



WithersRavenel

Our People. Your Success.

February 29, 2016

EnviroAnalytics Group, LLC  
1650 Des Peres Road, Suite 303  
Saint Louis, MO 63131

Attn.: Mr. David Craig  
Project Manager

RE: **Results of Follow Up Indoor Air and Outdoor Air Analyses**  
Leather Trimmings, LTD Building  
3110 Cullman Avenue, Charlotte NC  
WR Project Number: 03130430.03

Dear Mr. Craig,

As authorized by EnviroAnalytics Group, LLC (EAG) purchase order #2946 WithersRavenel (WR) has completed the collection of indoor air and outdoor ambient air samples from the Leather Trimmings building located at 3110 Cullman Avenue in Charlotte, NC. The indoor and outdoor air samples were submitted to ESC Lab Sciences (ESC) where they were analyzed for 1,1 dichloroethene (1,1 DCE), cis 1,2 dichloroethene (cis 1,2 DCE), trans 1,2 dichloroethene (trans 1,2 DCE), tetrachloroethylene (PCE), trichloroethylene (TCE) and vinyl chloride (VC) by EPA Method TO 15 Selected Ion Method (SIM). This report provides description and documentation of the sampling activities and the results of the laboratory analyses.

## Documentation of Sampling Activities

### *Collection of Indoor Air and Outdoor Ambient Air Samples*

On February 12, 2016 WR representative Ross Perry returned to the Leather Trimmings site to deploy summa canisters for the collection of follow up indoor air and outdoor ambient air samples. The first indoor and outdoor air sampling event was conducted at the end of August 2015. Mr. Perry met with Mr. Patrick Speckman who is the owner of the business and building and provided access to the inside of the building. The purpose of the sampling event was to test the effectiveness of a positive pressure ventilation system that EAG recently had installed in the southern wall of the Leather Trimmings building (see photos in **Attachment A**). The system was installed as an attempt to reduce concentrations of TCE detected in the indoor air samples collected in August 2015. The system started operating on February 11, 2016 and was in operation when WR returned to the site on the following day.

During the February 12, 2016 site visit, WR deployed three individually certified six-liter summa canisters each equipped with 24-hour flow controllers inside the building at the approximate locations shown in **Figure 1**. One of the canisters was placed on a table in the northern portion of the building where two offices are located (sample ID LT-IA-Office). The doors to the office were closed to the rest of the building at the time the canisters were

deployed. The remaining two canisters were placed side by side on a box located near the approximate center of the warehouse portion of the building (sample IDs LT-IA-Warehouse and LT-IA-Dup). These are the same sampling locations that WR utilized in August 2015. Following deployment of the canisters, WR and Mr. Speckman left the building and locked the door.

W&R then deployed two individually certified six-liter summa canisters with 24-hour flow controllers at locations between five and fifteen feet from the northern and southern exterior walls of the building (sample IDs LT-OA-North and LT-OA-South). These are the same ambient air sampling locations to the north and south of the building that WR utilized in August 2015. WR returned to subject site approximately 24 hours later on February 13, 2016 to close and retrieve the summa canisters. Mr. Speckman provided access to the inside of the building and it appeared that the outdoor ambient air canister were not tampered with overnight. Copies of the WR field log book pages that document the sampling locations and starting and ending vacuum pressures for each canister are provided in **Attachment B**.

### Results of Laboratory Analyses

The results of TO 15 SIM analysis of the indoor air and outdoor ambient air samples are summarized below:

**Table 1: Follow Up Indoor Air and Outdoor Ambient Air Sampling Results  
 Leather Trimmings Facility: 3110 Cullman Avenue, Charlotte NC**

Sample ID	Sampling Apparatus	ESC Canister ID Number	Start Sampling Date (mm/dd/yy)	End Sampling Date (mm/dd/yy)	1,1 Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethylene	Trichloroethylene	Vinyl chloride
					(ug/m <sup>3</sup> )					
LT-IA-WAREHOUSE	Six Liter Summa	1030 SIM	2/12/2016	2/13/2016	0.206	0.291	<0.0793	4.14	22.9	<0.0511
LT-IA-DUP	Six Liter Summa	16245 SIM	2/12/2016	2/13/2016	0.255	0.336	<0.0793	4.65	23.1	<0.0511
LT-IA-OFFICE	Six Liter Summa	1401 SIM	2/12/2016	2/13/2016	0.630	0.451	<0.0793	29.5	55.2	<0.0511
LT-OA-NORTH	Six Liter Summa	165 SIM	2/12/2016	2/13/2016	<0.0793	<0.0793	<0.0793	0.251	0.297	<0.0511
LT-OA-SOUTH	Six Liter Summa	763 SIM	2/12/2016	2/13/2016	<0.0793	<0.0793	<0.0793	0.287	0.348	<0.0511

Notes: IA = Indoor air sample. See Figure 1 for sample locations.  
 Ambient = Outdoor ambient air sample. See Figure 1 for sample locations.  
 All samples were 24-hour composites.  
 ESC = ESC Lab Sciences: Certified laboratory that performed TO 15 SIM analyses.  
 Samples analyzed by EPA TO15 Selected Ion Method. See lab report for details.

These results are summarized by location in **Figure 1**, and the ESC analytical reports and chain of custody records are provided in **Attachment C**.

## **Comparison of Indoor and Outdoor Air Sampling Results to NC and EPA Screening Levels**

According to the North Carolina Department of Environment and Natural Resources (NCDENR) Division of Waste Management the Non-Residential Vapor Intrusion Screening Level for 1,1 DCE is 175 ug/m<sup>3</sup> and that for PCE is 35 ug/m<sup>3</sup>. These screening levels are based on the May 2014 USEPA Regional Screening Level Target Air Concentrations and the USEPA Vapor Intrusion Screening Level Calculator. All of the detected concentrations of these two compounds in the indoor and outdoor air samples shown in **Table 1** are below these screening levels. Neither EPA nor NCDENR has established a screening level for cis 1,2 DCE.

According to an e-mail from on-site EPA representative Ken Rhame to EAG (**Attachment D**), the screening level established by EPA for TCE in ambient air at the Leather Trimmings site is 8.8 ug/m<sup>3</sup> (see **Attachment E**). The concentrations of TCE reported for the indoor air sampling locations shown in **Table 1** exceed this screening level.

In order to meet the NCDENR reporting deadline for this work and Mr. Speckman's request for WR to collect the samples during the weekend, the indoor air samples were collected the day after the installation of the positive pressure ventilation system had been completed. The system is set to turn itself off if the outdoor temperature drops below 35 degrees F, to prevent potential freezing conditions inside the building and damage to the plumbing. The natural gas fueled space heaters Mr. Speckman uses to heat the warehouse space are hung from the ceiling of the building and are located in the northeast and southwest corners of the building. These space heaters were operating during the time of sampling, as they would be during normal work hours during the winter time.

After reviewing weather data for the sampling period, it is apparent that the fan was not in continuous operation for the entire time the indoor air samples were being collected. Weather data for the Charlotte area indicate that temperatures ranged from 21 to 37 degrees F throughout the sampling period. WR believes that the existing space heater units inside the warehouse were unable to provide adequate heating to compensate for the additional 6700 cfm of air flow provided by the supply fan, which resulted in temperature drops below 35 degrees that caused the supply fan to shut down.

The doors connecting the office area to the warehouse were closed during the time of indoor air sample collection. When these doors are closed, the office area is probably not affected by the positive pressure produced by the ventilation fan in the warehouse. This may explain why the concentrations of PCE and TCE were higher in the office area during the recent sampling event. WR recommends leaving these doors open during future indoor air sampling events to determine whether operation of the ventilation fan in the warehouse area helps to mitigate vapor intrusion in the office area.

WR also recommends surveying the condition of the floor of the building, particularly for the presence of cracks and along the edges where the concrete floor abuts the brick walls. Significant cracks or gaps should be sealed prior to collection of the next set of indoor air samples.

Results of the follow-up indoor air sampling work discussed in this report cannot be used to evaluate the effectiveness of the positive pressure ventilation system due to the unusually cold weather conditions at the time of sampling, which likely caused the system to shut down. WR therefore recommends collection of additional indoor air samples during a time when overnight temperatures are not expected to drop below 35 degrees F. The follow-up sampling should be conducted after the survey of the floor condition is completed, and repairs to significant cracks or gaps in the floor have been made. Additionally, the doors connecting the office area to the warehouse should be left open during the collection of the next set of indoor air samples to determine if operation of the ventilation system is effective at mitigating vapor intrusion in the office area.

W&R appreciates the opportunity to be of assistance to EAG. Should you have any questions or comments regarding the contents of this report, please do not hesitate to contact us at 919-469-3340.

Sincerely,



A handwritten signature in blue ink that reads "Brian J. Bellis".

Brian J. Bellis, P.G.  
Project Manager

A handwritten signature in blue ink that reads "W. Ross Perry".

W. Ross Perry, P.E.  
Project Engineer

Enclosures:

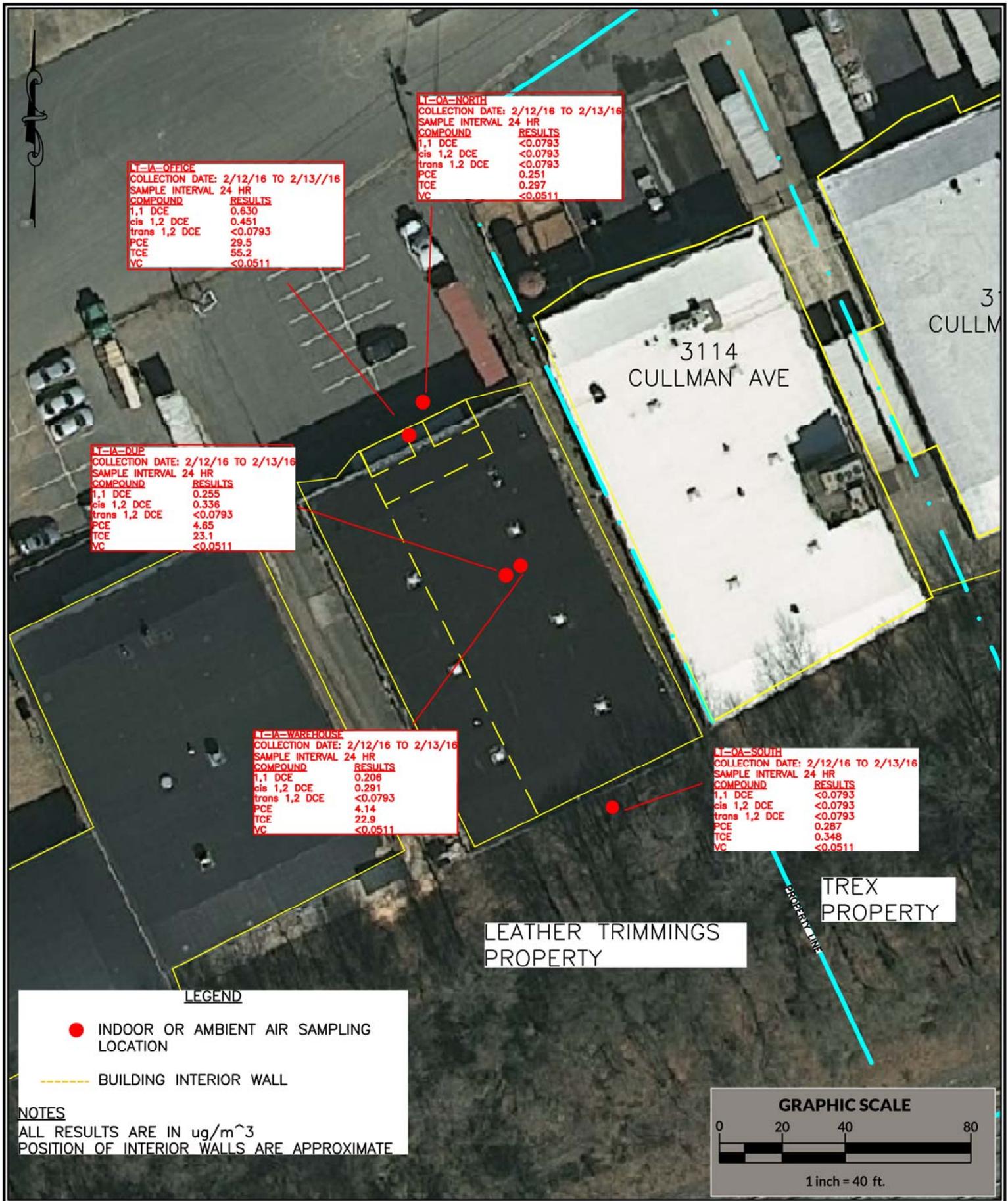
Figure 1: Indoor Air and Ambient Air Locations and Analytical Results

Attachment A: Photo Documentation – February 2016

Attachment B: W&R Field Log Book Pages

Attachment C: Laboratory Analytical Reports and Chain of Custody Records

Attachment D: EPA Screening Level for TCE



**LI-A-OFFICE**  
 COLLECTION DATE: 2/12/16 TO 2/13/16  
 SAMPLE INTERVAL 24 HR

COMPOUND	RESULTS
1,1 DCE	0.630
cis 1,2 DCE	0.451
trans 1,2 DCE	<0.0793
PCE	29.5
TCE	55.2
VC	<0.0511

**LI-OA-NORTH**  
 COLLECTION DATE: 2/12/16 TO 2/13/16  
 SAMPLE INTERVAL 24 HR

COMPOUND	RESULTS
1,1 DCE	<0.0793
cis 1,2 DCE	<0.0793
trans 1,2 DCE	<0.0793
PCE	0.251
TCE	0.297
VC	<0.0511

**LI-A-DUP**  
 COLLECTION DATE: 2/12/16 TO 2/13/16  
 SAMPLE INTERVAL 24 HR

COMPOUND	RESULTS
1,1 DCE	0.255
cis 1,2 DCE	0.336
trans 1,2 DCE	<0.0793
PCE	4.65
TCE	23.1
VC	<0.0511

**LI-A-WAREHOUSE**  
 COLLECTION DATE: 2/12/16 TO 2/13/16  
 SAMPLE INTERVAL 24 HR

COMPOUND	RESULTS
1,1 DCE	0.206
cis 1,2 DCE	0.291
trans 1,2 DCE	<0.0793
PCE	4.14
TCE	22.9
VC	<0.0511

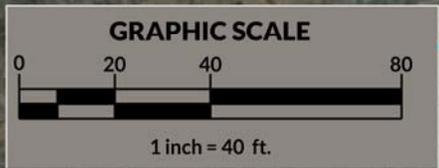
**LI-OA-SOUTH**  
 COLLECTION DATE: 2/12/16 TO 2/13/16  
 SAMPLE INTERVAL 24 HR

COMPOUND	RESULTS
1,1 DCE	<0.0793
cis 1,2 DCE	<0.0793
trans 1,2 DCE	<0.0793
PCE	0.287
TCE	0.348
VC	<0.0511

**LEGEND**

- INDOOR OR AMBIENT AIR SAMPLING LOCATION
- BUILDING INTERIOR WALL

**NOTES**  
 ALL RESULTS ARE IN ug/m<sup>3</sup>  
 POSITION OF INTERIOR WALLS ARE APPROXIMATE



**WithersRavenel**  
 Engineers | Planners | Surveyors  
 115 MacKenan Drive | Cary, NC 27511 | t: 919.469.3340 | license #: C-0832 | www.withersravenel.com

LEATHER TRIMMINGS 3110 CULLMAN AVE  
 CHARLOTTE, NORTH CAROLINA

INDOOR AIR, AND AMBIENT AIR SAMPLING  
 LOCATIONS AND ANALYTICAL RESULTS

DRAWN BY: <b>CF</b>	SCALE: <b>1"=40'</b>	FIGURE NO.: <b>1</b>
APPROVED BY: <b>BB</b>	DATE: <b>2/23/2016</b>	PROJECT NO.: <b>02130430</b>

**Attachment A:**

**Photo Documentation – February 2016  
Leather Trimmings: 3110 Cullman Avenue, Charlotte, NC**



Photo #1: Positive pressure ventilation fan installed within the south wall of the  
Leather Trimmings facility.



Photo #2: Thermostat control (lower left) for the positive pressure ventilation fan.



Photo #3: West looking view of new positive pressure ventilation fan.



Photo #4: East looking view of positive pressure ventilation fan. Note rail construction activities to south (right side of picture).



Photo #5: Duplicate summa canisters deployed in approximate center of Leather Trimmings warehouse. Positive pressure ventilation fan is in center of white wall in the background.

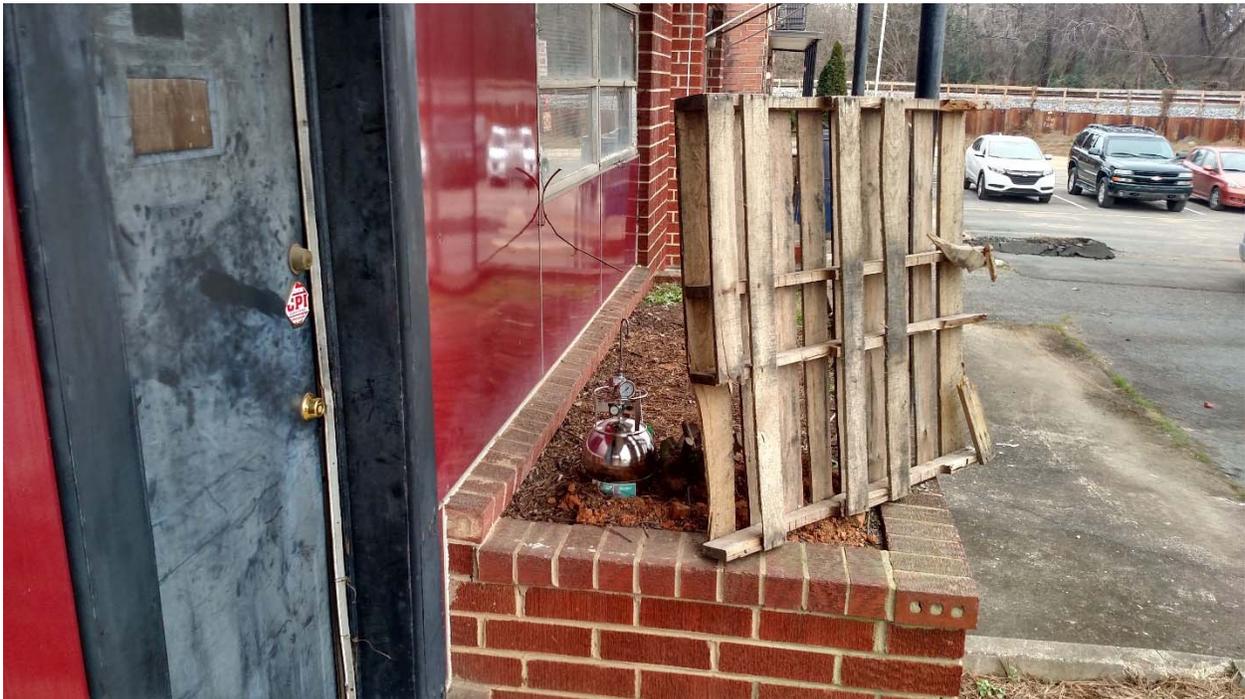


Photo #6: Summa canister deployed for collection of an ambient air sample on the north side of the Leather Trimmings building.



Photo #7: Summa canister deployed to collect an ambient air sample on the south side of the Leather Trimmings building.



Photo #8: Retaining wall construction to south of Leather Trimmings building. Note the lack of exposed groundwater at this work location.

**Attachment B:**

**W&R Field Log Book Pages: February 12 & 13, 2016  
Leather Trimmings: 3110 Cullman Avenue, Charlotte, NC**

2/12/16 Trex Property 03130430.0 Perry  
1030 Onsite. Set up IA+OA sample  
apparatus.

Sample ID	Summa	Reg	Start Time	Start Pressure
LT-IA-Warehouse	1030	350	1113	-29
LT-IA-Dup	16245	264	<del>1113</del>	-30
LT-IA-Office	1401	518	1114	-29
LT-OA-South	763	475	1117	-28.5
LT-OA-North	165	311	1115	-29.5

### Sampling Conditions:

Supply Fan: On (Set to cut off @ 35°F)

Heat: On, set to 50°F (min)

Exhaust Fan: Off

All doors, vents, openings closed.

Outside: 35°F, 50% RH

Patrick Speckman (owner) expressed concerns  
with how cold the supply air was.  
Told Mr. Speckman we would use 24 hr  
event to assess if existing heater can  
sufficiently heat supplied air to maintain  
indoor temps.

1145 Offsite. Building secure.

102

2/13/16 Trex Property 03130430.0 Perry.

1100 Onsite inspect OA samples. Still intact.

Weather conditions:

Temp = 36°F, RH = 28%

Partly cloudy, slight breeze.

1110 Mike Speckman (owners brother) onsite  
to open facility for access.

Collect summus.

Sample ID	End Time	End Pressure ("Hg)
LT-IA-Warehouse	1117	10"
LT-IA-Dup	1117	5"
LT-IA-Office	1118	7"
LT-OA-South	1115	8"
LT-OA-North	1110	0"

1125 All summus collected + disassembled +  
packaged for shipping.

Offsite to MW-16A + 16B to inspect  
damage reported by construction worker.

MW-16A: Pad cracked. Manhole bolt sheared  
+ well head threaded portion damaged.

MW-16B: Pad cracked. (See Pics)

1140 Offsite

103

**Attachment C**

**Laboratory Analytical Reports and Chain of Custody Records  
Leather Trimmings: 3110 Cullman Avenue, Charlotte, NC**

## Withers & Ravenel Eng. - Standard

Sample Delivery Group: L817967  
Samples Received: 02/16/2016  
Project Number: 03130430.03  
Description: Trex Properties

Report To: Brian Bellis  
115 MacKenan Drive  
Cary, NC 27511

Entire Report Reviewed By:



Jimmy Hunt  
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



<b><sup>1</sup>Cp: Cover Page</b>	<b>1</b>	
<b><sup>2</sup>Tc: Table of Contents</b>	<b>2</b>	
<b><sup>3</sup>Ss: Sample Summary</b>	<b>3</b>	
<b><sup>4</sup>Cn: Case Narrative</b>	<b>4</b>	
<b><sup>5</sup>Sr: Sample Results</b>	<b>5</b>	
LT-IA-WAREHOUSE L817967-01	5	
LT-IA-DUP L817967-02	6	
LT-IA-OFFICE L817967-03	7	
LT-OA-NORTH L817967-04	8	
LT-OA-SOUTH L817967-05	9	
<b><sup>6</sup>Qc: Quality Control Summary</b>	<b>10</b>	
Volatile Organic Compounds (MS) by Method TO-15	10	
<b><sup>7</sup>Gl: Glossary of Terms</b>	<b>11</b>	
<b><sup>8</sup>Al: Accreditations &amp; Locations</b>	<b>12</b>	
<b><sup>9</sup>Sc: Chain of Custody</b>	<b>13</b>	

# SAMPLE SUMMARY



## LT-IA-WAREHOUSE L817967-01 Air

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Wesley Perry				Collected date/time 02/13/16 11:17	Received date/time 02/16/16 09:00
Volatile Organic Compounds (MS) by Method TO-15	WG850712	1	02/19/16 14:44	02/19/16 14:44	SNH
Volatile Organic Compounds (MS) by Method TO-15	WG850712	10	02/19/16 18:25	02/19/16 18:25	SNH

1 Cp

2 Tc

3 Ss

## LT-IA-DUP L817967-02 Air

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Wesley Perry				Collected date/time 02/13/16 00:00	Received date/time 02/16/16 09:00
Volatile Organic Compounds (MS) by Method TO-15	WG850712	1	02/19/16 15:28	02/19/16 15:28	SNH
Volatile Organic Compounds (MS) by Method TO-15	WG850712	10	02/19/16 19:08	02/19/16 19:08	SNH

4 Cn

5 Sr

6 Qc

## LT-IA-OFFICE L817967-03 Air

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Wesley Perry				Collected date/time 02/13/16 11:18	Received date/time 02/16/16 09:00
Volatile Organic Compounds (MS) by Method TO-15	WG850712	1	02/19/16 16:13	02/19/16 16:13	SNH
Volatile Organic Compounds (MS) by Method TO-15	WG850712	20	02/19/16 19:50	02/19/16 19:50	SNH

7 Gl

8 Al

9 Sc

## LT-OA-NORTH L817967-04 Air

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Wesley Perry				Collected date/time 02/13/16 11:10	Received date/time 02/16/16 09:00
Volatile Organic Compounds (MS) by Method TO-15	WG850712	1	02/19/16 16:58	02/19/16 16:58	SNH

## LT-OA-SOUTH L817967-05 Air

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Wesley Perry				Collected date/time 02/13/16 11:15	Received date/time 02/16/16 09:00
Volatile Organic Compounds (MS) by Method TO-15	WG850712	1	02/19/16 17:43	02/19/16 17:43	SNH



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jimmy Hunt  
Technical Service Representative

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result ug/m3	Qualifier	Dilution	Batch
1,1-Dichloroethene	75-35-4	96.90	0.0200	0.0793	0.0519	0.206		1	<a href="#">WG850712</a>
cis-1,2-Dichloroethene	156-59-2	96.90	0.0200	0.0793	0.0735	0.291		1	<a href="#">WG850712</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.0200	0.0793	ND	ND		1	<a href="#">WG850712</a>
Tetrachloroethylene	127-18-4	166	0.0200	0.136	0.609	4.14		1	<a href="#">WG850712</a>
Trichloroethylene	79-01-6	131	0.200	1.07	4.28	22.9		10	<a href="#">WG850712</a>
Vinyl chloride	75-01-4	62.50	0.0200	0.0511	ND	ND		1	<a href="#">WG850712</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		86.6				<a href="#">WG850712</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result ug/m3	Qualifier	Dilution	Batch
1,1-Dichloroethene	75-35-4	96.90	0.0200	0.0793	0.0642	0.255		1	<a href="#">WG850712</a>
cis-1,2-Dichloroethene	156-59-2	96.90	0.0200	0.0793	0.0847	0.336		1	<a href="#">WG850712</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.0200	0.0793	ND	ND		1	<a href="#">WG850712</a>
Tetrachloroethylene	127-18-4	166	0.0200	0.136	0.685	4.65		1	<a href="#">WG850712</a>
Trichloroethylene	79-01-6	131	0.200	1.07	4.30	23.1		10	<a href="#">WG850712</a>
Vinyl chloride	75-01-4	62.50	0.0200	0.0511	ND	ND		1	<a href="#">WG850712</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		83.9				<a href="#">WG850712</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result ug/m3	Qualifier	Dilution	Batch
1,1-Dichloroethene	75-35-4	96.90	0.0200	0.0793	0.159	0.630		1	<a href="#">WG850712</a>
cis-1,2-Dichloroethene	156-59-2	96.90	0.0200	0.0793	0.114	0.451		1	<a href="#">WG850712</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.0200	0.0793	ND	ND		1	<a href="#">WG850712</a>
Tetrachloroethylene	127-18-4	166	0.400	2.72	4.34	29.5		20	<a href="#">WG850712</a>
Trichloroethylene	79-01-6	131	0.400	2.14	10.3	55.2		20	<a href="#">WG850712</a>
Vinyl chloride	75-01-4	62.50	0.0200	0.0511	ND	ND		1	<a href="#">WG850712</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		77.1				<a href="#">WG850712</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result ug/m3	Qualifier	Dilution	Batch
1,1-Dichloroethene	75-35-4	96.90	0.0200	0.0793	ND	ND		1	<a href="#">WG850712</a>
cis-1,2-Dichloroethene	156-59-2	96.90	0.0200	0.0793	ND	ND		1	<a href="#">WG850712</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.0200	0.0793	ND	ND		1	<a href="#">WG850712</a>
Tetrachloroethylene	127-18-4	166	0.0200	0.136	0.0369	0.251		1	<a href="#">WG850712</a>
Trichloroethylene	79-01-6	131	0.0200	0.107	0.0555	0.297		1	<a href="#">WG850712</a>
Vinyl chloride	75-01-4	62.50	0.0200	0.0511	ND	ND		1	<a href="#">WG850712</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		83.2				<a href="#">WG850712</a>

- 1  
Cp
- 2  
Tc
- 3  
Ss
- 4  
Cn
- 5  
Sr
- 6  
Qc
- 7  
Gl
- 8  
Al
- 9  
Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result ug/m3	Qualifier	Dilution	Batch
1,1-Dichloroethene	75-35-4	96.90	0.0200	0.0793	ND	ND		1	<a href="#">WG850712</a>
cis-1,2-Dichloroethene	156-59-2	96.90	0.0200	0.0793	ND	ND		1	<a href="#">WG850712</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.0200	0.0793	ND	ND		1	<a href="#">WG850712</a>
Tetrachloroethylene	127-18-4	166	0.0200	0.136	0.0423	0.287		1	<a href="#">WG850712</a>
Trichloroethylene	79-01-6	131	0.0200	0.107	0.0650	0.348		1	<a href="#">WG850712</a>
Vinyl chloride	75-01-4	62.50	0.0200	0.0511	ND	ND		1	<a href="#">WG850712</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		85.8				<a href="#">WG850712</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) 02/19/16 13:45

Analyte	MB Result	MB Qualifier	MB RDL
	ppb		ppb
1,1-Dichloroethene	ND		0.0200
1,1-Dichloroethene	ND		0.0200
cis-1,2-Dichloroethene	ND		0.0200
cis-1,2-Dichloroethene	ND		0.0200
trans-1,2-Dichloroethene	ND		0.0200
trans-1,2-Dichloroethene	ND		0.0200
Tetrachloroethylene	ND		0.0200
Tetrachloroethylene	ND		0.0200
Trichloroethylene	ND		0.0200
Trichloroethylene	ND		0.0200
Vinyl chloride	ND		0.0200
Vinyl chloride	ND		0.0200
(S) 1,4-Bromofluorobenzene	95.5		60.0-140
(S) 1,4-Bromofluorobenzene	95.5		60.0-140

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 02/19/16 12:16 • (LCSD) 02/19/16 13:01

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppb	ppb	ppb	%	%	%			%	%
1,1-Dichloroethene	0.500	0.442	0.435	88.4	87.0	70.0-130			1.56	25
cis-1,2-Dichloroethene	0.500	0.457	0.458	91.5	91.7	70.0-130			0.250	25
trans-1,2-Dichloroethene	0.500	0.445	0.440	88.9	88.1	70.0-130			0.970	25
Tetrachloroethylene	0.500	0.426	0.444	85.2	88.9	70.0-130			4.22	25
Trichloroethylene	0.500	0.427	0.448	85.5	89.6	70.0-130			4.74	25
Vinyl chloride	0.500	0.441	0.436	88.2	87.2	70.0-130			1.13	25
(S) 1,4-Bromofluorobenzene				98.1	98.0	60.0-140				



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
-----------	-------------

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.  
 \* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina <sup>1</sup>	DW21704
Florida	E87487	North Carolina <sup>2</sup>	41
Georgia	NELAP	North Dakota	R-140
Georgia <sup>1</sup>	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky <sup>1</sup>	90010	South Dakota	n/a
Kentucky <sup>2</sup>	16	Tennessee <sup>14</sup>	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

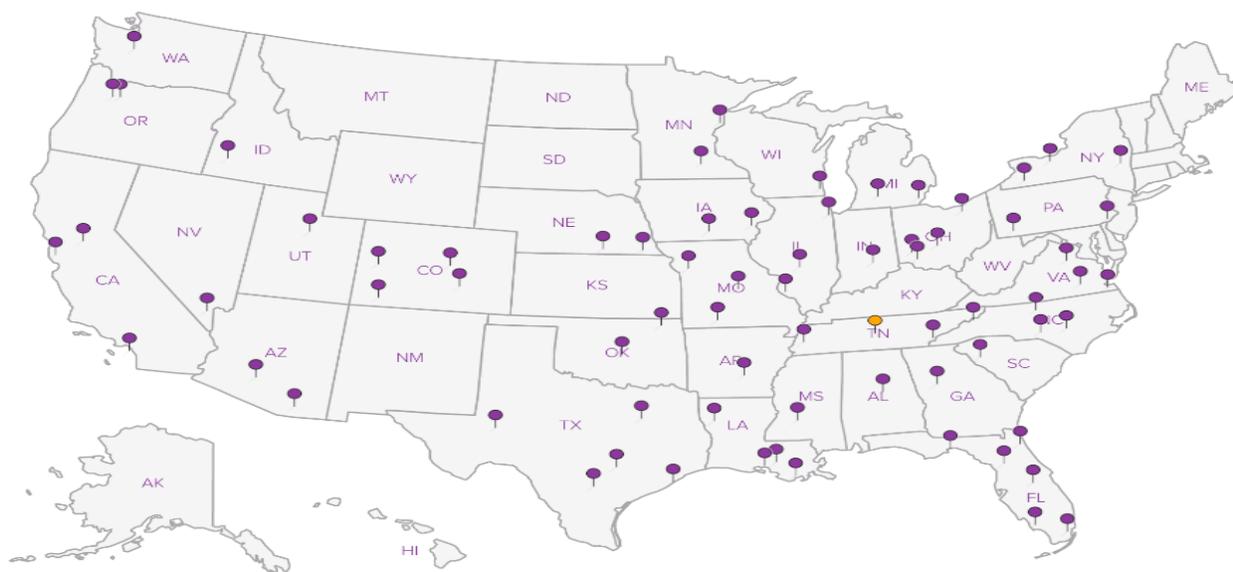
## Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>n/a</sup> Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



**Withers & Ravenel Eng. - Standard**

115 MacKenan Drive  
Cary, NC 27511

Billing Information:  
Accounts Payable  
115 MacKenan Drive  
Cary, NC 27511

Report to:  
**Brian Bellis**

Email To: [bbellis@withersravenel.com](mailto:bbellis@withersravenel.com)

Project  
Description: **Trex Properties**

City/State  
Collected: *Charlotte NC*

Phone: **919-469-3340**  
Fax: **919-467-6008**

Client Project #  
**03130430.03**

Lab Project #  
**WITHRAVS-03130430.03**

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

**Rush?** (Lab MUST Be Notified)

Date Results Needed

Immediately  
Packed on Ice **N X Y**

\_\_\_ Same Day .....200%  
\_\_\_ Next Day .....100%  
\_\_\_ Two Day .....50%  
\_\_\_ Three Day .....25%

Email? \_\_\_ No **X** Yes  
FAX? \_\_\_ No \_\_\_ Yes

No. of  
Ctrs

TO-15SIM Summa

Analysis / Container / Preservative

Chain of Custody Page 1 of 1



YOUR LAB OF CHOICE

12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



L# *L817967*

**L214**

Acctnum: **WITHRAVS**

Template: **T105216**

Prelogin: **P539662**

TSR: 350 - Jimmy Hunt

PB: *SAK 2-1-16*

Shipped Via: **FedEX Ground**

Rem./Contaminant Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Ctrs												
<i>LT-IA-Warehouse</i>	<i>G</i>	<i>Air</i>	<i>N/A</i>	<i>2/13/16</i>	<i>1117</i>	<i>1</i>	<i>X</i>											<i>-01</i>
<i>LT-IA-Dup</i>	<i>G</i>	<i>Air</i>	<i>N/A</i>	<i>2/13/16</i>	<i>---</i>	<i>1</i>	<i>X</i>											<i>-02</i>
<i>LT-IA-Office</i>	<i>G</i>	<i>Air</i>	<i>N/A</i>	<i>2/13/16</i>	<i>1118</i>	<i>1</i>	<i>X</i>											<i>-03</i>
<i>LT-OA-North</i>	<i>G</i>	<i>Air</i>	<i>N/A</i>	<i>2/13/16</i>	<i>1110</i>	<i>1</i>	<i>X</i>											<i>-04</i>
<i>LT-OA-South</i>	<i>G</i>	<i>Air</i>	<i>N/A</i>	<i>2/13/16</i>	<i>1115</i>	<i>1</i>	<i>X</i>											<i>-05</i>
		<i>Air</i>	<i>N</i>			<i>1</i>	<i>X</i>											

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

Remarks: **6 individually-SIM-certified, 6-liter summas**  
**6 24-hour flow controllers**

**TO-15SIM = PCE, TCE, VC, cis12DCE, trans12DCE, 11DCE only**

*66173609 6244*

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature)  
*[Signature]*

Date: *2/15/16*

Time: *15:40*

Received by: (Signature)  
*[Signature]*

Samples returned via:  UPS  
 FedEx  Courier  \_\_\_\_\_

Condition: (lab use only)  
*JW7*

Relinquished by: (Signature)  
*[Signature]*

Date: *2/15/16*

Time: *15:40*

Received for lab by: (Signature)  
*[Signature]*

Temp: \_\_\_\_\_ °C Bottles Received: *9*  
*Amb*

COC Seal Intact: \_\_\_ Y \_\_\_ N \_\_\_ NA  
*STx6*

Relinquished by: (Signature)  
*[Signature]*

Date: *2/15/16*

Time: *15:40*

Received for lab by: (Signature)  
*[Signature]*

Date: *2/16/16* Time: *0900*

pH Checked: \_\_\_\_\_ NCF: \_\_\_\_\_

**Attachment D**

**EPA Screening Level for TCE  
Leather Trimmings: 3110 Cullman Avenue, Charlotte, NC**

## Bellis, Brian

---

**From:** Lucia Casabo <lcasabo@enviroanalyticsgroup.com>  
**Sent:** Monday, October 05, 2015 3:51 PM  
**To:** Bellis, Brian  
**Subject:** FW: Leather Trimmings

Lucia Casabo



Ph: 919.960.9311

---

**From:** Kenneth Rhame [mailto:Rhame.Kenneth@epa.gov]  
**Sent:** Wednesday, September 9, 2015 3:31 PM  
**To:** Lucia Casabo <lcasabo@enviroanalyticsgroup.com>  
**Cc:** Adams, Glenn <Adams.Glenn@epa.gov>; Sandy Mort <sandy.mort@dhhs.nc.gov>; david.lilley@ncdenr.gov  
**Subject:** Re: Leather Trimmings

Lucia,

The EPA screening value for the leather trimmings facility is 8.8 ug/m3 for trichloroethylene. Please forward the results when available.

Thanks,  
Kenneth B Rhame  
US EPA Region 4  
On-Scene Coordinator  
Raleigh, NC  
(919) 475-7397 cell

On Sep 8, 2015, at 6:16 PM, Lucia Casabo <[lcasabo@enviroanalyticsgroup.com](mailto:lcasabo@enviroanalyticsgroup.com)> wrote:

Hi Ken,

Sampling at the Leather Trimmings site was completed last week and we are now in the process of evaluating potential screening levels.

Please let me know which EPA screening levels will be used to evaluate the Leather Trimmings data.

Thanks,

Lucia Casabo