>Analyst:</b> Bob George
<b>Site:</b> Rollins Economy Cleaners	<b>KB Labs Project Manager:</b> Kelly Bergdoll	<b>KB Labs Project No.:</b> 13-103
<b>Onsite Dates:</b> 9/16/13-9/19/13	<b>Client Project Manager:</b> Timothy Klotz	<b>Matrix:</b> Water/Soil

<b>Samples:</b> 2091713-14A(SW-1)		<b>Date of Analysis:</b> 9/17/2013							
<b>Matrix Spike Compounds</b>	<b>Control Limits</b>			<b>Percent Recoveries</b>			<b>Control Limit Checks</b>		
	<b>Lower</b>	<b>Upper</b>	<b>RPD</b>	<b>MS</b>	<b>MSD</b>	<b>RPD</b>	<b>MS</b>	<b>MSD</b>	<b>RPD</b>
Vinyl Chloride	38	145	20	100	95	5	Pass	Pass	Pass
1,1-Dichloroethene	47	143	20	121	110	10	Pass	Pass	Pass
Trans-1,2-Dichloroethene	48	145	20	114	103	10	Pass	Pass	Pass
Cis-1,2-Dichloroethene	51	147	20	101	93	8	Pass	Pass	Pass
Benzene	71	123	20	98	93	6	Pass	Pass	Pass
Trichloroethene	64	134	20	98	94	4	Pass	Pass	Pass
Toluene	67	130	20	98	95	3	Pass	Pass	Pass
Tetrachloroethene	54	140	20	101	94	8	Pass	Pass	Pass
Ethylbenzene	69	125	20	100	98	2	Pass	Pass	Pass
m,p-Xylene	63	144	20	120	118	2	Pass	Pass	Pass
o-Xylene	74	125	20	103	101	2	Pass	Pass	Pass
Isopropylbenzene(cumene)	56	149	20	112	109	3	Pass	Pass	Pass
n-Propylbenzene	57	139	20	101	99	2	Pass	Pass	Pass
1,3,5-Trimethylbenzene	64	133	20	111	109	2	Pass	Pass	Pass
tert-Butylbenzene	55	137	20	103	103	0	Pass	Pass	Pass
1,2,4-Trimethylbenzene	64	134	20	109	106	3	Pass	Pass	Pass
sec-Butylbenzene	61	133	20	113	110	3	Pass	Pass	Pass
p-Isopropyltoluene	55	146	20	113	110	3	Pass	Pass	Pass
n-Butylbenzene	68	128	20	113	109	4	Pass	Pass	Pass
Naphthalene	35	153	20	85	80	5	Pass	Pass	Pass

**Note:** Control Limits are based on a semi-annual historical evaluation of mobile unit and method guidelines.

<b>Samples:</b> 2091713-10A(SB-16 1-2')		<b>Date of Analysis:</b> 9/18/2013							
<b>Matrix Spike Compounds</b>	<b>Control Limits</b>			<b>Percent Recoveries</b>			<b>Control Limit Checks</b>		
	<b>Lower</b>	<b>Upper</b>	<b>RPD</b>	<b>MS</b>	<b>MSD</b>	<b>RPD</b>	<b>MS</b>	<b>MSD</b>	<b>RPD</b>
Vinyl Chloride	38	145	20	70	70	1	Pass	Pass	Pass
1,1-Dichloroethene	47	143	20	103	108	4	Pass	Pass	Pass
Trans-1,2-Dichloroethene	48	145	20	92	96	4	Pass	Pass	Pass
Cis-1,2-Dichloroethene	51	147	20	-232	-229	-1	< LCL	< LCL	Pass
Benzene	71	123	20	88	88	0	Pass	Pass	Pass
Trichloroethene	64	134	20	82	87	6	Pass	Pass	Pass
Toluene	67	130	20	89	91	2	Pass	Pass	Pass
Tetrachloroethene	54	140	20	96	186	64	Pass	> UCL	> RPD
Ethylbenzene	69	125	20	94	95	1	Pass	Pass	Pass
m,p-Xylene	63	144	20	117	118	1	Pass	Pass	Pass
o-Xylene	74	125	20	106	106	0	Pass	Pass	Pass
Isopropylbenzene(cumene)	56	149	20	111	110	0	Pass	Pass	Pass
n-Propylbenzene	57	139	20	103	102	0	Pass	Pass	Pass
1,3,5-Trimethylbenzene	64	133	20	100	100	0	Pass	Pass	Pass
tert-Butylbenzene	55	137	20	107	106	0	Pass	Pass	Pass
1,2,4-Trimethylbenzene	64	134	20	99	99	0	Pass	Pass	Pass
sec-Butylbenzene	61	133	20	112	112	0	Pass	Pass	Pass
p-Isopropyltoluene	55	146	20	110	109	1	Pass	Pass	Pass
n-Butylbenzene	68	128	20	98	97	0	Pass	Pass	Pass
Naphthalene	35	153	20	71	70	2	Pass	Pass	Pass

**Note:** Control Limits are based on a semi-annual historical evaluation of mobile unit and method guidelines.

**KB LABS, INC.**

**Table 2: VOC Spike Compound Percent Recoveries**

<b>Client:</b> Hart & Hickman	<b>Driller/Sampler:</b> Hart & Hickman	<b>Analyst:</b> Bob George
<b>Site:</b> Rollins Economy Cleaners	<b>KB Labs Project Manager:</b> Kelly Bergdoll	<b>KB Labs Project No.:</b> 13-103
<b>Onsite Dates:</b> 9/16/13-9/19/13	<b>Client Project Manager:</b> Timothy Klotz	<b>Matrix:</b> Water/Soil

<b>Samples:</b> 2091813-05A(TMW-23)		<b>Date of Analysis:</b> 9/18/2013							
<b>Matrix Spike Compounds</b>	<b>Control Limits</b>			<b>Percent Recoveries</b>			<b>Control Limit Checks</b>		
	<b>Lower</b>	<b>Upper</b>	<b>RPD</b>	<b>MS</b>	<b>MSD</b>	<b>RPD</b>	<b>MS</b>	<b>MSD</b>	<b>RPD</b>
Vinyl Chloride	38	145	20	73	70	4	Pass	Pass	Pass
1,1-Dichloroethene	47	143	20	110	104	6	Pass	Pass	Pass
Trans-1,2-Dichloroethene	48	145	20	97	91	6	Pass	Pass	Pass
Cis-1,2-Dichloroethene	51	147	20	93	91	2	Pass	Pass	Pass
Benzene	71	123	20	91	91	0	Pass	Pass	Pass
Trichloroethene	64	134	20	88	87	0	Pass	Pass	Pass
Toluene	67	130	20	95	91	4	Pass	Pass	Pass
Tetrachloroethene	54	140	20	89	85	5	Pass	Pass	Pass
Ethylbenzene	69	125	20	96	93	2	Pass	Pass	Pass
m,p-Xylene	63	144	20	118	115	3	Pass	Pass	Pass
o-Xylene	74	125	20	105	104	1	Pass	Pass	Pass
Isopropylbenzene(cumene)	56	149	20	112	110	2	Pass	Pass	Pass
n-Propylbenzene	57	139	20	106	104	2	Pass	Pass	Pass
1,3,5-Trimethylbenzene	64	133	20	104	101	3	Pass	Pass	Pass
tert-Butylbenzene	55	137	20	110	105	5	Pass	Pass	Pass
1,2,4-Trimethylbenzene	64	134	20	102	100	2	Pass	Pass	Pass
sec-Butylbenzene	61	133	20	118	115	3	Pass	Pass	Pass
p-Isopropyltoluene	55	146	20	114	112	2	Pass	Pass	Pass
n-Butylbenzene	68	128	20	107	103	4	Pass	Pass	Pass
Naphthalene	35	153	20	66	75	13	Pass	Pass	Pass

**Note:** Control Limits are based on a semi-annual historical evaluation of mobile unit and method guidelines.

<b>Samples:</b> 2091913-08A(SB-24 2-3')		<b>Date of Analysis:</b> 9/19/2013							
<b>Matrix Spike Compounds</b>	<b>Control Limits</b>			<b>Percent Recoveries</b>			<b>Control Limit Checks</b>		
	<b>Lower</b>	<b>Upper</b>	<b>RPD</b>	<b>MS</b>	<b>MSD</b>	<b>RPD</b>	<b>MS</b>	<b>MSD</b>	<b>RPD</b>
Vinyl Chloride	38	145	20	70	67	5	Pass	Pass	Pass
1,1-Dichloroethene	47	143	20	94	90	5	Pass	Pass	Pass
Trans-1,2-Dichloroethene	48	145	20	86	83	4	Pass	Pass	Pass
Cis-1,2-Dichloroethene	51	147	20	94	91	3	Pass	Pass	Pass
Benzene	71	123	20	97	95	3	Pass	Pass	Pass
Trichloroethene	64	134	20	92	89	3	Pass	Pass	Pass
Toluene	67	130	20	98	94	5	Pass	Pass	Pass
Tetrachloroethene	54	140	20	90	86	5	Pass	Pass	Pass
Ethylbenzene	69	125	20	95	93	3	Pass	Pass	Pass
m,p-Xylene	63	144	20	119	115	3	Pass	Pass	Pass
o-Xylene	74	125	20	106	102	3	Pass	Pass	Pass
Isopropylbenzene(cumene)	56	149	20	111	108	3	Pass	Pass	Pass
n-Propylbenzene	57	139	20	105	102	3	Pass	Pass	Pass
1,3,5-Trimethylbenzene	64	133	20	101	100	1	Pass	Pass	Pass
tert-Butylbenzene	55	137	20	107	105	2	Pass	Pass	Pass
1,2,4-Trimethylbenzene	64	134	20	102	99	3	Pass	Pass	Pass
sec-Butylbenzene	61	133	20	116	112	4	Pass	Pass	Pass
p-Isopropyltoluene	55	146	20	113	111	2	Pass	Pass	Pass
n-Butylbenzene	68	128	20	106	103	2	Pass	Pass	Pass
Naphthalene	35	153	20	84	83	2	Pass	Pass	Pass

**Note:** Control Limits are based on a semi-annual historical evaluation of mobile unit and method guidelines.

**KB LABS, INC.**

**Table 2: VOC Spike Compound Percent Recoveries**

<b>Client:</b> Hart & Hickman	<b>Driller/Sampler:</b> Hart & Hickman	<b>Analyst:</b> Bob George
<b>Site:</b> Rollins Economy Cleaners	<b>KB Labs Project Manager:</b> Kelly Bergdoll	<b>KB Labs Project No.:</b> 13-103
<b>Onsite Dates:</b> 9/16/13-9/19/13	<b>Client Project Manager:</b> Timothy Klotz	<b>Matrix:</b> Water/Soil

<b>Samples:</b> 2091913-14A(TMW-31)	<b>Date of Analysis:</b> 9/19/2013								
Matrix Spike Compounds	Control Limits			Percent Recoveries			Control Limit Checks		
	Lower	Upper	RPD	MS	MSD	RPD	MS	MSD	RPD
Vinyl Chloride	38	145	20	64	66	3	Pass	Pass	Pass
1,1-Dichloroethene	47	143	20	101	96	6	Pass	Pass	Pass
Trans-1,2-Dichloroethene	48	145	20	88	85	3	Pass	Pass	Pass
Cis-1,2-Dichloroethene	51	147	20	88	87	0	Pass	Pass	Pass
Benzene	71	123	20	86	87	1	Pass	Pass	Pass
Trichloroethene	64	134	20	83	83	0	Pass	Pass	Pass
Toluene	67	130	20	87	88	1	Pass	Pass	Pass
Tetrachloroethene	54	140	20	81	84	3	Pass	Pass	Pass
Ethylbenzene	69	125	20	92	93	1	Pass	Pass	Pass
m,p-Xylene	63	144	20	104	104	0	Pass	Pass	Pass
o-Xylene	74	125	20	100	100	0	Pass	Pass	Pass
Isopropylbenzene(cumene)	56	149	20	108	109	1	Pass	Pass	Pass
n-Propylbenzene	57	139	20	103	103	0	Pass	Pass	Pass
1,3,5-Trimethylbenzene	64	133	20	99	99	1	Pass	Pass	Pass
tert-Butylbenzene	55	137	20	105	106	1	Pass	Pass	Pass
1,2,4-Trimethylbenzene	64	134	20	98	99	1	Pass	Pass	Pass
sec-Butylbenzene	61	133	20	113	114	1	Pass	Pass	Pass
p-Isopropyltoluene	55	146	20	109	110	1	Pass	Pass	Pass
n-Butylbenzene	68	128	20	101	102	1	Pass	Pass	Pass
Naphthalene	35	153	20	66	74	11	Pass	Pass	Pass

**Note:** Control Limits are based on a semi-annual historical evaluation of mobile unit and method guidelines.

**Laboratory Control Spikes (LCS):**

<b>Samples:</b> LCS 1	<b>Date of Analysis:</b> 9/16/2013								
LCS 2	9/17/2013								
LCS 3 SOIL	9/17/2013								
Spike Compounds	Control Limits			Percent Recoveries			Control Limit Checks		
	Lower	Upper		LCS#1	LCS#2	LCS#3	LCS#1	LCS#2	LCS#3
Vinyl Chloride	37	to 158		80	102	98	Pass	Pass	Pass
1,1-Dichloroethene	52	to 147		93	136	118	Pass	Pass	Pass
Trans-1,2-Dichloroethene	51	to 148		90	124	107	Pass	Pass	Pass
Cis-1,2-Dichloroethene	59	to 142		98	104	99	Pass	Pass	Pass
Benzene	71	to 130		98	98	97	Pass	Pass	Pass
Trichloroethene	69	to 132		93	100	97	Pass	Pass	Pass
Toluene	70	to 134		96	98	97	Pass	Pass	Pass
Tetrachloroethene	58	to 145		88	99	95	Pass	Pass	Pass
Ethylbenzene	74	to 134		100	100	100	Pass	Pass	Pass
m,p-Xylene	70	to 146		123	120	119	Pass	Pass	Pass
o-Xylene	71	to 139		111	104	103	Pass	Pass	Pass
Isopropylbenzene(cumene)	80	to 138		116	110	107	Pass	Pass	Pass
n-Propylbenzene	76	to 136		109	100	100	Pass	Pass	Pass
1,3,5-Trimethylbenzene	75	to 133		107	116	111	Pass	Pass	Pass
tert-Butylbenzene	66	to 138		111	108	104	Pass	Pass	Pass
1,2,4-Trimethylbenzene	70	to 139		107	112	109	Pass	Pass	Pass
sec-Butylbenzene	73	to 126		119	117	113	Pass	Pass	Pass
p-Isopropyltoluene	65	to 142		117	117	113	Pass	Pass	Pass
n-Butylbenzene	73	to 128		111	113	113	Pass	Pass	Pass
Naphthalene	40	to 159		96	85	77	Pass	Pass	Pass

**Note:** Control Limits are based on a semi-annual historical evaluation of mobile unit and method guidelines.



**KB LABS, INC.**

**Table 2: VOC Spike Compound Percent Recoveries**

<b>Client:</b> Hart & Hickman	<b>Driller/Sampler:</b> Hart & Hickman	<b>Analyst:</b> Bob George
<b>Site:</b> Rollins Economy Cleaners	<b>KB Labs Project Manager:</b> Kelly Bergdoll	<b>KB Labs Project No.:</b> 13-103
<b>Onsite Dates:</b> 9/16/13-9/19/13	<b>Client Project Manager:</b> Timothy Klotz	<b>Matrix:</b> Water/Soil

<b>Samples:</b> LCS 4	<b>Date of Analysis:</b> 9/18/2013
LCS 5 SOIL	9/18/2013
LCS 6 SOIL	9/19/2013

Spike Compounds	Control Limits		Percent Recoveries			Control Limit Checks		
	Lower	Upper	LCS#4	LCS#5	LCS#6	LCS#4	LCS#5	LCS#6
Vinyl Chloride	37	to 158	107	89	73	Pass	Pass	Pass
1,1-Dichloroethene	52	to 147	140	117	119	Pass	Pass	Pass
Trans-1,2-Dichloroethene	51	to 148	134	110	110	Pass	Pass	Pass
Cis-1,2-Dichloroethene	59	to 142	117	102	105	Pass	Pass	Pass
Benzene	71	to 130	116	101	95	Pass	Pass	Pass
Trichloroethene	69	to 132	117	100	92	Pass	Pass	Pass
Toluene	70	to 134	114	101	94	Pass	Pass	Pass
Tetrachloroethene	58	to 145	114	100	87	Pass	Pass	Pass
Ethylbenzene	74	to 134	118	103	94	Pass	Pass	Pass
m,p-Xylene	70	to 146	139	124	116	Pass	Pass	Pass
o-Xylene	71	to 139	120	106	104	Pass	Pass	Pass
Isopropylbenzene(cumene)	80	to 138	126	111	109	Pass	Pass	Pass
n-Propylbenzene	76	to 136	117	106	104	Pass	Pass	Pass
1,3,5-Trimethylbenzene	75	to 133	128	115	101	Pass	Pass	Pass
tert-Butylbenzene	66	to 138	123	109	105	Pass	Pass	Pass
1,2,4-Trimethylbenzene	70	to 139	126	112	100	Pass	Pass	Pass
sec-Butylbenzene	73	to 126	131	118	114	> UCL	Pass	Pass
p-Isopropyltoluene	65	to 142	130	117	111	Pass	Pass	Pass
n-Butylbenzene	73	to 128	131	116	104	> UCL	Pass	Pass
Naphthalene	40	to 159	98	72	80	Pass	Pass	Pass


**Note:** Control Limits are based on a semi-annual historical evaluation of mobile unit and method guidelines.

<b>Samples:</b> LCS 7	<b>Date of Analysis:</b> 9/19/2013
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Spike Compounds	Control Limits		Percent Recoveries			Control Limit Checks		
	Lower	Upper	LCS#7			LCS#7		
Vinyl Chloride	37	to 158	65			Pass		
1,1-Dichloroethene	52	to 147	91			Pass		
Trans-1,2-Dichloroethene	51	to 148	85			Pass		
Cis-1,2-Dichloroethene	59	to 142	93			Pass		
Benzene	71	to 130	94			Pass		
Trichloroethene	69	to 132	89			Pass		
Toluene	70	to 134	92			Pass		
Tetrachloroethene	58	to 145	84			Pass		
Ethylbenzene	74	to 134	93			Pass		
m,p-Xylene	70	to 146	115			Pass		
o-Xylene	71	to 139	103			Pass		
Isopropylbenzene(cumene)	80	to 138	108			Pass		
n-Propylbenzene	76	to 136	102			Pass		
1,3,5-Trimethylbenzene	75	to 133	100			Pass		
tert-Butylbenzene	66	to 138	104			Pass		
1,2,4-Trimethylbenzene	70	to 139	100			Pass		
sec-Butylbenzene	73	to 126	113			Pass		
p-Isopropyltoluene	65	to 142	111			Pass		
n-Butylbenzene	73	to 128	103			Pass		
Naphthalene	40	to 159	96			Pass		

**Note:** Control Limits are based on a semi-annual historical evaluation of mobile unit and method guidelines.

**Final Data Report**  
 Hart-Hickman  
 Rollins Economy Cleaners  
 Raleigh, NC

	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID
	SB-7 2-3'	SB-7 5-6'	SB-8 2-3'	SB-8 5-6'	SB-9 2-3'	SB-9 5-6'	SB-10 2-3'	SB-10 3-4'	SB-11 1-2'
<b>Analysis Date</b>	9/17/2013	9/17/2013	9/17/2013	9/17/2013	9/18/2013	9/17/2013	9/17/2013	9/17/2013	9/17/2013
<b>Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Dilution</b>	1	1	20	40	20	20	40	20	1
<b>% solids</b>	<b>86.6</b>	<b>77.1</b>	<b>82.8</b>	<b>80.9</b>	<b>80.3</b>	<b>86.0</b>	<b>81.8</b>	<b>76.8</b>	<b>79.7</b>
<b>Units</b>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Vinyl Chloride	<b>0.009 J</b>	0.013 U	<b>0.53</b>	0.49 U	<b>1.1</b>	0.23 U	0.49 U	0.26 U	<b>0.005 J</b>
1,1-Dichloroethene	0.012 U	0.013 U	0.242 U	0.49 U	0.25 U	0.23 U	0.49 U	0.26 U	0.013 U
t-1,2-Dichloroethene	0.012 U	0.013 U	0.242 U	0.49 U	0.24 J	0.23 U	0.49 U	0.26 U	0.013 U
c-1,2-Dichloroethene	0.012 U	0.013 U	<b>0.34</b>	0.49 U	0.42	0.23 U	0.49 U	0.26 U	<b>0.013</b>
Benzene	0.012 U	0.013 U	0.242 U	0.49 U	0.50 U	0.23 U	0.49 U	0.26 U	0.013 U
Trichloroethene	0.012 U	0.013 U	0.242 U	0.49 U	0.50 U	0.23 U	0.49 U	0.26 U	0.01 U
Toluene	0.012 U	0.013 U	0.242 U	0.49 U	0.50 U	0.23 U	0.49 U	0.26 U	0.013 U
Tetrachloroethene	0.012 U	0.013 U	0.242 U	0.49 U	0.24 J	0.23 U	0.49 U	0.26 U	<b>0.025</b>
Ethylbenzene	0.012 U	<b>0.008 J</b>	<b>0.40</b>	<b>0.28 J</b>	<b>0.20 J</b>	<b>0.14 J</b>	<b>0.98</b>	<b>0.091 J</b>	0.013 U
m,p-Xylene	0.023 U	<b>0.006 J</b>	<b>0.33 J</b>	<b>0.37 J</b>	<b>0.44 J</b>	<b>0.12 J</b>	<b>0.67 J</b>	0.52 U	0.025 U
o-Xylene	0.012 U	0.013 U	<b>0.18 J</b>	0.49 U	<b>0.55</b>	<b>0.070 J</b>	<b>1.1</b>	0.26 U	0.013 U
Isopropylbenzene (Cumene)	<b>0.022</b>	<b>0.17</b>	<b>1.6</b>	<b>7.4</b>	<b>0.55</b>	<b>0.51</b>	<b>4.0</b>	<b>0.27</b>	0.013 U
n-Propylbenzene	<b>0.025</b>	<b>0.34</b>	<b>1.9</b>	<b>16</b>	<b>1.0</b>	<b>1.1</b>	<b>8.2</b>	<b>0.65</b>	0.013 U
1,3,5-Trimethylbenzene	0.012 U	0.013 U	<b>0.16 J</b>	0.49 U	<b>0.80</b>	<b>0.72</b>	<b>3.1</b>	0.26 U	0.013 U
tert-Butylbenzene	<b>0.052</b>	<b>0.11</b>	<b>1.2</b>	<b>6.6</b>	<b>1.0</b>	<b>0.29</b>	<b>2.6</b>	<b>0.16 J</b>	0.013 U
1,2,4-Trimethylbenzene	<b>0.005 J</b>	0.013 U	<b>0.45</b>	0.49 U	<b>2.6</b>	<b>1.5</b>	<b>29</b>	<b>0.23 J</b>	0.013 U
sec-Butylbenzene	<b>0.052</b>	<b>0.27</b>	<b>2.2</b>	<b>14</b>	<b>1.5</b>	<b>0.88</b>	<b>8.4</b>	<b>0.55</b>	0.013 U
p-Isopropyltoluene	0.012 U	0.013 U	<b>0.43</b>	0.49 U	<b>2.6</b>	<b>0.31</b>	<b>13</b>	<b>0.091 J</b>	0.013 U
n-Butylbenzene	<b>0.010 J</b>	<b>0.29</b>	<b>1.1 J</b>	<b>14</b>	<b>2.1</b>	<b>0.86 J</b>	<b>11</b>	<b>0.65 J</b>	0.063 U
Naphthalene	0.058 U	<b>0.006 J</b>	<b>0.35 J</b>	<b>0.26 J</b>	<b>0.71 J</b>	<b>0.38 J</b>	<b>6.0</b>	<b>1.0 J</b>	0.063 U


Dry Weight Corrected Results  
 Soil Units: mg/kg-dry

**Final Data Report**  
 Hart-Hickman  
 Rollins Economy Cleaners  
 Raleigh, NC

	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID
	SB-11 4-5'	SB-12 2-3'	SB-12 3-4'	SB-13 2-3'	SB-13 3-4'	SB-14 2-3'	SB-15 2-3'	SB-15 3-4'	SB-16 1-2'
<b>Analysis Date</b>	9/17/2013	9/17/2013	9/17/2013	9/17/2013	9/17/2013	9/17/2013	9/17/2013	9/17/2013	9/18/2013
<b>Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Dilution</b>	1	1	1	1	10	10	10	10	1
<b>% solids</b>	<b>79.3</b>	<b>78.6</b>	<b>75.2</b>	<b>94.0</b>	<b>85.4</b>	<b>82.7</b>	<b>81.4</b>	<b>77.9</b>	<b>78.2</b>
<b>Units</b>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Vinyl Chloride	<b>0.011 J</b>	0.013 U	0.013 U	0.011 U	0.12 U	0.12 U	0.12 U	0.13 U	0.013 U
1,1-Dichloroethene	0.013 U	0.013 U	0.013 U	0.011 U	0.12 U	0.12 U	0.12 U	0.13 U	0.013 U
t-1,2-Dichloroethene	0.013 U	0.013 U	0.013 U	0.011 U	0.12 U	0.12 U	0.12 U	0.13 U	0.013 U
c-1,2-Dichloroethene	<b>0.009 J</b>	0.013 U	0.013 U	0.011 U	<b>0.066 J</b>	0.12 U	0.12 U	0.13 U	<b>0.083</b>
Benzene	0.013 U	0.013 U	0.013 U	0.011 U	0.12 U	0.12 U	0.12 U	0.13 U	0.013 U
Trichloroethene	0.013 U	0.013 U	0.013 U	0.011 U	0.12 U	0.12 U	<b>0.075 J</b>	<b>0.060 J</b>	<b>0.073</b>
Toluene	0.013 U	0.013 U	0.013 U	0.011 U	0.12 U	0.12 U	0.12 U	0.13 U	0.013 U
Tetrachloroethene	0.013 U	0.013 U	0.013 U	<b>0.090</b>	<b>0.26</b>	<b>3.4</b>	<b>3.6</b>	<b>5.3</b>	<b>0.40</b>
Ethylbenzene	0.013 U	0.013 U	0.013 U	<b>0.006 J</b>	0.12 U	0.12 U	0.12 U	0.13 U	0.013 U
m,p-Xylene	0.025 U	0.025 U	0.027 U	<b>0.049</b>	0.23 U	0.24 U	0.25 U	0.26 U	0.026 U
o-Xylene	0.013 U	0.013 U	0.013 U	<b>0.019</b>	0.12 U	0.12 U	0.12 U	0.13 U	0.013 U
Isopropylbenzene (Cumene)	0.013 U	0.013 U	0.013 U	0.011 U	0.12 U	0.12 U	0.12 U	0.13 U	0.013 U
n-Propylbenzene	0.013 U	<b>0.005 J</b>	0.013 U	0.011 U	0.12 U	0.12 U	0.12 U	0.13 U	0.013 U
1,3,5-Trimethylbenzene	0.013 U	0.013 U	0.013 U	0.011 U	0.12 U	0.12 U	0.12 U	0.13 U	0.013 U
tert-Butylbenzene	<b>0.005 J</b>	<b>0.013</b>	0.013 U	0.011 U	0.12 U	0.12 U	0.12 U	0.13 U	0.013 U
1,2,4-Trimethylbenzene	0.013 U	<b>0.005 J</b>	0.013 U	0.011 U	0.12 U	0.12 U	0.12 U	0.13 U	0.013 U
sec-Butylbenzene	<b>0.006 J</b>	<b>0.010 J</b>	0.013 U	0.011 U	0.12 U	0.12 U	0.12 U	0.13 U	0.013 U
p-Isopropyltoluene	0.013 U	<b>0.022</b>	0.013 U	0.011 U	0.12 U	0.12 U	0.12 U	0.13 U	0.013 U
n-Butylbenzene	0.063 U	<b>0.011 J</b>	0.066 U	0.053 U	0.59 U	0.60 U	0.61 U	0.64 U	0.064 U
Naphthalene	0.063 U	<b>0.008 J</b>	0.066 U	0.053 U	0.59 U	0.60 U	0.61 U	0.64 U	0.064 U


Dry Weight Corrected Results  
 Soil Units: mg/kg-dry

**Final Data Report**  
Hart-Hickman  
Rollins Economy Cleaners  
Raleigh, NC

	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID
	SB-16 4-5	SB-17 2-3'	SB-17 3-4'	SB-18 2-3'	SB-18 4-5	SB-20 1-2'	SB-20 3-4'	SB-21 2-3'	SB-21 3-4'
<b>Analysis Date</b>	9/18/2013	9/18/2013	9/18/2013	9/18/2013	9/18/2013	9/18/2013	9/18/2013	9/19/2013	9/19/2013
<b>Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Dilution</b>	40	40, 400	20, 200	1, 400	1, 20	40, 400	20	40	100
<b>% solids</b>	<b>76.7</b>	<b>76.5</b>	<b>83.9</b>	<b>87.4</b>	<b>85.2</b>	<b>86.7</b>	<b>86.7</b>	<b>78.0</b>	<b>83.9</b>
<b>Units</b>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Vinyl Chloride	0.52 U	0.52 U	0.24 U	0.011 U	<b>0.036</b>	0.46 U	0.23 U	0.51 U	1.2 U
1,1-Dichloroethene	0.52 U	0.52 U	0.24 U	0.011 U	0.012 U	0.46 U	0.23 U	0.51 U	1.2 U
t-1,2-Dichloroethene	0.52 U	0.52 U	0.24 U	<b>0.005 J</b>	<b>0.009 J</b>	0.46 U	0.23 U	0.51 U	<b>0.46 J</b>
c-1,2-Dichloroethene	<b>0.35 J</b>	<b>4.6</b>	<b>1.5</b>	<b>0.31</b>	<b>0.25</b>	<b>0.52</b>	<b>0.16 J</b>	<b>4.9</b>	<b>10</b>
Benzene	0.52 U	0.52 U	0.24 U	0.011 U	0.012 U	0.46 U	0.23 U	0.51 U	1.2 U
Trichloroethene	<b>0.26 J</b>	<b>13</b>	<b>4.1</b>	<b>0.21</b>	<b>0.13</b>	<b>1.4</b>	0.23 U	0.51 U	<b>0.73 J</b>
Toluene	0.52 U	0.52 U	0.24 U	0.011 U	0.012 U	0.46 U	0.23 U	0.51 U	1.2 U
Tetrachloroethene	<b>0.64</b>	<b>220</b>	<b>74</b>	<b>250</b>	<b>1.2</b>	<b>310</b>	<b>2.7</b>	<b>0.44 J</b>	<b>0.95 J</b>
Ethylbenzene	0.52 U	0.52 U	0.24 U	0.011 U	0.012 U	0.46 U	0.23 U	0.51 U	<b>0.45 J</b>
m,p-Xylene	0.52 U	1.0 U	0.48 U	0.023 U	0.023 U	0.92 U	0.46 U	1.0 U	<b>3.0</b>
o-Xylene	0.52 U	0.52 U	0.24 U	0.011 U	0.012 U	0.46 U	0.23 U	0.51 U	<b>3.1</b>
Isopropylbenzene (Cumene)	0.52 U	0.52 U	0.24 U	0.011 U	0.012 U	0.46 U	0.23 U	0.51 U	<b>3.0</b>
n-Propylbenzene	<b>0.23 J</b>	0.52 U	0.24 U	0.011 U	0.012 U	0.46 U	0.23 U	0.51 U	<b>9.2</b>
1,3,5-Trimethylbenzene	0.52 U	0.52 U	0.24 U	0.011 U	0.012 U	0.46 U	0.23 U	<b>0.60</b>	<b>49</b>
tert-Butylbenzene	<b>0.37 J</b>	0.52 U	0.24 U	0.011 U	0.012 U	0.46 U	0.23 U	0.51 U	<b>3.5</b>
1,2,4-Trimethylbenzene	0.52 U	0.52 U	0.24 U	0.011 U	0.012 U	0.46 U	0.23 U	<b>1.7</b>	<b>100</b>
sec-Butylbenzene	<b>0.51 J</b>	0.52 U	0.24 U	0.011 U	0.012 U	0.46 U	0.23 U	0.51 U	<b>11</b>
p-Isopropyltoluene	<b>0.16 J</b>	0.52 U	0.24 U	0.011 U	0.012 U	0.46 U	0.23 U	0.51 U	<b>17</b>
n-Butylbenzene	<b>0.37 J</b>	2.6 U	1.2 U	0.057 U	0.059 U	2.3 U	1.2 U	<b>0.18 J</b>	<b>20</b>
Naphthalene	<b>0.17 J</b>	2.6 U	1.2 U	0.057 U	0.059 U	2.3 U	1.2 U	2.6 U	<b>4.2 J</b>


Dry Weight Corrected Results  
Soil Units: mg/kg-dry

**Final Data Report**  
 Hart-Hickman  
 Rollins Economy Cleaners  
 Raleigh, NC

	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID
	SB-19 0-1'	SB-19 3-4'	SB-23 1-2'	SB-23 3-4'	SB-22 0-1'	SB-22 3-4'	SB-24 2-3'	SB-24 4-5'	SB-25 2-3'
<b>Analysis Date</b>	9/19/2013	9/19/2013	9/19/2013	9/19/2013	9/19/2013	9/19/2013	9/19/2013	9/19/2013	9/19/2013
<b>Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Dilution</b>	20	1	20	40	1	20	1	1	1
<b>% solids</b>	<b>91.8</b>	<b>85.0</b>	<b>83.7</b>	<b>75.8</b>	<b>82.1</b>	<b>81.6</b>	<b>76.7</b>	<b>79.9</b>	<b>88.3</b>
<b>Units</b>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Vinyl Chloride	0.22 U	<b>0.005 J</b>	<b>0.12 J</b>	0.53 U	<b>0.058</b>	<b>0.38</b>	0.013 U	0.013 U	0.011 U
1,1-Dichloroethene	0.22 U	0.012 U	0.24 U	0.53 U	0.012 U	0.25 U	0.013 U	0.013 U	0.011 U
t-1,2-Dichloroethene	0.22 U	0.012 U	<b>0.55</b>	0.53 U	<b>0.073</b>	<b>0.23 J</b>	0.013 U	0.013 U	<b>0.007 J</b>
c-1,2-Dichloroethene	<b>0.27</b>	<b>0.039</b>	<b>5.1</b>	<b>0.71 J</b>	<b>0.15</b>	<b>2.1</b>	0.013 U	0.013 U	<b>0.097</b>
Benzene	0.22 U	0.012 U	0.24 U	0.53 U	0.012 U	0.25 U	0.013 U	0.013 U	0.011 U
Trichloroethene	0.22 U	<b>0.039</b>	0.24 U	0.53 U	<b>0.11</b>	0.25 U	0.013 U	<b>0.009 J</b>	<b>0.014</b>
Toluene	0.22 U	0.012 U	0.24 U	0.53 U	0.012 U	0.25 U	0.013 U	0.013 U	0.011 U
Tetrachloroethene	0.22 U	<b>0.005 J</b>	0.24 U	0.53 U	<b>0.30</b>	0.25 U	0.013 U	<b>0.050</b>	<b>0.066</b>
Ethylbenzene	0.22 U	0.012 U	0.24 U	0.53 U	0.012 U	<b>0.080 J</b>	0.013 U	0.013 U	0.011 U
m,p-Xylene	<b>0.078 J</b>	0.024 U	<b>0.30 J</b>	1.1 U	<b>0.010 J</b>	<b>0.17 J</b>	0.026 U	0.025 U	0.023 U
o-Xylene	0.22 U	0.012 U	<b>0.48</b>	0.53 U	<b>0.012 J</b>	<b>0.12 J</b>	0.013 U	0.013 U	0.011 U
Isopropylbenzene (Cumene)	0.22 U	0.012 U	<b>0.36</b>	0.53 U	<b>0.006 J</b>	<b>0.22 J</b>	0.013 U	0.013 U	0.011 U
n-Propylbenzene	0.22 U	0.012 U	<b>1.1</b>	0.53 U	<b>0.013</b>	<b>0.40</b>	0.013 U	0.013 U	0.011 U
1,3,5-Trimethylbenzene	0.22 U	0.012 U	<b>4.1</b>	0.53 U	<b>0.089</b>	<b>0.63</b>	0.013 U	0.013 U	0.011 U
tert-Butylbenzene	0.22 U	0.012 U	<b>1.2</b>	0.53 U	<b>0.013</b>	<b>0.15 J</b>	0.013 U	0.013 U	0.011 U
1,2,4-Trimethylbenzene	<b>0.14 J</b>	0.012 U	<b>12</b>	<b>0.32 J</b>	<b>0.18</b>	<b>1.7</b>	0.013 U	0.013 U	0.011 U
sec-Butylbenzene	0.22 U	0.012 U	<b>2.9</b>	<b>0.24 J</b>	<b>0.028</b>	<b>0.34</b>	0.013 U	0.013 U	0.011 U
p-Isopropyltoluene	0.22 U	0.012 U	<b>3.8</b>	0.53 U	<b>0.037</b>	<b>0.28</b>	0.013 U	0.013 U	0.011 U
n-Butylbenzene	1.1 U	0.059 U	<b>2.7</b>	<b>0.18 J</b>	<b>0.032 J</b>	<b>0.25 J</b>	0.065 U	0.063 U	0.057 U
Naphthalene	<b>0.068 J</b>	0.059 U	<b>0.098 J</b>	2.6 U	<b>0.005 J</b>	<b>0.29 J</b>	0.065 U	0.063 U	0.057 U


Dry Weight Corrected Results  
 Soil Units: mg/kg-dry

**Final Data Report**  
 Hart-Hickman  
 Rollins Economy Cleaners  
 Raleigh, NC

	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID
	SB-25 4-5'	SB-26 2-3'	SB-26 4-5'	SB-28 1-2'	SB-28 3-4'	SB-27 0-1'	SB-27 4-5'
<b>Analysis Date</b>	9/19/2013	9/19/2013	9/19/2013	9/19/2013	9/19/2013	9/19/2013	9/19/2013
<b>Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Dilution</b>	1	1	1	20	1	1	20
<b>% solids</b>	<b>82.7</b>	<b>93.1</b>	<b>90.3</b>	<b>78.8</b>	<b>79.9</b>	<b>83.6</b>	<b>80.7</b>
<b>Units</b>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Vinyl Chloride	0.012 U	0.011 U	0.011 U	0.25 U	0.013 U	0.012 U	0.25 U
1,1-Dichloroethene	0.012 U	0.011 U	0.011 U	0.25 U	0.013 U	0.012 U	0.25 U
t-1,2-Dichloroethene	0.012 U	0.011 U	0.011 U	0.25 U	<b>0.004 J</b>	0.012 U	0.25 U
c-1,2-Dichloroethene	<b>0.042</b>	0.011 U	0.011 U	<b>0.44</b>	<b>0.024</b>	<b>0.011 J</b>	<b>0.73</b>
Benzene	0.012 U	0.011 U	0.011 U	0.25 U	0.013 U	0.012 U	0.25 U
Trichloroethene	<b>0.021</b>	0.011 U	0.011 U	<b>0.16 J</b>	<b>0.021</b>	<b>0.013</b>	<b>0.84</b>
Toluene	0.012 U	0.011 U	0.011 U	0.25 U	0.013 U	0.012 U	0.25 U
Tetrachloroethene	<b>0.15</b>	<b>0.006 J</b>	0.011 U	<b>6.2</b>	<b>0.41</b>	<b>0.20</b>	<b>16</b>
Ethylbenzene	0.012 U	0.011 U	0.011 U	0.25 U	0.013 U	0.012 U	0.25 U
m,p-Xylene	0.024 U	0.021 U	0.022 U	0.51 U	0.025 U	0.024 U	0.50 U
o-Xylene	0.012 U	0.011 U	0.011 U	0.25 U	0.013 U	0.012 U	0.25 U
Isopropylbenzene (Cumene)	0.012 U	0.011 U	0.011 U	0.25 U	0.013 U	0.012 U	0.25 U
n-Propylbenzene	0.012 U	0.011 U	0.011 U	0.25 U	0.013 U	0.012 U	0.25 U
1,3,5-Trimethylbenzene	0.012 U	0.011 U	0.011 U	0.25 U	0.013 U	0.012 U	0.25 U
tert-Butylbenzene	0.012 U	0.011 U	0.011 U	0.25 U	0.013 U	0.012 U	0.25 U
1,2,4-Trimethylbenzene	0.012 U	0.011 U	0.011 U	0.25 U	0.013 U	0.012 U	0.25 U
sec-Butylbenzene	0.012 U	0.011 U	0.011 U	0.25 U	0.013 U	0.012 U	0.25 U
p-Isopropyltoluene	0.012 U	0.011 U	0.011 U	0.25 U	0.013 U	0.012 U	0.25 U
n-Butylbenzene	0.060 U	0.054 U	0.055 U	1.3 U	0.063 U	0.060 U	1.2 U
Naphthalene	0.060 U	0.054 U	0.055 U	1.3 U	0.063 U	0.060 U	1.2 U


Dry Weight Corrected Results  
 Soil Units: mg/kg-dry

**Final Data Report**  
 Hart-Hickman  
 Rollins Economy Cleaners  
 Raleigh, NC

	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID
	TMW-7	TMW-8	TMW-9	TMW-10	TMW-12	TMW-11	TMW-13	TMW-14	SW-1
<b>Analysis Date</b>	9/16/2013	9/16/2013	9/16/2013	9/16/2013	9/16/2013	9/16/2013	9/17/2013	9/17/2013	9/17/2013
<b>Matrix</b>	Water	Water	Water	Water	Water	Water	Water	Water	Water
<b>Dilution</b>	1, 10	1	1	20	10	1	200, 500	200	1
<b>Units</b>	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Vinyl Chloride	<b>260</b>	<b>6.2</b>	<b>44.5</b>	<b>13 J</b>	<b>15</b>	<b>7.7</b>	200 U	200 U	1.0 U
1,1-Dichloroethene	1.0 U	1.0 U	1.0 U	20 U	10 U	1.0 U	200 U	200 U	1.0 U
t-1,2-Dichloroethene	<b>22.6</b>	<b>0.8 J</b>	<b>0.8 J</b>	20 U	10 U	<b>1.9</b>	200 U	200 U	1.0 U
c-1,2-Dichloroethene	<b>73.2</b>	<b>1.9</b>	<b>0.7 J</b>	20 U	<b>190</b>	<b>34.1</b>	<b>930</b>	<b>460</b>	1.0 U
Benzene	<b>0.5 J</b>	<b>1.2</b>	<b>7.0</b>	20 U	10 U	1.0 U	200 U	200 U	1.0 U
Trichloroethene	1.0 U	1.0 U	1.0 U	20 U	<b>320</b>	<b>2.1</b>	<b>660</b>	<b>250</b>	1.0 U
Toluene	1.0 U	1.0 U	<b>0.5 J</b>	20 U	10 U	1.0 U	200 U	200 U	1.0 U
Tetrachloroethene	1.0 U	1.0 U	1.0 U	20 U	<b>120</b>	<b>6.8</b>	<b>27000</b>	<b>12000</b>	<b>0.36 J</b>
Ethylbenzene	1.0 U	<b>0.3 J</b>	<b>2.8</b>	20 U	10 U	1.0 U	200 U	200 U	1.0 U
m,p-Xylene	<b>0.5 J</b>	2.0 U	<b>1.3 J</b>	40 U	20 U	<b>1.5 J</b>	400 U	400 U	2.0 U
o-Xylene	<b>0.3 J</b>	<b>0.6 J</b>	<b>1.1</b>	20 U	10 U	<b>0.8 J</b>	200 U	200 U	1.0 U
Isopropylbenzene (Cumene)	<b>0.3 J</b>	<b>24.0</b>	<b>80.7</b>	<b>100</b>	10 U	<b>1.7</b>	200 U	200 U	1.0 U
n-Propylbenzene	1.0 U	<b>6.3</b>	<b>89.4</b>	<b>180</b>	10 U	<b>4.1</b>	200 U	200 U	1.0 U
1,3,5-Trimethylbenzene	1.0 U	1.0 U	<b>0.8 J</b>	20 U	10 U	1.0 U	200 U	200 U	1.0 U
tert-Butylbenzene	<b>2.4</b>	<b>28.6</b>	<b>28.8</b>	<b>30</b>	10 U	<b>4.7</b>	200 U	200 U	1.0 U
1,2,4-Trimethylbenzene	<b>0.3 J</b>	1.0 U	2.0	20 U	10 U	1.0 U	200 U	200 U	1.0 U
sec-Butylbenzene	<b>1.3</b>	<b>28.6</b>	<b>46.8</b>	<b>67</b>	10 U	<b>8.0</b>	200 U	200 U	1.0 U
p-Isopropyltoluene	1.0 U	1.0 U	1.0 U	20 U	10 U	1.0 U	200 U	200 U	1.0 U
n-Butylbenzene	5.0 U	<b>7.8</b>	<b>28.9</b>	<b>37 J</b>	50 U	<b>4.8 J</b>	1000 U	1000 U	5.0 U
Naphthalene	5.0 U	<b>0.6 J</b>	<b>1.5 J</b>	100 U	50 U	5.0 U	1000 U	1000 U	5.0 U

Water Units: ug/L


**Final Data Report**  
 Hart-Hickman  
 Rollins Economy Cleaners  
 Raleigh, NC

	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID
	TMW-18	TMW-20	TMW-19	TMW-23	TMW-22	TMW-16	TMW-15	TMW-21	TMW-26
<b>Analysis Date</b>	9/18/2013	9/18/2013	9/18/2013	9/18/2013	9/18/2013	9/18/2013	9/18/2013	9/18/2013	9/18/2013
<b>Matrix</b>	Water	Water	Water	Water	Water	Water	Water	Water	Water
<b>Dilution</b>	1	1	1	1	1	10	1, 20	500	5
<b>Units</b>	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Vinyl Chloride	<b>0.95 J</b>	1.0 U	1.0 U	1.0 U	1.0 U	<b>59</b>	<b>1900</b>	500 U	<b>2.1 J</b>
1,1-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	500 U	5.0 U
t-1,2-Dichloroethene	1.0 U	1.0 U	<b>0.4 J</b>	1.0 U	1.0 U	<b>13</b>	<b>430</b>	<b>260 J</b>	<b>1.5 J</b>
c-1,2-Dichloroethene	1.0 U	<b>4.3</b>	<b>1.5</b>	1.0 U	<b>1.7</b>	<b>460</b>	<b>14.1</b>	<b>14000</b>	<b>3.6 J</b>
Benzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	<b>1.1</b>	500 U	5.0 U
Trichloroethene	1.0 U	<b>16.6</b>	<b>4.6</b>	1.0 U	<b>3.2</b>	<b>380</b>	<b>5.3</b>	<b>2200</b>	5.0 U
Toluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	<b>2.7</b>	500 U	5.0 U
Tetrachloroethene	<b>0.39 J</b>	<b>28.5</b>	<b>57.7</b>	<b>1.3</b>	<b>7.3</b>	<b>180</b>	<b>38.4</b>	<b>36000</b>	<b>7.3</b>
Ethylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	<b>7.4</b>	500 U	5.0 U
m,p-Xylene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	<b>9.2</b>	1000 U	10 U
o-Xylene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	<b>8.2</b>	500 U	5.0 U
Isopropylbenzene (Cumene)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	<b>35.3</b>	500 U	5.0 U
n-Propylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	<b>29.6</b>	500 U	5.0 U
1,3,5-Trimethylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	<b>4.2</b>	500 U	5.0 U
tert-Butylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	<b>18.8</b>	500 U	5.0 U
1,2,4-Trimethylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	<b>16.9</b>	500 U	5.0 U
sec-Butylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	<b>32.6</b>	500 U	5.0 U
p-Isopropyltoluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	<b>1.7</b>	500 U	5.0 U
n-Butylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	<b>20.2</b>	2500 U	25 U
Naphthalene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	<b>11.6</b>	2500 U	25 U

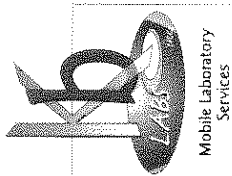
Water Units: ug/L



**Final Data Report**  
 Hart-Hickman  
 Rollins Economy Cleaners  
 Raleigh, NC

	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID	Sample ID
	TMW-24	TMW-25	TMW-27	TMW-28	TMW-30	TMW-29	TMW-31	TMW-32	TMW-33
<b>Analysis Date</b>	9/18/2013	9/18/2013	9/18/2013	9/19/2013	9/19/2013	9/19/2013	9/19/2013	9/19/2013	9/19/2013
<b>Matrix</b>	Water	Water	Water	Water	Water	Water	Water	Water	Water
<b>Dilution</b>	5	2	1	1	1	1	1	1	2
<b>Units</b>	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Vinyl Chloride	<b>120</b>	2.0 U	1.0 U	<b>56.5</b>	<b>0.90 J</b>	1.0 U	1.0 U	1.0 U	2.0 U
1,1-Dichloroethene	5.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
t-1,2-Dichloroethene	<b>60</b>	2.0 U	1.0 U	<b>13.5</b>	<b>0.53 J</b>	1.0 U	1.0 U	1.0 U	1.5 J
c-1,2-Dichloroethene	<b>170</b>	2.0 U	1.0 U	<b>86.9</b>	<b>5.1</b>	<b>3.4</b>	1.0 U	<b>0.59 J</b>	<b>100</b>
Benzene	5.0 U	<b>4.3</b>	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Trichloroethene	<b>14</b>	2.0 U	<b>2.0</b>	<b>1.5</b>	<b>1.9</b>	<b>3.2</b>	1.0 U	<b>0.81 J</b>	2.0 U
Toluene	5.0 U	<b>0.84 J</b>	1.0 U	1.0 U	<b>1.2</b>	1.0 U	<b>2.3</b>	<b>0.32 J</b>	2.0 U
Tetrachloroethene	<b>5.7</b>	<b>1.0 J</b>	<b>10.2</b>	<b>2.3</b>	<b>11.7</b>	<b>15.4</b>	<b>1.5</b>	<b>7.4</b>	1.4 U
Ethylbenzene	5.0 U	<b>2.2</b>	1.0 U	1.0 U	<b>1.0</b>	1.0 U	<b>1.8</b>	1.0 U	2.0 U
m,p-Xylene	10 U	2.0 U	2.0 U	2.0 U	<b>7.3</b>	2.0 U	<b>13.5</b>	<b>0.70 J</b>	4.0 U
o-Xylene	5.0 U	2.0 U	1.0 U	1.0 U	<b>2.9</b>	1.0 U	<b>5.6</b>	1.0 U	2.0 U
Isopropylbenzene (Cumene)	5.0 U	<b>99</b>	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
n-Propylbenzene	5.0 U	<b>140</b>	<b>0.35 J</b>	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,3,5-Trimethylbenzene	5.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
tert-Butylbenzene	5.0 U	<b>30</b>	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2,4-Trimethylbenzene	5.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
sec-Butylbenzene	5.0 U	<b>49</b>	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
p-Isopropyltoluene	5.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
n-Butylbenzene	25 U	<b>30</b>	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Naphthalene	25 U	<b>1.6 J</b>	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U

Water Units: ug/L



# CHAIN-OF-CUSTODY RECORD

6821 SW Archer Road  
Gainesville, FL 32608  
TEL (352) 367-0073 · FAX (352) 378-6491

6701 Conference Drive  
Raleigh, NC 27607  
TEL (352) 538-6507

MOBILE UNIT #  
1082

1/2

CLIENT NAME Hot Hekman	PROJECT NAME & ADDRESS Robbins Economy Cleaners Raleigh, NC		CONTACT PERSON		DATE SAMPLED	TIME SAMPLED	COMP.	GRAB	DATE REC'D	TIME REC'D	STATION LOCATION / No.	BATCH # (Lab Use Only)	SAMPLE MATRIX	NUMBER OF CONTAINERS	IDENTIFY PARAMETERS DESIRED AND NO. OF CONTAINERS	PRESERVATION C H Cl Other (see Remarks)
	SAMPLERS	DATE SAMPLED	TIME SAMPLED	DATE REC'D												
TMW-7	9/16/13	0940			9/16/13	1805							GP 2	2	✓	- 01A,B
TMW-8		0950				1805							GP 2	2	✓	- 02A,B
TMW-9		1110				1505							GP 2	2	✓	- 03A,B
TMW-10		1155				1505							GP 2	2	✓	- 04A,B
TMW-12		1250				1505							GP 2	2	✓	- 05A,B
TMW-11		1305				1805							GP 2	2	✓	- 06A,B
SB-7 2-3		1015											S 1	1	✓	- 07A
SB-7 5-6		1020														- 08A
SB-8 2-3		1410														- 09A
SB-8 5-6		1415														- 10A
SB-9 2-3		1420														- 11A
SB-9 5-6		1425														- 12A
SB-10 2-3		1430														- 13A
SB-10 3-4		1435														- 14A
SB-11 1-2		1440														- 15A

RECEIVED BY: (Signature) \_\_\_\_\_ DATE / TIME \_\_\_\_\_

RECEIVED BY: (Signature) *BN* DATE / TIME 9/16/13

REINQUIRED BY: (Signature) \_\_\_\_\_ DATE / TIME \_\_\_\_\_

REINQUIRED BY: (Signature) \_\_\_\_\_ DATE / TIME \_\_\_\_\_

REMARKS AND OBSERVATIONS

Matrix Types S Soil SW Surface Water GW Ground Water SG Soil Gas

# CHAIN-OF-CUSTODY RECORD

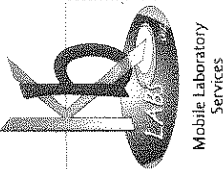
2/2

6821 SW Archer Road  
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**MOBILE UNIT #**  
**KB2**

CLIENT NAME	PROJECT NAME & ADDRESS				CONTACT PERSON	BATCH # (Lab Use Only)	STATION LOCATION / No.	SAMPLER MATRIX	NUMBER OF CONTAINERS	IDENTIFY PARAMETERS DESIRED AND NO. OF CONTAINERS	PRESERVATION
	DATE SAMPLED	TIME SAMPLED	DATE RECD	TIME RECD							
Flower Hickman	Kallins Economy Cleaners Raleigh, NC										
SB-11	4-S	9/16/13	1445	9/16/13	1505		S	1	V	V	Chilled HCL Other (see Remarks)
COMMENTS: <i>2091613</i> COMMENTS: <i>1-16A</i>											
PRECLEANED CONTAINERS: _____ RELINQUISHED BY: (Signature) _____ RELINQUISHED BY: (Signature) _____											
RECEIVED BY: (Signature) _____ RECEIVED BY: (Signature) <i>BRK</i> DATE / TIME: _____ DATE / TIME: <i>9/16/13</i>											
REMARKS AND OBSERVATIONS: _____											

Matrix Types    S Soil    SW Surface Water    GW Ground Water    SG Soil Gas



# CHAIN-OF-CUSTODY RECORD

6821 SW Archer Road  
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Mobile Laboratory  
Services

MOBILE UNIT #  
FB2

CLIENT NAME Hickman #	PROJECT NAME & ADDRESS Rollins Economy Cleaners Raleigh, NC		CONTACT PERSON		DATE SAMPLED	TIME SAMPLED	COMP	GRAB	DATE RECD	TIME RECD	STATION LOCATION / No.	BATCH # (Lab Use Only)	SAMPLE MATRIX	NUMBER OF CONTAINERS	IDENTIFY PARAMETERS DESIRED AND NO. OF CONTAINERS	PRESERVATION C Chilled H HCL Ot Other (see Remarks)
	SAMPLERS	DATE SAMPLED	TIME SAMPLED	COMP												
TMW-13	9/17/13	0845			9/17/13	1105			9/17/13	1105			GW 2	2	✓	- 01A,B
TMW-14		1020				1105				1105			GW 2	2	✓	- 02A,B
SB-12	2-3	9/16/13	1500			1105				1105			S 1	1	✓	6.0 03A
SB-12	3-4	9/16/13	1805			1105				1105			S 1	1	✓	6.2 04A
SB-13	2-3	9/16/13	1520			1105				1105			S 1	1	✓	6.1 05A
SB-13	3-4	9/16/13	1530			1105				1105			S 1	1	✓	6.0 06A
SB-14	2-3	9/16/13	1550			1105				1105			S 1	1	✓	6.0 07A
SB-15	2-3	9/17/13	1000			1105				1105			S 1	1	✓	- 08A
SB-15	3-4		1005			1105				1105			S 1	1	✓	- 09A
SB-16	1-2		1100			1635				1635			S 1	1	✓	- 10A
SB-16	4-5		1105			1635				1635			S 1	1	✓	- 11A
SB-17	2-3		1140			1635				1635			S 1	1	✓	- 12A
SB-17	3-4		1145			1635				1635			S 1	1	✓	- 13A
SW-1			1200			1635				1635			W 2	2	✓	14A,B
TMW-18			1415			1635				1635			GW 2	2	✓	15A,B

Remarks and Observations

Date / Time \_\_\_\_\_ Received by: (Signature) \_\_\_\_\_

Date / Time \_\_\_\_\_ Received by: (Signature) \_\_\_\_\_

Date / Time 9/17/13 Received by: BNF

Matrix Types S Soil SW Surface Water GW Ground Water SG Soil Gas

# CHAIN-OF-CUSTODY RECORD

2/2

6821 SW Archer Road  
Gainesville, FL 32608  
TEL (352) 367-0073 · FAX (352) 378-6491

MOBILE UNIT #  
YB2

IDENTIFY PARAMETERS DESIRED AND NO. OF CONTAINERS  
8290  
9/10/13  
9/20/13

PROJECT NAME & ADDRESS  
Hertz  
Hickman  
Kettling Economy Cleaners  
Raleigh, NC

CONTACT PERSON  
Hickman

BATCH # (Lab Use Only)

STATION LOCATION / No.

DATE SAMPLED  
9/17/13

TIME SAMPLED  
1445

DATE RECD  
9/20/13

TIME RECD  
1635

SAMPLE MATRIX  
GW 2 ✓

NUMBER OF CONTAINERS  
2

COMMENT / SAMPLE PREFIX  
- 16A, B

PRESERVATION  
C  
H  
Chilled  
HCL  
Other (see Remarks)

DATE SAMPLED  
9/17/13

TIME SAMPLED  
1505

DATE RECD  
9/20/13

TIME RECD  
1635

NUMBER OF CONTAINERS  
2

COMMENT / SAMPLE PREFIX  
- 17A, B

PRESERVATION  
C  
H  
Chilled  
HCL  
Other (see Remarks)

DATE SAMPLED

TIME SAMPLED

DATE RECD

TIME RECD

NUMBER OF CONTAINERS

COMMENT / SAMPLE PREFIX

PRESERVATION

DATE SAMPLED

TIME SAMPLED

DATE RECD

TIME RECD

NUMBER OF CONTAINERS

COMMENT / SAMPLE PREFIX

PRESERVATION

DATE SAMPLED

TIME SAMPLED

DATE RECD

TIME RECD

NUMBER OF CONTAINERS

COMMENT / SAMPLE PREFIX

PRESERVATION

DATE SAMPLED

TIME SAMPLED

DATE RECD

TIME RECD

NUMBER OF CONTAINERS

COMMENT / SAMPLE PREFIX

PRESERVATION

DATE SAMPLED

TIME SAMPLED

DATE RECD

TIME RECD

NUMBER OF CONTAINERS

COMMENT / SAMPLE PREFIX

PRESERVATION

DATE SAMPLED

TIME SAMPLED

DATE RECD

TIME RECD

Remarks and Observations

Received by: (Signature)

Date / Time

Reinforced Containers Relinquished by: (Signature)

Received by: (Signature)

Date / Time

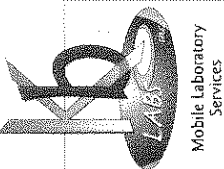
Reinforced Containers Relinquished by: (Signature)

Matrix Types    S Soil    SW Surface Water    GW Ground Water    SG Soil Gas

# CHAIN-OF-CUSTODY RECORD

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6701 Conference Drive  
Raleigh, NC 27607  
TEL (352) 538-6507



Mobile Laboratory Services

1/2

MOBILE UNIT #

KRS 2

CLIENT NAME Hickman # Hickman	PROJECT NAME & ADDRESS Rollins Economy Cleaners Raleigh, NC		CONTACT PERSON		DATE SAMPLED	TIME SAMPLED	COMP	GRAB	DATE RECD	TIME RECD	STATION LOCATION / No.	SAMPLE MATRIX	NUMBER OF CONTAINERS	IDENTIFY PARAMETERS DESIRED AND NO. OF CONTAINERS	PRESERVATION C Chilled H HCL O Other (see Remarks)
	BATCH # (Lab Use Only)	COMMENT / SAMPLE PREFIX													
TMW-16					9/17/13	1640			9/18/13	1120		GW 2	2	0260 0920 9/20/13	132 07A,B
TMW-15						1730				1120		GW 2	2		132 02A,B
SB18 2-3						1710				1120		S 1	1		128 03A
SB18 4-5						1715				1120		S 1	1		128 04A
TMW-23					9/18/13	0950				1120		GW 2	2		141 05A,B
TMW-22						1000				1120		GW 2	2		141 06A,B
TMW-21						1130				1515		GW 2	2		- 07A,B
TMW-26						1310				1515		GW 2	2		- 08A,B
TMW-24						1330						GW 2	2		- 07A,B
TMW-25						1410						GW 2	2		- 10A,B
TMW-27						1445						GW 2	2		- 11A,B
SB-20 1-2						1115						S 1	1		- 12A
SB-20 3-4						1120						S 1	1		- 13A
SB-21 2-3						1200						S 1	1		- 14A
SB-21 3-4						1210						S 1	1		- 15A
Pre-cleaned Containers Relinquished by: (Signature)					Date / Time				Received by: (Signature)						Remarks and Observations
Relinquished by: (Signature)					Date / Time				Received by: (Signature)						9/18/13

Matrix Types S Soil SW Surface Water GW Ground Water SG Soil Gas

CHAIN-OF-CUSTODY RECORD

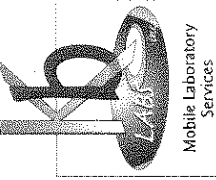
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Raleigh, NC 27607  
TEL (352) 367-0073 - FAX (352) 538-6507

6821 SW Archer Road  
Gainesville, FL 32608  
TEL (352) 367-0073 - FAX (352) 378-6491

MOBILE UNIT #  
KRB2

CLIENT NAME <i>Heckman Hickman</i>	PROJECT NAME & ADDRESS <i>Rollins Economy Cleaners Raleigh, NC</i>	CONTACT PERSON		DATE SAMPLED	TIME SAMPLED	GAD COMP	DATE RECD	TIME RECD	STATION LOCATION / No.	BATCH # (Lab Use Only)	SAMPLE MATRIX	NUMBER OF CONTAINERS	IDENTIFY PARAMETERS DESIRED AND NO. OF CONTAINERS <i>2970 2051873</i>	PRESERVATION C Chilled H HCL Ot Other (see Remarks)
		DATE SAMPLED	TIME SAMPLED											
SAMPLES														
SB-19				0-1	7/18/13		7/18/13	1575			S	1	✓	- 16A
SB-19				3-4	-		-	1575			S	1	✓	- 17A
/														
Pre-cleaned Containers Relinquished by: (Signature) _____ Date / Time _____ Received by: (Signature) _____														
Relinquished by: (Signature) _____ Date / Time _____ Received by: (Signature) _____														
Date / Time _____														



Matrix Types S Soil SW Surface Water GW Ground Water SG Soil Gas

# CHAIN-OF-CUSTODY RECORD

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Gainesville, FL 32608  
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6701 Conference Drive  
Raleigh, NC 27607  
TEL (352) 538-6507

MOBILE UNIT #

*KB2*

*1/2*

CLIENT NAME <i>Hack # Hickman</i>	PROJECT NAME & ADDRESS <i>Rattins Economy Cleaners Raleigh, NC</i>		CONTACT PERSON			DATE SAMPLED	TIME SAMPLED	COMP	GRAB	DATE RECD	TIME RECD	STATION LOCATION / No.	SAMPLE MATRIX	NUMBER OF CONTAINERS	IDENTIFY PARAMETERS DESIRED AND NO OF CONTAINERS	PRESERVATION C H Cl Other (see Remarks)
			BATCH # (Lab Use Only)	DATE SAMPLED	TIME SAMPLED											
TMW-28			9/18/13	1545		9/19/13	1105						GW 2	2	✓	59 61A, B
TMW-30			9/19/13	1000			1105						GW 2	2	✓	17.1 02A, B
TMW-29			9/19/13	1040			1105						GW 2	2	✓	17.1 03A, B
SB-23	1-2		9/18/13	1600			1105						S 1	1	✓	5.9 04A
SB-23	3-4			1605			1105						S 1	1	✓	5.8 05A
SB-22	0-1			1625			1105						S 1	1	✓	5.9 06A
SB-22	3-4			1630			1105						S 1	1	✓	5.8 07A
SB-24	2-3		9/19/13	0920			1105						S 1	1	✓	- 08A
SB-24	4-5			0925			1105						S 1	1	✓	- 09A
SB-25	2-3			0940			1105						S 1	1	✓	- 10A
SB-25	4-5			0945			1105						S 1	1	✓	- 11A
SB-26	2-3			1050			1105						S 1	1	✓	- 12A
SB-26	4-5			1055			1105						S 1	1	✓	- 13A
TMW-31				1410			1635						GW 2	2	✓	8.7 14A, B
TMW-32				1430			1635						GW 2	2	✓	8.7 15A, B

8260  
9/19/13  
Hand

DATE / TIME  
9/19/13

RECEIVED BY: (Signature)  
*Bob*

RECEIVED BY: (Signature)

RECEIVED BY: (Signature)

Matrix Types    S Soil    SW Surface Water    GW Ground Water    SG Soil Gas

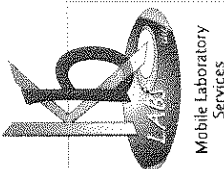


# CHAIN-OF-CUSTODY RECORD

2/2

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Gainesville, FL 32608  
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MOBILE UNIT #  
KCR2



Mobile Laboratory Services

CLIENT NAME  
Hickman  
PROJECT NAME & ADDRESS  
Rollins Economy Cleaners  
Raleigh, NC

CLIENT NAME	PROJECT NAME & ADDRESS	CONTACT PERSON				DATE SAMPLED	TIME SAMPLED	DATE RECD	TIME RECD	STATION LOCATION / No.	SAMPLE MATRIX	NUMBER OF CONTAINERS	IDENTIFY PARAMETERS DESIRED AND NO OF CONTAINERS	PRESERVATION
		NAME	ADDRESS	CITY	STATE									
TW-33		7/19/13	1505	7/19/13	1635				10.2/16A, B	GW	2	8260		
SB-28			1240		1635				17A	S	1			
SB-28			1245		1635				18A	S	1			
SB-27			1610		1635				19A	S	1			
SB-27			1620		1635				20A	S	1			

Remarks and Observations

Pre-cleaned Containers Relinquished by: (Signature)  
Relinquished by: (Signature)

Date / Time  
Received by: (Signature)  
Received by: (Signature)

9/19/13

Matrix Types     S Soil    SW Surface Water    GW Ground Water    SG Soil Gas



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

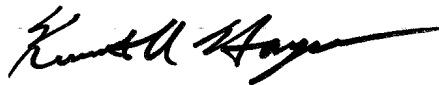
## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Nashville  
2960 Foster Creighton Drive  
Nashville, TN 37204  
Tel: (615)726-0177

TestAmerica Job ID: 490-35939-1  
TestAmerica Sample Delivery Group: DSO-79  
Client Project/Site: Rollins Economy Cleaners

For:  
Hart & Hickman, PC  
3334 Hillsborough Street  
Raleigh, North Carolina 27607

Attn: Timothy Klotz



Authorized for release by:  
9/29/2013 1:32:10 PM

Ken Hayes, Project Manager I  
(615)301-5035  
[ken.hayes@testamericainc.com](mailto:ken.hayes@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



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[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Sample Summary

Client: Hart & Hickman, PC  
Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
SDG: DSO-79

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-35939-1	SGMP-1 2-3'	Solid	09/20/13 15:46	09/21/13 08:40
490-35939-2	SGMP-1 4-5'	Solid	09/20/13 15:50	09/21/13 08:40
490-35939-3	SGMP-3 1-2'	Solid	09/20/13 15:55	09/21/13 08:40
490-35939-4	SGMP-3 3-4'	Solid	09/20/13 15:58	09/21/13 08:40
490-35939-5	SGMP-6 2-3'	Solid	09/20/13 16:05	09/21/13 08:40
490-35939-6	SGMP-6 3-4'	Solid	09/20/13 16:10	09/21/13 08:40
490-35939-7	SB-29 0-1'	Solid	09/20/13 15:40	09/21/13 08:40
490-35939-8	SB-29 3-4'	Solid	09/20/13 15:42	09/21/13 08:40



# Case Narrative

Client: Hart & Hickman, PC  
Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
SDG: DSO-79

**Job ID: 490-35939-1**

**Laboratory: TestAmerica Nashville**

## Narrative

**Job Narrative**  
**490-35939-1**

### Comments

No additional comments.

### Receipt

The samples were received on 9/21/2013 8:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.4° C.

Except:

The Chain of Custody was received without analysis selected.

### GC/MS VOA

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batches 109014 or 109254. See LCS/LCSD

Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: SGMP-6 2-3' (490-35939-5), SGMP-6 3-4' (490-35939-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: The following sample(s) was diluted due to the nature of the sample matrix: SB-29 3-4' (490-35939-8). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: SB-29 3-4' (490-35939-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample(s): SB-29 3-4' (490-35939-8).

No other analytical or quality issues were noted.

### Organic Prep

No analytical or quality issues were noted.

### VOA Prep

No analytical or quality issues were noted.

# Definitions/Glossary

Client: Hart & Hickman, PC  
Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
SDG: DSO-79

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Client Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

**Client Sample ID: SGMP-1 2-3'**

**Lab Sample ID: 490-35939-1**

Date Collected: 09/20/13 15:46

Matrix: Solid

Date Received: 09/21/13 08:40

Percent Solids: 81.7

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0677		0.0462		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Benzene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Bromobenzene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Bromochloromethane	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Bromodichloromethane	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Bromoform	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Bromomethane	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
2-Butanone (MEK)	ND		0.0462		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Carbon disulfide	ND		0.00462		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Carbon tetrachloride	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Chlorobenzene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Chlorodibromomethane	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Chloroethane	ND		0.00462		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Chloroform	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Chloromethane	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
2-Chlorotoluene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
4-Chlorotoluene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
cis-1,2-Dichloroethene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
cis-1,3-Dichloropropene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
1,2-Dibromo-3-Chloropropane	ND		0.00462		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
1,2-Dibromoethane (EDB)	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Dibromomethane	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
1,2-Dichlorobenzene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
1,3-Dichlorobenzene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
1,4-Dichlorobenzene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Dichlorodifluoromethane	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
1,1-Dichloroethane	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
1,2-Dichloroethane	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
1,1-Dichloroethene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
1,2-Dichloroethene, Total	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
1,2-Dichloropropane	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
1,3-Dichloropropane	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
2,2-Dichloropropane	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
1,1-Dichloropropene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Diisopropyl ether	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Ethylbenzene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Hexachlorobutadiene	ND		0.00462		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
2-Hexanone	ND		0.0462		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Isopropylbenzene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Methylene Chloride	ND		0.00924		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
4-Methyl-2-pentanone (MIBK)	ND		0.0462		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Methyl tert-butyl ether	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Naphthalene	ND		0.00462		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
n-Butylbenzene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
N-Propylbenzene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
p-Isopropyltoluene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
sec-Butylbenzene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
Styrene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1
tert-Butylbenzene	ND		0.00185		mg/Kg	*	09/23/13 10:08	09/24/13 15:06	1

TestAmerica Nashville



# Client Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

**Client Sample ID: SGMP-1 2-3'**

**Lab Sample ID: 490-35939-1**

Date Collected: 09/20/13 15:46

Matrix: Solid

Date Received: 09/21/13 08:40

Percent Solids: 81.7

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.00185		mg/Kg	☼	09/23/13 10:08	09/24/13 15:06	1
1,1,2,2-Tetrachloroethane	ND		0.00185		mg/Kg	☼	09/23/13 10:08	09/24/13 15:06	1
<b>Tetrachloroethene</b>	<b>0.00966</b>		0.00185		mg/Kg	☼	09/23/13 10:08	09/24/13 15:06	1
Toluene	ND		0.00185		mg/Kg	☼	09/23/13 10:08	09/24/13 15:06	1
trans-1,2-Dichloroethene	ND		0.00185		mg/Kg	☼	09/23/13 10:08	09/24/13 15:06	1
trans-1,3-Dichloropropene	ND		0.00185		mg/Kg	☼	09/23/13 10:08	09/24/13 15:06	1
1,2,3-Trichlorobenzene	ND		0.00185		mg/Kg	☼	09/23/13 10:08	09/24/13 15:06	1
1,2,4-Trichlorobenzene	ND		0.00185		mg/Kg	☼	09/23/13 10:08	09/24/13 15:06	1
1,1,1-Trichloroethane	ND		0.00185		mg/Kg	☼	09/23/13 10:08	09/24/13 15:06	1
1,1,2-Trichloroethane	ND		0.00462		mg/Kg	☼	09/23/13 10:08	09/24/13 15:06	1
Trichloroethene	ND		0.00185		mg/Kg	☼	09/23/13 10:08	09/24/13 15:06	1
Trichlorofluoromethane	ND		0.00185		mg/Kg	☼	09/23/13 10:08	09/24/13 15:06	1
1,2,3-Trichloropropane	ND		0.00185		mg/Kg	☼	09/23/13 10:08	09/24/13 15:06	1
1,2,4-Trimethylbenzene	ND		0.00185		mg/Kg	☼	09/23/13 10:08	09/24/13 15:06	1
1,3,5-Trimethylbenzene	ND		0.00185		mg/Kg	☼	09/23/13 10:08	09/24/13 15:06	1
Vinyl chloride	ND		0.00185		mg/Kg	☼	09/23/13 10:08	09/24/13 15:06	1
Xylenes, Total	ND		0.00277		mg/Kg	☼	09/23/13 10:08	09/24/13 15:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	09/23/13 10:08	09/24/13 15:06	1
Dibromofluoromethane (Surr)	97		70 - 130	09/23/13 10:08	09/24/13 15:06	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 130	09/23/13 10:08	09/24/13 15:06	1
Toluene-d8 (Surr)	112		70 - 130	09/23/13 10:08	09/24/13 15:06	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Percent Solids</b>	<b>82</b>		0.10		%			09/23/13 10:47	1

# Client Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

**Client Sample ID: SGMP-1 4-5'**

**Lab Sample ID: 490-35939-2**

Date Collected: 09/20/13 15:50

Matrix: Solid

Date Received: 09/21/13 08:40

Percent Solids: 86.5

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0551		0.0398		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Benzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Bromobenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Bromochloromethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Bromodichloromethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Bromoform	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Bromomethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
2-Butanone (MEK)	ND		0.0398		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Carbon disulfide	ND		0.00398		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Carbon tetrachloride	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Chlorobenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Chlorodibromomethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Chloroethane	ND		0.00398		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Chloroform	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Chloromethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
2-Chlorotoluene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
4-Chlorotoluene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
cis-1,2-Dichloroethene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
cis-1,3-Dichloropropene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,2-Dibromo-3-Chloropropane	ND		0.00398		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,2-Dibromoethane (EDB)	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Dibromomethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,2-Dichlorobenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,3-Dichlorobenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,4-Dichlorobenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Dichlorodifluoromethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,1-Dichloroethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,2-Dichloroethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,1-Dichloroethene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,2-Dichloroethene, Total	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,2-Dichloropropane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,3-Dichloropropane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
2,2-Dichloropropane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,1-Dichloropropene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Diisopropyl ether	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Ethylbenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Hexachlorobutadiene	ND		0.00398		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
2-Hexanone	ND		0.0398		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Isopropylbenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Methylene Chloride	ND		0.00796		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
4-Methyl-2-pentanone (MIBK)	ND		0.0398		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Methyl tert-butyl ether	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Naphthalene	ND		0.00398		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
n-Butylbenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
N-Propylbenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
p-Isopropyltoluene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
sec-Butylbenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Styrene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
tert-Butylbenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1

TestAmerica Nashville

# Client Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

**Client Sample ID: SGMP-1 4-5'**

**Lab Sample ID: 490-35939-2**

Date Collected: 09/20/13 15:50

Matrix: Solid

Date Received: 09/21/13 08:40

Percent Solids: 86.5

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,1,2,2-Tetrachloroethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
<b>Tetrachloroethene</b>	<b>0.846</b>		0.0957		mg/Kg	☼	09/23/13 10:18	09/23/13 14:40	1
Toluene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
trans-1,2-Dichloroethene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
trans-1,3-Dichloropropene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,2,3-Trichlorobenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,2,4-Trichlorobenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,1,1-Trichloroethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,1,2-Trichloroethane	ND		0.00398		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
<b>Trichloroethene</b>	<b>0.0102</b>		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Trichlorofluoromethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,2,3-Trichloropropane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,2,4-Trimethylbenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
1,3,5-Trimethylbenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Vinyl chloride	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1
Xylenes, Total	ND		0.00239		mg/Kg	☼	09/23/13 10:08	09/24/13 17:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	09/23/13 10:18	09/23/13 14:40	1
4-Bromofluorobenzene (Surr)	113		70 - 130	09/23/13 10:08	09/24/13 17:06	1
Dibromofluoromethane (Surr)	93		70 - 130	09/23/13 10:18	09/23/13 14:40	1
Dibromofluoromethane (Surr)	99		70 - 130	09/23/13 10:08	09/24/13 17:06	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130	09/23/13 10:18	09/23/13 14:40	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 130	09/23/13 10:08	09/24/13 17:06	1
Toluene-d8 (Surr)	114		70 - 130	09/23/13 10:18	09/23/13 14:40	1
Toluene-d8 (Surr)	112		70 - 130	09/23/13 10:08	09/24/13 17:06	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	86		0.10		%			09/23/13 10:47	1

# Client Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

**Client Sample ID: SGMP-3 1-2'**

**Lab Sample ID: 490-35939-3**

**Date Collected: 09/20/13 15:55**

**Matrix: Solid**

**Date Received: 09/21/13 08:40**

**Percent Solids: 91.0**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		0.0400		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Benzene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Bromobenzene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Bromochloromethane	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Bromodichloromethane	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Bromoform	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Bromomethane	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
2-Butanone (MEK)	ND		0.0400		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Carbon disulfide	ND		0.00400		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Carbon tetrachloride	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Chlorobenzene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Chlorodibromomethane	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Chloroethane	ND		0.00400		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Chloroform	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Chloromethane	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
2-Chlorotoluene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
4-Chlorotoluene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
cis-1,2-Dichloroethene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
cis-1,3-Dichloropropene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,2-Dibromo-3-Chloropropane	ND		0.00400		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,2-Dibromoethane (EDB)	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Dibromomethane	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,2-Dichlorobenzene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,3-Dichlorobenzene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,4-Dichlorobenzene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Dichlorodifluoromethane	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,1-Dichloroethane	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,2-Dichloroethane	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,1,1-Dichloroethene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,2-Dichloroethene, Total	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,2-Dichloropropane	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,3-Dichloropropane	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
2,2-Dichloropropane	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,1-Dichloropropene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Diisopropyl ether	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Ethylbenzene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Hexachlorobutadiene	ND		0.00400		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
2-Hexanone	ND		0.0400		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Isopropylbenzene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Methylene Chloride	ND		0.00801		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
4-Methyl-2-pentanone (MIBK)	ND		0.0400		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Methyl tert-butyl ether	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Naphthalene	ND		0.00400		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
n-Butylbenzene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
N-Propylbenzene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
p-Isopropyltoluene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
sec-Butylbenzene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Styrene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
tert-Butylbenzene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1

TestAmerica Nashville

# Client Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

**Client Sample ID: SGMP-3 1-2'**

**Lab Sample ID: 490-35939-3**

Date Collected: 09/20/13 15:55

Matrix: Solid

Date Received: 09/21/13 08:40

Percent Solids: 91.0

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,1,2,2-Tetrachloroethane	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
<b>Tetrachloroethene</b>	<b>0.00509</b>		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Toluene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
trans-1,2-Dichloroethene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
trans-1,3-Dichloropropene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,2,3-Trichlorobenzene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,2,4-Trichlorobenzene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,1,1-Trichloroethane	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,1,2-Trichloroethane	ND		0.00400		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Trichloroethene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Trichlorofluoromethane	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,2,3-Trichloropropane	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,2,4-Trimethylbenzene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
1,3,5-Trimethylbenzene	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Vinyl chloride	ND		0.00160		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1
Xylenes, Total	ND		0.00240		mg/Kg	☼	09/23/13 10:08	09/24/13 14:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	09/23/13 10:08	09/24/13 14:05	1
Dibromofluoromethane (Surr)	100		70 - 130	09/23/13 10:08	09/24/13 14:05	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 130	09/23/13 10:08	09/24/13 14:05	1
Toluene-d8 (Surr)	113		70 - 130	09/23/13 10:08	09/24/13 14:05	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Percent Solids</b>	<b>91</b>		0.10		%			09/23/13 10:47	1

# Client Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

**Client Sample ID: SGMP-3 3-4'**

**Lab Sample ID: 490-35939-4**

Date Collected: 09/20/13 15:58

Matrix: Solid

Date Received: 09/21/13 08:40

Percent Solids: 84.0

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0545		0.0397		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Benzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Bromobenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Bromochloromethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Bromodichloromethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Bromoform	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Bromomethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
2-Butanone (MEK)	ND		0.0397		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Carbon disulfide	ND		0.00397		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Carbon tetrachloride	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Chlorobenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Chlorodibromomethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Chloroethane	ND		0.00397		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Chloroform	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Chloromethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
2-Chlorotoluene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
4-Chlorotoluene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
cis-1,2-Dichloroethene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
cis-1,3-Dichloropropene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,2-Dibromo-3-Chloropropane	ND		0.00397		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,2-Dibromoethane (EDB)	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Dibromomethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,2-Dichlorobenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,3-Dichlorobenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,4-Dichlorobenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Dichlorodifluoromethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,1-Dichloroethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,2-Dichloroethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,1-Dichloroethene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,2-Dichloroethene, Total	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,2-Dichloropropane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,3-Dichloropropane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
2,2-Dichloropropane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,1-Dichloropropene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Diisopropyl ether	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Ethylbenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Hexachlorobutadiene	ND		0.00397		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
2-Hexanone	ND		0.0397		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Isopropylbenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Methylene Chloride	ND		0.00794		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
4-Methyl-2-pentanone (MIBK)	ND		0.0397		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Methyl tert-butyl ether	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Naphthalene	ND		0.00397		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
n-Butylbenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
N-Propylbenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
p-Isopropyltoluene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
sec-Butylbenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Styrene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
tert-Butylbenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1

TestAmerica Nashville

# Client Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

**Client Sample ID: SGMP-3 3-4'**

**Lab Sample ID: 490-35939-4**

Date Collected: 09/20/13 15:58

Matrix: Solid

Date Received: 09/21/13 08:40

Percent Solids: 84.0

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,1,2,2-Tetrachloroethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
<b>Tetrachloroethene</b>	<b>0.0252</b>		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Toluene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
trans-1,2-Dichloroethene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
trans-1,3-Dichloropropene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,2,3-Trichlorobenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,2,4-Trichlorobenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,1,1-Trichloroethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,1,2-Trichloroethane	ND		0.00397		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Trichloroethene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Trichlorofluoromethane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,2,3-Trichloropropane	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,2,4-Trimethylbenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
1,3,5-Trimethylbenzene	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Vinyl chloride	ND		0.00159		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1
Xylenes, Total	ND		0.00238		mg/Kg	☼	09/23/13 10:08	09/27/13 12:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	09/23/13 10:08	09/27/13 12:27	1
Dibromofluoromethane (Surr)	97		70 - 130	09/23/13 10:08	09/27/13 12:27	1
1,2-Dichloroethane-d4 (Surr)	115		70 - 130	09/23/13 10:08	09/27/13 12:27	1
Toluene-d8 (Surr)	102		70 - 130	09/23/13 10:08	09/27/13 12:27	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Percent Solids</b>	<b>84</b>		0.10		%			09/23/13 10:47	1

# Client Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

**Client Sample ID: SGMP-6 2-3'**

**Lab Sample ID: 490-35939-5**

Date Collected: 09/20/13 16:05

Matrix: Solid

Date Received: 09/21/13 08:40

Percent Solids: 76.8

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		0.0454		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Benzene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Bromobenzene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Bromochloromethane	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Bromodichloromethane	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Bromoform	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Bromomethane	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
2-Butanone (MEK)	ND		0.0454		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Carbon disulfide	ND		0.00454		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Carbon tetrachloride	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Chlorobenzene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Chlorodibromomethane	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Chloroethane	ND		0.00454		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Chloroform	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Chloromethane	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
2-Chlorotoluene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
4-Chlorotoluene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
<b>cis-1,2-Dichloroethene</b>	<b>0.0287</b>		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
cis-1,3-Dichloropropene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
1,2-Dibromo-3-Chloropropane	ND		0.00454		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
1,2-Dibromoethane (EDB)	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Dibromomethane	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
1,2-Dichlorobenzene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
1,3-Dichlorobenzene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
1,4-Dichlorobenzene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Dichlorodifluoromethane	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
1,1-Dichloroethane	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
1,2-Dichloroethane	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
1,1,1-Dichloroethene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
<b>1,2-Dichloroethene, Total</b>	<b>0.0341</b>		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
1,2-Dichloropropane	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
1,3-Dichloropropane	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
2,2-Dichloropropane	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
1,1-Dichloropropene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Diisopropyl ether	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Ethylbenzene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Hexachlorobutadiene	ND		0.00454		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
2-Hexanone	ND		0.0454		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Isopropylbenzene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Methylene Chloride	ND		0.00909		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
4-Methyl-2-pentanone (MIBK)	ND		0.0454		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Methyl tert-butyl ether	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Naphthalene	ND		0.00454		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
n-Butylbenzene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
N-Propylbenzene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
<b>p-Isopropyltoluene</b>	<b>0.00382</b>		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
<b>sec-Butylbenzene</b>	<b>0.00968</b>		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Styrene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
<b>tert-Butylbenzene</b>	<b>0.0156</b>		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1

TestAmerica Nashville



# Client Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

**Client Sample ID: SGMP-6 2-3'**

**Lab Sample ID: 490-35939-5**

Date Collected: 09/20/13 16:05

Matrix: Solid

Date Received: 09/21/13 08:40

Percent Solids: 76.8

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
1,1,2,2-Tetrachloroethane	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
<b>Tetrachloroethene</b>	<b>0.00333</b>		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Toluene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
<b>trans-1,2-Dichloroethene</b>	<b>0.00544</b>		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
trans-1,3-Dichloropropene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
1,2,3-Trichlorobenzene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
1,2,4-Trichlorobenzene	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
1,1,1-Trichloroethane	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
1,1,2-Trichloroethane	ND		0.00454		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
<b>Trichloroethene</b>	<b>0.00954</b>		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Trichlorofluoromethane	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
1,2,3-Trichloropropane	ND		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
<b>1,2,4-Trimethylbenzene</b>	<b>0.0115</b>		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
<b>1,3,5-Trimethylbenzene</b>	<b>0.00349</b>		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
<b>Vinyl chloride</b>	<b>0.119</b>		0.00182		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1
Xylenes, Total	ND		0.00273		mg/Kg	☼	09/23/13 10:08	09/24/13 14:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	173	X	70 - 130	09/23/13 10:08	09/24/13 14:35	1
Dibromofluoromethane (Surr)	96		70 - 130	09/23/13 10:08	09/24/13 14:35	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 130	09/23/13 10:08	09/24/13 14:35	1
Toluene-d8 (Surr)	106		70 - 130	09/23/13 10:08	09/24/13 14:35	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Percent Solids</b>	<b>77</b>		0.10		%			09/23/13 10:47	1

# Client Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

**Client Sample ID: SGMP-6 3-4'**

**Lab Sample ID: 490-35939-6**

Date Collected: 09/20/13 16:10

Matrix: Solid

Date Received: 09/21/13 08:40

Percent Solids: 86.6

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		0.0407		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Benzene	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Bromobenzene	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Bromochloromethane	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Bromodichloromethane	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Bromoform	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Bromomethane	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
2-Butanone (MEK)	ND		0.0407		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Carbon disulfide	ND		0.00407		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Carbon tetrachloride	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Chlorobenzene	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Chlorodibromomethane	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Chloroethane	ND		0.00407		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Chloroform	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Chloromethane	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
2-Chlorotoluene	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
4-Chlorotoluene	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
<b>cis-1,2-Dichloroethene</b>	<b>0.0101</b>		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
cis-1,3-Dichloropropene	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
1,2-Dibromo-3-Chloropropane	ND		0.00407		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
1,2-Dibromoethane (EDB)	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Dibromomethane	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
1,2-Dichlorobenzene	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
1,3-Dichlorobenzene	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
1,4-Dichlorobenzene	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Dichlorodifluoromethane	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
1,1-Dichloroethane	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
1,2-Dichloroethane	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
1,1-Dichloroethene	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
<b>1,2-Dichloroethene, Total</b>	<b>0.0101</b>		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
1,2-Dichloropropane	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
1,3-Dichloropropane	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
2,2-Dichloropropane	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
1,1-Dichloropropene	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Diisopropyl ether	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Ethylbenzene	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Hexachlorobutadiene	ND		0.00407		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
2-Hexanone	ND		0.0407		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
<b>Isopropylbenzene</b>	<b>0.00231</b>		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Methylene Chloride	ND		0.00815		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
4-Methyl-2-pentanone (MIBK)	ND		0.0407		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Methyl tert-butyl ether	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Naphthalene	ND		0.00407		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
<b>n-Butylbenzene</b>	<b>0.00634</b>		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
<b>N-Propylbenzene</b>	<b>0.00424</b>		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
<b>p-Isopropyltoluene</b>	<b>0.00275</b>		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
<b>sec-Butylbenzene</b>	<b>0.0165</b>		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
Styrene	ND		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1
<b>tert-Butylbenzene</b>	<b>0.0178</b>		0.00163		mg/Kg	*	09/23/13 10:08	09/24/13 16:06	1

TestAmerica Nashville

# Client Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

**Client Sample ID: SGMP-6 3-4'**

**Lab Sample ID: 490-35939-6**

Date Collected: 09/20/13 16:10

Matrix: Solid

Date Received: 09/21/13 08:40

Percent Solids: 86.6

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.00163		mg/Kg	☼	09/23/13 10:08	09/24/13 16:06	1
1,1,2,2-Tetrachloroethane	ND		0.00163		mg/Kg	☼	09/23/13 10:08	09/24/13 16:06	1
<b>Tetrachloroethene</b>	<b>0.0129</b>		0.00163		mg/Kg	☼	09/23/13 10:08	09/24/13 16:06	1
Toluene	ND		0.00163		mg/Kg	☼	09/23/13 10:08	09/24/13 16:06	1
trans-1,2-Dichloroethene	ND		0.00163		mg/Kg	☼	09/23/13 10:08	09/24/13 16:06	1
trans-1,3-Dichloropropene	ND		0.00163		mg/Kg	☼	09/23/13 10:08	09/24/13 16:06	1
1,2,3-Trichlorobenzene	ND		0.00163		mg/Kg	☼	09/23/13 10:08	09/24/13 16:06	1
1,2,4-Trichlorobenzene	ND		0.00163		mg/Kg	☼	09/23/13 10:08	09/24/13 16:06	1
1,1,1-Trichloroethane	ND		0.00163		mg/Kg	☼	09/23/13 10:08	09/24/13 16:06	1
1,1,2-Trichloroethane	ND		0.00407		mg/Kg	☼	09/23/13 10:08	09/24/13 16:06	1
<b>Trichloroethene</b>	<b>0.00788</b>		0.00163		mg/Kg	☼	09/23/13 10:08	09/24/13 16:06	1
Trichlorofluoromethane	ND		0.00163		mg/Kg	☼	09/23/13 10:08	09/24/13 16:06	1
1,2,3-Trichloropropane	ND		0.00163		mg/Kg	☼	09/23/13 10:08	09/24/13 16:06	1
<b>1,2,4-Trimethylbenzene</b>	<b>0.0191</b>		0.00163		mg/Kg	☼	09/23/13 10:08	09/24/13 16:06	1
<b>1,3,5-Trimethylbenzene</b>	<b>0.00836</b>		0.00163		mg/Kg	☼	09/23/13 10:08	09/24/13 16:06	1
<b>Vinyl chloride</b>	<b>0.0427</b>		0.00163		mg/Kg	☼	09/23/13 10:08	09/24/13 16:06	1
<b>Xylenes, Total</b>	<b>0.00306</b>		0.00244		mg/Kg	☼	09/23/13 10:08	09/24/13 16:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	141	X	70 - 130	09/23/13 10:08	09/24/13 16:06	1
Dibromofluoromethane (Surr)	96		70 - 130	09/23/13 10:08	09/24/13 16:06	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130	09/23/13 10:08	09/24/13 16:06	1
Toluene-d8 (Surr)	110		70 - 130	09/23/13 10:08	09/24/13 16:06	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Percent Solids</b>	<b>87</b>		0.10		%			09/23/13 10:47	1

# Client Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

**Client Sample ID: SB-29 0-1'**

**Lab Sample ID: 490-35939-7**

**Date Collected: 09/20/13 15:40**

**Matrix: Solid**

**Date Received: 09/21/13 08:40**

**Percent Solids: 81.2**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		0.0516		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Benzene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Bromobenzene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Bromochloromethane	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Bromodichloromethane	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Bromoform	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Bromomethane	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
2-Butanone (MEK)	ND		0.0516		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Carbon disulfide	ND		0.00516		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Carbon tetrachloride	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Chlorobenzene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Chlorodibromomethane	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Chloroethane	ND		0.00516		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Chloroform	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Chloromethane	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
2-Chlorotoluene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
4-Chlorotoluene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
cis-1,2-Dichloroethene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
cis-1,3-Dichloropropene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
1,2-Dibromo-3-Chloropropane	ND		0.00516		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
1,2-Dibromoethane (EDB)	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Dibromomethane	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
1,2-Dichlorobenzene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
1,3-Dichlorobenzene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
1,4-Dichlorobenzene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Dichlorodifluoromethane	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
1,1-Dichloroethane	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
1,2-Dichloroethane	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
1,1-Dichloroethene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
1,2-Dichloroethene, Total	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
1,2-Dichloropropane	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
1,3-Dichloropropane	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
2,2-Dichloropropane	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
1,1-Dichloropropene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Diisopropyl ether	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Ethylbenzene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Hexachlorobutadiene	ND		0.00516		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
2-Hexanone	ND		0.0516		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Isopropylbenzene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Methylene Chloride	ND		0.0103		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
4-Methyl-2-pentanone (MIBK)	ND		0.0516		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Methyl tert-butyl ether	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Naphthalene	ND		0.00516		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
n-Butylbenzene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
N-Propylbenzene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
p-Isopropyltoluene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
sec-Butylbenzene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
Styrene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1
tert-Butylbenzene	ND		0.00206		mg/Kg	*	09/23/13 10:08	09/24/13 16:36	1

TestAmerica Nashville

# Client Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

**Client Sample ID: SB-29 0-1'**

**Lab Sample ID: 490-35939-7**

**Date Collected: 09/20/13 15:40**

**Matrix: Solid**

**Date Received: 09/21/13 08:40**

**Percent Solids: 81.2**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.00206		mg/Kg	☼	09/23/13 10:08	09/24/13 16:36	1
1,1,2,2-Tetrachloroethane	ND		0.00206		mg/Kg	☼	09/23/13 10:08	09/24/13 16:36	1
<b>Tetrachloroethene</b>	<b>0.0156</b>		0.00206		mg/Kg	☼	09/23/13 10:08	09/24/13 16:36	1
Toluene	ND		0.00206		mg/Kg	☼	09/23/13 10:08	09/24/13 16:36	1
trans-1,2-Dichloroethene	ND		0.00206		mg/Kg	☼	09/23/13 10:08	09/24/13 16:36	1
trans-1,3-Dichloropropene	ND		0.00206		mg/Kg	☼	09/23/13 10:08	09/24/13 16:36	1
1,2,3-Trichlorobenzene	ND		0.00206		mg/Kg	☼	09/23/13 10:08	09/24/13 16:36	1
1,2,4-Trichlorobenzene	ND		0.00206		mg/Kg	☼	09/23/13 10:08	09/24/13 16:36	1
1,1,1-Trichloroethane	ND		0.00206		mg/Kg	☼	09/23/13 10:08	09/24/13 16:36	1
1,1,2-Trichloroethane	ND		0.00516		mg/Kg	☼	09/23/13 10:08	09/24/13 16:36	1
Trichloroethene	ND		0.00206		mg/Kg	☼	09/23/13 10:08	09/24/13 16:36	1
Trichlorofluoromethane	ND		0.00206		mg/Kg	☼	09/23/13 10:08	09/24/13 16:36	1
1,2,3-Trichloropropane	ND		0.00206		mg/Kg	☼	09/23/13 10:08	09/24/13 16:36	1
1,2,4-Trimethylbenzene	ND		0.00206		mg/Kg	☼	09/23/13 10:08	09/24/13 16:36	1
1,3,5-Trimethylbenzene	ND		0.00206		mg/Kg	☼	09/23/13 10:08	09/24/13 16:36	1
Vinyl chloride	ND		0.00206		mg/Kg	☼	09/23/13 10:08	09/24/13 16:36	1
Xylenes, Total	ND		0.00309		mg/Kg	☼	09/23/13 10:08	09/24/13 16:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	09/23/13 10:08	09/24/13 16:36	1
Dibromofluoromethane (Surr)	99		70 - 130	09/23/13 10:08	09/24/13 16:36	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 130	09/23/13 10:08	09/24/13 16:36	1
Toluene-d8 (Surr)	111		70 - 130	09/23/13 10:08	09/24/13 16:36	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Percent Solids</b>	<b>81</b>		0.10		%			09/23/13 10:47	1

# Client Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

**Client Sample ID: SB-29 3-4'**

**Lab Sample ID: 490-35939-8**

**Date Collected: 09/20/13 15:42**

**Matrix: Solid**

**Date Received: 09/21/13 08:40**

**Percent Solids: 83.7**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		0.0564		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Benzene	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Bromobenzene	ND		0.135		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1
Bromochloromethane	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Bromodichloromethane	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Bromoform	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Bromomethane	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
2-Butanone (MEK)	ND		0.0564		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Carbon disulfide	ND		0.00564		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Carbon tetrachloride	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Chlorobenzene	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Chlorodibromomethane	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Chloroethane	ND		0.00564		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Chloroform	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Chloromethane	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
2-Chlorotoluene	ND		0.135		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1
4-Chlorotoluene	ND		0.135		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1
cis-1,2-Dichloroethene	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
cis-1,3-Dichloropropene	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
1,2-Dibromo-3-Chloropropane	ND		0.338		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1
1,2-Dibromoethane (EDB)	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Dibromomethane	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
1,2-Dichlorobenzene	ND		0.135		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1
1,3-Dichlorobenzene	ND		0.135		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1
1,4-Dichlorobenzene	ND		0.135		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1
Dichlorodifluoromethane	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
1,1-Dichloroethane	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
1,2-Dichloroethane	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
1,1-Dichloroethene	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
1,2-Dichloroethene, Total	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
1,2-Dichloropropane	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
1,3-Dichloropropane	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
2,2-Dichloropropane	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
1,1-Dichloropropene	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Diisopropyl ether	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Ethylbenzene	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Hexachlorobutadiene	ND		0.338		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1
2-Hexanone	ND		0.0564		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Isopropylbenzene	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Methylene Chloride	ND		0.0113		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
4-Methyl-2-pentanone (MIBK)	ND		0.0564		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Methyl tert-butyl ether	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Naphthalene	ND		0.338		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1
n-Butylbenzene	ND		0.135		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1
N-Propylbenzene	ND		0.135		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1
p-Isopropyltoluene	ND		0.135		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1
sec-Butylbenzene	ND		0.135		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1
Styrene	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
tert-Butylbenzene	ND		0.135		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1

TestAmerica Nashville

# Client Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

**Client Sample ID: SB-29 3-4'**

**Lab Sample ID: 490-35939-8**

Date Collected: 09/20/13 15:42

Matrix: Solid

Date Received: 09/21/13 08:40

Percent Solids: 83.7

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
1,1,2,2-Tetrachloroethane	ND		0.135		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1
<b>Tetrachloroethene</b>	<b>0.139</b>		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Toluene	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
trans-1,2-Dichloroethene	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
trans-1,3-Dichloropropene	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
1,2,3-Trichlorobenzene	ND		0.135		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1
1,2,4-Trichlorobenzene	ND		0.135		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1
1,1,1-Trichloroethane	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
1,1,2-Trichloroethane	ND		0.00564		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Trichloroethene	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Trichlorofluoromethane	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
1,2,3-Trichloropropane	ND		0.135		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1
1,2,4-Trimethylbenzene	ND		0.135		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1
1,3,5-Trimethylbenzene	ND		0.135		mg/Kg	☼	09/23/13 10:18	09/23/13 17:43	1
Vinyl chloride	ND		0.00225		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1
Xylenes, Total	ND		0.00338		mg/Kg	☼	09/23/13 10:08	09/27/13 12:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	09/23/13 10:18	09/23/13 17:43	1
4-Bromofluorobenzene (Surr)	143	X	70 - 130	09/23/13 10:08	09/27/13 12:57	1
Dibromofluoromethane (Surr)	94		70 - 130	09/23/13 10:18	09/23/13 17:43	1
Dibromofluoromethane (Surr)	104		70 - 130	09/23/13 10:08	09/27/13 12:57	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130	09/23/13 10:18	09/23/13 17:43	1
1,2-Dichloroethane-d4 (Surr)	119		70 - 130	09/23/13 10:08	09/27/13 12:57	1
Toluene-d8 (Surr)	115		70 - 130	09/23/13 10:18	09/23/13 17:43	1
Toluene-d8 (Surr)	123		70 - 130	09/23/13 10:08	09/27/13 12:57	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	84		0.10		%			09/23/13 10:47	1

# QC Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 490-109014/7**

**Matrix: Solid**

**Analysis Batch: 109014**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		2.50		mg/Kg			09/23/13 12:10	1
Benzene	ND		0.100		mg/Kg			09/23/13 12:10	1
Bromobenzene	ND		0.100		mg/Kg			09/23/13 12:10	1
Bromochloromethane	ND		0.100		mg/Kg			09/23/13 12:10	1
Bromodichloromethane	ND		0.100		mg/Kg			09/23/13 12:10	1
Bromoform	ND		0.100		mg/Kg			09/23/13 12:10	1
Bromomethane	ND		0.100		mg/Kg			09/23/13 12:10	1
2-Butanone (MEK)	ND		2.50		mg/Kg			09/23/13 12:10	1
Carbon disulfide	ND		0.250		mg/Kg			09/23/13 12:10	1
Carbon tetrachloride	ND		0.100		mg/Kg			09/23/13 12:10	1
Chlorobenzene	ND		0.100		mg/Kg			09/23/13 12:10	1
Chlorodibromomethane	ND		0.100		mg/Kg			09/23/13 12:10	1
Chloroethane	ND		0.250		mg/Kg			09/23/13 12:10	1
Chloroform	ND		0.100		mg/Kg			09/23/13 12:10	1
Chloromethane	ND		0.100		mg/Kg			09/23/13 12:10	1
2-Chlorotoluene	ND		0.100		mg/Kg			09/23/13 12:10	1
4-Chlorotoluene	ND		0.100		mg/Kg			09/23/13 12:10	1
cis-1,2-Dichloroethene	ND		0.100		mg/Kg			09/23/13 12:10	1
cis-1,3-Dichloropropene	ND		0.100		mg/Kg			09/23/13 12:10	1
1,2-Dibromo-3-Chloropropane	ND		0.250		mg/Kg			09/23/13 12:10	1
1,2-Dibromoethane (EDB)	ND		0.100		mg/Kg			09/23/13 12:10	1
Dibromomethane	ND		0.100		mg/Kg			09/23/13 12:10	1
1,2-Dichlorobenzene	ND		0.100		mg/Kg			09/23/13 12:10	1
1,3-Dichlorobenzene	ND		0.100		mg/Kg			09/23/13 12:10	1
1,4-Dichlorobenzene	ND		0.100		mg/Kg			09/23/13 12:10	1
Dichlorodifluoromethane	ND		0.100		mg/Kg			09/23/13 12:10	1
1,1-Dichloroethane	ND		0.100		mg/Kg			09/23/13 12:10	1
1,2-Dichloroethane	ND		0.100		mg/Kg			09/23/13 12:10	1
1,1-Dichloroethene	ND		0.100		mg/Kg			09/23/13 12:10	1
1,2-Dichloroethene, Total	ND		0.100		mg/Kg			09/23/13 12:10	1
1,2-Dichloropropane	ND		0.100		mg/Kg			09/23/13 12:10	1
1,3-Dichloropropane	ND		0.100		mg/Kg			09/23/13 12:10	1
2,2-Dichloropropane	ND		0.100		mg/Kg			09/23/13 12:10	1
1,1-Dichloropropene	ND		0.100		mg/Kg			09/23/13 12:10	1
Diisopropyl ether	ND		0.100		mg/Kg			09/23/13 12:10	1
Ethylbenzene	ND		0.100		mg/Kg			09/23/13 12:10	1
Hexachlorobutadiene	ND		0.250		mg/Kg			09/23/13 12:10	1
2-Hexanone	ND		2.50		mg/Kg			09/23/13 12:10	1
Isopropylbenzene	ND		0.100		mg/Kg			09/23/13 12:10	1
Methylene Chloride	ND		0.500		mg/Kg			09/23/13 12:10	1
4-Methyl-2-pentanone (MIBK)	ND		2.50		mg/Kg			09/23/13 12:10	1
Methyl tert-butyl ether	ND		0.100		mg/Kg			09/23/13 12:10	1
Naphthalene	ND		0.250		mg/Kg			09/23/13 12:10	1
n-Butylbenzene	ND		0.100		mg/Kg			09/23/13 12:10	1
N-Propylbenzene	ND		0.100		mg/Kg			09/23/13 12:10	1
p-Isopropyltoluene	ND		0.100		mg/Kg			09/23/13 12:10	1
sec-Butylbenzene	ND		0.100		mg/Kg			09/23/13 12:10	1
Styrene	ND		0.100		mg/Kg			09/23/13 12:10	1

TestAmerica Nashville



# QC Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 490-109014/7**

**Matrix: Solid**

**Analysis Batch: 109014**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		0.100		mg/Kg			09/23/13 12:10	1
1,1,1,2-Tetrachloroethane	ND		0.100		mg/Kg			09/23/13 12:10	1
1,1,2,2-Tetrachloroethane	ND		0.100		mg/Kg			09/23/13 12:10	1
Tetrachloroethene	ND		0.100		mg/Kg			09/23/13 12:10	1
Toluene	ND		0.100		mg/Kg			09/23/13 12:10	1
trans-1,2-Dichloroethene	ND		0.100		mg/Kg			09/23/13 12:10	1
trans-1,3-Dichloropropene	ND		0.100		mg/Kg			09/23/13 12:10	1
1,2,3-Trichlorobenzene	ND		0.100		mg/Kg			09/23/13 12:10	1
1,2,4-Trichlorobenzene	ND		0.100		mg/Kg			09/23/13 12:10	1
1,1,1-Trichloroethane	ND		0.100		mg/Kg			09/23/13 12:10	1
1,1,2-Trichloroethane	ND		0.250		mg/Kg			09/23/13 12:10	1
Trichloroethene	ND		0.100		mg/Kg			09/23/13 12:10	1
Trichlorofluoromethane	ND		0.100		mg/Kg			09/23/13 12:10	1
1,2,3-Trichloropropane	ND		0.100		mg/Kg			09/23/13 12:10	1
1,2,4-Trimethylbenzene	ND		0.100		mg/Kg			09/23/13 12:10	1
1,3,5-Trimethylbenzene	ND		0.100		mg/Kg			09/23/13 12:10	1
Vinyl chloride	ND		0.100		mg/Kg			09/23/13 12:10	1
Xylenes, Total	ND		0.150		mg/Kg			09/23/13 12:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130		09/23/13 12:10	1
Dibromofluoromethane (Surr)	95		70 - 130		09/23/13 12:10	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 130		09/23/13 12:10	1
Toluene-d8 (Surr)	114		70 - 130		09/23/13 12:10	1

**Lab Sample ID: LCS 490-109014/4**

**Matrix: Solid**

**Analysis Batch: 109014**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.250	0.2504		mg/Kg		100	51 - 149
Benzene	0.0500	0.05200		mg/Kg		104	75 - 127
Bromobenzene	0.0500	0.04685		mg/Kg		94	75 - 130
Bromochloromethane	0.0500	0.05335		mg/Kg		107	70 - 132
Bromodichloromethane	0.0500	0.05047		mg/Kg		101	68 - 135
Bromoform	0.0500	0.04877		mg/Kg		98	36 - 150
Bromomethane	0.0500	0.04972		mg/Kg		99	43 - 142
2-Butanone (MEK)	0.250	0.2451		mg/Kg		98	61 - 132
Carbon disulfide	0.0500	0.05017		mg/Kg		100	74 - 135
Carbon tetrachloride	0.0500	0.05294		mg/Kg		106	70 - 141
Chlorobenzene	0.0500	0.04962		mg/Kg		99	84 - 125
Chlorodibromomethane	0.0500	0.04929		mg/Kg		99	66 - 134
Chloroethane	0.0500	0.05608		mg/Kg		112	53 - 144
Chloroform	0.0500	0.05061		mg/Kg		101	76 - 130
Chloromethane	0.0500	0.04804		mg/Kg		96	23 - 150
2-Chlorotoluene	0.0500	0.04666		mg/Kg		93	78 - 132
4-Chlorotoluene	0.0500	0.04861		mg/Kg		97	77 - 138
cis-1,2-Dichloroethene	0.0500	0.05291		mg/Kg		106	75 - 125

TestAmerica Nashville

# QC Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 490-109014/4**

**Matrix: Solid**

**Analysis Batch: 109014**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,3-Dichloropropene	0.0500	0.05506		mg/Kg		110	73 - 148
1,2-Dibromo-3-Chloropropane	0.0500	0.04405		mg/Kg		88	49 - 142
1,2-Dibromoethane (EDB)	0.0500	0.04895		mg/Kg		98	80 - 135
Dibromomethane	0.0500	0.05004		mg/Kg		100	71 - 130
1,2-Dichlorobenzene	0.0500	0.04917		mg/Kg		98	80 - 134
1,3-Dichlorobenzene	0.0500	0.04859		mg/Kg		97	79 - 137
1,4-Dichlorobenzene	0.0500	0.04798		mg/Kg		96	77 - 139
Dichlorodifluoromethane	0.0500	0.04928		mg/Kg		99	12 - 144
1,1-Dichloroethane	0.0500	0.05119		mg/Kg		102	75 - 124
1,2-Dichloroethane	0.0500	0.05244		mg/Kg		105	65 - 134
1,1-Dichloroethene	0.0500	0.05115		mg/Kg		102	75 - 131
1,2-Dichloroethene, Total	0.100	0.1061		mg/Kg		106	75 - 128
1,2-Dichloropropane	0.0500	0.05181		mg/Kg		104	69 - 120
1,3-Dichloropropane	0.0500	0.04930		mg/Kg		99	78 - 126
2,2-Dichloropropane	0.0500	0.05063		mg/Kg		101	68 - 145
1,1-Dichloropropene	0.0500	0.05260		mg/Kg		105	79 - 127
Diisopropyl ether	0.0500	0.05233		mg/Kg		105	68 - 124
Ethylbenzene	0.0500	0.04882		mg/Kg		98	80 - 134
Hexachlorobutadiene	0.0500	0.04629		mg/Kg		93	65 - 148
2-Hexanone	0.250	0.2373		mg/Kg		95	57 - 148
Isopropylbenzene	0.0500	0.05039		mg/Kg		101	80 - 150
Methylene Chloride	0.0500	0.04946		mg/Kg		99	68 - 144
4-Methyl-2-pentanone (MIBK)	0.250	0.2633		mg/Kg		105	59 - 138
Methyl tert-butyl ether	0.0500	0.05060		mg/Kg		101	70 - 136
Naphthalene	0.0500	0.04445		mg/Kg		89	69 - 150
n-Butylbenzene	0.0500	0.04854		mg/Kg		97	72 - 152
N-Propylbenzene	0.0500	0.04717		mg/Kg		94	75 - 137
p-Isopropyltoluene	0.0500	0.04823		mg/Kg		96	77 - 141
sec-Butylbenzene	0.0500	0.04722		mg/Kg		94	79 - 141
Styrene	0.0500	0.05215		mg/Kg		104	82 - 137
tert-Butylbenzene	0.0500	0.04679		mg/Kg		94	80 - 132
1,1,1,2-Tetrachloroethane	0.0500	0.04879		mg/Kg		98	80 - 136
1,1,2,2-Tetrachloroethane	0.0500	0.04460		mg/Kg		89	66 - 134
Tetrachloroethene	0.0500	0.05055		mg/Kg		101	78 - 140
Toluene	0.0500	0.05010		mg/Kg		100	80 - 132
trans-1,2-Dichloroethene	0.0500	0.05317		mg/Kg		106	76 - 128
trans-1,3-Dichloropropene	0.0500	0.04855		mg/Kg		97	62 - 139
1,2,3-Trichlorobenzene	0.0500	0.04807		mg/Kg		96	70 - 150
1,2,4-Trichlorobenzene	0.0500	0.04874		mg/Kg		97	62 - 150
1,1,1-Trichloroethane	0.0500	0.05241		mg/Kg		105	72 - 140
1,1,2-Trichloroethane	0.0500	0.04641		mg/Kg		93	78 - 128
Trichloroethene	0.0500	0.05383		mg/Kg		108	77 - 127
Trichlorofluoromethane	0.0500	0.05267		mg/Kg		105	50 - 140
1,2,3-Trichloropropane	0.0500	0.04318		mg/Kg		86	65 - 139
1,2,4-Trimethylbenzene	0.0500	0.04656		mg/Kg		93	77 - 139
1,3,5-Trimethylbenzene	0.0500	0.04729		mg/Kg		95	78 - 138
Vinyl chloride	0.0500	0.04928		mg/Kg		99	47 - 136
Xylenes, Total	0.100	0.09721		mg/Kg		97	80 - 137

TestAmerica Nashville

# QC Sample Results

Client: Hart & Hickman, PC  
Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
SDG: DSO-79

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 490-109014/4**

**Matrix: Solid**

**Analysis Batch: 109014**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	97		70 - 130
Dibromofluoromethane (Surr)	101		70 - 130
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
Toluene-d8 (Surr)	107		70 - 130

**Lab Sample ID: LCSD 490-109014/5**

**Matrix: Solid**

**Analysis Batch: 109014**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.250	0.2469		mg/Kg		99	51 - 149	1	50
Benzene	0.0500	0.05272		mg/Kg		105	75 - 127	1	50
Bromobenzene	0.0500	0.04801		mg/Kg		96	75 - 130	2	50
Bromochloromethane	0.0500	0.05458		mg/Kg		109	70 - 132	2	50
Bromodichloromethane	0.0500	0.05129		mg/Kg		103	68 - 135	2	50
Bromoform	0.0500	0.04977		mg/Kg		100	36 - 150	2	50
Bromomethane	0.0500	0.05178		mg/Kg		104	43 - 142	4	50
2-Butanone (MEK)	0.250	0.2535		mg/Kg		101	61 - 132	3	50
Carbon disulfide	0.0500	0.05153		mg/Kg		103	74 - 135	3	50
Carbon tetrachloride	0.0500	0.05327		mg/Kg		107	70 - 141	1	50
Chlorobenzene	0.0500	0.05094		mg/Kg		102	84 - 125	3	50
Chlorodibromomethane	0.0500	0.05004		mg/Kg		100	66 - 134	2	50
Chloroethane	0.0500	0.05680		mg/Kg		114	53 - 144	1	50
Chloroform	0.0500	0.05121		mg/Kg		102	76 - 130	1	49
Chloromethane	0.0500	0.04754		mg/Kg		95	23 - 150	1	50
2-Chlorotoluene	0.0500	0.04769		mg/Kg		95	78 - 132	2	50
4-Chlorotoluene	0.0500	0.05001		mg/Kg		100	77 - 138	3	50
cis-1,2-Dichloroethene	0.0500	0.05382		mg/Kg		108	75 - 125	2	50
cis-1,3-Dichloropropene	0.0500	0.05628		mg/Kg		113	73 - 148	2	50
1,2-Dibromo-3-Chloropropane	0.0500	0.04530		mg/Kg		91	49 - 142	3	50
1,2-Dibromoethane (EDB)	0.0500	0.04960		mg/Kg		99	80 - 135	1	50
Dibromomethane	0.0500	0.05237		mg/Kg		105	71 - 130	5	50
1,2-Dichlorobenzene	0.0500	0.05039		mg/Kg		101	80 - 134	2	50
1,3-Dichlorobenzene	0.0500	0.04975		mg/Kg		99	79 - 137	2	50
1,4-Dichlorobenzene	0.0500	0.04928		mg/Kg		99	77 - 139	3	50
Dichlorodifluoromethane	0.0500	0.05063		mg/Kg		101	12 - 144	3	50
1,1-Dichloroethane	0.0500	0.05385		mg/Kg		108	75 - 124	5	50
1,2-Dichloroethane	0.0500	0.05338		mg/Kg		107	65 - 134	2	50
1,1-Dichloroethene	0.0500	0.05166		mg/Kg		103	75 - 131	1	50
1,2-Dichloroethene, Total	0.100	0.1077		mg/Kg		108	75 - 128	2	41
1,2-Dichloropropane	0.0500	0.05319		mg/Kg		106	69 - 120	3	50
1,3-Dichloropropane	0.0500	0.05044		mg/Kg		101	78 - 126	2	42
2,2-Dichloropropane	0.0500	0.05075		mg/Kg		101	68 - 145	0	50
1,1-Dichloropropene	0.0500	0.05310		mg/Kg		106	79 - 127	1	50
Diisopropyl ether	0.0500	0.05297		mg/Kg		106	68 - 124	1	45
Ethylbenzene	0.0500	0.04987		mg/Kg		100	80 - 134	2	50
Hexachlorobutadiene	0.0500	0.04851		mg/Kg		97	65 - 148	5	50
2-Hexanone	0.250	0.2426		mg/Kg		97	57 - 148	2	50

TestAmerica Nashville

# QC Sample Results

Client: Hart & Hickman, PC  
Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
SDG: DSO-79

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 490-109014/5**

**Matrix: Solid**

**Analysis Batch: 109014**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Isopropylbenzene	0.0500	0.05171		mg/Kg		103	80 - 150	3	50
Methylene Chloride	0.0500	0.05004		mg/Kg		100	68 - 144	1	50
4-Methyl-2-pentanone (MIBK)	0.250	0.2704		mg/Kg		108	59 - 138	3	50
Methyl tert-butyl ether	0.0500	0.05214		mg/Kg		104	70 - 136	3	50
Naphthalene	0.0500	0.04645		mg/Kg		93	69 - 150	4	50
n-Butylbenzene	0.0500	0.05050		mg/Kg		101	72 - 152	4	50
N-Propylbenzene	0.0500	0.04823		mg/Kg		96	75 - 137	2	50
p-Isopropyltoluene	0.0500	0.04942		mg/Kg		99	77 - 141	2	50
sec-Butylbenzene	0.0500	0.04898		mg/Kg		98	79 - 141	4	50
Styrene	0.0500	0.05325		mg/Kg		106	82 - 137	2	50
tert-Butylbenzene	0.0500	0.04876		mg/Kg		98	80 - 132	4	50
1,1,1,2-Tetrachloroethane	0.0500	0.05012		mg/Kg		100	80 - 136	3	50
1,1,2,2-Tetrachloroethane	0.0500	0.04708		mg/Kg		94	66 - 134	5	50
Tetrachloroethene	0.0500	0.05211		mg/Kg		104	78 - 140	3	50
Toluene	0.0500	0.05104		mg/Kg		102	80 - 132	2	50
trans-1,2-Dichloroethene	0.0500	0.05387		mg/Kg		108	76 - 128	1	50
trans-1,3-Dichloropropene	0.0500	0.04998		mg/Kg		100	62 - 139	3	50
1,2,3-Trichlorobenzene	0.0500	0.05053		mg/Kg		101	70 - 150	5	50
1,2,4-Trichlorobenzene	0.0500	0.05074		mg/Kg		101	62 - 150	4	50
1,1,1-Trichloroethane	0.0500	0.05303		mg/Kg		106	72 - 140	1	50
1,1,2-Trichloroethane	0.0500	0.04711		mg/Kg		94	78 - 128	1	50
Trichloroethene	0.0500	0.05530		mg/Kg		111	77 - 127	3	50
Trichlorofluoromethane	0.0500	0.05412		mg/Kg		108	50 - 140	3	50
1,2,3-Trichloropropane	0.0500	0.04383		mg/Kg		88	65 - 139	1	50
1,2,4-Trimethylbenzene	0.0500	0.04747		mg/Kg		95	77 - 139	2	50
1,3,5-Trimethylbenzene	0.0500	0.04873		mg/Kg		97	78 - 138	3	50
Vinyl chloride	0.0500	0.04990		mg/Kg		100	47 - 136	1	50
Xylenes, Total	0.100	0.1004		mg/Kg		100	80 - 137	3	50

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	96		70 - 130
Dibromofluoromethane (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	99		70 - 130
Toluene-d8 (Surr)	106		70 - 130

**Lab Sample ID: MB 490-109254/7**

**Matrix: Solid**

**Analysis Batch: 109254**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	ND		0.0500		mg/Kg			09/24/13 12:04	1
Benzene	ND		0.00200		mg/Kg			09/24/13 12:04	1
Bromobenzene	ND		0.00200		mg/Kg			09/24/13 12:04	1
Bromochloromethane	ND		0.00200		mg/Kg			09/24/13 12:04	1
Bromodichloromethane	ND		0.00200		mg/Kg			09/24/13 12:04	1
Bromoform	ND		0.00200		mg/Kg			09/24/13 12:04	1
Bromomethane	ND		0.00200		mg/Kg			09/24/13 12:04	1
2-Butanone (MEK)	ND		0.0500		mg/Kg			09/24/13 12:04	1

TestAmerica Nashville

# QC Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 490-109254/7**

**Matrix: Solid**

**Analysis Batch: 109254**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		0.00500		mg/Kg			09/24/13 12:04	1
Carbon tetrachloride	ND		0.00200		mg/Kg			09/24/13 12:04	1
Chlorobenzene	ND		0.00200		mg/Kg			09/24/13 12:04	1
Chlorodibromomethane	ND		0.00200		mg/Kg			09/24/13 12:04	1
Chloroethane	ND		0.00500		mg/Kg			09/24/13 12:04	1
Chloroform	ND		0.00200		mg/Kg			09/24/13 12:04	1
Chloromethane	ND		0.00200		mg/Kg			09/24/13 12:04	1
2-Chlorotoluene	ND		0.00200		mg/Kg			09/24/13 12:04	1
4-Chlorotoluene	ND		0.00200		mg/Kg			09/24/13 12:04	1
cis-1,2-Dichloroethene	ND		0.00200		mg/Kg			09/24/13 12:04	1
cis-1,3-Dichloropropene	ND		0.00200		mg/Kg			09/24/13 12:04	1
1,2-Dibromo-3-Chloropropane	ND		0.00500		mg/Kg			09/24/13 12:04	1
1,2-Dibromoethane (EDB)	ND		0.00200		mg/Kg			09/24/13 12:04	1
Dibromomethane	ND		0.00200		mg/Kg			09/24/13 12:04	1
1,2-Dichlorobenzene	ND		0.00200		mg/Kg			09/24/13 12:04	1
1,3-Dichlorobenzene	ND		0.00200		mg/Kg			09/24/13 12:04	1
1,4-Dichlorobenzene	ND		0.00200		mg/Kg			09/24/13 12:04	1
Dichlorodifluoromethane	ND		0.00200		mg/Kg			09/24/13 12:04	1
1,1-Dichloroethane	ND		0.00200		mg/Kg			09/24/13 12:04	1
1,2-Dichloroethane	ND		0.00200		mg/Kg			09/24/13 12:04	1
1,1-Dichloroethene	ND		0.00200		mg/Kg			09/24/13 12:04	1
1,2-Dichloroethene, Total	ND		0.00200		mg/Kg			09/24/13 12:04	1
1,2-Dichloropropane	ND		0.00200		mg/Kg			09/24/13 12:04	1
1,3-Dichloropropane	ND		0.00200		mg/Kg			09/24/13 12:04	1
2,2-Dichloropropane	ND		0.00200		mg/Kg			09/24/13 12:04	1
1,1-Dichloropropene	ND		0.00200		mg/Kg			09/24/13 12:04	1
Diisopropyl ether	ND		0.00200		mg/Kg			09/24/13 12:04	1
Ethylbenzene	ND		0.00200		mg/Kg			09/24/13 12:04	1
Hexachlorobutadiene	ND		0.00500		mg/Kg			09/24/13 12:04	1
2-Hexanone	ND		0.0500		mg/Kg			09/24/13 12:04	1
Isopropylbenzene	ND		0.00200		mg/Kg			09/24/13 12:04	1
Methylene Chloride	ND		0.0100		mg/Kg			09/24/13 12:04	1
4-Methyl-2-pentanone (MIBK)	ND		0.0500		mg/Kg			09/24/13 12:04	1
Methyl tert-butyl ether	ND		0.00200		mg/Kg			09/24/13 12:04	1
Naphthalene	ND		0.00500		mg/Kg			09/24/13 12:04	1
n-Butylbenzene	ND		0.00200		mg/Kg			09/24/13 12:04	1
N-Propylbenzene	ND		0.00200		mg/Kg			09/24/13 12:04	1
p-Isopropyltoluene	ND		0.00200		mg/Kg			09/24/13 12:04	1
sec-Butylbenzene	ND		0.00200		mg/Kg			09/24/13 12:04	1
Styrene	ND		0.00200		mg/Kg			09/24/13 12:04	1
tert-Butylbenzene	ND		0.00200		mg/Kg			09/24/13 12:04	1
1,1,1,2-Tetrachloroethane	ND		0.00200		mg/Kg			09/24/13 12:04	1
1,1,2,2-Tetrachloroethane	ND		0.00200		mg/Kg			09/24/13 12:04	1
Tetrachloroethene	ND		0.00200		mg/Kg			09/24/13 12:04	1
Toluene	ND		0.00200		mg/Kg			09/24/13 12:04	1
trans-1,2-Dichloroethene	ND		0.00200		mg/Kg			09/24/13 12:04	1
trans-1,3-Dichloropropene	ND		0.00200		mg/Kg			09/24/13 12:04	1
1,2,3-Trichlorobenzene	ND		0.00200		mg/Kg			09/24/13 12:04	1

TestAmerica Nashville

# QC Sample Results

Client: Hart & Hickman, PC  
Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
SDG: DSO-79

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 490-109254/7**

**Matrix: Solid**

**Analysis Batch: 109254**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.00200		mg/Kg			09/24/13 12:04	1
1,1,1-Trichloroethane	ND		0.00200		mg/Kg			09/24/13 12:04	1
1,1,2-Trichloroethane	ND		0.00500		mg/Kg			09/24/13 12:04	1
Trichloroethene	ND		0.00200		mg/Kg			09/24/13 12:04	1
Trichlorofluoromethane	ND		0.00200		mg/Kg			09/24/13 12:04	1
1,2,3-Trichloropropane	ND		0.00200		mg/Kg			09/24/13 12:04	1
1,2,4-Trimethylbenzene	ND		0.00200		mg/Kg			09/24/13 12:04	1
1,3,5-Trimethylbenzene	ND		0.00200		mg/Kg			09/24/13 12:04	1
Vinyl chloride	ND		0.00200		mg/Kg			09/24/13 12:04	1
Xylenes, Total	ND		0.00300		mg/Kg			09/24/13 12:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130		09/24/13 12:04	1
Dibromofluoromethane (Surr)	100		70 - 130		09/24/13 12:04	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		09/24/13 12:04	1
Toluene-d8 (Surr)	110		70 - 130		09/24/13 12:04	1

**Lab Sample ID: LCS 490-109254/3**

**Matrix: Solid**

**Analysis Batch: 109254**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.250	0.2456		mg/Kg		98	51 - 149
Benzene	0.0500	0.05192		mg/Kg		104	75 - 127
Bromobenzene	0.0500	0.04763		mg/Kg		95	75 - 130
Bromochloromethane	0.0500	0.05260		mg/Kg		105	70 - 132
Bromodichloromethane	0.0500	0.05058		mg/Kg		101	68 - 135
Bromoform	0.0500	0.04561		mg/Kg		91	36 - 150
Bromomethane	0.0500	0.04895		mg/Kg		98	43 - 142
2-Butanone (MEK)	0.250	0.2408		mg/Kg		96	61 - 132
Carbon disulfide	0.0500	0.05322		mg/Kg		106	74 - 135
Carbon tetrachloride	0.0500	0.05413		mg/Kg		108	70 - 141
Chlorobenzene	0.0500	0.04964		mg/Kg		99	84 - 125
Chlorodibromomethane	0.0500	0.04765		mg/Kg		95	66 - 134
Chloroethane	0.0500	0.05584		mg/Kg		112	53 - 144
Chloroform	0.0500	0.05096		mg/Kg		102	76 - 130
Chloromethane	0.0500	0.05309		mg/Kg		106	23 - 150
2-Chlorotoluene	0.0500	0.04770		mg/Kg		95	78 - 132
4-Chlorotoluene	0.0500	0.04875		mg/Kg		98	77 - 138
cis-1,2-Dichloroethene	0.0500	0.05302		mg/Kg		106	75 - 125
cis-1,3-Dichloropropene	0.0500	0.04993		mg/Kg		100	73 - 148
1,2-Dibromo-3-Chloropropane	0.0500	0.04358		mg/Kg		87	49 - 142
1,2-Dibromoethane (EDB)	0.0500	0.04814		mg/Kg		96	80 - 135
Dibromomethane	0.0500	0.05015		mg/Kg		100	71 - 130
1,2-Dichlorobenzene	0.0500	0.04780		mg/Kg		96	80 - 134
1,3-Dichlorobenzene	0.0500	0.04869		mg/Kg		97	79 - 137
1,4-Dichlorobenzene	0.0500	0.04764		mg/Kg		95	77 - 139
Dichlorodifluoromethane	0.0500	0.05510		mg/Kg		110	12 - 144

TestAmerica Nashville

# QC Sample Results

Client: Hart & Hickman, PC  
Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
SDG: DSO-79

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 490-109254/3**

**Matrix: Solid**

**Analysis Batch: 109254**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	0.0500	0.05167		mg/Kg		103	75 - 124
1,2-Dichloroethane	0.0500	0.05178		mg/Kg		104	65 - 134
1,1-Dichloroethene	0.0500	0.05331		mg/Kg		107	75 - 131
1,2-Dichloroethene, Total	0.100	0.1077		mg/Kg		108	75 - 128
1,2-Dichloropropane	0.0500	0.05170		mg/Kg		103	69 - 120
1,3-Dichloropropane	0.0500	0.04897		mg/Kg		98	78 - 126
2,2-Dichloropropane	0.0500	0.05186		mg/Kg		104	68 - 145
1,1-Dichloropropene	0.0500	0.05276		mg/Kg		106	79 - 127
Diisopropyl ether	0.0500	0.05204		mg/Kg		104	68 - 124
Ethylbenzene	0.0500	0.04884		mg/Kg		98	80 - 134
Hexachlorobutadiene	0.0500	0.04932		mg/Kg		99	65 - 148
2-Hexanone	0.250	0.2362		mg/Kg		94	57 - 148
Isopropylbenzene	0.0500	0.05008		mg/Kg		100	80 - 150
Methylene Chloride	0.0500	0.04930		mg/Kg		99	68 - 144
4-Methyl-2-pentanone (MIBK)	0.250	0.2301		mg/Kg		92	59 - 138
Methyl tert-butyl ether	0.0500	0.05138		mg/Kg		103	70 - 136
Naphthalene	0.0500	0.04745		mg/Kg		95	69 - 150
n-Butylbenzene	0.0500	0.04998		mg/Kg		100	72 - 152
N-Propylbenzene	0.0500	0.04823		mg/Kg		96	75 - 137
p-Isopropyltoluene	0.0500	0.04902		mg/Kg		98	77 - 141
sec-Butylbenzene	0.0500	0.04876		mg/Kg		98	79 - 141
Styrene	0.0500	0.05002		mg/Kg		100	82 - 137
tert-Butylbenzene	0.0500	0.04836		mg/Kg		97	80 - 132
1,1,1,2-Tetrachloroethane	0.0500	0.04816		mg/Kg		96	80 - 136
1,1,1,2,2-Tetrachloroethane	0.0500	0.04455		mg/Kg		89	66 - 134
Tetrachloroethene	0.0500	0.05064		mg/Kg		101	78 - 140
Toluene	0.0500	0.05005		mg/Kg		100	80 - 132
trans-1,2-Dichloroethene	0.0500	0.05465		mg/Kg		109	76 - 128
trans-1,3-Dichloropropene	0.0500	0.05008		mg/Kg		100	62 - 139
1,2,3-Trichlorobenzene	0.0500	0.04986		mg/Kg		100	70 - 150
1,2,4-Trichlorobenzene	0.0500	0.05067		mg/Kg		101	62 - 150
1,1,1-Trichloroethane	0.0500	0.05400		mg/Kg		108	72 - 140
1,1,2-Trichloroethane	0.0500	0.04675		mg/Kg		93	78 - 128
Trichloroethene	0.0500	0.05419		mg/Kg		108	77 - 127
Trichlorofluoromethane	0.0500	0.05482		mg/Kg		110	50 - 140
1,2,3-Trichloropropane	0.0500	0.04372		mg/Kg		87	65 - 139
1,2,4-Trimethylbenzene	0.0500	0.04749		mg/Kg		95	77 - 139
1,3,5-Trimethylbenzene	0.0500	0.04810		mg/Kg		96	78 - 138
Vinyl chloride	0.0500	0.05511		mg/Kg		110	47 - 136
Xylenes, Total	0.100	0.09659		mg/Kg		97	80 - 137

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	100		70 - 130
Dibromofluoromethane (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	99		70 - 130
Toluene-d8 (Surr)	98		70 - 130

# QC Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 490-109254/4**

**Matrix: Solid**

**Analysis Batch: 109254**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	RPD Limit
							Limits	RPD		
Acetone	0.250	0.2510		mg/Kg		100	51 - 149	2	50	
Benzene	0.0500	0.05107		mg/Kg		102	75 - 127	2	50	
Bromobenzene	0.0500	0.04686		mg/Kg		94	75 - 130	2	50	
Bromochloromethane	0.0500	0.05310		mg/Kg		106	70 - 132	1	50	
Bromodichloromethane	0.0500	0.05085		mg/Kg		102	68 - 135	1	50	
Bromoform	0.0500	0.04641		mg/Kg		93	36 - 150	2	50	
Bromomethane	0.0500	0.04700		mg/Kg		94	43 - 142	4	50	
2-Butanone (MEK)	0.250	0.2476		mg/Kg		99	61 - 132	3	50	
Carbon disulfide	0.0500	0.05034		mg/Kg		101	74 - 135	6	50	
Carbon tetrachloride	0.0500	0.05258		mg/Kg		105	70 - 141	3	50	
Chlorobenzene	0.0500	0.04878		mg/Kg		98	84 - 125	2	50	
Chlorodibromomethane	0.0500	0.04791		mg/Kg		96	66 - 134	1	50	
Chloroethane	0.0500	0.05375		mg/Kg		108	53 - 144	4	50	
Chloroform	0.0500	0.05024		mg/Kg		100	76 - 130	1	49	
Chloromethane	0.0500	0.05125		mg/Kg		102	23 - 150	4	50	
2-Chlorotoluene	0.0500	0.04679		mg/Kg		94	78 - 132	2	50	
4-Chlorotoluene	0.0500	0.04801		mg/Kg		96	77 - 138	2	50	
cis-1,2-Dichloroethene	0.0500	0.05168		mg/Kg		103	75 - 125	3	50	
cis-1,3-Dichloropropene	0.0500	0.05011		mg/Kg		100	73 - 148	0	50	
1,2-Dibromo-3-Chloropropane	0.0500	0.04404		mg/Kg		88	49 - 142	1	50	
1,2-Dibromoethane (EDB)	0.0500	0.04895		mg/Kg		98	80 - 135	2	50	
Dibromomethane	0.0500	0.05044		mg/Kg		101	71 - 130	1	50	
1,2-Dichlorobenzene	0.0500	0.04780		mg/Kg		96	80 - 134	0	50	
1,3-Dichlorobenzene	0.0500	0.04792		mg/Kg		96	79 - 137	2	50	
1,4-Dichlorobenzene	0.0500	0.04730		mg/Kg		95	77 - 139	1	50	
Dichlorodifluoromethane	0.0500	0.05303		mg/Kg		106	12 - 144	4	50	
1,1-Dichloroethane	0.0500	0.05015		mg/Kg		100	75 - 124	3	50	
1,2-Dichloroethane	0.0500	0.05191		mg/Kg		104	65 - 134	0	50	
1,1-Dichloroethene	0.0500	0.05129		mg/Kg		103	75 - 131	4	50	
1,2-Dichloroethene, Total	0.100	0.1044		mg/Kg		104	75 - 128	3	41	
1,2-Dichloropropane	0.0500	0.05089		mg/Kg		102	69 - 120	2	50	
1,3-Dichloropropane	0.0500	0.04901		mg/Kg		98	78 - 126	0	42	
2,2-Dichloropropane	0.0500	0.04972		mg/Kg		99	68 - 145	4	50	
1,1-Dichloropropene	0.0500	0.05156		mg/Kg		103	79 - 127	2	50	
Diisopropyl ether	0.0500	0.05128		mg/Kg		103	68 - 124	1	45	
Ethylbenzene	0.0500	0.04781		mg/Kg		96	80 - 134	2	50	
Hexachlorobutadiene	0.0500	0.04745		mg/Kg		95	65 - 148	4	50	
2-Hexanone	0.250	0.2389		mg/Kg		96	57 - 148	1	50	
Isopropylbenzene	0.0500	0.04871		mg/Kg		97	80 - 150	3	50	
Methylene Chloride	0.0500	0.04865		mg/Kg		97	68 - 144	1	50	
4-Methyl-2-pentanone (MIBK)	0.250	0.2378		mg/Kg		95	59 - 138	3	50	
Methyl tert-butyl ether	0.0500	0.05153		mg/Kg		103	70 - 136	0	50	
Naphthalene	0.0500	0.04697		mg/Kg		94	69 - 150	1	50	
n-Butylbenzene	0.0500	0.04855		mg/Kg		97	72 - 152	3	50	
N-Propylbenzene	0.0500	0.04746		mg/Kg		95	75 - 137	2	50	
p-Isopropyltoluene	0.0500	0.04770		mg/Kg		95	77 - 141	3	50	
sec-Butylbenzene	0.0500	0.04763		mg/Kg		95	79 - 141	2	50	
Styrene	0.0500	0.04916		mg/Kg		98	82 - 137	2	50	

TestAmerica Nashville



# QC Sample Results

Client: Hart & Hickman, PC  
Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
SDG: DSO-79

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 490-109254/4**

**Matrix: Solid**

**Analysis Batch: 109254**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	RPD Limit
tert-Butylbenzene	0.0500	0.04746		mg/Kg		95	80 - 132	2	50	
1,1,1,2-Tetrachloroethane	0.0500	0.04824		mg/Kg		96	80 - 136	0	50	
1,1,2,2-Tetrachloroethane	0.0500	0.04544		mg/Kg		91	66 - 134	2	50	
Tetrachloroethene	0.0500	0.04995		mg/Kg		100	78 - 140	1	50	
Toluene	0.0500	0.04932		mg/Kg		99	80 - 132	1	50	
trans-1,2-Dichloroethene	0.0500	0.05271		mg/Kg		105	76 - 128	4	50	
trans-1,3-Dichloropropene	0.0500	0.04981		mg/Kg		100	62 - 139	1	50	
1,2,3-Trichlorobenzene	0.0500	0.04865		mg/Kg		97	70 - 150	2	50	
1,2,4-Trichlorobenzene	0.0500	0.04910		mg/Kg		98	62 - 150	3	50	
1,1,1-Trichloroethane	0.0500	0.05249		mg/Kg		105	72 - 140	3	50	
1,1,2-Trichloroethane	0.0500	0.04666		mg/Kg		93	78 - 128	0	50	
Trichloroethene	0.0500	0.05301		mg/Kg		106	77 - 127	2	50	
Trichlorofluoromethane	0.0500	0.05410		mg/Kg		108	50 - 140	1	50	
1,2,3-Trichloropropane	0.0500	0.04374		mg/Kg		87	65 - 139	0	50	
1,2,4-Trimethylbenzene	0.0500	0.04660		mg/Kg		93	77 - 139	2	50	
1,3,5-Trimethylbenzene	0.0500	0.04668		mg/Kg		93	78 - 138	3	50	
Vinyl chloride	0.0500	0.05258		mg/Kg		105	47 - 136	5	50	
Xylenes, Total	0.100	0.09440		mg/Kg		94	80 - 137	2	50	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	99		70 - 130
Dibromofluoromethane (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
Toluene-d8 (Surr)	100		70 - 130

**Lab Sample ID: MB 490-110236/7**

**Matrix: Solid**

**Analysis Batch: 110236**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	ND		0.0500		mg/Kg			09/27/13 11:57	1
Benzene	ND		0.00200		mg/Kg			09/27/13 11:57	1
Bromobenzene	ND		0.00200		mg/Kg			09/27/13 11:57	1
Bromochloromethane	ND		0.00200		mg/Kg			09/27/13 11:57	1
Bromodichloromethane	ND		0.00200		mg/Kg			09/27/13 11:57	1
Bromoform	ND		0.00200		mg/Kg			09/27/13 11:57	1
Bromomethane	ND		0.00200		mg/Kg			09/27/13 11:57	1
2-Butanone (MEK)	ND		0.0500		mg/Kg			09/27/13 11:57	1
Carbon disulfide	ND		0.00500		mg/Kg			09/27/13 11:57	1
Carbon tetrachloride	ND		0.00200		mg/Kg			09/27/13 11:57	1
Chlorobenzene	ND		0.00200		mg/Kg			09/27/13 11:57	1
Chlorodibromomethane	ND		0.00200		mg/Kg			09/27/13 11:57	1
Chloroethane	ND		0.00500		mg/Kg			09/27/13 11:57	1
Chloroform	ND		0.00200		mg/Kg			09/27/13 11:57	1
Chloromethane	ND		0.00200		mg/Kg			09/27/13 11:57	1
2-Chlorotoluene	ND		0.00200		mg/Kg			09/27/13 11:57	1
4-Chlorotoluene	ND		0.00200		mg/Kg			09/27/13 11:57	1
cis-1,2-Dichloroethene	ND		0.00200		mg/Kg			09/27/13 11:57	1

TestAmerica Nashville

# QC Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-110236/7

Matrix: Solid

Analysis Batch: 110236

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,2-Dibromo-3-Chloropropane	ND		0.00500		mg/Kg			09/27/13 11:57	1
1,2-Dibromoethane (EDB)	ND		0.00200		mg/Kg			09/27/13 11:57	1
Dibromomethane	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,2-Dichlorobenzene	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,3-Dichlorobenzene	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,4-Dichlorobenzene	ND		0.00200		mg/Kg			09/27/13 11:57	1
Dichlorodifluoromethane	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,1-Dichloroethane	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,2-Dichloroethane	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,1-Dichloroethene	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,2-Dichloroethene, Total	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,2-Dichloropropane	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,3-Dichloropropane	ND		0.00200		mg/Kg			09/27/13 11:57	1
2,2-Dichloropropane	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,1-Dichloropropene	ND		0.00200		mg/Kg			09/27/13 11:57	1
Diisopropyl ether	ND		0.00200		mg/Kg			09/27/13 11:57	1
Ethylbenzene	ND		0.00200		mg/Kg			09/27/13 11:57	1
Hexachlorobutadiene	ND		0.00500		mg/Kg			09/27/13 11:57	1
2-Hexanone	ND		0.0500		mg/Kg			09/27/13 11:57	1
Isopropylbenzene	ND		0.00200		mg/Kg			09/27/13 11:57	1
Methylene Chloride	ND		0.0100		mg/Kg			09/27/13 11:57	1
4-Methyl-2-pentanone (MIBK)	ND		0.0500		mg/Kg			09/27/13 11:57	1
Methyl tert-butyl ether	ND		0.00200		mg/Kg			09/27/13 11:57	1
Naphthalene	ND		0.00500		mg/Kg			09/27/13 11:57	1
n-Butylbenzene	ND		0.00200		mg/Kg			09/27/13 11:57	1
N-Propylbenzene	ND		0.00200		mg/Kg			09/27/13 11:57	1
p-Isopropyltoluene	ND		0.00200		mg/Kg			09/27/13 11:57	1
sec-Butylbenzene	ND		0.00200		mg/Kg			09/27/13 11:57	1
Styrene	ND		0.00200		mg/Kg			09/27/13 11:57	1
tert-Butylbenzene	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,1,1,2-Tetrachloroethane	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,1,2,2-Tetrachloroethane	ND		0.00200		mg/Kg			09/27/13 11:57	1
Tetrachloroethene	ND		0.00200		mg/Kg			09/27/13 11:57	1
Toluene	ND		0.00200		mg/Kg			09/27/13 11:57	1
trans-1,2-Dichloroethene	ND		0.00200		mg/Kg			09/27/13 11:57	1
trans-1,3-Dichloropropene	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,2,3-Trichlorobenzene	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,2,4-Trichlorobenzene	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,1,1-Trichloroethane	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,1,2-Trichloroethane	ND		0.00500		mg/Kg			09/27/13 11:57	1
Trichloroethene	ND		0.00200		mg/Kg			09/27/13 11:57	1
Trichlorofluoromethane	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,2,3-Trichloropropane	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,2,4-Trimethylbenzene	ND		0.00200		mg/Kg			09/27/13 11:57	1
1,3,5-Trimethylbenzene	ND		0.00200		mg/Kg			09/27/13 11:57	1
Vinyl chloride	ND		0.00200		mg/Kg			09/27/13 11:57	1
Xylenes, Total	ND		0.00300		mg/Kg			09/27/13 11:57	1

TestAmerica Nashville

# QC Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 490-110236/7**

**Matrix: Solid**

**Analysis Batch: 110236**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	103		70 - 130		09/27/13 11:57	1
Dibromofluoromethane (Surr)	94		70 - 130		09/27/13 11:57	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		09/27/13 11:57	1
Toluene-d8 (Surr)	94		70 - 130		09/27/13 11:57	1

**Lab Sample ID: LCS 490-110236/3**

**Matrix: Solid**

**Analysis Batch: 110236**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Acetone	0.250	0.2360		mg/Kg		94	51 - 149
Benzene	0.0500	0.04489		mg/Kg		90	75 - 127
Bromobenzene	0.0500	0.05540		mg/Kg		111	75 - 130
Bromochloromethane	0.0500	0.04473		mg/Kg		89	70 - 132
Bromodichloromethane	0.0500	0.04398		mg/Kg		88	68 - 135
Bromoform	0.0500	0.04573		mg/Kg		91	36 - 150
Bromomethane	0.0500	0.03979		mg/Kg		80	43 - 142
2-Butanone (MEK)	0.250	0.2175		mg/Kg		87	61 - 132
Carbon disulfide	0.0500	0.05068		mg/Kg		101	74 - 135
Carbon tetrachloride	0.0500	0.04712		mg/Kg		94	70 - 141
Chlorobenzene	0.0500	0.05132		mg/Kg		103	84 - 125
Chlorodibromomethane	0.0500	0.04821		mg/Kg		96	66 - 134
Chloroethane	0.0500	0.04823		mg/Kg		96	53 - 144
Chloroform	0.0500	0.04495		mg/Kg		90	76 - 130
Chloromethane	0.0500	0.05440		mg/Kg		109	23 - 150
2-Chlorotoluene	0.0500	0.05641		mg/Kg		113	78 - 132
4-Chlorotoluene	0.0500	0.05660		mg/Kg		113	77 - 138
cis-1,2-Dichloroethene	0.0500	0.04939		mg/Kg		99	75 - 125
cis-1,3-Dichloropropene	0.0500	0.04334		mg/Kg		87	73 - 148
1,2-Dibromo-3-Chloropropane	0.0500	0.05219		mg/Kg		104	49 - 142
1,2-Dibromoethane (EDB)	0.0500	0.05029		mg/Kg		101	80 - 135
Dibromomethane	0.0500	0.04369		mg/Kg		87	71 - 130
1,2-Dichlorobenzene	0.0500	0.05360		mg/Kg		107	80 - 134
1,3-Dichlorobenzene	0.0500	0.05748		mg/Kg		115	79 - 137
1,4-Dichlorobenzene	0.0500	0.05651		mg/Kg		113	77 - 139
Dichlorodifluoromethane	0.0500	0.05459		mg/Kg		109	12 - 144
1,1-Dichloroethane	0.0500	0.04817		mg/Kg		96	75 - 124
1,2-Dichloroethane	0.0500	0.04981		mg/Kg		100	65 - 134
1,1-Dichloroethene	0.0500	0.04747		mg/Kg		95	75 - 131
1,2-Dichloroethene, Total	0.100	0.09975		mg/Kg		100	75 - 128
1,2-Dichloropropane	0.0500	0.04569		mg/Kg		91	69 - 120
1,3-Dichloropropane	0.0500	0.05181		mg/Kg		104	78 - 126
2,2-Dichloropropane	0.0500	0.04582		mg/Kg		92	68 - 145
1,1-Dichloropropene	0.0500	0.04808		mg/Kg		96	79 - 127
Diisopropyl ether	0.0500	0.04740		mg/Kg		95	68 - 124
Ethylbenzene	0.0500	0.05216		mg/Kg		104	80 - 134
Hexachlorobutadiene	0.0500	0.06473		mg/Kg		129	65 - 148
2-Hexanone	0.250	0.2530		mg/Kg		101	57 - 148

TestAmerica Nashville

# QC Sample Results

Client: Hart & Hickman, PC  
Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
SDG: DSO-79

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 490-110236/3**

**Matrix: Solid**

**Analysis Batch: 110236**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropylbenzene	0.0500	0.05228		mg/Kg		105	80 - 150
Methylene Chloride	0.0500	0.04435		mg/Kg		89	68 - 144
4-Methyl-2-pentanone (MIBK)	0.250	0.2053		mg/Kg		82	59 - 138
Methyl tert-butyl ether	0.0500	0.04546		mg/Kg		91	70 - 136
Naphthalene	0.0500	0.05567		mg/Kg		111	69 - 150
n-Butylbenzene	0.0500	0.05728		mg/Kg		115	72 - 152
N-Propylbenzene	0.0500	0.05691		mg/Kg		114	75 - 137
p-Isopropyltoluene	0.0500	0.05679		mg/Kg		114	77 - 141
sec-Butylbenzene	0.0500	0.05687		mg/Kg		114	79 - 141
Styrene	0.0500	0.05002		mg/Kg		100	82 - 137
tert-Butylbenzene	0.0500	0.05507		mg/Kg		110	80 - 132
1,1,1,2-Tetrachloroethane	0.0500	0.04969		mg/Kg		99	80 - 136
1,1,2,2-Tetrachloroethane	0.0500	0.05251		mg/Kg		105	66 - 134
Tetrachloroethene	0.0500	0.05495		mg/Kg		110	78 - 140
Toluene	0.0500	0.05104		mg/Kg		102	80 - 132
trans-1,2-Dichloroethene	0.0500	0.05036		mg/Kg		101	76 - 128
trans-1,3-Dichloropropene	0.0500	0.04982		mg/Kg		100	62 - 139
1,2,3-Trichlorobenzene	0.0500	0.06237		mg/Kg		125	70 - 150
1,2,4-Trichlorobenzene	0.0500	0.06469		mg/Kg		129	62 - 150
1,1,1-Trichloroethane	0.0500	0.04754		mg/Kg		95	72 - 140
1,1,2-Trichloroethane	0.0500	0.04846		mg/Kg		97	78 - 128
Trichloroethene	0.0500	0.04829		mg/Kg		97	77 - 127
Trichlorofluoromethane	0.0500	0.05175		mg/Kg		104	50 - 140
1,2,3-Trichloropropane	0.0500	0.04971		mg/Kg		99	65 - 139
1,2,4-Trimethylbenzene	0.0500	0.05564		mg/Kg		111	77 - 139
1,3,5-Trimethylbenzene	0.0500	0.05554		mg/Kg		111	78 - 138
Vinyl chloride	0.0500	0.05555		mg/Kg		111	47 - 136
Xylenes, Total	0.100	0.1002		mg/Kg		100	80 - 137

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	105		70 - 130
Dibromofluoromethane (Surr)	97		70 - 130
1,2-Dichloroethane-d4 (Surr)	111		70 - 130
Toluene-d8 (Surr)	97		70 - 130

**Lab Sample ID: LCSD 490-110236/4**

**Matrix: Solid**

**Analysis Batch: 110236**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
								RPD	Limit
Acetone	0.250	0.2505		mg/Kg		100	51 - 149	6	50
Benzene	0.0500	0.04365		mg/Kg		87	75 - 127	3	50
Bromobenzene	0.0500	0.05400		mg/Kg		108	75 - 130	3	50
Bromochloromethane	0.0500	0.04477		mg/Kg		90	70 - 132	0	50
Bromodichloromethane	0.0500	0.04382		mg/Kg		88	68 - 135	0	50
Bromoform	0.0500	0.04776		mg/Kg		96	36 - 150	4	50
Bromomethane	0.0500	0.03831		mg/Kg		77	43 - 142	4	50
2-Butanone (MEK)	0.250	0.2275		mg/Kg		91	61 - 132	4	50

TestAmerica Nashville

# QC Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 490-110236/4**

**Matrix: Solid**

**Analysis Batch: 110236**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
								RPD	Limit
Carbon disulfide	0.0500	0.04537		mg/Kg		91	74 - 135	11	50
Carbon tetrachloride	0.0500	0.04502		mg/Kg		90	70 - 141	5	50
Chlorobenzene	0.0500	0.04981		mg/Kg		100	84 - 125	3	50
Chlorodibromomethane	0.0500	0.04873		mg/Kg		97	66 - 134	1	50
Chloroethane	0.0500	0.04531		mg/Kg		91	53 - 144	6	50
Chloroform	0.0500	0.04396		mg/Kg		88	76 - 130	2	49
Chloromethane	0.0500	0.05264		mg/Kg		105	23 - 150	3	50
2-Chlorotoluene	0.0500	0.05355		mg/Kg		107	78 - 132	5	50
4-Chlorotoluene	0.0500	0.05376		mg/Kg		108	77 - 138	5	50
cis-1,2-Dichloroethene	0.0500	0.04761		mg/Kg		95	75 - 125	4	50
cis-1,3-Dichloropropene	0.0500	0.04248		mg/Kg		85	73 - 148	2	50
1,2-Dibromo-3-Chloropropane	0.0500	0.05462		mg/Kg		109	49 - 142	5	50
1,2-Dibromoethane (EDB)	0.0500	0.05185		mg/Kg		104	80 - 135	3	50
Dibromomethane	0.0500	0.04509		mg/Kg		90	71 - 130	3	50
1,2-Dichlorobenzene	0.0500	0.05224		mg/Kg		104	80 - 134	3	50
1,3-Dichlorobenzene	0.0500	0.05425		mg/Kg		108	79 - 137	6	50
1,4-Dichlorobenzene	0.0500	0.05272		mg/Kg		105	77 - 139	7	50
Dichlorodifluoromethane	0.0500	0.05341		mg/Kg		107	12 - 144	2	50
1,1-Dichloroethane	0.0500	0.04707		mg/Kg		94	75 - 124	2	50
1,2-Dichloroethane	0.0500	0.04997		mg/Kg		100	65 - 134	0	50
1,1-Dichloroethene	0.0500	0.04571		mg/Kg		91	75 - 131	4	50
1,2-Dichloroethene, Total	0.100	0.09610		mg/Kg		96	75 - 128	4	41
1,2-Dichloropropane	0.0500	0.04412		mg/Kg		88	69 - 120	3	50
1,3-Dichloropropane	0.0500	0.05233		mg/Kg		105	78 - 126	1	42
2,2-Dichloropropane	0.0500	0.04420		mg/Kg		88	68 - 145	4	50
1,1-Dichloropropene	0.0500	0.04646		mg/Kg		93	79 - 127	3	50
Diisopropyl ether	0.0500	0.04666		mg/Kg		93	68 - 124	2	45
Ethylbenzene	0.0500	0.04967		mg/Kg		99	80 - 134	5	50
Hexachlorobutadiene	0.0500	0.06105		mg/Kg		122	65 - 148	6	50
2-Hexanone	0.250	0.2692		mg/Kg		108	57 - 148	6	50
Isopropylbenzene	0.0500	0.04987		mg/Kg		100	80 - 150	5	50
Methylene Chloride	0.0500	0.04429		mg/Kg		89	68 - 144	0	50
4-Methyl-2-pentanone (MIBK)	0.250	0.2161		mg/Kg		86	59 - 138	5	50
Methyl tert-butyl ether	0.0500	0.04610		mg/Kg		92	70 - 136	1	50
Naphthalene	0.0500	0.05657		mg/Kg		113	69 - 150	2	50
n-Butylbenzene	0.0500	0.05395		mg/Kg		108	72 - 152	6	50
N-Propylbenzene	0.0500	0.05351		mg/Kg		107	75 - 137	6	50
p-Isopropyltoluene	0.0500	0.05344		mg/Kg		107	77 - 141	6	50
sec-Butylbenzene	0.0500	0.05352		mg/Kg		107	79 - 141	6	50
Styrene	0.0500	0.04879		mg/Kg		98	82 - 137	2	50
tert-Butylbenzene	0.0500	0.05277		mg/Kg		106	80 - 132	4	50
1,1,1,2-Tetrachloroethane	0.0500	0.04855		mg/Kg		97	80 - 136	2	50
1,1,2,2-Tetrachloroethane	0.0500	0.05432		mg/Kg		109	66 - 134	3	50
Tetrachloroethene	0.0500	0.05225		mg/Kg		105	78 - 140	5	50
Toluene	0.0500	0.04931		mg/Kg		99	80 - 132	3	50
trans-1,2-Dichloroethene	0.0500	0.04849		mg/Kg		97	76 - 128	4	50
trans-1,3-Dichloropropene	0.0500	0.05043		mg/Kg		101	62 - 139	1	50
1,2,3-Trichlorobenzene	0.0500	0.06070		mg/Kg		121	70 - 150	3	50

TestAmerica Nashville

# QC Sample Results

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID:** LCSD 490-110236/4  
**Matrix:** Solid  
**Analysis Batch:** 110236

**Client Sample ID:** Lab Control Sample Dup  
**Prep Type:** Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
								RPD	Limit
1,2,4-Trichlorobenzene	0.0500	0.06082		mg/Kg		122	62 - 150	6	50
1,1,1-Trichloroethane	0.0500	0.04575		mg/Kg		91	72 - 140	4	50
1,1,2-Trichloroethane	0.0500	0.04927		mg/Kg		99	78 - 128	2	50
Trichloroethene	0.0500	0.04660		mg/Kg		93	77 - 127	4	50
Trichlorofluoromethane	0.0500	0.04831		mg/Kg		97	50 - 140	7	50
1,2,3-Trichloropropane	0.0500	0.05106		mg/Kg		102	65 - 139	3	50
1,2,4-Trimethylbenzene	0.0500	0.05244		mg/Kg		105	77 - 139	6	50
1,3,5-Trimethylbenzene	0.0500	0.05256		mg/Kg		105	78 - 138	6	50
Vinyl chloride	0.0500	0.05365		mg/Kg		107	47 - 136	3	50
Xylenes, Total	0.100	0.09623		mg/Kg		96	80 - 137	4	50

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	103		70 - 130
Dibromofluoromethane (Surr)	98		70 - 130
1,2-Dichloroethane-d4 (Surr)	114		70 - 130
Toluene-d8 (Surr)	97		70 - 130

## Method: Moisture - Percent Moisture

**Lab Sample ID:** 490-35894-D-4 DU  
**Matrix:** Solid  
**Analysis Batch:** 109067

**Client Sample ID:** Duplicate  
**Prep Type:** Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD
								Limit
Percent Solids	92		91		%		2	20

# QC Association Summary

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

## GC/MS VOA

### Analysis Batch: 109014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-35939-2	SGMP-1 4-5'	Total/NA	Solid	8260B	109045
490-35939-8	SB-29 3-4'	Total/NA	Solid	8260B	109045
LCS 490-109014/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-109014/5	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-109014/7	Method Blank	Total/NA	Solid	8260B	

### Prep Batch: 109044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-35939-1	SGMP-1 2-3'	Total/NA	Solid	5035	
490-35939-2	SGMP-1 4-5'	Total/NA	Solid	5035	
490-35939-3	SGMP-3 1-2'	Total/NA	Solid	5035	
490-35939-4	SGMP-3 3-4'	Total/NA	Solid	5035	
490-35939-5	SGMP-6 2-3'	Total/NA	Solid	5035	
490-35939-6	SGMP-6 3-4'	Total/NA	Solid	5035	
490-35939-7	SB-29 0-1'	Total/NA	Solid	5035	
490-35939-8	SB-29 3-4'	Total/NA	Solid	5035	

### Prep Batch: 109045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-35939-2	SGMP-1 4-5'	Total/NA	Solid	5035	
490-35939-8	SB-29 3-4'	Total/NA	Solid	5035	

### Analysis Batch: 109254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-35939-1	SGMP-1 2-3'	Total/NA	Solid	8260B	109044
490-35939-2	SGMP-1 4-5'	Total/NA	Solid	8260B	109044
490-35939-3	SGMP-3 1-2'	Total/NA	Solid	8260B	109044
490-35939-5	SGMP-6 2-3'	Total/NA	Solid	8260B	109044
490-35939-6	SGMP-6 3-4'	Total/NA	Solid	8260B	109044
490-35939-7	SB-29 0-1'	Total/NA	Solid	8260B	109044
LCS 490-109254/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-109254/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-109254/7	Method Blank	Total/NA	Solid	8260B	

### Analysis Batch: 110236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-35939-4	SGMP-3 3-4'	Total/NA	Solid	8260B	109044
490-35939-8	SB-29 3-4'	Total/NA	Solid	8260B	109044
LCS 490-110236/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-110236/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-110236/7	Method Blank	Total/NA	Solid	8260B	

## General Chemistry

### Analysis Batch: 109067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-35894-D-4 DU	Duplicate	Total/NA	Solid	Moisture	
490-35939-1	SGMP-1 2-3'	Total/NA	Solid	Moisture	
490-35939-2	SGMP-1 4-5'	Total/NA	Solid	Moisture	
490-35939-3	SGMP-3 1-2'	Total/NA	Solid	Moisture	

TestAmerica Nashville

# QC Association Summary

Client: Hart & Hickman, PC  
Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
SDG: DSO-79

## General Chemistry (Continued)

### Analysis Batch: 109067 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-35939-4	SGMP-3 3-4'	Total/NA	Solid	Moisture	
490-35939-5	SGMP-6 2-3'	Total/NA	Solid	Moisture	
490-35939-6	SGMP-6 3-4'	Total/NA	Solid	Moisture	
490-35939-7	SB-29 0-1'	Total/NA	Solid	Moisture	
490-35939-8	SB-29 3-4'	Total/NA	Solid	Moisture	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13



## Lab Chronicle

Client: Hart & Hickman, PC  
Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
SDG: DSO-79

### Client Sample ID: SGMP-1 2-3'

Lab Sample ID: 490-35939-1

Date Collected: 09/20/13 15:46  
Date Received: 09/21/13 08:40

Matrix: Solid  
Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			109044	09/23/13 10:08	GLN	TAL NSH
Total/NA	Analysis	8260B		1	109254	09/24/13 15:06	KKK	TAL NSH
Total/NA	Analysis	Moisture		1	109067	09/23/13 10:47	RRS	TAL NSH

### Client Sample ID: SGMP-1 4-5'

Lab Sample ID: 490-35939-2

Date Collected: 09/20/13 15:50  
Date Received: 09/21/13 08:40

Matrix: Solid  
Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			109045	09/23/13 10:18	GLN	TAL NSH
Total/NA	Analysis	8260B		1	109014	09/23/13 14:40	KKK	TAL NSH
Total/NA	Prep	5035			109044	09/23/13 10:08	GLN	TAL NSH
Total/NA	Analysis	8260B		1	109254	09/24/13 17:06	KKK	TAL NSH
Total/NA	Analysis	Moisture		1	109067	09/23/13 10:47	RRS	TAL NSH

### Client Sample ID: SGMP-3 1-2'

Lab Sample ID: 490-35939-3

Date Collected: 09/20/13 15:55  
Date Received: 09/21/13 08:40

Matrix: Solid  
Percent Solids: 91.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			109044	09/23/13 10:08	GLN	TAL NSH
Total/NA	Analysis	8260B		1	109254	09/24/13 14:05	KKK	TAL NSH
Total/NA	Analysis	Moisture		1	109067	09/23/13 10:47	RRS	TAL NSH

### Client Sample ID: SGMP-3 3-4'

Lab Sample ID: 490-35939-4

Date Collected: 09/20/13 15:58  
Date Received: 09/21/13 08:40

Matrix: Solid  
Percent Solids: 84.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			109044	09/23/13 10:08	GLN	TAL NSH
Total/NA	Analysis	8260B		1	110236	09/27/13 12:27	KKK	TAL NSH
Total/NA	Analysis	Moisture		1	109067	09/23/13 10:47	RRS	TAL NSH

### Client Sample ID: SGMP-6 2-3'

Lab Sample ID: 490-35939-5

Date Collected: 09/20/13 16:05  
Date Received: 09/21/13 08:40

Matrix: Solid  
Percent Solids: 76.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			109044	09/23/13 10:08	GLN	TAL NSH
Total/NA	Analysis	8260B		1	109254	09/24/13 14:35	KKK	TAL NSH
Total/NA	Analysis	Moisture		1	109067	09/23/13 10:47	RRS	TAL NSH

# Lab Chronicle

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

**Client Sample ID: SGMP-6 3-4'**

**Lab Sample ID: 490-35939-6**

**Date Collected: 09/20/13 16:10**

**Matrix: Solid**

**Date Received: 09/21/13 08:40**

**Percent Solids: 86.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			109044	09/23/13 10:08	GLN	TAL NSH
Total/NA	Analysis	8260B		1	109254	09/24/13 16:06	KKK	TAL NSH
Total/NA	Analysis	Moisture		1	109067	09/23/13 10:47	RRS	TAL NSH

**Client Sample ID: SB-29 0-1'**

**Lab Sample ID: 490-35939-7**

**Date Collected: 09/20/13 15:40**

**Matrix: Solid**

**Date Received: 09/21/13 08:40**

**Percent Solids: 81.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			109044	09/23/13 10:08	GLN	TAL NSH
Total/NA	Analysis	8260B		1	109254	09/24/13 16:36	KKK	TAL NSH
Total/NA	Analysis	Moisture		1	109067	09/23/13 10:47	RRS	TAL NSH

**Client Sample ID: SB-29 3-4'**

**Lab Sample ID: 490-35939-8**

**Date Collected: 09/20/13 15:42**

**Matrix: Solid**

**Date Received: 09/21/13 08:40**

**Percent Solids: 83.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			109045	09/23/13 10:18	GLN	TAL NSH
Total/NA	Analysis	8260B		1	109014	09/23/13 17:43	KKK	TAL NSH
Total/NA	Prep	5035			109044	09/23/13 10:08	GLN	TAL NSH
Total/NA	Analysis	8260B		1	110236	09/27/13 12:57	KKK	TAL NSH
Total/NA	Analysis	Moisture		1	109067	09/23/13 10:47	RRS	TAL NSH

**Laboratory References:**

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

# Method Summary

Client: Hart & Hickman, PC  
Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
SDG: DSO-79

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
Moisture	Percent Moisture	EPA	TAL NSH

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177



# Certification Summary

Client: Hart & Hickman, PC  
 Project/Site: Rollins Economy Cleaners

TestAmerica Job ID: 490-35939-1  
 SDG: DSO-79

## Laboratory: TestAmerica Nashville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-13
Alaska (UST)	State Program	10	UST-087	07-24-14
Arizona	State Program	9	AZ0473	05-05-14
Arizona	State Program	9	AZ0473	05-05-14 *
Arkansas DEQ	State Program	6	88-0737	04-25-14
California	NELAP	9	1168CA	10-31-13
Canadian Assoc Lab Accred (CALA)	Canada		3744	03-08-14
Connecticut	State Program	1	PH-0220	12-31-13
Florida	NELAP	4	E87358	06-30-14
Illinois	NELAP	5	200010	12-09-13
Iowa	State Program	7	131	05-01-14
Kansas	NELAP	7	E-10229	10-31-13
Kentucky (UST)	State Program	4	19	06-30-14
Louisiana	NELAP	6	30613	06-30-14
Maryland	State Program	3	316	03-31-14
Massachusetts	State Program	1	M-TN032	06-30-14
Minnesota	NELAP	5	047-999-345	12-31-13
Mississippi	State Program	4	N/A	06-30-14
Montana (UST)	State Program	8	NA	01-01-20
Nevada	State Program	9	TN00032	07-31-14
New Hampshire	NELAP	1	2963	10-10-13
New Jersey	NELAP	2	TN965	06-30-14
New York	NELAP	2	11342	04-01-14
North Carolina DENR	State Program	4	387	12-31-13
North Dakota	State Program	8	R-146	06-30-14
Ohio VAP	State Program	5	CL0033	01-19-14
Oklahoma	State Program	6	9412	08-31-14
Oregon	NELAP	10	TN200001	04-29-14
Pennsylvania	NELAP	3	68-00585	06-30-14
Rhode Island	State Program	1	LAO00268	12-30-13
South Carolina	State Program	4	84009 (001)	02-28-14
Tennessee	State Program	4	2008	02-23-14
Texas	NELAP	6	T104704077-09-TX	08-31-14
USDA	Federal		S-48469	11-02-13
Utah	NELAP	8	TN00032	07-31-14
Virginia	NELAP	3	460152	06-14-14
Washington	State Program	10	C789	07-19-14
West Virginia DEP	State Program	3	219	02-28-14
Wisconsin	State Program	5	998020430	08-31-14
Wyoming (UST)	A2LA	8	453.07	12-31-13

\* Expired certification is currently pending renewal and is considered valid.

**COOLER RECEIPT FORM**



Cooler Received/Opened On: 9/21/2013 @0840

1. Tracking # 1417 (last 4 digits, FedEx)

Courier: Fed-Ex IR Gun ID: 14740456

2. Temperature of rep. sample or temp blank when opened: 5.4 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) EF

7. Were custody seals on containers: YES NO and intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # \_\_\_\_\_

I certify that I unloaded the cooler and answered questions 7-14 (initial) AJH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) AJH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) AJH

I certify that I attached a label with the unique LIMS number to each container (initial) AJH

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO..# 80051

AJH  
9/21/13

AJH  
9/21/13

**Chain of Custody Record**

**TestAmerica Nashville**  
2960 Foster Creighton Drive

Nashville, TN 37204  
phone 615.726.0177 fax 615.726.3403

**TestAmerica Laboratories, Inc.**

COC No: \_\_\_\_\_ of \_\_\_\_\_ COCs

Sampler: \_\_\_\_\_  
For Lab Use Only:  
Walk-in Client: \_\_\_\_\_  
Lab Sampling: \_\_\_\_\_  
Job / SDG No.: \_\_\_\_\_

Date: \_\_\_\_\_  
Carrier: \_\_\_\_\_

Site Contact: \_\_\_\_\_  
Lab Contact: \_\_\_\_\_  
VCSs by 8210

Regulatory Program:  DW  NPDES  RCRA  Other: \_\_\_\_\_  
Project Manager: Timothy Klotz  
Tel/Fax: tklotz@harthickman.com  
Analysis Turnaround Time  
 CALENDAR DAYS  WORKING DAYS  
TAT if different from Below \_\_\_\_\_  
 2 weeks  
 1 week  
 2 days  
 1 day

Client Contact  
Hart & Hickman  
3334 Hillsborough Street  
Raleigh, NC 27607  
919-847-4241 Phone  
(xxx) xxx-xxxx FAX  
Project Name: Rollins Economy Cleaners  
Site: DS0-79  
P O # DS0-79

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)		Perform MS / MSD (Y/N)		Sample Specific Notes:
						Y	N	Y	N	
SGMP-1 2-3'	9-20-13	1546	G	S	4					
SGMP-1 4-5'	9-20-13	1550	G	S	4					
SGMP-3 1-2'	9-20-13	1555	G	S	4					
SGMP-3 3-4'	9-20-13	1558	G	S	4					
SGMP-6 2-3'	9-20-13	1605	G	S	4					
SGMP-6 3-4'	9-20-13	1610	G	S	4					
SB-29 0-1'	9-20-13	1540	G	S	4					
SB-29 3-4'	9-20-13	1542	G	S	4					

Loc: 490  
**35939**

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other \_\_\_\_\_  
Possible Hazard Identification:  
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

Special Instructions/QC Requirements & Comments:  
 Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months

Cooler Temp. (°C): Obs'd: _____	Therm ID No.: _____
Received by: <i>John Hickey</i>	Company: <i>TAN 54</i>
Date/Time: 9-20-13 1700	Date/Time: 9/21/13 9:40
Received by: <i>John Hickey</i>	Company: _____
Date/Time: _____	Date/Time: _____
Received in Laboratory by: _____	Company: _____
Date/Time: _____	Date/Time: _____



## Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 490-35939-1

SDG Number: DSO-79

**Login Number: 35939**

**List Number: 1**

**Creator: Huskey, Adam**

**List Source: TestAmerica Nashville**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Analyses listed on COC; individual samples not designated for specific analyses
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	







October 7, 2013

Tim Klotz  
Hart & Hickman - Raleigh, NC  
3334 Hillsborough Street  
Raleigh, NC 27607

Project Location: Rollins Economy Cleaners  
Client Job Number:  
Project Number: DS0-79  
Laboratory Work Order Number: 1310935

Enclosed are results of analyses for samples received by the laboratory on September 26, 2013. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Lisa A. Worthington  
Project Manager



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Hart & Hickman - Raleigh, NC  
3334 Hillsborough Street  
Raleigh, NC 27607  
ATTN: Tim Klotz

REPORT DATE: 10/7/2013

PURCHASE ORDER NUMBER:

PROJECT NUMBER: DS0-79

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 1310935

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Rollins Economy Cleaners

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SGMP-1	1310935-01	Soil Gas		EPA TO-15	
SGMP-2	1310935-02	Soil Gas		EPA TO-15	
SGMP-3	1310935-03	Soil Gas		EPA TO-15	
SGMP-4	1310935-04	Soil Gas		EPA TO-15	
SGMP-5	1310935-05	Soil Gas		EPA TO-15	
SGMP-6	1310935-06	Soil Gas		EPA TO-15	
SGMP-7	1310935-07	Soil Gas		EPA TO-15	
SGMP-8	1310935-08	Soil Gas		EPA TO-15	
SGMP-9	1310935-09	Soil Gas		EPA TO-15	
SSVP-1	1310935-10	Sub Slab		EPA TO-15	
SSVP-2	1310935-11	Sub Slab		EPA TO-15	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

**EPA TO-15**

**Qualifications:**

---

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.

**Analyte & Samples(s) Qualified:**

**Naphthalene**

1310935-01[SGMP-1], 1310935-02[SGMP-2], 1310935-03[SGMP-3], 1310935-04[SGMP-4], 1310935-05[SGMP-5], 1310935-07[SGMP-7], 1310935-08[SGMP-8], 1310935-09[SGMP-9], 1310935-10[SSVP-1], 1310935-11[SSVP-2], B082109-BLK1, B082109-BS1, B082111-BLK1, B082111-BS1, B082111-DUP1

---

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.

**Analyte & Samples(s) Qualified:**

**Acetone**

1310935-01[SGMP-1], 1310935-05[SGMP-5], 1310935-11[SSVP-2], B082111-BS1, B082111-DUP1

---

Continuing calibration did not meet method specifications and was biased on the high side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the high side.

**Analyte & Samples(s) Qualified:**

**Acetone**

1310935-01[SGMP-1], 1310935-03[SGMP-3], 1310935-04[SGMP-4], 1310935-05[SGMP-5], 1310935-08[SGMP-8], 1310935-09[SGMP-9], 1310935-10[SSVP-1], 1310935-11[SSVP-2], B082109-BS1, B082111-BS1, B082111-DUP1

---

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Michael A. Erickson  
Laboratory Director

**ANALYTICAL RESULTS**

Project Location: Rollins Economy Cleaners  
 Date Received: 9/26/2013  
**Field Sample #: SGMP-1**  
**Sample ID: 1310935-01**  
 Sample Matrix: Soil Gas  
 Sampled: 9/20/2013 14:40

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1542  
 Canister Size: 1 liter  
 Flow Controller ID: 3042  
 Sample Type: 1 hr

**Work Order: 1310935**  
 Initial Vacuum(in Hg): -27  
 Final Vacuum(in Hg): -2  
 Receipt Vacuum(in Hg): -2.6  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time Analyzed	Analyst
	Results	RL	MDL		Results	RL			
Acetone	57	40	14	L-05, V-06	140	95	20	9/28/13 20:00	WSD
n-Butylbenzene	ND	2.9	0.66		ND	16	20	9/28/13 20:00	WSD
sec-Butylbenzene	ND	2.3	0.78		ND	13	20	9/28/13 20:00	WSD
tert-Butylbenzene	ND	2.3	0.86		ND	13	20	9/28/13 20:00	WSD
1,1-Dichloroethylene	ND	1.0	0.24		ND	4.0	20	9/28/13 20:00	WSD
cis-1,2-Dichloroethylene	36	1.0	0.38		140	4.0	20	9/28/13 20:00	WSD
trans-1,2-Dichloroethylene	15	1.0	0.26		59	4.0	20	9/28/13 20:00	WSD
Ethylbenzene	2.3	1.0	0.28		9.9	4.3	20	9/28/13 20:00	WSD
Isopropylbenzene (Cumene)	ND	2.5	0.80		ND	12	20	9/28/13 20:00	WSD
p-Isopropyltoluene (p-Cymene)	ND	2.3	0.68		ND	13	20	9/28/13 20:00	WSD
Naphthalene	1.2	1.0	0.54	L-03	6.1	5.2	20	9/28/13 20:00	WSD
Propylbenzene	ND	2.5	0.88		ND	12	20	9/28/13 20:00	WSD
Tetrachloroethylene	32000	40	11		220000	270	800	9/30/13 18:57	WSD
Trichloroethylene	650	1.0	0.30		3500	5.4	20	9/28/13 20:00	WSD
1,2,4-Trimethylbenzene	2.4	1.0	0.25		12	4.9	20	9/28/13 20:00	WSD
1,3,5-Trimethylbenzene	ND	1.0	0.20		ND	4.9	20	9/28/13 20:00	WSD
Vinyl Chloride	ND	1.0	0.43		ND	2.6	20	9/28/13 20:00	WSD
m&p-Xylene	12	2.0	0.50		50	8.7	20	9/28/13 20:00	WSD
o-Xylene	2.3	1.0	0.29		10	4.3	20	9/28/13 20:00	WSD

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	91.3	70-130	9/30/13 18:57
4-Bromofluorobenzene (1)	97.7	70-130	9/28/13 20:00
4-Bromofluorobenzene (2)	92.3	70-130	9/28/13 20:00

**ANALYTICAL RESULTS**

Project Location: Rollins Economy Cleaners  
 Date Received: 9/26/2013  
**Field Sample #: SGMP-2**  
**Sample ID: 1310935-02**  
 Sample Matrix: Soil Gas  
 Sampled: 9/20/2013 14:25

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1544  
 Canister Size: 1 liter  
 Flow Controller ID: 3202  
 Sample Type: 1 hr

**Work Order: 1310935**  
 Initial Vacuum(in Hg): -30  
 Final Vacuum(in Hg): -3  
 Receipt Vacuum(in Hg): -1.7  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time Analyzed	Analyst
	Results	RL	MDL		Results	RL			
Acetone	ND	4.0	1.4		ND	9.5	2	9/30/13 23:40	WSD
n-Butylbenzene	1.0	0.29	0.066		5.6	1.6	2	9/30/13 23:40	WSD
sec-Butylbenzene	0.31	0.23	0.078		1.7	1.3	2	9/30/13 23:40	WSD
tert-Butylbenzene	ND	0.23	0.086		ND	1.3	2	9/30/13 23:40	WSD
1,1-Dichloroethylene	ND	0.10	0.024		ND	0.40	2	9/30/13 23:40	WSD
cis-1,2-Dichloroethylene	0.12	0.10	0.038		0.47	0.40	2	9/30/13 23:40	WSD
trans-1,2-Dichloroethylene	ND	0.10	0.026		ND	0.40	2	9/30/13 23:40	WSD
Ethylbenzene	4.8	0.10	0.028		21	0.43	2	9/30/13 23:40	WSD
Isopropylbenzene (Cumene)	0.48	0.25	0.080		2.3	1.2	2	9/30/13 23:40	WSD
p-Isopropyltoluene (p-Cymene)	0.55	0.23	0.068		3.0	1.3	2	9/30/13 23:40	WSD
Naphthalene	1.6	0.10	0.054	L-03	8.4	0.52	2	9/30/13 23:40	WSD
Propylbenzene	1.8	0.25	0.088		8.7	1.2	2	9/30/13 23:40	WSD
Tetrachloroethylene	2.8	0.10	0.028		19	0.68	2	9/30/13 23:40	WSD
Trichloroethylene	0.13	0.10	0.030		0.68	0.54	2	9/30/13 23:40	WSD
1,2,4-Trimethylbenzene	10	0.10	0.025		49	0.49	2	9/30/13 23:40	WSD
1,3,5-Trimethylbenzene	2.9	0.10	0.020		14	0.49	2	9/30/13 23:40	WSD
Vinyl Chloride	0.21	0.10	0.043		0.54	0.26	2	9/30/13 23:40	WSD
m&p-Xylene	21	0.20	0.050		91	0.87	2	9/30/13 23:40	WSD
o-Xylene	6.3	0.10	0.029		27	0.43	2	9/30/13 23:40	WSD

Surrogates	% Recovery	% REC Limits	Date/Time Analyzed
4-Bromofluorobenzene (1)	102	70-130	9/30/13 23:40
4-Bromofluorobenzene (2)	104	70-130	9/30/13 23:40

**ANALYTICAL RESULTS**

Project Location: Rollins Economy Cleaners  
 Date Received: 9/26/2013  
**Field Sample #: SGMP-3**  
**Sample ID: 1310935-03**  
 Sample Matrix: Soil Gas  
 Sampled: 9/20/2013 15:10

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1550  
 Canister Size: 1 liter  
 Flow Controller ID: 3187  
 Sample Type: 1 hr

**Work Order: 1310935**  
 Initial Vacuum(in Hg): -28  
 Final Vacuum(in Hg): 0  
 Receipt Vacuum(in Hg): -.9  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL		Analized		
Acetone	200	4.0	1.4	V-06	490	9.5	2	10/1/13	0:21	WSD
n-Butylbenzene	0.76	0.29	0.066		4.2	1.6	2	10/1/13	0:21	WSD
sec-Butylbenzene	0.18	0.23	0.078	J	0.99	1.3	2	10/1/13	0:21	WSD
tert-Butylbenzene	ND	0.23	0.086		ND	1.3	2	10/1/13	0:21	WSD
1,1-Dichloroethylene	ND	0.10	0.024		ND	0.40	2	10/1/13	0:21	WSD
cis-1,2-Dichloroethylene	ND	0.10	0.038		ND	0.40	2	10/1/13	0:21	WSD
trans-1,2-Dichloroethylene	ND	0.10	0.026		ND	0.40	2	10/1/13	0:21	WSD
Ethylbenzene	7.2	0.10	0.028		31	0.43	2	10/1/13	0:21	WSD
Isopropylbenzene (Cumene)	0.76	0.25	0.080		3.7	1.2	2	10/1/13	0:21	WSD
p-Isopropyltoluene (p-Cymene)	0.31	0.23	0.068		1.7	1.3	2	10/1/13	0:21	WSD
Naphthalene	0.83	0.10	0.054	L-03	4.4	0.52	2	10/1/13	0:21	WSD
Propylbenzene	2.5	0.25	0.088		12	1.2	2	10/1/13	0:21	WSD
Tetrachloroethylene	140	1.0	0.28		980	6.8	20	9/28/13	21:14	WSD
Trichloroethylene	0.29	0.10	0.030		1.6	0.54	2	10/1/13	0:21	WSD
1,2,4-Trimethylbenzene	12	0.10	0.025		58	0.49	2	10/1/13	0:21	WSD
1,3,5-Trimethylbenzene	3.0	0.10	0.020		15	0.49	2	10/1/13	0:21	WSD
Vinyl Chloride	ND	0.10	0.043		ND	0.26	2	10/1/13	0:21	WSD
m&p-Xylene	31	0.20	0.050		130	0.87	2	10/1/13	0:21	WSD
o-Xylene	8.7	0.10	0.029		38	0.43	2	10/1/13	0:21	WSD

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	96.1	70-130	9/28/13 21:14
4-Bromofluorobenzene (1)	97.8	70-130	10/1/13 0:21
4-Bromofluorobenzene (2)	104	70-130	10/1/13 0:21

**ANALYTICAL RESULTS**

Project Location: Rollins Economy Cleaners  
 Date Received: 9/26/2013  
**Field Sample #: SGMP-4**  
**Sample ID: 1310935-04**  
 Sample Matrix: Soil Gas  
 Sampled: 9/20/2013 14:50

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1546  
 Canister Size: 1 liter  
 Flow Controller ID: 3176  
 Sample Type: 1 hr

**Work Order: 1310935**  
 Initial Vacuum(in Hg): -28  
 Final Vacuum(in Hg): 0  
 Receipt Vacuum(in Hg): 0  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL		Analized		
Acetone	77	4.0	1.4	V-06	180	9.5	2	10/1/13	1:02	WSD
n-Butylbenzene	0.45	0.29	0.066		2.5	1.6	2	10/1/13	1:02	WSD
sec-Butylbenzene	0.13	0.23	0.078	J	0.72	1.3	2	10/1/13	1:02	WSD
tert-Butylbenzene	ND	0.23	0.086		ND	1.3	2	10/1/13	1:02	WSD
1,1-Dichloroethylene	ND	0.10	0.024		ND	0.40	2	10/1/13	1:02	WSD
cis-1,2-Dichloroethylene	ND	0.10	0.038		ND	0.40	2	10/1/13	1:02	WSD
trans-1,2-Dichloroethylene	ND	0.10	0.026		ND	0.40	2	10/1/13	1:02	WSD
Ethylbenzene	5.7	0.10	0.028		25	0.43	2	10/1/13	1:02	WSD
Isopropylbenzene (Cumene)	0.55	0.25	0.080		2.7	1.2	2	10/1/13	1:02	WSD
p-Isopropyltoluene (p-Cymene)	0.21	0.23	0.068	J	1.1	1.3	2	10/1/13	1:02	WSD
Naphthalene	0.51	0.10	0.054	L-03	2.7	0.52	2	10/1/13	1:02	WSD
Propylbenzene	1.6	0.25	0.088		8.0	1.2	2	10/1/13	1:02	WSD
Tetrachloroethylene	31	0.10	0.028		210	0.68	2	10/1/13	1:02	WSD
Trichloroethylene	0.11	0.10	0.030		0.61	0.54	2	10/1/13	1:02	WSD
1,2,4-Trimethylbenzene	7.2	0.10	0.025		35	0.49	2	10/1/13	1:02	WSD
1,3,5-Trimethylbenzene	2.1	0.10	0.020		10	0.49	2	10/1/13	1:02	WSD
Vinyl Chloride	ND	0.10	0.043		ND	0.26	2	10/1/13	1:02	WSD
m&p-Xylene	24	0.20	0.050		100	0.87	2	10/1/13	1:02	WSD
o-Xylene	6.3	0.10	0.029		27	0.43	2	10/1/13	1:02	WSD

Surrogates	% Recovery	% REC Limits	Date/Time
4-Bromofluorobenzene (1)	99.8	70-130	10/1/13 1:02
4-Bromofluorobenzene (2)	105	70-130	10/1/13 1:02

**ANALYTICAL RESULTS**

Project Location: Rollins Economy Cleaners  
 Date Received: 9/26/2013  
**Field Sample #: SGMP-5**  
**Sample ID: 1310935-05**  
 Sample Matrix: Soil Gas  
 Sampled: 9/20/2013 13:07

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1541  
 Canister Size: 1 liter  
 Flow Controller ID: 3019  
 Sample Type: 1 hr

**Work Order: 1310935**  
 Initial Vacuum(in Hg): -28  
 Final Vacuum(in Hg): -2  
 Receipt Vacuum(in Hg): -3  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL		Analyzed		
Acetone	590	40	14	L-05, V-06	1400	95	20	9/28/13 22:29	WSD	
n-Butylbenzene	2.3	2.9	0.66	J	13	16	20	9/28/13 22:29	WSD	
sec-Butylbenzene	2.3	2.3	0.78		13	13	20	9/28/13 22:29	WSD	
tert-Butylbenzene	ND	2.3	0.86		ND	13	20	9/28/13 22:29	WSD	
1,1-Dichloroethylene	10	1.0	0.24		40	4.0	20	9/28/13 22:29	WSD	
cis-1,2-Dichloroethylene	900	1.0	0.38		3600	4.0	20	9/28/13 22:29	WSD	
trans-1,2-Dichloroethylene	580	1.0	0.26		2300	4.0	20	9/28/13 22:29	WSD	
Ethylbenzene	12	1.0	0.28		51	4.3	20	9/28/13 22:29	WSD	
Isopropylbenzene (Cumene)	1.2	2.5	0.80	J	6.1	12	20	9/28/13 22:29	WSD	
p-Isopropyltoluene (p-Cymene)	2.0	2.3	0.68	J	11	13	20	9/28/13 22:29	WSD	
Naphthalene	2.4	1.0	0.54	L-03	12	5.2	20	9/28/13 22:29	WSD	
Propylbenzene	ND	2.5	0.88		ND	12	20	9/28/13 22:29	WSD	
Tetrachloroethylene	16	1.0	0.28		110	6.8	20	9/28/13 22:29	WSD	
Trichloroethylene	37	1.0	0.30		200	5.4	20	9/28/13 22:29	WSD	
1,2,4-Trimethylbenzene	27	1.0	0.25		130	4.9	20	9/28/13 22:29	WSD	
1,3,5-Trimethylbenzene	8.3	1.0	0.20		41	4.9	20	9/28/13 22:29	WSD	
Vinyl Chloride	38000	200	86		98000	510	4000	10/2/13 9:34	WSD	
m&p-Xylene	50	2.0	0.50		220	8.7	20	9/28/13 22:29	WSD	
o-Xylene	16	1.0	0.29		71	4.3	20	9/28/13 22:29	WSD	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	116	70-130	10/2/13 9:34
4-Bromofluorobenzene (1)	99.9	70-130	9/28/13 22:29
4-Bromofluorobenzene (2)	88.2	70-130	9/28/13 22:29



**ANALYTICAL RESULTS**

Project Location: Rollins Economy Cleaners  
 Date Received: 9/26/2013  
**Field Sample #: SGMP-6**  
**Sample ID: 1310935-06**  
 Sample Matrix: Soil Gas  
 Sampled: 9/20/2013 16:50

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1563  
 Canister Size: 1 liter  
 Flow Controller ID: 3402  
 Sample Type: 1 hr

**Work Order: 1310935**  
 Initial Vacuum(in Hg): -30  
 Final Vacuum(in Hg): -4  
 Receipt Vacuum(in Hg): -2.3  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	Results	ppbv		Flag	ug/m3		Dilution	Date/Time		Analyst
		RL	MDL		Results	RL		Analized		
Acetone	ND	400	140		ND	950	200	10/1/13	5:11	WSD
n-Butylbenzene	560	29	6.6		3100	160	200	10/1/13	5:11	WSD
sec-Butylbenzene	2600	460	160		14000	2500	4000	10/3/13	23:14	WSD
tert-Butylbenzene	2100	460	170		12000	2500	4000	10/3/13	23:14	WSD
1,1-Dichloroethylene	11	10	2.4		44	40	200	10/1/13	5:11	WSD
cis-1,2-Dichloroethylene	760	10	3.8		3000	40	200	10/1/13	5:11	WSD
trans-1,2-Dichloroethylene	110	10	2.6		450	40	200	10/1/13	5:11	WSD
Ethylbenzene	74	10	2.8		320	43	200	10/1/13	5:11	WSD
Isopropylbenzene (Cumene)	2200	510	160		11000	2500	4000	10/3/13	23:14	WSD
p-Isopropyltoluene (p-Cymene)	20	23	6.8	J	110	130	200	10/1/13	5:11	WSD
Naphthalene	ND	10	5.4		ND	52	200	10/1/13	5:11	WSD
Propylbenzene	1600	510	180		8000	2500	4000	10/3/13	23:14	WSD
Tetrachloroethylene	650	10	2.8		4400	68	200	10/1/13	5:11	WSD
Trichloroethylene	350	10	3.0		1900	54	200	10/1/13	5:11	WSD
1,2,4-Trimethylbenzene	81	10	2.5		400	49	200	10/1/13	5:11	WSD
1,3,5-Trimethylbenzene	61	10	2.0		300	49	200	10/1/13	5:11	WSD
Vinyl Chloride	33000	200	86		85000	510	4000	10/3/13	23:14	WSD
m&p-Xylene	98	20	5.0		420	87	200	10/1/13	5:11	WSD
o-Xylene	85	10	2.9		370	43	200	10/1/13	5:11	WSD

Surrogates	% Recovery	% REC Limits	Date/Time
4-Bromofluorobenzene (1)	104	70-130	10/1/13 5:11
4-Bromofluorobenzene (1)	105	70-130	10/3/13 23:14
4-Bromofluorobenzene (2)	81.0	70-130	10/1/13 5:11
4-Bromofluorobenzene (2)	104	70-130	10/3/13 23:14

**ANALYTICAL RESULTS**

Project Location: Rollins Economy Cleaners  
 Date Received: 9/26/2013  
**Field Sample #: SGMP-7**  
**Sample ID: 1310935-07**  
 Sample Matrix: Soil Gas  
 Sampled: 9/20/2013 13:05

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1540  
 Canister Size: 1 liter  
 Flow Controller ID: 3018  
 Sample Type: 1 hr

**Work Order: 1310935**  
 Initial Vacuum(in Hg): -30  
 Final Vacuum(in Hg): -3  
 Receipt Vacuum(in Hg): -3  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL		Analized		
Acetone	ND	4.0	1.4		ND	9.5	2	10/1/13	1:44	WSD
n-Butylbenzene	1.3	0.29	0.066		7.0	1.6	2	10/1/13	1:44	WSD
sec-Butylbenzene	0.34	0.23	0.078		1.8	1.3	2	10/1/13	1:44	WSD
tert-Butylbenzene	ND	0.23	0.086		ND	1.3	2	10/1/13	1:44	WSD
1,1-Dichloroethylene	2.0	0.10	0.024		8.0	0.40	2	10/1/13	1:44	WSD
cis-1,2-Dichloroethylene	350	8.0	3.0		1400	32	160	10/2/13	7:43	WSD
trans-1,2-Dichloroethylene	230	8.0	2.1		920	32	160	10/2/13	7:43	WSD
Ethylbenzene	8.7	0.10	0.028		38	0.43	2	10/1/13	1:44	WSD
Isopropylbenzene (Cumene)	0.98	0.25	0.080		4.8	1.2	2	10/1/13	1:44	WSD
p-Isopropyltoluene (p-Cymene)	ND	0.23	0.068		ND	1.3	2	10/1/13	1:44	WSD
Naphthalene	1.1	0.10	0.054	L-03	6.0	0.52	2	10/1/13	1:44	WSD
Propylbenzene	2.7	0.25	0.088		13	1.2	2	10/1/13	1:44	WSD
Tetrachloroethylene	1.5	0.10	0.028		10.0	0.68	2	10/1/13	1:44	WSD
Trichloroethylene	8.4	0.10	0.030		45	0.54	2	10/1/13	1:44	WSD
1,2,4-Trimethylbenzene	13	0.10	0.025		63	0.49	2	10/1/13	1:44	WSD
1,3,5-Trimethylbenzene	3.4	0.10	0.020		17	0.49	2	10/1/13	1:44	WSD
Vinyl Chloride	5400	8.0	3.4		14000	20	160	10/2/13	7:43	WSD
m&p-Xylene	37	0.20	0.050		160	0.87	2	10/1/13	1:44	WSD
o-Xylene	12	0.10	0.029		52	0.43	2	10/1/13	1:44	WSD

Surrogates	% Recovery	% REC Limits	Date/Time
4-Bromofluorobenzene (1)	91.5	70-130	10/2/13 7:43
4-Bromofluorobenzene (1)	101	70-130	10/1/13 1:44
4-Bromofluorobenzene (2)	101	70-130	10/1/13 1:44

**ANALYTICAL RESULTS**

Project Location: Rollins Economy Cleaners  
 Date Received: 9/26/2013  
**Field Sample #: SGMP-8**  
**Sample ID: 1310935-08**  
 Sample Matrix: Soil Gas  
 Sampled: 9/20/2013 15:44

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1552  
 Canister Size: 1 liter  
 Flow Controller ID: 3208  
 Sample Type: 1 hr

**Work Order: 1310935**  
 Initial Vacuum(in Hg): -30  
 Final Vacuum(in Hg): -1  
 Receipt Vacuum(in Hg): -1  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL		Analyzed		
Acetone	56	4.0	1.4	V-06	130	9.5	2	10/1/13	2:25	WSD
n-Butylbenzene	0.12	0.29	0.066	J	0.67	1.6	2	10/1/13	2:25	WSD
sec-Butylbenzene	0.14	0.23	0.078	J	0.75	1.3	2	10/1/13	2:25	WSD
tert-Butylbenzene	ND	0.23	0.086		ND	1.3	2	10/1/13	2:25	WSD
1,1-Dichloroethylene	ND	0.10	0.024		ND	0.40	2	10/1/13	2:25	WSD
cis-1,2-Dichloroethylene	0.056	0.10	0.038	J	0.22	0.40	2	10/1/13	2:25	WSD
trans-1,2-Dichloroethylene	ND	0.10	0.026		ND	0.40	2	10/1/13	2:25	WSD
Ethylbenzene	3.1	0.10	0.028		13	0.43	2	10/1/13	2:25	WSD
Isopropylbenzene (Cumene)	0.34	0.25	0.080		1.7	1.2	2	10/1/13	2:25	WSD
p-Isopropyltoluene (p-Cymene)	0.15	0.23	0.068	J	0.82	1.3	2	10/1/13	2:25	WSD
Naphthalene	0.59	0.10	0.054	L-03	3.1	0.52	2	10/1/13	2:25	WSD
Propylbenzene	1.2	0.25	0.088		6.0	1.2	2	10/1/13	2:25	WSD
Tetrachloroethylene	120	1.0	0.28		820	6.8	20	9/29/13	0:22	WSD
Trichloroethylene	0.41	0.10	0.030		2.2	0.54	2	10/1/13	2:25	WSD
1,2,4-Trimethylbenzene	6.1	0.10	0.025		30	0.49	2	10/1/13	2:25	WSD
1,3,5-Trimethylbenzene	1.5	0.10	0.020		7.3	0.49	2	10/1/13	2:25	WSD
Vinyl Chloride	0.19	0.10	0.043		0.49	0.26	2	10/1/13	2:25	WSD
m&p-Xylene	14	0.20	0.050		61	0.87	2	10/1/13	2:25	WSD
o-Xylene	3.9	0.10	0.029		17	0.43	2	10/1/13	2:25	WSD

Surrogates	% Recovery	% REC Limits	Date/Time
4-Bromofluorobenzene (1)	95.1	70-130	9/29/13 0:22
4-Bromofluorobenzene (1)	97.9	70-130	10/1/13 2:25
4-Bromofluorobenzene (2)	103	70-130	10/1/13 2:25

**ANALYTICAL RESULTS**

Project Location: Rollins Economy Cleaners  
 Date Received: 9/26/2013  
**Field Sample #: SGMP-9**  
**Sample ID: 1310935-09**  
 Sample Matrix: Soil Gas  
 Sampled: 9/20/2013 16:08

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1558  
 Canister Size: 1 liter  
 Flow Controller ID: 3426  
 Sample Type: 1 hr

**Work Order: 1310935**  
 Initial Vacuum(in Hg): -28.5  
 Final Vacuum(in Hg): 0  
 Receipt Vacuum(in Hg): -1.7  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL		Analized		
Acetone	130	4.0	1.4	V-06	300	9.5	2	10/1/13	3:49	WSD
n-Butylbenzene	0.59	0.29	0.066		3.2	1.6	2	10/1/13	3:49	WSD
sec-Butylbenzene	0.14	0.23	0.078	J	0.75	1.3	2	10/1/13	3:49	WSD
tert-Butylbenzene	ND	0.23	0.086		ND	1.3	2	10/1/13	3:49	WSD
1,1-Dichloroethylene	ND	0.10	0.024		ND	0.40	2	10/1/13	3:49	WSD
cis-1,2-Dichloroethylene	ND	0.10	0.038		ND	0.40	2	10/1/13	3:49	WSD
trans-1,2-Dichloroethylene	ND	0.10	0.026		ND	0.40	2	10/1/13	3:49	WSD
Ethylbenzene	4.9	0.10	0.028		21	0.43	2	10/1/13	3:49	WSD
Isopropylbenzene (Cumene)	0.54	0.25	0.080		2.7	1.2	2	10/1/13	3:49	WSD
p-Isopropyltoluene (p-Cymene)	0.25	0.23	0.068		1.4	1.3	2	10/1/13	3:49	WSD
Naphthalene	0.68	0.10	0.054	L-03	3.6	0.52	2	10/1/13	3:49	WSD
Propylbenzene	1.9	0.25	0.088		9.5	1.2	2	10/1/13	3:49	WSD
Tetrachloroethylene	490	1.0	0.28		3300	6.8	20	9/29/13	1:00	WSD
Trichloroethylene	0.44	0.10	0.030		2.4	0.54	2	10/1/13	3:49	WSD
1,2,4-Trimethylbenzene	8.8	0.10	0.025		43	0.49	2	10/1/13	3:49	WSD
1,3,5-Trimethylbenzene	2.2	0.10	0.020		11	0.49	2	10/1/13	3:49	WSD
Vinyl Chloride	ND	0.10	0.043		ND	0.26	2	10/1/13	3:49	WSD
m&p-Xylene	21	0.20	0.050		90	0.87	2	10/1/13	3:49	WSD
o-Xylene	6.1	0.10	0.029		27	0.43	2	10/1/13	3:49	WSD

Surrogates	% Recovery	% REC Limits	Date/Time
4-Bromofluorobenzene (1)	95.0	70-130	9/29/13 1:00
4-Bromofluorobenzene (1)	97.8	70-130	10/1/13 3:49
4-Bromofluorobenzene (2)	103	70-130	10/1/13 3:49

**ANALYTICAL RESULTS**

Project Location: Rollins Economy Cleaners  
 Date Received: 9/26/2013  
**Field Sample #: SSVP-1**  
**Sample ID: 1310935-10**  
 Sample Matrix: Sub Slab  
 Sampled: 9/23/2013 15:50

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1893  
 Canister Size: 1 liter  
 Flow Controller ID: 3101  
 Sample Type: 1 hr

**Work Order: 1310935**  
 Initial Vacuum(in Hg): -29  
 Final Vacuum(in Hg): 0  
 Receipt Vacuum(in Hg): 0  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL		Analized		
Acetone	45	4.0	1.4	V-06	110	9.5	2	10/1/13	3:08	WSD
n-Butylbenzene	ND	0.29	0.066		ND	1.6	2	10/1/13	3:08	WSD
sec-Butylbenzene	ND	0.23	0.078		ND	1.3	2	10/1/13	3:08	WSD
tert-Butylbenzene	ND	0.23	0.086		ND	1.3	2	10/1/13	3:08	WSD
1,1-Dichloroethylene	ND	0.10	0.024		ND	0.40	2	10/1/13	3:08	WSD
cis-1,2-Dichloroethylene	40	0.10	0.038		160	0.40	2	10/1/13	3:08	WSD
trans-1,2-Dichloroethylene	8.9	0.10	0.026		35	0.40	2	10/1/13	3:08	WSD
Ethylbenzene	0.12	0.10	0.028		0.50	0.43	2	10/1/13	3:08	WSD
Isopropylbenzene (Cumene)	ND	0.25	0.080		ND	1.2	2	10/1/13	3:08	WSD
p-Isopropyltoluene (p-Cymene)	ND	0.23	0.068		ND	1.3	2	10/1/13	3:08	WSD
Naphthalene	0.064	0.10	0.054	L-03, J	0.34	0.52	2	10/1/13	3:08	WSD
Propylbenzene	ND	0.25	0.088		ND	1.2	2	10/1/13	3:08	WSD
Tetrachloroethylene	29	0.10	0.028		200	0.68	2	10/1/13	3:08	WSD
Trichloroethylene	18	0.10	0.030		97	0.54	2	10/1/13	3:08	WSD
1,2,4-Trimethylbenzene	0.14	0.10	0.025		0.68	0.49	2	10/1/13	3:08	WSD
1,3,5-Trimethylbenzene	0.060	0.10	0.020	J	0.29	0.49	2	10/1/13	3:08	WSD
Vinyl Chloride	0.23	0.10	0.043		0.60	0.26	2	10/1/13	3:08	WSD
m&p-Xylene	0.42	0.20	0.050		1.8	0.87	2	10/1/13	3:08	WSD
o-Xylene	0.16	0.10	0.029		0.68	0.43	2	10/1/13	3:08	WSD

Surrogates	% Recovery	% REC Limits	Date/Time
4-Bromofluorobenzene (1)	98.2	70-130	10/1/13 3:08
4-Bromofluorobenzene (2)	103	70-130	10/1/13 3:08

**ANALYTICAL RESULTS**

Project Location: Rollins Economy Cleaners  
 Date Received: 9/26/2013  
**Field Sample #: SSVP-2**  
**Sample ID: 1310935-11**  
 Sample Matrix: Sub Slab  
 Sampled: 9/23/2013 16:15

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1907  
 Canister Size: 1 liter  
 Flow Controller ID: 3155  
 Sample Type: 1 hr

**Work Order: 1310935**  
 Initial Vacuum(in Hg): -28  
 Final Vacuum(in Hg): -3  
 Receipt Vacuum(in Hg): -3.9  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL		Analized		
Acetone	310	40	14	L-05, V-06	730	95	20	9/29/13	3:31	WSD
n-Butylbenzene	1.2	2.9	0.66	J	6.6	16	20	9/29/13	3:31	WSD
sec-Butylbenzene	ND	2.3	0.78		ND	13	20	9/29/13	3:31	WSD
tert-Butylbenzene	ND	2.3	0.86		ND	13	20	9/29/13	3:31	WSD
1,1-Dichloroethylene	ND	1.0	0.24		ND	4.0	20	9/29/13	3:31	WSD
cis-1,2-Dichloroethylene	770	1.0	0.38		3000	4.0	20	9/29/13	3:31	WSD
trans-1,2-Dichloroethylene	140	1.0	0.26		550	4.0	20	9/29/13	3:31	WSD
Ethylbenzene	3.0	1.0	0.28		13	4.3	20	9/29/13	3:31	WSD
Isopropylbenzene (Cumene)	ND	2.5	0.80		ND	12	20	9/29/13	3:31	WSD
p-Isopropyltoluene (p-Cymene)	ND	2.3	0.68		ND	13	20	9/29/13	3:31	WSD
Naphthalene	1.7	1.0	0.54	L-03	8.8	5.2	20	9/29/13	3:31	WSD
Propylbenzene	ND	2.5	0.88		ND	12	20	9/29/13	3:31	WSD
Tetrachloroethylene	12000	20	5.7		79000	140	400	9/30/13	22:20	WSD
Trichloroethylene	1800	20	5.9		9800	110	400	9/30/13	22:20	WSD
1,2,4-Trimethylbenzene	2.8	1.0	0.25		14	4.9	20	9/29/13	3:31	WSD
1,3,5-Trimethylbenzene	1.0	1.0	0.20		4.9	4.9	20	9/29/13	3:31	WSD
Vinyl Chloride	ND	1.0	0.43		ND	2.6	20	9/29/13	3:31	WSD
m&p-Xylene	12	2.0	0.50		52	8.7	20	9/29/13	3:31	WSD
o-Xylene	3.3	1.0	0.29		14	4.3	20	9/29/13	3:31	WSD

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	103	70-130	9/30/13 22:20
4-Bromofluorobenzene (1)	98.6	70-130	9/29/13 3:31
4-Bromofluorobenzene (2)	103	70-130	9/29/13 3:31

**Sample Extraction Data**

**Prep Method: TO-15 Prep-EPA TO-15**

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
13I0935-01RE1 [SGMP-1]	B082109	2	100	10	1000	400	100	09/30/13
13I0935-02 [SGMP-2]	B082109	2	1	N/A	1000	400	400	09/30/13
13I0935-03 [SGMP-3]	B082109	2	1	N/A	1000	400	400	09/30/13
13I0935-04 [SGMP-4]	B082109	2	1	N/A	1000	400	400	09/30/13
13I0935-06 [SGMP-6]	B082109	2	100	10	1000	400	400	09/30/13
13I0935-07 [SGMP-7]	B082109	2	1	N/A	1000	400	400	09/30/13
13I0935-08 [SGMP-8]	B082109	2	1	N/A	1000	400	400	09/30/13
13I0935-09 [SGMP-9]	B082109	2	1	N/A	1000	400	400	09/30/13
13I0935-10 [SSVP-1]	B082109	2	1	N/A	1000	400	400	09/30/13
13I0935-11RE1 [SSVP-2]	B082109	2	100	10	1000	400	200	09/30/13

**Prep Method: TO-15 Prep-EPA TO-15**

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
13I0935-01 [SGMP-1]	B082111	2	1	N/A	1000	400	40	09/28/13
13I0935-03RE1 [SGMP-3]	B082111	2	1	N/A	1000	400	40	09/28/13
13I0935-05 [SGMP-5]	B082111	2	1	N/A	1000	400	40	09/28/13
13I0935-08RE1 [SGMP-8]	B082111	2	1	N/A	1000	400	40	09/28/13
13I0935-09RE1 [SGMP-9]	B082111	2	1	N/A	1000	400	40	09/28/13
13I0935-11 [SSVP-2]	B082111	2	1	N/A	1000	400	40	09/28/13

**Prep Method: TO-15 Prep-EPA TO-15**

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
13I0935-05RE1 [SGMP-5]	B082113	2	100	10	1000	400	20	10/01/13
13I0935-07RE1 [SGMP-7]	B082113	4	1	N/A	1000	400	10	10/01/13

**Prep Method: TO-15 Prep-EPA TO-15**

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
13I0935-06RE1 [SGMP-6]	B082276	2	100	10	1000	400	20	10/03/13

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		
<b>Batch B082109 - TO-15 Prep</b>											
<b>Blank (B082109-BLK1)</b>						Prepared & Analyzed: 09/30/13					
Acetone	ND	1.0									
n-Butylbenzene	ND	0.072									
sec-Butylbenzene	ND	0.057									
tert-Butylbenzene	ND	0.057									
1,1-Dichloroethylene	ND	0.025									
cis-1,2-Dichloroethylene	ND	0.025									
trans-1,2-Dichloroethylene	ND	0.025									
Ethylbenzene	ND	0.025									
Isopropylbenzene (Cumene)	ND	0.064									
p-Isopropyltoluene (p-Cymene)	ND	0.057									
Naphthalene	ND	0.025									L-03
Propylbenzene	ND	0.064									
Tetrachloroethylene	ND	0.025									
Trichloroethylene	ND	0.025									
1,2,4-Trimethylbenzene	ND	0.025									
1,3,5-Trimethylbenzene	ND	0.025									
Vinyl Chloride	ND	0.025									
m&p-Xylene	ND	0.050									
o-Xylene	ND	0.025									
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	8.22				8.00		103	70-130			
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	8.69				8.00		109	70-130			
<b>LCS (B082109-BS1)</b>						Prepared & Analyzed: 09/30/13					
Acetone	6.23				5.00		125	70-130			V-06
n-Butylbenzene	1.24				1.14		108	70-130			
sec-Butylbenzene	1.44				1.14		126	70-130			
tert-Butylbenzene	1.48				1.14		130	70-130			
1,1-Dichloroethylene	4.60				5.00		92.0	70-130			
cis-1,2-Dichloroethylene	4.70				5.00		93.9	70-130			
trans-1,2-Dichloroethylene	4.73				5.00		94.5	70-130			
Ethylbenzene	4.98				5.00		99.7	70-130			
Isopropylbenzene (Cumene)	1.55				1.27		122	70-130			
p-Isopropyltoluene (p-Cymene)	1.42				1.14		124	70-130			
Naphthalene	2.96				5.00		59.2 *	70-130			L-03
Propylbenzene	1.59				1.27		126	70-130			
Tetrachloroethylene	5.28				5.00		106	70-130			
Trichloroethylene	4.18				5.00		83.5	70-130			
1,2,4-Trimethylbenzene	5.02				5.00		100	70-130			
1,3,5-Trimethylbenzene	5.22				5.00		104	70-130			
Vinyl Chloride	5.02				5.00		100	70-130			
m&p-Xylene	10.4				10.0		104	70-130			
o-Xylene	4.91				5.00		98.1	70-130			
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	8.11				8.00		101	70-130			
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	8.50				8.00		106	70-130			



**QUALITY CONTROL**

**Air Toxics by EPA Compendium Methods - Quality Control**

Analyte	ppbv		ug/m3		Spike Level ppbv	Source Result	%REC Limits	RPD	RPD Limit	Flag
	Results	RL	Results	RL						
<b>Batch B082109 - TO-15 Prep</b>										
<b>Duplicate (B082109-DUP1)</b>		<b>Source: 1310935-11RE1</b>				<b>Prepared &amp; Analyzed: 09/30/13</b>				
Acetone	680	800	1600	1900		880		26.2	25	J
n-Butylbenzene	ND	58	ND	320		ND			25	
sec-Butylbenzene	ND	46	ND	250		ND			25	
tert-Butylbenzene	ND	46	ND	250		ND			25	
1,1-Dichloroethylene	ND	20	ND	79		ND			25	
cis-1,2-Dichloroethylene	1100	20	4500	79		1100		2.55	25	
trans-1,2-Dichloroethylene	180	20	710	79		ND			25	
Ethylbenzene	ND	20	ND	87		ND			25	
Isopropylbenzene (Cumene)	ND	51	ND	250		ND			25	
p-Isopropyltoluene (p-Cymene)	ND	46	ND	250		ND			25	
Naphthalene	ND	20	ND	100		ND			25	
Propylbenzene	ND	51	ND	250		ND			25	
Tetrachloroethylene	12000	20	82000	140		12000		4.75	25	
Trichloroethylene	1800	20	9900	110		1800		1.07	25	
1,2,4-Trimethylbenzene	ND	20	ND	98		ND			25	
1,3,5-Trimethylbenzene	ND	20	ND	98		ND			25	
Vinyl Chloride	ND	20	ND	51		ND			25	
m&p-Xylene	22	40	94	170		ND			25	J
o-Xylene	ND	20	ND	87		ND			25	
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	<i>7.95</i>				<i>8.00</i>		<i>99.4</i>	<i>70-130</i>		

**Batch B082111 - TO-15 Prep**

<b>Blank (B082111-BLK1)</b>		<b>Prepared &amp; Analyzed: 09/28/13</b>								
Acetone	ND	1.0								
n-Butylbenzene	ND	0.072								
sec-Butylbenzene	ND	0.057								
tert-Butylbenzene	ND	0.057								
1,1-Dichloroethylene	ND	0.025								
cis-1,2-Dichloroethylene	ND	0.025								
trans-1,2-Dichloroethylene	ND	0.025								
Ethylbenzene	ND	0.025								
Isopropylbenzene (Cumene)	ND	0.064								
p-Isopropyltoluene (p-Cymene)	ND	0.057								
Naphthalene	ND	0.025								L-03
Propylbenzene	ND	0.064								
Tetrachloroethylene	ND	0.025								
Trichloroethylene	ND	0.025								
1,2,4-Trimethylbenzene	ND	0.025								
1,3,5-Trimethylbenzene	ND	0.025								
Vinyl Chloride	ND	0.025								
m&p-Xylene	ND	0.050								
o-Xylene	ND	0.025								
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	<i>7.78</i>				<i>8.00</i>		<i>97.2</i>	<i>70-130</i>		
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	<i>7.60</i>				<i>8.00</i>		<i>95.0</i>	<i>70-130</i>		

**QUALITY CONTROL**

**Air Toxics by EPA Compendium Methods - Quality Control**

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		
<b>Batch B082111 - TO-15 Prep</b>											
<b>LCS (B082111-BS1)</b>											
Prepared & Analyzed: 09/28/13											
Acetone	6.55				5.00		131 *	70-130			L-05, V-06
n-Butylbenzene	1.14				1.14		99.9	70-130			
sec-Butylbenzene	1.24				1.14		108	70-130			
tert-Butylbenzene	1.26				1.14		110	70-130			
1,1-Dichloroethylene	4.67				5.00		93.3	70-130			
cis-1,2-Dichloroethylene	4.67				5.00		93.4	70-130			
trans-1,2-Dichloroethylene	4.71				5.00		94.1	70-130			
Ethylbenzene	4.84				5.00		96.9	70-130			
Isopropylbenzene (Cumene)	1.41				1.27		111	70-130			
p-Isopropyltoluene (p-Cymene)	1.19				1.14		105	70-130			
Naphthalene	2.84				5.00		56.8 *	70-130			L-03
Propylbenzene	1.40				1.27		110	70-130			
Tetrachloroethylene	4.94				5.00		98.9	70-130			
Trichloroethylene	4.37				5.00		87.5	70-130			
1,2,4-Trimethylbenzene	4.63				5.00		92.6	70-130			
1,3,5-Trimethylbenzene	4.89				5.00		97.8	70-130			
Vinyl Chloride	5.54				5.00		111	70-130			
m&p-Xylene	10.0				10.0		100	70-130			
o-Xylene	4.75				5.00		95.0	70-130			
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	7.92				8.00		99.1	70-130			
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	7.89				8.00		98.7	70-130			
<b>Duplicate (B082111-DUP1)</b>											
Source: 1310935-11											
Prepared: 09/28/13 Analyzed: 09/29/13											
Acetone	320	40	770	95		310		4.66	25		L-05, V-06
n-Butylbenzene	ND	2.9	ND	16		1.2			25		
sec-Butylbenzene	ND	2.3	ND	13		ND			25		
tert-Butylbenzene	ND	2.3	ND	13		ND			25		
1,1-Dichloroethylene	ND	1.0	ND	4.0		ND			25		
cis-1,2-Dichloroethylene	770	1.0	3100	4.0		770		1.11	25		
trans-1,2-Dichloroethylene	140	1.0	550	4.0		140		0.405	25		
Ethylbenzene	3.3	1.0	14	4.3		3.0		9.46	25		
Isopropylbenzene (Cumene)	ND	2.5	ND	12		ND			25		
p-Isopropyltoluene (p-Cymene)	ND	2.3	ND	13		ND			25		
Naphthalene	1.7	1.0	9.0	5.2		1.7		2.35	25		L-03
Propylbenzene	ND	2.5	ND	12		ND			25		
Tetrachloroethylene	2200	1.0	15000	6.8		2200		0.650	25		
Trichloroethylene	1100	1.0	5900	5.4		1100		2.86	25		
1,2,4-Trimethylbenzene	3.1	1.0	15	4.9		2.8		8.87	25		
1,3,5-Trimethylbenzene	1.1	1.0	5.6	4.9		1.0		13.1	25		
Vinyl Chloride	ND	1.0	ND	2.6		ND			25		
m&p-Xylene	13	2.0	56	8.7		12		7.24	25		
o-Xylene	3.4	1.0	15	4.3		3.3		3.61	25		
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	7.93				8.00		99.1	70-130			
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	8.27				8.00		103	70-130			

**QUALITY CONTROL**

**Air Toxics by EPA Compendium Methods - Quality Control**

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		
<b>Batch B082113 - TO-15 Prep</b>											
<b>Blank (B082113-BLK1)</b>						Prepared & Analyzed: 10/01/13					
cis-1,2-Dichloroethylene	ND	0.025									
trans-1,2-Dichloroethylene	ND	0.025									
Vinyl Chloride	ND	0.025									
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	<i>8.51</i>				<i>8.00</i>		<i>106</i>	<i>70-130</i>			
<b>LCS (B082113-BS1)</b>						Prepared & Analyzed: 10/01/13					
cis-1,2-Dichloroethylene	4.64				5.00		92.9	70-130			
trans-1,2-Dichloroethylene	4.64				5.00		92.8	70-130			
Vinyl Chloride	5.08				5.00		102	70-130			
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	<i>8.79</i>				<i>8.00</i>		<i>110</i>	<i>70-130</i>			
<b>Batch B082276 - TO-15 Prep</b>											
<b>Blank (B082276-BLK1)</b>						Prepared & Analyzed: 10/03/13					
sec-Butylbenzene	ND	0.057									
tert-Butylbenzene	ND	0.057									
Isopropylbenzene (Cumene)	ND	0.064									
Propylbenzene	ND	0.064									
Vinyl Chloride	ND	0.025									
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	<i>7.84</i>				<i>8.00</i>		<i>98.0</i>	<i>70-130</i>			
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	<i>7.65</i>				<i>8.00</i>		<i>95.6</i>	<i>70-130</i>			
<b>LCS (B082276-BS1)</b>						Prepared & Analyzed: 10/03/13					
sec-Butylbenzene	1.10				1.14		96.7	70-130			
tert-Butylbenzene	1.16				1.14		102	70-130			
Isopropylbenzene (Cumene)	1.21				1.27		95.4	70-130			
Propylbenzene	1.23				1.27		96.9	70-130			
Vinyl Chloride	5.70				5.00		114	70-130			
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	<i>8.14</i>				<i>8.00</i>		<i>102</i>	<i>70-130</i>			
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	<i>8.13</i>				<i>8.00</i>		<i>102</i>	<i>70-130</i>			

**FLAG/QUALIFIER SUMMARY**

- \* QC result is outside of established limits.
  - † Wide recovery limits established for difficult compound.
  - ‡ Wide RPD limits established for difficult compound.
  - # Data exceeded client recommended or regulatory level
- Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
- J Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
  - L-03 Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.
  - L-05 Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.
  - V-06 Continuing calibration did not meet method specifications and was biased on the high side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the high side.

**CERTIFICATIONS**

**Certified Analyses included in this Report**

Analyte	Certifications
<i>EPA TO-15 in Air</i>	
Acetone	NY
1,1-Dichloroethylene	AIHA,FL,NJ,NY,VA
cis-1,2-Dichloroethylene	AIHA,FL,NY,VA
trans-1,2-Dichloroethylene	AIHA,NJ,NY,VA
Ethylbenzene	AIHA,FL,NJ,NY,VA
Isopropylbenzene (Cumene)	AIHA,NJ,NY
Naphthalene	NY
Tetrachloroethylene	AIHA,FL,NJ,NY,VA
Trichloroethylene	AIHA,FL,NJ,NY,VA
1,2,4-Trimethylbenzene	AIHA,NJ,NY
1,3,5-Trimethylbenzene	AIHA,NJ,NY
Vinyl Chloride	AIHA,FL,NJ,NY,VA
m&p-Xylene	AIHA,FL,NJ,NY,VA
o-Xylene	AIHA,FL,NJ,NY,VA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2014
MA	Massachusetts DEP	M-MA100	06/30/2014
CT	Connecticut Department of Public Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2014
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2014
RI	Rhode Island Department of Health	LAO00112	12/30/2013
NC	North Carolina Div. of Water Quality	652	12/31/2013
NJ	New Jersey DEP	MA007 NELAP	06/30/2014
FL	Florida Department of Health	E871027 NELAP	06/30/2014
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2014
WA	State of Washington Department of Ecology	C2065	02/23/2014
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2013
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2014



Phone: 413-525-2332  
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Email: info@contestlabs.com  
www.contestlabs.com

**AIR SAMPLE CHAIN OF CUSTODY RECORD**

39 SPRUCE ST  
EAST LONGMEADOW, MA 01028

Company Name: Hart & Hickey  
Address: 3334 H. H. Laboratory Ln  
Rutledge NC 27607

Telephone: (919) 847 4241  
Project # DSO-79  
Client PO # DSO-79

1310935

Attention:

Project Location: Rollins Economy Cleaners

Sampled By: Maht Collins

Proposal Provided? (For Billing purposes)

yes  no proposal date

**DATA DELIVERY (check one):**  
 FAX  EMAIL  WEBSITE CLIENT  
Fax #: \_\_\_\_\_  
Email: Maht Collins@rollins.com  
Format:  EXCEL  PDF  GIS KEY  OTHER \_\_\_\_\_

**ONLY USE WHEN USING PUMPS**

Field ID	Sample Description	Media	Lab #	Date	Date Sampled		Total	Flow Rate	Volume	Matrix Code*	Analysis Requested	Hg	Please fill out completely, sign, date and retain the yellow copy for your record		
					Start	Stop								Minutes Sampled	M <sup>3</sup> /Min. or L/Min.
01	SGMP-1	S		9/20/13	1330	1440				SG	X	-27	2.9	1542	304
02	SGMP-2				1314	1425					X	-30	2.9	1544	320
03	SGMP-3				1400	1510					X	-28	0.9	1550	311
04	SGMP-4				1345	1458					X	-28	0	1546	317
05	SGMP-5				1200	1307					X	-28	2	1541	301
06	SGMP-6				1530	1650					X	-30	4	2 <sup>3</sup> /1563	340
07	SGMP-7				1154	1305					X	-30	3	1540	301
08	SGMP-8				1440	1544					X	-30	1	1552	3268

Laboratory Comment: Please analyze for client specified list provided to Lisa Worthington 9/24/13

CLIENT COMMENTS:

Relinquished by: (signature) Maht Collins Date/Time: 9/24/13

Received by: (signature) Maht Collins Date/Time: 9/26/13 9:45

Relinquished by: (signature) \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received by: (signature) \_\_\_\_\_ Date/Time: \_\_\_\_\_

Turnaround \*\*  
 7-Day  
 10-Day  
 Other \_\_\_\_\_

RUSH \*  
 \*24-Hr  \*48-Hr  
 \*72-Hr  \*4-Day

Approval Required

Regulations: \_\_\_\_\_  
Data Enhancement/RCP?  Y  N  
Enhanced Data Package  Y  N  
(Surcharge Applies)  
Required Detection Limits: \_\_\_\_\_  
Other: \_\_\_\_\_

Special Requirements

\*Matrix Code:  
SG= SOIL GAS  
IA= INDOOR AIR  
AMB=AMBIENT  
SS= SUB SLAB  
D= DUP  
BL= BLANK  
O= other \_\_\_\_\_

\*\*Media Codes:  
S=summa can  
TB=tedlar bag  
P=PUF  
T=tube  
F= filter  
C=cassette  
O= Other \_\_\_\_\_

\*\* TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT. AIHA, NELAC & WBE/DBE Certified



Phone: 413-525-2332  
 Fax: 413-525-6405  
 Email: info@contestlabs.com

**AIR SAMPLE CHAIN OF CUSTODY RECORD**

39 SPRUCE ST  
 EAST LONGMEADOW, MA 01028

Company Name: Hunt & Hickman

Address: 3334 Hillsboro Ave Raleigh NC 27607

Attention: Matt G. Williams

Project Location: Rollins Eco-nery Cleaners

Sampled By: Matt G. Williams

Proposal Provided? (For Billing purposes)  yes  no

Telephone: 919 847 4241

Project # DSO-79

Client PO # DSO-79

DATA DELIVERY (check one):  
 FAX  REMAIL  WEBSITE CLIENT

Fax #: TIClotz @ hunt.hickman

Email: TIClotz @ hunt.hickman

Format:  EXCEL  PDF  GIS KEY  OTHER

Date Sampled  ONLY USE WHEN USING PUMPS

Field ID	Sample Description	Media	Lab #	Date Time	Stop Date Time	Total Minutes Sampled	Flow Rate M <sup>3</sup> /Min. or L/Min.	Volume Liters or M <sup>3</sup>	Matrix Code*	"Hg	Analysis Requested
09	SGWP-9	S		9/20/13 15:00	9/20/13 16:08				56 X	2850	
10	SSVP-1	S		9/23/13 14:55	9/23/13 15:50				55 X	2900	
11	SSVP-2	S		9/23/13 15:05	9/23/13 16:15				55 X	2850	

Laboratory Comments: Please analyze for client specified list Email provided to Lisa Wethington 9/24/13

CLIENT COMMENTS:

Relinquished by: (signature) [Signature] Date/Time: 9/24/13

Received by: (signature) [Signature] Date/Time: 9/20/13

Relinquished by: (signature) \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received by: (signature) \_\_\_\_\_ Date/Time: \_\_\_\_\_

Turnaround \*\*  
 7-Day  
 10-Day  
 Other \_\_\_\_\_

RUSH \*  
 \*24-Hr  \*48-Hr  
 \*72-Hr  \*4-Day

\*Approval Required

Special Requirements

Regulations: \_\_\_\_\_

Data Enhancement/RCP?  Y  N

Enhanced Data Package  Y  N

Required Detection Limits: \_\_\_\_\_

\*Matrix Code:

SG = SOIL GAS

IA = INDOOR AIR

AMB = AMBIENT

SS = SUB SLAB

D = DUP

BL = BLANK

O = other \_\_\_\_\_

\*\*Media Codes:

S = summa can

TB = tedlar bag

P = PUF

T = tube

F = filter

C = cassette

O = Other \_\_\_\_\_

**ANALYSIS REQUESTED**

**Hg**

Please fill out completely, sign, date and retain the yellow copy for your record.

Summa canisters at flow controllers must be returned within 14 days of receipt or rental fee will apply.

Summa canisters will be retained for a minimum of 14 days after sampling date prior to cleaning.

Summa Canister ID: 1558 Flow Control ID: 34

\*\* TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT. AIHA, NELAP & WBE/DBE Certified



**796759353811**

Ship (P/U) date :  
**Tues 9/24/2013 4:46 pm**  
 Raleigh, NC US



**Delivered**  
 Signed for by: P.BLAKE

Actual delivery :  
**Thur 9/26/2013 9:45 am**  
 EAST LONGMEADOW, MA US

**1 Piece shipment**

**Travel History**

Date/Time	Activity	Location
<b>- 9/26/2013 - Thursday</b>		
9:45 am	Delivered	EAST LONGMEADOW, MA
8:04 am	On FedEx vehicle for delivery	WINDSOR LOCKS, CT
6:49 am	At local FedEx facility	WINDSOR LOCKS, CT
<b>- 9/25/2013 - Wednesday</b>		
4:32 pm	At destination sort facility	EAST GRANBY, CT
1:00 pm	Departed FedEx location	NEWARK, NJ
9:37 am	Arrived at FedEx location	NEWARK, NJ
<b>- 9/24/2013 - Tuesday</b>		
8:50 pm	Left FedEx origin facility	RALEIGH, NC
4:46 pm	Picked up	RALEIGH, NC
2:45 pm	Shipment information sent to FedEx	

Local Scan Time

**Shipment Facts**

Tracking number	796759353811	Service	FedEx 2Day
Master tracking number	796759353811	Weight	30 lbs
Dimensions	22x19x14 in.	Delivered To	Receptionist/Front Desk
Total pieces	1	Total shipment weight	55 lbs / 24.9 kgs
Department number	DSO-79	Shipper reference	DSC-79
Packaging	Your Packaging	Special handling section	Deliver Weekday



Login Sample Receipt Checklist(Rejection Criteria Listing - Using Sample Acceptance Policy)Any False statement will be brought to the attention of Client

<u>Question</u>	<u>Answer (True/False)</u>		<u>Comment</u>
	<u>T/F/NA</u>		
1) The cooler's custody seal, if present, is intact.	NA		
2) The cooler or samples do not appear to have been compromised or tampered with.	NA		
3) Samples were received on ice.	NA		
4) Cooler Temperature is acceptable.	NA		
5) Cooler Temperature is recorded.	NA		
6) COC is filled out in ink and legible.	T		
7) COC is filled out with all pertinent information.	T		
8) Field Sampler's name present on COC.	T		
9) There are no discrepancies between the sample IDs on the container and the COC.	T		
10) Samples are received within Holding Time.	T		
11) Sample containers have legible labels.	T		
12) Containers are not broken or leaking.	T		
13) Air Cassettes are not broken/open.	NA		
14) Sample collection date/times are provided.	T		
15) Appropriate sample containers are used.	T		
16) Proper collection media used.	T		
17) No headspace sample bottles are completely filled.	NA		
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T		
19) Trip blanks provided if applicable.	NA		
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	NA		
21) Samples do not require splitting or compositing.	T		

Doc #278 Rev. 3 August 2013

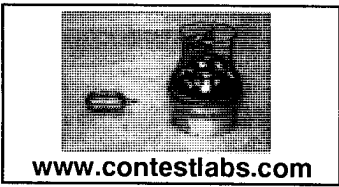
Who notified of False statements?

Log-In Technician Initials: PB

Date/Time:

Date/Time: 9.26.13

9:45



39 Spruce St.  
 East Longmeadow, MA.  
 01028  
 P: 413-525-2332  
 F: 413-525-6405

**AIR Only Receipt Checklist**

CLIENT NAME: Hart + Hickman RECEIVED BY: PB DATE: 9.26.13

- 1) Was the chain(s) of custody relinquished and signed?  Yes  No
- 2) Does the chain agree with the samples?  Yes  No  
 If not, explain:
- 3) Are all the samples in good condition?  Yes  No  
 If not, explain:
- 4) Are there any samples "On Hold"? Yes  No Stored where:
- 5) Are there any RUSH or SHORT HOLDING TIME samples? Yes  No  
 Who was notified \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

6) Location where samples are stored: login  
 Permission to subcontract samples? Yes  No   
 (Walk-in clients only) if not already approved  
 Client Signature: \_\_\_\_\_

7) Temperature °C by Temp blank \_\_\_\_\_ Temperature °C by Temp gun \_\_\_\_\_

Containers received at Con-Test		
	# of Containers	Types (Size, Duration)
Summa Cans (TO-14/TO-15/APH)	11	1 lit
Tedlar Bags		
TO-17 Tubes		
Regulators	11	1 hr
Restrictors		
Hg/Hopcalite Tube (NIOSH 6009)		
(TO-4A/ TO-10A/TO-13) PUFs		
PCB Florisil Tubes (NIOSH 5503)		
Air cassette		
PM 2.5/PM 10		
TO-11A Cartridges		
Other		

Unused Summas/PUF Media:

Unused Regulators:

- 1) Was all media (used & unused) checked into the WASP?
- 2) Were all returned summa cans, Restrictors & Regulators and PUF's documented as returned in the Air Lab Inbound/Outbound Excel Spreadsheet?

Laboratory Comments:

1542	1541	1558	3019	3155	3202
1544	1563	1893	3018	3176	3101
1550	1540	1907	3202	3187	3402
1546	1552		3426	3002	

## Lisa Worthington

---

**From:** Timothy Klotz [tklotz@harthickman.com]  
**Sent:** Tuesday, September 24, 2013 11:21 AM  
**To:** Lisa Worthington  
**Subject:** RE: Canister order - DS0-79

No problem. For the analyte list, I don't have all the compounds listed on the chain, so hopefully the email is sufficient.

Thanks,

Tim

---

**From:** Lisa Worthington [mailto:lisa.worthington@contestlabs.com]  
**Sent:** Tuesday, September 24, 2013 11:20 AM  
**To:** Timothy Klotz  
**Subject:** RE: Canister order - DS0-79

OK thanks for the heads up. I appreciate it.

---

**From:** Timothy Klotz [mailto:tklotz@harthickman.com]  
**Sent:** Tuesday, September 24, 2013 11:16 AM  
**To:** Lisa Worthington  
**Subject:** RE: Canister order - DS0-79

Lisa

We will ship these canisters today for delivery in the next day or two. For this project, we would like to analyze for the following list by TO-15:

- PCE
- TCE
- Cis-1,2-DCE
- Trans-1,2-DCE
- Vinyl chloride
- Naphthalene
- Cumene
- 1,2,4-trimethylbenzene
- 1,3,5-trimethylbenzene
- Acetone
- Ethylbenzene
- N-butylbenzene
- N-propylbenzene
- Sec-butylbenzene
- Tert-butylbenzene
- P-isopropyltoluene
- Total xylenes
- 1,1-dichloroethylene

*18 x 1-7 xylenes*

In addition, we will be shipping a canister that has been sitting in the office for some time now. I don't know much about it other than it was for one of Leo's projects that fell through (i.e., no sample in the canister). Please invoice any charges for this extra can to whatever project it was ordered for. Let me know if you need help tracking that info down.



October 15, 2013

Tim Klotz  
Hart & Hickman - Raleigh, NC  
3334 Hillsborough Street  
Raleigh, NC 27607

Project Location: Rollins Economy Cleaners  
Client Job Number:  
Project Number: DS0-79  
Laboratory Work Order Number: 13J0340

Enclosed are results of analyses for samples received by the laboratory on October 7, 2013. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Lisa A. Worthington  
Project Manager



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Hart & Hickman - Raleigh, NC  
3334 Hillsborough Street  
Raleigh, NC 27607  
ATTN: Tim Klotz

REPORT DATE: 10/15/2013

PURCHASE ORDER NUMBER:

PROJECT NUMBER: DS0-79

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 13J0340

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Rollins Economy Cleaners

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SSVP-3	13J0340-01	Sub Slab		EPA TO-15	
SSVP-4	13J0340-02	Sub Slab		EPA TO-15	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

**EPA TO-15**

**Qualifications:**

---

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.

**Analyte & Samples(s) Qualified:**

**Naphthalene**

13J0340-01[SSVP-3], 13J0340-02[SSVP-4], B082643-BLK1, B082643-BS1

---

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.

**Analyte & Samples(s) Qualified:**

**Acetone**

13J0340-01[SSVP-3], 13J0340-02[SSVP-4], B082643-BS1

---

Elevated reporting limit due to high concentration of non-target compounds. Requested reporting limit not met.

**Analyte & Samples(s) Qualified:**

13J0340-01[SSVP-3], 13J0340-02[SSVP-4]

---

Continuing calibration did not meet method specifications and was biased on the high side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the high side.

**Analyte & Samples(s) Qualified:**

**Acetone**

13J0340-01[SSVP-3], 13J0340-02[SSVP-4], B082643-BS1

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The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Michael A. Erickson  
Laboratory Director

**ANALYTICAL RESULTS**

Project Location: Rollins Economy Cleaners  
 Date Received: 10/7/2013  
**Field Sample #: SSV-3**  
**Sample ID: 13J0340-01**  
 Sample Matrix: Sub Slab  
 Sampled: 10/2/2013 17:20

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1417  
 Canister Size: 1 liter  
 Flow Controller ID: 3245  
 Sample Type: 1 hr

**Work Order: 13J0340**  
 Initial Vacuum(in Hg): -29  
 Final Vacuum(in Hg): -1  
 Receipt Vacuum(in Hg): -4.4  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Sample Flags: RL-02

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL		Analyzed		
Acetone	1800	80	28	L-05, V-06	4400	190	40	10/10/13	5:07	TPH
n-Butylbenzene	ND	5.8	1.3		ND	32	40	10/10/13	5:07	TPH
sec-Butylbenzene	ND	4.6	1.6		ND	25	40	10/10/13	5:07	TPH
tert-Butylbenzene	ND	4.6	1.7		ND	25	40	10/10/13	5:07	TPH
1,1-Dichloroethylene	ND	2.0	0.49		ND	7.9	40	10/10/13	5:07	TPH
cis-1,2-Dichloroethylene	ND	2.0	0.76		ND	7.9	40	10/10/13	5:07	TPH
trans-1,2-Dichloroethylene	ND	2.0	0.53		ND	7.9	40	10/10/13	5:07	TPH
Ethylbenzene	2.8	2.0	0.55		12	8.7	40	10/10/13	5:07	TPH
Isopropylbenzene (Cumene)	ND	5.1	1.6		ND	25	40	10/10/13	5:07	TPH
p-Isopropyltoluene (p-Cymene)	ND	4.6	1.4		ND	25	40	10/10/13	5:07	TPH
Naphthalene	ND	2.0	1.1	L-03	ND	10	40	10/10/13	5:07	TPH
Propylbenzene	ND	5.1	1.8		ND	25	40	10/10/13	5:07	TPH
Tetrachloroethylene	290	2.0	0.57		1900	14	40	10/10/13	5:07	TPH
Trichloroethylene	3.7	2.0	0.59		20	11	40	10/10/13	5:07	TPH
1,2,4-Trimethylbenzene	9.5	2.0	0.49		47	9.8	40	10/10/13	5:07	TPH
1,3,5-Trimethylbenzene	5.9	2.0	0.40		29	9.8	40	10/10/13	5:07	TPH
Vinyl Chloride	ND	2.0	0.86		ND	5.1	40	10/10/13	5:07	TPH
m&p-Xylene	11	4.0	1.0		49	17	40	10/10/13	5:07	TPH
o-Xylene	3.2	2.0	0.58		14	8.7	40	10/10/13	5:07	TPH

Surrogates	% Recovery	% REC Limits	Date/Time
4-Bromofluorobenzene (1)	93.9	70-130	10/10/13 5:07
4-Bromofluorobenzene (2)	87.2	70-130	10/10/13 5:07



**ANALYTICAL RESULTS**

Project Location: Rollins Economy Cleaners  
 Date Received: 10/7/2013  
**Field Sample #: SSVP-4**  
**Sample ID: 13J0340-02**  
 Sample Matrix: Sub Slab  
 Sampled: 10/2/2013 17:15

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1416  
 Canister Size: 1 liter  
 Flow Controller ID: 3246  
 Sample Type: 1 hr

**Work Order: 13J0340**  
 Initial Vacuum(in Hg): -30  
 Final Vacuum(in Hg): -4  
 Receipt Vacuum(in Hg): -3.8  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Sample Flags: RL-02

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL		Analized		
Acetone	1300	80	28	L-05, V-06	3100	190	40	10/10/13	5:45	TPH
n-Butylbenzene	ND	5.8	1.3		ND	32	40	10/10/13	5:45	TPH
sec-Butylbenzene	ND	4.6	1.6		ND	25	40	10/10/13	5:45	TPH
tert-Butylbenzene	ND	4.6	1.7		ND	25	40	10/10/13	5:45	TPH
1,1-Dichloroethylene	ND	2.0	0.49		ND	7.9	40	10/10/13	5:45	TPH
cis-1,2-Dichloroethylene	ND	2.0	0.76		ND	7.9	40	10/10/13	5:45	TPH
trans-1,2-Dichloroethylene	5.7	2.0	0.53		23	7.9	40	10/10/13	5:45	TPH
Ethylbenzene	5.9	2.0	0.55		26	8.7	40	10/10/13	5:45	TPH
Isopropylbenzene (Cumene)	ND	5.1	1.6		ND	25	40	10/10/13	5:45	TPH
p-Isopropyltoluene (p-Cymene)	ND	4.6	1.4		ND	25	40	10/10/13	5:45	TPH
Naphthalene	ND	2.0	1.1	L-03	ND	10	40	10/10/13	5:45	TPH
Propylbenzene	ND	5.1	1.8		ND	25	40	10/10/13	5:45	TPH
Tetrachloroethylene	33	2.0	0.57		220	14	40	10/10/13	5:45	TPH
Trichloroethylene	40	2.0	0.59		220	11	40	10/10/13	5:45	TPH
1,2,4-Trimethylbenzene	3.9	2.0	0.49		19	9.8	40	10/10/13	5:45	TPH
1,3,5-Trimethylbenzene	3.1	2.0	0.40		15	9.8	40	10/10/13	5:45	TPH
Vinyl Chloride	ND	2.0	0.86		ND	5.1	40	10/10/13	5:45	TPH
m&p-Xylene	27	4.0	1.0		120	17	40	10/10/13	5:45	TPH
o-Xylene	15	2.0	0.58		63	8.7	40	10/10/13	5:45	TPH

Surrogates	% Recovery	% REC Limits	Date/Time
4-Bromofluorobenzene (1)	93.8	70-130	10/10/13 5:45
4-Bromofluorobenzene (2)	87.2	70-130	10/10/13 5:45

**Sample Extraction Data**

Prep Method: TO-15 Prep-EPA TO-15

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
13J0340-01 [SSVP-3]	B082643	2	1	N/A	1000	400	20	10/09/13
13J0340-02 [SSVP-4]	B082643	2	1	N/A	1000	400	20	10/09/13

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		

Batch B082643 - TO-15 Prep

Blank (B082643-BLK1)

Prepared & Analyzed: 10/09/13

Acetone	ND	1.0									
n-Butylbenzene	ND	0.072									
sec-Butylbenzene	ND	0.057									
tert-Butylbenzene	ND	0.057									
1,1-Dichloroethylene	ND	0.025									
cis-1,2-Dichloroethylene	ND	0.025									
trans-1,2-Dichloroethylene	ND	0.025									
Ethylbenzene	ND	0.025									
Isopropylbenzene (Cumene)	ND	0.064									
p-Isopropyltoluene (p-Cymene)	ND	0.057									
Naphthalene	ND	0.025									L-03
Propylbenzene	ND	0.064									
Tetrachloroethylene	ND	0.025									
Trichloroethylene	ND	0.025									
1,2,4-Trimethylbenzene	ND	0.025									
1,3,5-Trimethylbenzene	ND	0.025									
Vinyl Chloride	ND	0.025									
m&p-Xylene	ND	0.050									
o-Xylene	ND	0.025									

Surrogate: 4-Bromofluorobenzene (1)

7.82

8.00

97.8

70-130

Surrogate: 4-Bromofluorobenzene (2)

7.26

8.00

90.7

70-130

LCS (B082643-BS1)

Prepared & Analyzed: 10/09/13

Acetone	7.22				5.00	144 *	70-130				L-05, V-06
n-Butylbenzene	0.936				1.14	82.1	70-130				
sec-Butylbenzene	0.984				1.14	86.3	70-130				
tert-Butylbenzene	1.00				1.14	88.2	70-130				
1,1-Dichloroethylene	4.66				5.00	93.1	70-130				
cis-1,2-Dichloroethylene	4.60				5.00	91.9	70-130				
trans-1,2-Dichloroethylene	4.52				5.00	90.4	70-130				
Ethylbenzene	4.99				5.00	99.8	70-130				
Isopropylbenzene (Cumene)	1.12				1.27	88.6	70-130				
p-Isopropyltoluene (p-Cymene)	0.939				1.14	82.4	70-130				
Naphthalene	2.53				5.00	50.6 *	70-130				L-03
Propylbenzene	1.08				1.27	85.1	70-130				
Tetrachloroethylene	5.22				5.00	104	70-130				
Trichloroethylene	4.43				5.00	88.6	70-130				
1,2,4-Trimethylbenzene	5.01				5.00	100	70-130				
1,3,5-Trimethylbenzene	5.20				5.00	104	70-130				
Vinyl Chloride	5.97				5.00	119	70-130				
m&p-Xylene	10.7				10.0	107	70-130				
o-Xylene	5.09				5.00	102	70-130				

Surrogate: 4-Bromofluorobenzene (1)

8.17

8.00

102

70-130

Surrogate: 4-Bromofluorobenzene (2)

7.40

8.00

92.5

70-130

**FLAG/QUALIFIER SUMMARY**

- \* QC result is outside of established limits.
  - † Wide recovery limits established for difficult compound.
  - ‡ Wide RPD limits established for difficult compound.
  - # Data exceeded client recommended or regulatory level
- Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
- L-03 Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.
  - L-05 Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.
  - RL-02 Elevated reporting limit due to high concentration of non-target compounds. Requested reporting limit not met.
  - V-06 Continuing calibration did not meet method specifications and was biased on the high side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the high side.

**CERTIFICATIONS**

**Certified Analyses included in this Report**

Analyte	Certifications
<i>EPA TO-15 in Air</i>	
Acetone	NY
1,1-Dichloroethylene	AIHA,FL,NJ,NY,VA
cis-1,2-Dichloroethylene	AIHA,FL,NY,VA
trans-1,2-Dichloroethylene	AIHA,NJ,NY,VA
Ethylbenzene	AIHA,FL,NJ,NY,VA
Isopropylbenzene (Cumene)	AIHA,NJ,NY
Naphthalene	NY
Tetrachloroethylene	AIHA,FL,NJ,NY,VA
Trichloroethylene	AIHA,FL,NJ,NY,VA
1,2,4-Trimethylbenzene	AIHA,NJ,NY
1,3,5-Trimethylbenzene	AIHA,NJ,NY
Vinyl Chloride	AIHA,FL,NJ,NY,VA
m&p-Xylene	AIHA,FL,NJ,NY,VA
o-Xylene	AIHA,FL,NJ,NY,VA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2014
MA	Massachusetts DEP	M-MA100	06/30/2014
CT	Connecticut Department of Public Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2014
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2014
RI	Rhode Island Department of Health	LAO00112	12/30/2013
NC	North Carolina Div. of Water Quality	652	12/31/2013
NJ	New Jersey DEP	MA007 NELAP	06/30/2014
FL	Florida Department of Health	E871027 NELAP	06/30/2014
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2014
WA	State of Washington Department of Ecology	C2065	02/23/2014
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2013
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2014



Phone: 413-525-2332  
Fax: 413-525-6405  
Email: info@contestlabs.com  
www.contestlabs.com

AIR SAMPLE CHAIN OF CUSTODY  
RECORD  
1350340

39 SPRUCE ST  
EAST LONGMEADOW, MA 01028

Page 1 of 1

Company Name: Hart & Hickman

Address: 3334 Hillsborough

Attention: Tim Klutz

Project Location: Pollins Economy Clean

Sampled By: Matt Gillis

Proposal Provided? (For Billing purposes)

Yes  No proposal date

Telephone: (413) 847 4241

Project # DSO-79

Client PO # DSO-79

DATA DELIVERY (check one):  
 FAX  EMAIL  WEBSITE CLIENT

Format:  EXCEL  PDF  GIS KEY  OTHER

Date Sampled

Start Stop

Date Time

Date Time

Total Minutes Sampled

Flow Rate N<sup>2</sup>/Min. or L / Min.

Volume Liters or M<sup>3</sup>

Matrix Code\*

Summa Canister ID

Flow Control ID

Field ID	Sample Description	Media	Lab #	Date Time	Date Time	Total Minutes Sampled	Flow Rate	Volume	Matrix Code*	Summa Canister ID	Flow Control ID
SSVP-3		S	01	10/21/13 1610	10/21/13 1720				SS	1417	320
SSVP-4		S	02	10/21/13 1555	10/21/13 1715				SS	1416	320

Laboratory Comments: Analyze for chert specified list + provided to Lisa Worthington via email by Tim Klutz 9/24/13

CLIENT COMMENTS:

Relinquished by: (signature) Matt Gillis

Received by: (signature) [Signature]

Relinquished by: (signature) [Signature]

Received by: (signature) [Signature]

Turnaround \*\*

7-Day

10-Day

Other

\*24-Hr  \*48-Hr  \*72-Hr  \*4-Day

Special Requirements

Regulations: \_\_\_\_\_

Data Enhancement/RCP?  Y  N

Enhanced Data Package  Y  N

Required Detection Limits: \_\_\_\_\_

Matrix Code:

SG= SOIL GAS

IA= INDOOR AIR

AMB= AMBIENT

SS= SUB SLAB

D= DUP

BL= BLANK

Media Codes:

S= Summa can

TB= Tedlar bag

P= PUF

T= Tube

F= Filter

C= Cassette

\*\* TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

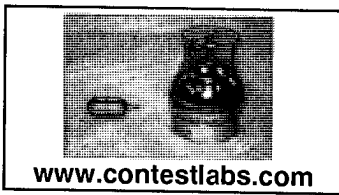
AIHA, NELAC & WB/EDE Certified

**Login Sample Receipt Checklist**

**(Rejection Criteria Listing - Using Sample Acceptance Policy)**

**Any False statement will be brought to the attention of Client**

Question	Answer (True/False)		Comment
	T/F/NA		
1) The cooler's custody seal, if present, is intact.	NA		
2) The cooler or samples do not appear to have been compromised or tampered with.	NA		
3) Samples were received on ice.	NA		
4) Cooler Temperature is acceptable.	NA		
5) Cooler Temperature is recorded.	NA		
6) COC is filled out in ink and legible.	T		
7) COC is filled out with all pertinent information.	T		
8) Field Sampler's name present on COC.	T		
9) There are no discrepancies between the sample IDs on the container and the COC.	T		
10) Samples are received within Holding Time.	T		
11) Sample containers have legible labels.	T		
12) Containers are not broken or leaking.	T		
13) Air Cassettes are not broken/open.	NA		
14) Sample collection date/times are provided.	T		
15) Appropriate sample containers are used.	T		
16) Proper collection media used.	T		
17) No headspace sample bottles are completely filled.	NA		
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T		
19) Trip blanks provided if applicable.	NA		
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	NA		
21) Samples do not require splitting or compositing.	T		



39 Spruce St.  
East Longmeadow, MA.  
01028  
P: 413-525-2332  
F: 413-525-6405

**AIR Only Receipt Checklist**

CLIENT NAME: Hart + Hickman RECEIVED BY: PB DATE: 10-9-13

- 1) Was the chain(s) of custody relinquished and signed?  Yes No
- 2) Does the chain agree with the samples?  Yes No  
If not, explain:
- 3) Are all the samples in good condition?  Yes No  
If not, explain:
- 4) Are there any samples "On Hold"? Yes  No Stored where:
- 5) Are there any RUSH or SHORT HOLDING TIME samples? Yes  No  
Who was notified \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

6) Location where samples are stored: Air Lab  
 Permission to subcontract samples? Yes No  
 (Walk-in clients only) if not already approved  
 Client Signature: \_\_\_\_\_

7) Temperature °C by Temp blank \_\_\_\_\_ Temperature °C by Temp gun \_\_\_\_\_

Containers received at Con-Test		
	# of Containers	Types (Size, Duration)
Summa Cans (TO-14/TO-15/APH)	2	1 hr
Tedlar Bags		
TO-17 Tubes		
Regulators	2	1 hr
Restrictors		
Hg/Hopcalite Tube (NIOSH 6009)		
(TO-4A/ TO-10A/TO-13) PUFs		
PCB Florisil Tubes (NIOSH 5503)		
Air cassette		
PM 2.5/PM 10		
TO-11A Cartridges		
Other		

Unused Summas/PUF Media:

Unused Regulators:

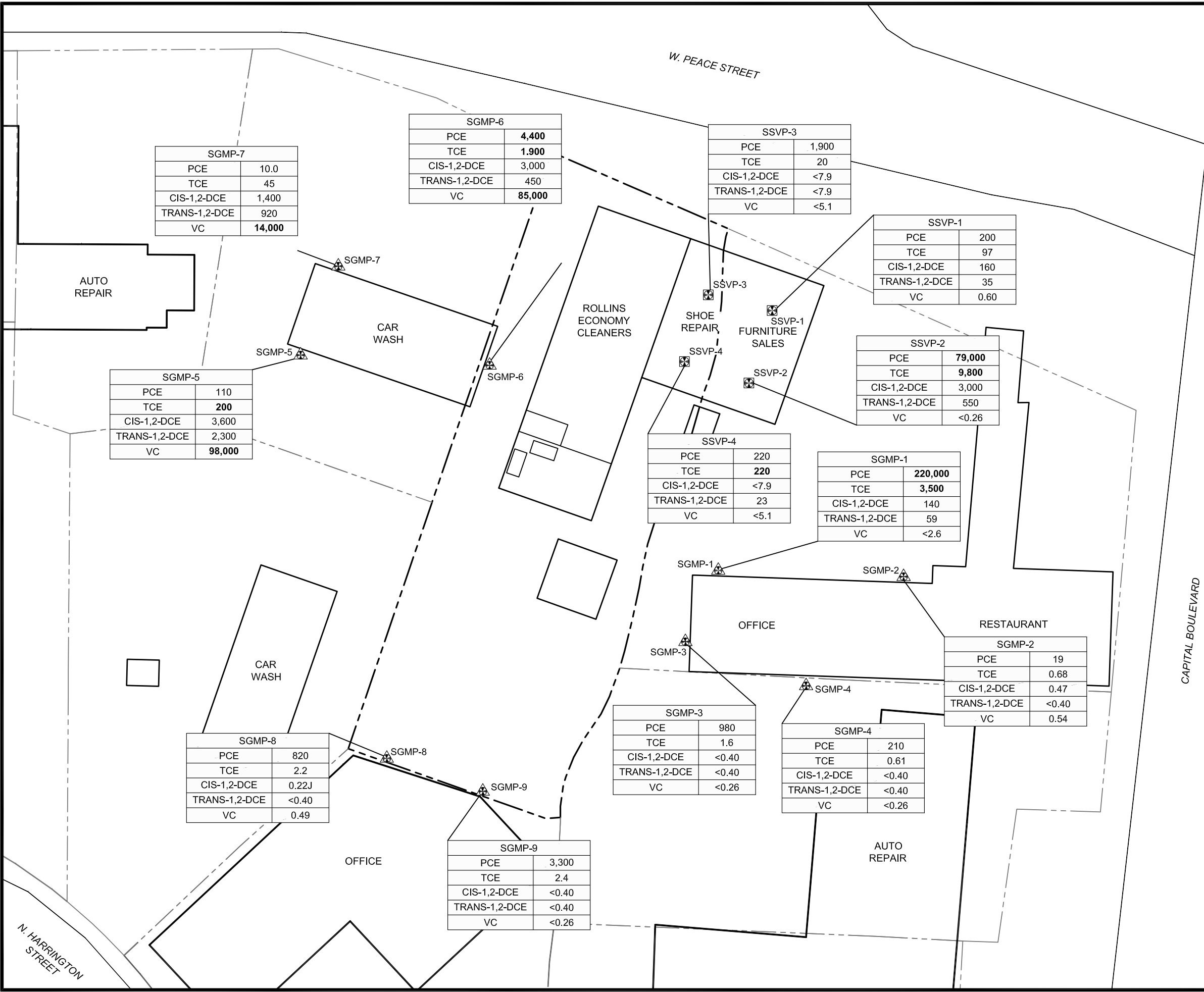
- 1) Was all media (used & unused) checked into the WASP?
- 2) Were all returned summa cans, Restrictors & Regulators and PUF's documented as returned in the Air Lab Inbound/Outbound Excel Spreadsheet?

Laboratory Comments: 1417 3245  
1416 3246



**ATTACHMENT 22**  
**SUB-SLAB VAPOR AND SUBSURFACE SOIL GAS CONTAMINANT**  
**CONCENTRATION MAP**

S:\AAA-Master Projects\DSCA - DS0\DS0-79 Rollins Economy Cleaners\Reports\2013-09\_PA\DC020048\_20131209\_Figures.dwg, ATT22, 12/19/2013 11:32:50 AM, infoster



**LEGEND**

- SOURCE PROPERTY BOUNDARY
- - - PROPERTY PARCEL
- ▲ SUBSURFACE SOIL GAS SAMPLE
- ⊠ SUB-SLAB VAPOR SAMPLE

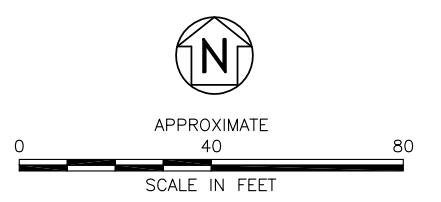
SAMPLE ID

SSVP-2	
PCE	<b>79,000</b>
TCE	<b>9,800</b>
CIS-1,2-DCE	3,000
TRANS-1,2-DCE	550
VC	<0.26

CONSTITUENT →      ← CONCENTRATION (ug/m<sup>3</sup>)  
(BOLD EXCEEDS NON-RESIDENTIAL SGSL)

**NOTES:**

1. SUBSURFACE SOIL GAS SAMPLES SGMP-1 THROUGH SGMP-9 COLLECTED ON 09/20/13.
2. SUB-SLAB VAPOR SAMPLES SVMP-1 AND SVMP-2 COLLECTED ON 09/23/13.
3. SUB-SLAB VAPOR SAMPLES SVMP-3 AND SVMP-4 COLLECTED ON 10/02/13.
4. J DENOTES ESTIMATED CONCENTRATION BETWEEN LABORATORY REPORTING LIMIT AND METHOD DETECTION LIMIT.



<b>TITLE</b> SUB-SLAB VAPOR AND SUBSURFACE SOIL GAS CONTAMINANT CONCENTRATION MAP	
<b>PROJECT</b> ROLLINS ECONOMY CLEANERS DSCA ID: 92-0048 407 W. PEACE ST. RALEIGH, WAKE COUNTY	
<span style="font-size: small; vertical-align: middle;">2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology</span>	
DATE: 11/21/13	REVISION NO. 0
JOB NO. DS0-79	ATTACHMENT NO. 22

**Analytical Data Tables**  
**for**  
**North Carolina Dry-Cleaning Solvent Cleanup Act Program**

<b>Facility Name:</b>	Rollins Economy Cleaners
	407 W. Peace Street, Raleigh, Wake County
<b>DSCA ID No.:</b>	92-0048
<b>Submittal Date:</b>	December 19, 2013
<b>Prepared By:</b>	Hart & Hickman, PC
	2923 S. Tryon Street, Suite 100, Charlotte, NC 28203

**DSCA ID No.: 92-0048**

<b>Table/ Att. No.</b>	<b>Description</b>	<b>Check box if included</b>
<b>Tables</b>		
Table 1	Site Chronology	<input checked="" type="checkbox"/>
Table 2	Analytical Data for Soil	<input checked="" type="checkbox"/>
Table 3	Analytical Data for Sub-slab Gas	<input checked="" type="checkbox"/>
Table 4	Analytical Data for Soil Gas	<input checked="" type="checkbox"/>
Table 5	Analytical Data for Indoor and Outdoor Air	<input type="checkbox"/>
Table 6	Monitoring Well Construction Data	<input type="checkbox"/>
Table 7	Groundwater Elevation Data	<input type="checkbox"/>
Table 8	Analytical Data for Groundwater	<input checked="" type="checkbox"/>
Table 9	Analytical Data for Surface Water	<input checked="" type="checkbox"/>
Table 10	Water Well(s) Survey Data	<input checked="" type="checkbox"/>
Table 11	Analytical Data for Water Supply Well(s)	<input checked="" type="checkbox"/>
Table 12	Analytical Data for Natural Attenuation Parameters	<input type="checkbox"/>
<b>Attachments</b>		
Att. 1	Site map showing location(s) of soil boring(s).	<input type="checkbox"/>
Att. 2	Soil contaminant concentration maps showing the concentration at each sampling point.	<input type="checkbox"/>
Att. 3	Soil isoconcentration maps.	<input type="checkbox"/>
Att. 4	Site map showing location(s) of monitoring well(s).	<input type="checkbox"/>
Att. 5	Well completion diagrams and records of construction submitted to state.	<input type="checkbox"/>
Att. 6	Groundwater gradient map for each sampling event.	<input type="checkbox"/>
Att. 7	PCE concentration map showing the concentration at each sampling point and isoconcentration map. However, if there are significant plumes for other dry-cleaning contaminants, contaminant concentration maps for each chemical of concern should be included.	<input type="checkbox"/>
Att. 8	Groundwater concentration trend plots.	<input type="checkbox"/>
Att. 9	Map showing location(s) of surface water sample(s) (if applicable).	<input type="checkbox"/>
Att. 10	Surface water concentration map showing the concentration at each sampling point (if applicable).	<input type="checkbox"/>
Att. 11	USGS Quad map with plotted water well location(s) within the 1,500 foot and 0.5 mile radii of the site (if applicable).	<input type="checkbox"/>
Att. 12	Site map showing location(s) of monitoring well(s) for natural attenuation paramete	<input type="checkbox"/>
Att. 13	Site map showing location(s) of indoor air, outdoor air, or soil gas samples.	<input type="checkbox"/>
Att. 14	Air and soil gas concentration map showing the concentration at each sampling point.	<input type="checkbox"/>
Att. 15	Signed laboratory analytical reports including chain-of custody and quality assurance/quality control (QA/QC) documentation (only if not previously submitted).	<input type="checkbox"/>
Att. 16		<input type="checkbox"/>
Att. 17		<input type="checkbox"/>
Att. 18		<input type="checkbox"/>
Att. 19		<input type="checkbox"/>
Att. 20		<input type="checkbox"/>
Att. 21		<input type="checkbox"/>

Note:

1. All maps must include a bar scale, north arrow, site name, DSCA ID No., and date.

**Table 1: Site Chronology****ADT 1****DSCA ID No.: 92-0048****Chronology of Events**

Date	Instructions: Brief description of all significant events that have occurred since a problem was suspected at the facility. Commence with the first date a problem was suspected and continue through the most recent activity described in the current report.
February 2013	Hart & Hickman (H&H) conducted a 1% Investigation at the Rollins Economy Cleaners site, including the collection of 12 soil samples from 6 soil borings (SB-1 through SB-6) and the collection 6 groundwater samples (TMW-1 through TMW-6). PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride were detected at concentrations above their respective Tier 1 RBSLs in soil and groundwater. PCE NAPL was observed in TMW-4 (adjacent to the waste storage area) and confirmed through laboratory analysis. Petroleum compounds were also detected in soil and groundwater samples at concentrations exceeding Tier 1 RBSLs. H&H submitted the 1% Investigation report to the DSCA Program on March 7, 2013.
6/22/2013	The site is certified into the DSCA Program.
September - October 2013	H&H conducted Prioritization Assessment activities at the site, including the collection of soil samples from 23 soil borings (SB-7 through SB-29); the collection of groundwater samples from of 26 direct-push locations (TMW-7 through TMW-33); the collection of 4 sub-slab soil gas samples (SSVP-1 through SSVP-4), collection of 9 subsurface soil gas samples (SGMP-1 through SGMP-9); the collection of soil samples from three of the soil gas borings (SGMP-1, -3, and -6), and the collection of 1 surface water sample 9SW-1). H&H also completed a receptor survey within a 1-mile radius of the site. On December 19, 2013, H&H submitted a Prioritization Assessment Report to the DSCA Program documenting the assessment activities and results.





**Table 2: Analytical Data for Soil**

DSCA ID No.: 92-0048																							
Sample ID	Depth [feet bgs]	Sampling Date (mm/dd/yy)	Benzene	cis-1,2-Dichloroethylene	Ethylbenzene	Methyl tert-butyl ether (MTBE)	Naphthalene	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl chloride	Xylenes (total)	Acetone	Bromomethane	Chloroform	1,1-Dichloroethene	Isopropylbenzene (Cumene)	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	4-Methyl-2-pentanone (MIBK)	n-Butylbenzene	
			[mg/kg]																				
SB-29	0-1	09/20/13	<0.00206	<0.00206	<0.00206	<0.00206	<0.00516	<b>0.0156</b>	<0.00206	<0.00206	<0.00206	<0.00206	<0.00309	<0.0516	<0.00206	<0.00206	<0.00206	<0.00206	<0.00206	<0.00206	<0.0516	<0.00206	
	3-4	09/20/13	<0.00225	<0.00225	<0.00225	<0.00225	<0.338	<b>0.139</b>	<0.00225	<0.00225	<0.00225	<0.00225	<0.00338	<0.0564	<0.00225	<0.00225	<0.00225	<0.00225	<0.00225	<0.135	<0.135	<0.0564	<0.135
SGMP-1	2-3	09/20/13	<0.00185	<0.00185	<0.00185	<0.00185	<0.00462	<b>0.00966</b>	<0.00185	<0.00185	<0.00185	<0.00185	<0.00277	<b>0.0677</b>	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.0462	<0.00185	
	4-5	09/20/13	<0.00159	<0.00159	<0.00159	<0.00159	<0.00398	<b>0.846</b>	<0.00159	<0.00159	<b>0.0102</b>	<0.00159	<0.00239	<b>0.0551</b>	<0.00159	<0.00159	<0.00159	<0.00159	<0.00159	<0.00159	<0.0398	<0.00159	
SGMP-3	1-2	09/20/13	<0.00160	<0.00160	<0.00160	<0.00160	<0.00400	<b>0.00509</b>	<0.00160	<0.00160	<0.00160	<0.00160	<0.00240	<0.0400	<0.00160	<0.00160	<0.00160	<0.00160	<0.00160	<0.00160	<0.0400	<0.00160	
	3-4	09/20/13	<0.00159	<0.00159	<0.00159	<0.00159	<0.00397	<b>0.0252</b>	<0.00159	<0.00159	<0.00159	<0.00159	<0.00238	<b>0.0545</b>	<0.00159	<0.00159	<0.00159	<0.00159	<0.00159	<0.00159	<0.0397	<0.00159	
SGMP-6	2-3	09/20/13	<0.00182	<b>0.0287</b>	<0.00182	<0.00182	<0.00454	<b>0.00333</b>	<0.00182	<b>0.00544</b>	<b>0.00954</b>	<b>0.119</b>	<0.00273	<0.0454	<0.00182	<0.00182	<0.00182	<0.00182	<0.00182	<b>0.0115</b>	<b>0.00349</b>	<0.0454	<0.00182
	3-4	09/20/13	<0.00163	<b>0.0101</b>	<0.00163	<0.00163	<0.00407	<b>0.0129</b>	<0.00163	<0.00163	<b>0.00788</b>	<b>0.0427</b>	<b>0.00306</b>	<0.0407	<0.00163	<0.00163	<0.00163	<b>0.00231</b>	<b>0.0191</b>	<b>0.00836</b>	<0.0407	<b>0.00634</b>	
DSCA Tier 1 RBSL			0.034	1.1	51	0.18	1.6	0.023	29	1.5	0.067	0.00079	36	42	NE	0.98	0.19	9.0	45	NE	NE	NE	

Notes:  
 1. **Bold** exceeds DSCA Tier 1 Risk-Based Screening Levels (RBSLs).  
 2. NA = Not Analyzed; NE = screening level not established



**Table 2(1): Analytical Data for Soil (User Specified Chemicals)**

**DSCA ID No.: 92-0048**

Sample ID	Depth [feet bgs]	Sampling Date (mm/dd/yy)	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene														
			[mg/kg]																	
SB-1	1-2	02/07/13	<0.00185	<0.00185	<0.00185	<0.00185														
	6-7	02/07/13	<0.00201	<0.00201	<0.00201	<0.00201														
SB-2	1-2	02/07/13	40.7	50.9	37.8	17.7														
	6-7	02/07/13	20.6	2.42	12.9	4.66														
SB-3	1-2	02/07/13	<0.00199	0.00297	0.00344	<0.00199														
	6-7	02/07/13	<0.00196	<0.00196	<0.00196	<0.00196														
SB-4	1-2	02/07/13	<0.00190	<0.00190	<0.00190	<0.00190														
	5-6	02/07/13	0.311	0.407	0.381	1.04														
SB-5	1-2	02/07/13	<0.00229	<0.00229	<0.00229	<0.00229														
	5-6	02/07/13	2.57	0.334	3.16	1.05														
SB-6	1-2	02/07/13	<0.00173	<0.00173	<0.00173	<0.00173														
	5-6	02/07/13	<0.00219	<0.00219	<0.00219	<0.00219														
SB-7	2-3	09/16/13	0.025	<0.012	0.052	0.052														
	5-6	09/16/13	0.34	<0.013	0.27	0.11														
SB-8	2-3	09/16/13	1.9	0.43	2.2	1.2														
	5-6	09/16/13	16	<0.49	14	6.6														
SB-9	2-3	09/16/13	1.0	2.6	1.5	1.0														
	5-6	09/16/13	1.1	0.31	0.88	0.29														
SB-10	2-3	09/16/13	8.2	13	8.4	2.6														
	3-4	09/16/13	0.65	0.091J	0.55	0.16J														
SB-11	1-2	09/16/13	<0.013	<0.013	<0.013	<0.013														
	4-5	09/16/13	<0.013	<0.013	0.006J	0.005J														
SB-12	2-3	09/16/13	0.005J	0.022	0.010J	0.013														
	3-4	09/16/13	<0.013	<0.013	<0.013	<0.013														
SB-13	2-3	09/16/13	<0.011	<0.011	<0.011	<0.011														
	3-4	09/16/13	<0.12	<0.12	<0.12	<0.12														
SB-14	2-3	09/16/13	<0.12	<0.12	<0.12	<0.12														

**Table 2(1): Analytical Data for Soil (User Specified Chemicals)**

DSCA ID No.: 92-0048																			
Sample ID	Depth [feet bgs]	Sampling Date (mm/dd/yy)	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene													
			[mg/kg]																
SB-15	2-3	09/17/13	<0.12	<0.12	<0.12	<0.12													
	3-4	09/17/13	<0.13	<0.13	<0.13	<0.13													
SB-16	1-2	09/17/13	<0.013	<0.013	<0.013	<0.013													
	4-5	09/17/13	0.23J	0.16J	0.51J	0.37J													
SB-17	2-3	09/17/13	<0.52	<0.52	<0.52	<0.52													
	3-4	09/17/13	<0.24	<0.24	<0.24	<0.24													
SB-18	2-3	09/17/13	<0.011	<0.011	<0.011	<0.011													
	4-5	09/17/13	<0.012	<0.012	<0.012	<0.012													
SB-19	0-1	09/18/13	<0.22	<0.22	<0.22	<0.22													
	3-4	09/18/13	<0.012	<0.012	<0.012	<0.012													
SB-20	1-2	09/18/13	<0.46	<0.46	<0.46	<0.46													
	3-4	09/18/13	<0.23	<0.23	<0.23	<0.23													
SB-21	2-3	09/18/13	<0.51	<0.51	<0.51	<0.51													
	3-4	09/18/13	9.2	17	11	3.5													
SB-22	0-1	09/18/13	0.013	0.037	0.028	0.013													
	3-4	09/18/13	0.40	0.28	0.34	0.15J													
SB-23	1-2	09/18/13	1.1	3.8	2.9	1.2													
	3-4	09/18/13	<0.53	<0.53	0.24J	<0.53													
SB-24	2-3	09/18/13	<0.013	<0.013	<0.013	<0.013													
	4-5	09/18/13	<0.013	<0.013	<0.013	<0.013													
SB-25	2-3	09/18/13	<0.011	<0.011	<0.011	<0.011													
	4-5	09/18/13	<0.012	<0.012	<0.012	<0.012													
SB-26	2-3	09/18/13	<0.011	<0.011	<0.011	<0.011													
	4-5	09/18/13	<0.011	<0.011	<0.011	<0.011													
SB-27	0-1	09/18/13	<0.012	<0.012	<0.012	<0.012													
	4-5	09/18/13	<0.25	<0.25	<0.25	<0.25													
SB-28	1-2	09/18/13	<0.25	<0.25	<0.25	<0.25													
	3-4	09/18/13	<0.013	<0.013	<0.013	<0.013													

**Table 2(1): Analytical Data for Soil (User Specified Chemicals)**

**ADT 2(1)**

DSCA ID No.: 92-0048																				
Sample ID	Depth [feet bgs]	Sampling Date (mm/dd/yy)	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene														
			[mg/kg]																	
SB-29	0-1	09/20/13	<0.00206	<0.00206	<0.00206	<0.00206														
	3-4	09/20/13	<0.135	<0.135	<0.135	<0.135														
SGMP-1	2-3	09/20/13	<0.00185	<0.00185	<0.00185	<0.00185														
	4-5	09/20/13	<0.00159	<0.00159	<0.00159	<0.00159														
SGMP-3	1-2	09/20/13	<0.00160	<0.00160	<0.00160	<0.00160														
	3-4	09/20/13	<0.00159	<0.00159	<0.00159	<0.00159														
SGMP-6	2-3	09/20/13	<0.00182	0.00382	0.00968	0.0156														
	3-4	09/20/13	0.00424	0.00275	0.0165	0.0178														
DSCA Tier 1 RBSL			NE	NE	NE	NE														

Notes:  
 1. **Bold** exceeds DSCA Tier 1 Risk-Based Screening Levels (RBSLs).  
 2. NA = Not Analyzed; NE = screening level not established

**Table 3: Analytical Data for Sub-slab Gas****DSCA ID No.: 92-0048**

Sample ID	Depth [inches bgs]	Slab Thickness [inches]	Sampling Duration <sup>1</sup>	Sampling Date (mm/dd/yy)	Benzene	cis-1,2-Dichloroethylene	Ethylbenzene	Methyl tert-butyl ether (MTBE)	Naphthalene	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl chloride	Xylenes (total)	Acetone	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	n-Butylbenzene		
					[µg/m <sup>3</sup> ]																
SSVP-1	6	5	55m	09/23/13	NA	160	0.50	NA	0.34J	200	NA	35	97	0.60	2.48	110	0.68	0.29J	<1.6		
SSVP-2	5	4	1h 10m	09/23/13	NA	3,000	13	NA	8.8	<b>79,000</b>	NA	550	<b>9,800</b>	<0.26	66	730	14	4.9	6.6J		
SSVP-3	5	4	1h 10m	10/02/13	NA	<7.9	12	NA	<10	1,900	NA	<7.9	20	<5.1	63	4,400	47	29	<32		
SSVP-4	5	4	1h 20m	10/02/13	NA	<7.9	26	NA	<10	220	NA	23	<b>220</b>	<5.1	183	3,100	19	15	<32		
DWM Non-Residential SGSLs					--	NE	4,910	--	263	3,500	--	5,260	175	2,790	8,760	2,720,000	613	NE	NE		

Notes:

1. NA = Not Analyzed; NE = screening level not established
2. Bold concentrations exceed DWM Non-Residential Soil Gas Screening Levels (SGSLs) (October 2013).
3. A leak check was performed prior to sample collection.
4. Samples were collected in 1-L Summa canisters and were analyzed using EPA Method TO-15.
5. J flag denotes estimated concentration between laboratory reporting limit and method detection limit.

<sup>1</sup> Indicate "G" for grab sample or for longer samples indicate the number of hours followed by "h".

**Table 4: Analytical Data for Soil Gas****DSCA ID No.: 92-0048**

Sample ID	Depth [feet bgs]	Sample Duration <sup>1</sup>	Sampling Date (mm/dd/yy)	Benzene	cis-1,2-Dichloroethylene	Ethylbenzene	Methyl tert-butyl ether (MTBE)	Naphthalene	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl chloride	Xylenes (total)	Acetone	1,2,4-Trimethylbenzene	n-Butylbenzene	sec-Butylbenzene	Isopropylbenzene (Cumene)	p-Isopropyltoluene	Propylbenzene
				[μg/m <sup>3</sup> ]																	
SGMP-1	5.5	1h 10m	09/20/13	NA	140	9.9	NA	6.1	<b>220,000</b>	NA	59	<b>3,500</b>	<2.6	60	140	12	<16	<13	<12	<13	<12
SGMP-2	5.5	1h 11m	09/20/13	NA	0.47	21	NA	8.4	19	NA	<0.40	0.68	0.54	118	<9.5	49	5.6	1.7	2.3	3.0	8.7
SGMP-3	5.5	1h 10m	09/20/13	NA	<0.40	31	NA	4.4	980	NA	<0.40	1.6	<0.26	168	490	58	4.2	0.99J	3.7	1.7	12
SGMP-4	5.5	1h 5m	09/20/13	NA	<0.40	25	NA	2.7	210	NA	<0.40	0.61	<0.26	127	180	35	2.5	0.72J	2.7	1.1J	8.0
SGMP-5	5.5	1h 7m	09/20/13	NA	3,600	51	NA	12	110	NA	2,300	<b>200</b>	<b>98,000</b>	291	1,400	130	13J	13	6.1 J	11J	<12
SGMP-6	4.5	1h 20m	09/20/13	NA	3,000	320	NA	<52	<b>4,400</b>	NA	450	<b>1,900</b>	<b>85,000</b>	790	<950	400	3,100	14,000	11,000	110J	8,000
SGMP-7	5.5	1h 11m	09/20/13	NA	1,400	38	NA	6.0	10.0	NA	920	45	<b>14,000</b>	212	<9.5	63	7.0	1.8	4.8	<1.3	13
SGMP-8	5.5	1h 4m	09/20/13	NA	0.22J	13	NA	3.1	820	NA	<0.40	2.2	0.49	78	130	30	0.67J	0.75J	1.7	0.82J	6.0
SGMP-9	5.5	1h 8m	09/20/13	NA	<0.40	21	NA	3.6	3,300	NA	<0.40	2.4	<0.26	117	300	43	3.2	0.75J	2.7	1.4	9.5
DWM Non-Residential SGSLs				--	NE	4,910	--	263	3,500	--	5,260	175	2,790	8,760	2,720,000	613	NE	NE	35,000	NE	87,600

Notes:

1. NA = Not Analyzed; NE = screening level not established
2. Bold concentrations exceed DWM Non-Residential Soil Gas Screening Levels (SGSLs) (October 2013).
3. A leak check was performed prior to sample collection.
4. Samples were collected in 1-L Summa canisters and were analyzed using EPA Method TO-15.
5. J flag denotes estimated concentration between laboratory reporting limit and method detection limit.


<sup>1</sup> Indicate "G" for grab sample or for longer samples indicate the number of hours followed by "h".

**Table 4(1): Analytical Data for Soil Gas (User Specified Chemicals)**

**DSCA ID No.: 92-0048**

Sample ID	Depth [feet bgs]	Sample Duration <sup>1</sup>	Sampling Date (mm/dd/yy)	1,3,5-Trimethylbenzene	1,1-Dichloroethylene	tert-Butylbenzene														
				[µg/m <sup>3</sup> ]																
SGMP-1	5.5	1h 10m	09/20/13	<4.9	<4.0	<13														
SGMP-2	5.5	1h 10m	09/20/13	14	<0.40	<1.3														
SGMP-3	5.5	1h 10m	09/20/13	15	<0.40	<1.3														
SGMP-4	5.5	1h 5m	09/20/13	10	<0.40	<1.3														
SGMP-5	5.5	1h 7m	09/20/13	41	40	<13														
SGMP-6	4.5	1h 20m	09/20/13	300	44	12,000														
SGMP-7	5.5	1h 11m	09/20/13	17	8.0	<1.3														
SGMP-8	5.5	1h 4m	09/20/13	7.3	<0.40	<1.3														
SGMP-9	5.5	1h 8m	09/20/13	11	<0.40	<1.3														
DWM Non-Residential SGSLs				NE	17,500	NE														

**Notes:**

1. NA = Not Analyzed; NE = screening level not established
2. Bold concentrations exceed DWM Non-Residential Soil Gas Screening Levels (SGSLs) (October 2013).
3. A leak check was performed prior to sample collection.
4. Samples were collected in 1-L Summa canisters and were analyzed using EPA Method TO-15.
5. J flag denotes estimated concentration between laboratory reporting limit and method detection limit.


<sup>1</sup> Indicate "G" for grab sample or for longer samples indicate the number of hours followed by "h".



**Table 8: Analytical Data for Groundwater**

**ADT 8**

**DSCA ID No.: 92-0048**

Groundwater Sampling Point	Sampling Date (mm/dd/yy)	Benzene	cis-1,2-Dichloroethylene	Ethylbenzene	Methyl tert-butyl ether (MTBE)	Naphthalene	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl chloride	Xylenes (total)	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1,1-Dichloroethene	Isopropylbenzene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene
		[mg/L]																			
TMW-28	09/18/13	<0.0010	<b>0.0869</b>	<0.0010	NA	<0.0050	<b>0.0023</b>	<0.0010	0.0135	<b>0.0015</b>	<b>0.0565</b>	<0.0030	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050	<0.0010	<0.0010	<0.0010	<0.0010
TMW-29	09/19/13	<0.0010	0.0034	<0.0010	NA	<0.0050	<b>0.0154</b>	<0.0010	<0.0010	<b>0.0032</b>	<0.0010	<0.0030	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050	<0.0010	<0.0010	<0.0010	<0.0010
TMW-30	09/19/13	<0.0010	0.0051	0.0010	NA	<0.0050	<b>0.0117</b>	0.0012	0.00053J	<b>0.0019</b>	<b>0.00090J</b>	0.00102	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050	<0.0010	<0.0010	<0.0010	<0.0010
TMW-31	09/19/13	<0.0010	<0.0010	0.0018	NA	<0.0050	<b>0.0015</b>	0.0023	<0.0010	<0.0010	<0.0010	0.0191	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050	<0.0010	<0.0010	<0.0010	<0.0010
TMW-32	09/19/13	<0.0010	0.00059J	<0.0010	NA	<0.0050	<b>0.0074</b>	0.00032J	<0.0010	0.00081J	<0.0010	0.00070J	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050	<0.0010	<0.0010	<0.0010	<0.0010
TMW-33	09/19/13	<0.0020	<b>0.10</b>	<0.0020	NA	<0.010	<0.0014	<0.0020	0.0015J	<0.0020	<0.0020	<0.0060	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020
Tier 1 RBSL (or NC 2L Standard)		0.001	0.07	0.003	0.02	0.004	0.0007	0.6	0.076	0.001	0.00003	0.094	0.0058	0.4	0.007	0.070	0.070	0.070	0.025	0.070	0.070

Notes:

- 1. Bold** exceeds the DSCA Tier 1 Risk-Based Screening Level (or the NC 2L Standard, if RBSL not established).
- Standard for p-isopropyltoluene is an Interim Maximum Allowable Concentration (IMAC) established under 15A NCAC 2L .0202.



Table 9: Analytical Data for Surface Water

ADT 9

DSCA ID No.: 92-0048

Sample ID	Sampling Date (mm/dd/yy)	Benzene	cis-1,2-Dichloroethylene	Ethylbenzene	Methyl tert-butyl ether (MTBE)	Naphthalene	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl chloride	Xylenes (total)									
		[mg/L]																			
SW-1	09/17/13	<0.0010	<0.0010	<0.0010	NA	<0.0050	0.00036J	<0.0010	<0.0010	<0.0010	<0.0010	<0.0030									
2013 15A NCAC 2B Freshwater Aquatic Life* or Human Health Standard		0.051	0.720	0.097*	1.5	0.012*	0.0033	0.011*	10	0.03	0.0024	0.67*									
Notes: 1. NA denotes not analyzed. 2. J flag indicates estimated concentration below laboratory reporting limit and above method detection limit. * 2013 15A NCAC 2B Freshwater Aquatic Life Standard																					

**Table 10: Water Well(s) Survey Data**

DSCA ID No.: 92-0048										
Ref. No./ Well ID	Sampling Location Name and Address	Property Owner Name, Address, and Phone Number	Tenant Name, Address, and Phone Number	Distance from Source [feet]	Well Depth [feet]	Screen Interval [feet]	Use of Well	Source of Well Identification	Direction (downgradient, upgradient, etc., to source area)	Status (Active/ Inactive)
WSW-1	413 N. Salisbury Street Raleigh, NC	State of North Carolina State Property Office 116 West Jones Street Raleigh, NC 27603 919-733-0396	Facilities Management Department 413 N. Salisbury Street Raleigh, NC 919-733-0396	850	400	Unknown	Irrigation	Identified during assessment at DSCA ID No. 92-0046 (Flint's Laundry and Dry Cleaning)	Upgradient	Active
WSW-2	707 Semart Drive Raleigh, NC	Bagwell Station, LLC 707 Semart Drive Raleigh, NC 27604 919-828-5337	Logan Trading Company 707 Semart Drive Raleigh, NC 27604 919-828-5337	1,380	Unknown	Unknown	Irrigation	Identified during assessment at DSCA ID No. 92-0046 (Flint's Laundry and Dry Cleaning)	Upgradient	Active
I002053	800 Harp Street Raleigh, NC	Peace College of Raleigh 15 E. Peace Street Raleigh, NC 27604 919-508-2000	Peace College of Raleigh 15 E. Peace Street Raleigh, NC 27604 919-508-2000	2,300	Unknown	Unknown	Abandoned 10/20/03	Wake County GIS	Upgradient	Inactive
D028596	150 Oak Chase Lane Raleigh, NC	City of Raleigh Housing Authority 900 Haynes Street Raleigh, NC 27604		2,380	Unknown	Unknown	Irrigation	Wake County GIS	Upgradient	Active
I002046	315 N. Boundary Street Raleigh, NC	Anthony & Karen Penry 315 N. Boundary Street Raleigh, NC 27604		3,000	Unknown	Unknown	Irrigation	Wake County GIS	Upgradient	Inactive
D040771	200 N. Blount Street Raleigh, NC	State of North Carolina State Property Office 116 West Jones Street Raleigh, NC 27603	Governor's Mansion 200 N. Blount Street Raleigh, NC	3,150	305	Unknown	Potable Water	Wake County GIS	Upgradient	Active
WSW-3	900 Hillsborough Street Raleigh, NC	Saint Mary's School 900 Hillsborough Street Raleigh, NC 27602 919-424-4000	Saint Mary's School 900 Hillsborough Street Raleigh, NC 27602 919-424-4000	3,500	Unknown	Unknown	Unknown	Visual Observation	Upgradient	Unknown
D031692	1004 Benjamin Street Raleigh, NC	Philip Cassaro 1004 Benjamin Street Raleigh, NC 27604		4,175	Unknown	Unknown	Abandoned 2004	Wake County GIS	Upgradient	Inactive
D046120	1515 Glenwood Avenue Raleigh, NC	Brian & Kristin Wordsworth PO Box 800 Rocky Mount, NC 27802		4,225	126	Unknown	Irrigation	Wake County GIS	Upgradient	Active



**Table 11: Analytical Data for Water Supply Well(s)**

**ADT 11**

**DSCA ID No.: 92-0048**

Sample ID	Sampling Date (mm/dd/yy)	Benzene	cis-1,2-Dichloroethylene	Ethylbenzene	Methyl tert-butyl ether (MTBE)	Naphthalene	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl chloride	Xylenes (total)								
		[mg/L]																		
WSW-1	08/18/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00300								
WSW-2	05/07/13	<0.00100	<0.00100	<0.00100	0.00324	<0.00500	<b>0.00323</b>	<0.00100	<0.00100	<0.00100	<0.00100	<0.00300								
Tier 1 RBSL		0.001	0.07	0.003	0.02	0.004	0.0007	0.6	0.076	0.001	0.00003	0.094								
Notes: 1. Samples collected and analyzed as part of assessment activities at DSCA ID No. 92-0046 (Flint's Laundry and Dry Cleaning) 2. Bold concentrations exceed DSCA Tier 1 RBSL.																				