Application for Limitation of Liability
Pursuant to the Georgia Hazardous Site Reuse & Redevelopment Act

Applicant: Lifecycle Building Center
1116 Murphy Avenue
Atlanta, Georgia 30310

Contact Person: Shannon Goodman
Executive Director
Lifecycle Building Center
1116 Murphy Avenue
Atlanta, Georgia 30310
Telephone: 678-592-0417
shannon@lifecyclebuildingcenter.org

Property: The approximate site boundary of District/Land lot 14-11900070135 (the "Property") is shown on Exhibit A, Appendix A, Figure 1 of the Prospective Purchaser Corrective Action Plan ("PPCAP")

Current Property Owner: Eleven Sixteen Murphy LLC
4351 Quail Ridge Way
Norcross, Georgia 30092

Size: The property is approximately 3.5 acres.

Location: The parcel is located on Murphy Avenue south of the the intersection of Sylvan Road in southwest Atlanta, Fulton County, Georgia (See Exhibit A, Section 1.1 of the PPCAP for additional location detail).

Eligibility: a) The Property meets the criteria to be considered a "qualifying property" as specified in O.C.G.A. § 12-8-205 for the following reasons:

1) The Property has a preexisting release of regulated constituents in soil as demonstrated by the PPCAP;

2) There are no liens filed against the Property under O.C.G.A. § 12-8-96(e) or O.C.G.A § 12-13-12(b);

3) No funds have been expended by EPD from the federal Leaking Underground Storage Tank Trust Fund;

4) The Property is not listed on the Comprehensive Environmental Response, Compensation and Liability Act National Priorities List;

5) The Property is not currently undergoing response activities required by an order of the U.S. Environmental Protection Agency Regional Administrator;

6) The Property is not a hazardous waste facility as defined by O.C.G.A. § 12-8-62; and

7) The Property meets such other criteria established by the Board of Natural Resources as provided in Article 9 and Article 3.

b) the prospective purchaser meets the criteria specified in O.C.G.A. § 12-8-206 for the following reasons:

1) The prospective purchaser does not fall within the definition of “person who has contributed or who is contributing to a release” of regulated substances at the Property in that it is not the current owner or operator; it did not own or operate the facility at the time of disposal; it did not arrange for disposal; and it did not transport any regulated substances to the site.

2) The prospective purchaser is not a current or former subsidiary, division, parent company, partner, employer or former employer and have not otherwise been affiliated with any person who has contributed or is contributing to a release at the Property;

3) The prospective purchaser is not in violation of any order, judgement, statute, rule or regulation subject to the enforcement authority of the Director of EPD; and

4) The prospective purchaser meets such other criteria as has been established by the Board pursuant to O.C.G.A. § 12-8-203.

c) A Georgia Brownfield Eligibility Form and PPCAP is being submitted to the Director in support of this application for a limitation of liability. Accordingly, the PPCAP and any modification thereto is included in this application by reference.

d) the $3,000 initial review fee pursuant to O.C.G.A. § 12-8-209 is enclosed and the applicant agrees to reimburse the EPD for any costs of the Division in reviewing the application for a limitation of liability

APPLICATION FOR LIMITATION OF LIABILITY AND PROSPECTIVE PURCHASER CORRECTIVE ACTION PLAN

1116 Murphy Avenue, SW
Atlanta, Georgia 30310

Prepared for:

Lifecycle Building Center

August 30 , 2016

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1. Introduction

This Prospective Purchaser Corrective Action Plan and Application for Limitation of Liability is submitted pursuant to the Georgia Brownfield Act.

The address of the property is 1116 Murphy Avenue, located in southwest Atlanta, Fulton County, Georgia (the "Property"). The Property is approximately 3.35 acres with one large industrial building of approximately 71,000 square feet. The documented uses of the building were primarily manufacturing, dating back to at least 1915. A Phase I Environmental Assessment of the property was completed in May 2015, a copy of which is included in the enclosed compact disk as Exhibit A. Additional information about the history of the property is contained in the Phase I.

2. Qualification of Site and Purchaser

As noted on the Application for Limitation of Liability and certified on the Georgia Brownfield Eligibility Form, both the property and Lifecycle Building Center meet the criteria of the Hazardous Site Reuse and Redevelopment Act and qualify for the Georgia Brownfield program. The Act's requirements are summarized below.

Subject Property

1. Has had a preexisting release.
2. Does not have liens filed under subsection (e) of O.C.G.A. §12-8-96 against it.
3. Is not listed on the Federal National Priority List
4. Is not undergoing response activities by an order of the EPA.
5. Is not a hazardous waste facility as defined in O.C.G.A. §12-8-62.

Lifecycle Building Center

1. Is not a person or entity who has contributed or is contributing to a release at the property.
2. Is not related to, or is otherwise affiliated with, the current owner of the subject property or any person who has contributed or is contributing to a release at the site.
3. Has not found evidence of liens file under subsection (e) of Code Section 12-8-96 against the property.
4. Is not in violation of any order, judgment, statue, rule or regulation subject to the enforcement authority of the Director.

3. Site Assessment Activities Completed to Date

Previous investigation activities included sampling, laboratory analyses and removal of lead impacted soil by various consultants. The prior investigations and removal actions are summarized in Section 3.0 of the Phase I enclosed as **Exhibit A.**

The May 2015 Phase I report identified several recognized environmental conditions. As a result, a Phase II Subsurface Investigation was completed in September 2015. That report was revised and resubmitted on June 22, 2016. The Revised Phase II report is also included on the enclosed disc to this PPCAP as **Exhibit B.**

An additional assessment of several sump areas in the building was completed in May 2016. This report is included on the enclosed disc as **Exhibit C.**

4. Additional Assessment

Based on the previous site assessment activities, and detailed in **Exhibit A, Section 4.0**, it was recommended the property enter into the Georgia Brownfield Program to obtain limitation of liability for detections of arsenic and cadmium identified in the groundwater at the site. It was also recommended that the detection of lead in soil at MW-3 be addressed by the excavation, removal and proper disposal of surface soil to a depth of approximately two (2) feet. LBC will work with the Georgia EPD to determine if additional site characterization is necessary.

Following excavation, confirmation soil samples will be collected to determine if additional excavation will be necessary. Replacement of the soil with clean fill material from a known source will occur following the soil excavation and confirmatory sampling.

In the course of implementing the Corrective Action Plan, sampling will be performed in accordance with applicable laws and regulations to determine whether asbestos and lead-based paint are present in the building.

5. Corrective Action Plan (CAP)

Based on the July 2015 Phase II investigation **(Exhibit B)** soil containing lead and arsenic above applicable standards is confined to an area along the western property boundary. The area is approximately 30’ wide x 30’ long x 2’ feet deep, and includes approximately 1,800 cubic feet of soil.

The corrective action approach will consist of removing the on-site impacted soil that exceeds notification concentrations or non-residential Risk Reduction Standards (RRS). The impacted soil will be transported to an appropriate disposal facility, approved and permitted to accept the waste. Disposal characterization will be based on the analytical results. Transportation and disposal of the soil will be executed in

compliance with appropriate regulations. The corrective action work will be performed in compliance with applicable OSHA regulations, and in accordance with a project specific Health and Safety Plan. Any soil and/or source material generated during corrective action will be managed in such a way to prevent contamination of the surrounding environment and be in accordance with federal site and local laws.

Confirmatory samples will be collected every 25 linear feet per excavation sidewall with a minimum of four (4) samples per excavation walls and one (1) per 500 square feet in the excavation base. Analytical data will determine if additional excavation is necessary. Following excavation and sampling, replacement with clean fill material which has been sampled and determined to below the applicable RRS will be placed in the excavated area. This remediation will be conducted in coordination with the overall site redevelopment.

Based on the results of the asbestos and lead-based paint surveys, encapsulation, abatement or other measures may be required. If so, these activities will be done in compliance with applicable laws and regulations.

6. Preparation of Compliance Status Report

A Compliance Status Report (CSR) will be prepared upon completion of the delineation activities as outlined in Section 5. The written report will be prepared in the format required by the Georgia Environmental Protection Division and include the following information:

- Legal description of the property
- Survey plat
- Summary of all pertinent field and analytical laboratory data
- Description of each known release
- Definition of the horizontal and vertical extent of any contamination in soil and groundwater
- Analytical results with chain-of-custody records
- Description of existing or potential human or environmental receptors
- Summary of previous actions taken to eliminate, control, or minimize the potential risks at the property
- Description of the corrective action used to bring the property into compliance with the risk reduction standards
- Documentation of the characterization, transport, and disposal of soil cuttings, contaminated soil and/or hazardous waste, and purge water generated during delineation
- Statement of findings of the CSR including compliance with the appropriate RRS.
- Evaluation of the vapor intrusion pathway.

7. Schedule

The Corrective Action Plan as detailed, is anticipated to be completed in conjunction with additional site redevelopment work. This will take place on or before the following dates.

Submit Compliance Status Report - March 1, 2019

APPENDIX A

- Phase I Environmental Site Assessment-1116 Murphy Avenue, Atlanta, Georgia dated May 2015, Cardno, Inc.

- Phase II Environmental Site Assessment- The Lifecycle Building Center Project, 1116 Murphy Ave SW, Atlanta, Georgia dated June 2016, Cardno, Inc.

Phase I Environmental Site Assessment

Lifecycle Building
1116 Murphy Avenue, SW
Parcel ID No. 14 01 19000700135
Atlanta, Fulton County, Georgia

May 2015

Prepared for: City of Atlanta
EPA Cooperative Agreement No. BF 00-D12413-0

Cardno
Shaping the Future

Phase I Environmental Site Assessment

Prepared for: City of Atlanta
55 Trinity Avenue, SW
Atlanta, Georgia 30303

Project Name: **Phase I Environmental Site Assessment**
Lifecycle Building
1116 Murphy Avenue, SW
Parcel ID No. 14 011900070135
Atlanta, Fulton County, Georgia

Date: May 2015

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1 Executive Summary

Cardno (Cardno) has completed a Phase I Environmental Site Assessment (ESA) of the property located at 1116 Murphy Avenue, SW in Atlanta, Georgia. The study area is herein referred to as "the subject site/property" or "the site." The site consists of approximately 3.35 acres of land classified in County records as “commercial land.”

This assessment was performed to satisfy the requirements of the Client (City of Atlanta) and their assign(s) and Lifecycle Building Center with respect to potential environmental impairment and liabilities associated with the property due to contamination by hazardous substances, controlled substances or petroleum products on or near the site. This report meets the general requirements for conducting all appropriate inquiry into the previous ownership, uses, and environmental conditions of a property, as specified in 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries. Furthermore, this work was conducted by or under the responsible charge of an environmental professional as defined in 40 CFR §312.10.

Findings/Opinions:

This assessment has revealed recognized environmental conditions (RECs) at the subject property as defined by ASTM International, formerly known as the American Society for Testing and Materials (ASTM), *Standard Practice for Environmental Site Assessments E1527-13* as follows:

- On-site historic lead and/or iron foundry
- On-site historic paint booth
- On-site historic use and storage of large quantities solvents and petroleum products
- Former diesel repair activities on-site and hydraulic lifts/subsurface equipment; historic observed sludge/residue in floor pits in the warehouse area during a previous environmental evaluation.
- Identified lead impact to on-site soil above regulatory standards from either on-site activities or east-northeast adjacent off-site facilities.

Based on the findings of this investigation, additional assessment appears warranted to determine if the RECs identified above have impacted the site.

Furthermore, though an asbestos and lead based paint survey were not conducted as part of this Phase I ESA (non-scope item) since they are not considered as RECs, it should be noted there is a potential for asbestos and lead based paint to be present within the building. Therefore, if demolition or renovation activities are anticipated, an asbestos and lead based paint survey is recommended (likely required by local and state regulatory agencies) before commencement.

Please note: This is a cursory summary of findings. The full report must be read in its entirety for a comprehensive understanding of these Findings/Opinions.

PHASE II SUBSURFACE INVESTIGATION

Lifecycle Building Center – 1116 Murphy Avenue, Atlanta, Georgia
City of Atlanta (CATL) EPA Brownfields Assessment Grant

Conducted Under EPA Brownfields
Cooperative Agreement No. BF 00D12413-0

Prepared for:

City of Atlanta

Prepared by:

2000 1st Drive, Suite 220
Marietta, Georgia 30062

June 23, 2016

PHASE II SUBSURFACE INVESTIGATION

LIFECYCLE BUILDING CENTER

1116 MURPHY AVENUE
ATLANTA, GEORGIA

CARDNO PROJECT NO. Z070000118

Revised June 22, 2016

Prepared by:

Cardno
2000 1st Drive, Suite 220
Marietta Georgia 30062
Phone: (678) 433 1199

Prepared for:

City of Atlanta
EPA Cooperative Agreement #BF 00-D12413-0

AND

Lifecycle Building Center
1116 Murphy Avenue
Atlanta, Georgia

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1.0 INTRODUCTION

The address of the Property is 1116 Murphy Avenue, Atlanta, Fulton County, Georgia. The Property is known as the Lifecycle Building Center and consists of one large industrial building containing approximately 82,927 square feet on approximately 3.35 acres of land. According to Fulton County Tax records, the Property is currently owned by Eleven Sixteen Murphy LLC and is currently identified under the USEPA Brownfield Grant Cooperative Agreement # BF 00-D12413-0 for the City of Atlanta. A Site Map is included in **Appendix A**.

Cardno performed a Phase I Environmental Site Assessment (ESA) of the property in May 2015 in conformance with the scope and limitations of ASTM Standard Practice E 1527-13 and All Appropriate Inquiry (AAI) (as that term is defined by the U.S. EPA in 40 C.F.R. Part 312). Additional Phase I tasks were also performed in accordance with the "non-scope considerations" including visual asbestos containing materials (ACM) survey, radon documentation review, visual lead-based paint survey, lead in drinking water documentation review, wetlands, regulatory compliance, cultural and historical resources documentation review, visual mold survey and vapor intrusion documentation review of screening evaluation. This assessment has revealed evidence of *recognized environmental conditions* (RECs) in connection with the Property. This Prospective Purchaser Correction Action Plan (PPCAP) and Brownfield Application are being submitted to the Georgia Environmental Protection Division (GAEPD), Brownfields Development to obtain limitation of liability protection on behalf of Lifecycle Building Center at 1116 Murphy Avenue, Atlanta, Georgia pursuant to Article 9 of Chapter 8 of Title 12, the Georgia Hazardous Site Reuse and Redevelopment Act.

1.1 Property Location and Description

The Property consists of one (1) parcel of land totaling approximately 3.35 acres identified by parcel identification number 14 011900070135, Fulton County, Georgia. The property is addressed as 1116 Murphy Avenue and is currently developed with one large, industrial office warehouse currently used as a retail sales facility for construction and household supplies and fixtures. A copy of the Tax card and Tax map documentation is provided in **Appendix B**.

The Property lies on the United States Geological Survey (USGS) 7.5-Minute Series Topographic Map of the *Southwest Atlanta, Georgia* dated 1997. Based on available information, the elevation

of the Property is approximately 1,040 feet above mean sea level (AMSL). Topography of the Property slopes to the south-southeast. Review of the Ground Water Pollution Susceptibility Map of Georgia, Hydrologic Atlas 20 further indicates that the Property is within the low pollution susceptibility area.

The approximate site location and property boundaries are shown in **Appendix A**, **Figures 1** and **2**.

1.2 Background

Cardno personnel conducted interviews with the current occupant for historic information on the property.

- The property has been historically a manufacturer of conveyor systems and a foundry since the early 1930s.
- Significant damage to the interior was discussed (water damage, etc.)
- Reportedly, ACMs have been identified in the building.
- Reportedly, significant amounts of lead impacted soil was removed from the southern end of the building in the 1990s and 2000s.

Cardno identified the following previous assessment activities performed at the Property:

- *Phase I Environmental Site Assessment, 1116 Murphy Avenue* October 14, 2011, Atlanta Environmental Management, Inc. (AEM)

  The report documents the Phase I performed at the property and identified the following RECs:

  1. Several unknown use floor pits reportedly containing an oily soil/sludge. Concentrations of lead in soil in one of these locations exceeded the HSRA Notification Concentrations (NCs) for Georgia.
  2. Unknown origin of historically stored soil/demolition debris piles observed during the site reconnaissance.
  3. Surficial soil staining outside the southwestern portion of the building.
  4. Stained soil with elevated lead concentrations was excavated from the northwestern portion of the property in 1993 and 2006 to a depth of approximately 5 feet bgs. The extent of the lead contamination was never fully delineated. Soil samples collected in 2006, post excavation, continued to exceed the NCs for lead and a second

excavation was performed. No post excavation samples for this removal were obtained.

5. Northeast adjacent and upgradient oil and paint companies/facilities existing from at least 1932 to 1992. Subsequent use of the same property as an automotive salvage yard.

No recommendations for further actions or investigations were included in the AEM report.

- *Report of Environmental Consulting Services, Former Rexnord Facility* February 28, 2006, MACTEC Engineering and Consulting, Inc.

  The report documents the historical use and tenants of the property. At the time of the site visit, the property had been leased by Mr. Larry Owens since 1991 and had operated a truck repair business on-site. The building was also used as storage for a variety of items including: automobiles, auto parts, computers, fork lifts, fork lift battery chargers, pallets of soda ash, drums of resin, air compressors, books, car batteries and furniture. Steel plates were noted in the floor area that appeared to be covering the locations of former machinery associated with the historic manufacturing operations. A large amount of surficial staining was observed throughout the building interior and numerous vehicles were noted on the exterior, several of which also had surficial staining on the ground beneath them.

  Numerous manufacturing operations were performed on the property from at least 1915 and the earliest included an on-site metal foundry and paint spray booth for sprocket manufacturing and painting.

  The report documents several previous Phase I Site assessments including a 1986 Phase I which documented asbestos (transite) roofing and siding at the building. It also documented the removal of approximately 246.29 lead impacted soils from the property in 1992 through 2006 and included analytical data/results on MACTECs sampling of soil and groundwater for VOCs, SVOCs, RCRA Metals and PCBs. While the soil contained lead concentrations that exceeded HSRA Notification Concentrations, no groundwater samples contained constituents that exceeded the HSRA maximum contaminant levels (MCLs). The report recommended notification to the State for the elevated concentrations in soil above HSRA standards in addition to the removal of relict automobiles/general clean-up of the exterior yard.

- *Soil Removal and Soil Disposal Activities, Former Rexnord Facility,* May 12, 2006, MACTEC Engineering and Consulting, Inc.

  The report documents the excavation and removal of lead impacted soil from the property from two areas measuring 17’ x 19’ and 10’ x 10’ that were subsequently backfilled with concrete and crusher run. A total of 65.64 tons of soil were removed and disposed into Eagle Point Landfill in Ball Ground, GA.

- *Condition Assessment, 1116 Murphy Avenue Building,* October 13, 2011, Walter P. Moore and Associates, Inc.

The report documented the physical condition of building and recommended immediate repairs which included the following:

1. Load bearing building columns that are out of plumb and offset from bearing pads
2. Roof truss chords weakened by torch cutting and corrosion
3. Clean and coat corroded steel members
4. Address water intrusion areas on the ceiling tiles

- *Existing Conditions and Recommendations Report, Fire Protection and Electrical Systems, 1116 Murphy Avenue Building,* September 30, 2011, Newcomb & Boyd.

  The report identified that the building was partially protected by automatic sprinklers in the mezzanines, the areas directly below the mezzanines and the office areas that were installed circa 1946. During the assessment, it appeared that the systems had been shut off for some time. Recommendation included that the sprinkler systems were more than 50 years old, obsolete, had reached the end of their useful service life and should be replaced. Current building codes would require the new system to be constructed via piping that is sized by hydraulic calculations instead of the original system which was designed on a pipe schedule as this method is no longer permitted for a building of this size. No backflow preventer was present and would be required per current codes.

- Cardno conducted a Phase I ESA at the Property in May, 2015 and identified the following RECs at the subject property as defined by ASTM International, formerly known as the American Society for Testing and Materials (ASTM), *Standard Practice for Environmental Site Assessments E1527-13* as follows:

  1. On-site historic lead and/or iron foundry
  2. On-site historic paint spray booth
  3. On-site historic use and storage of large quantities of unknown solvents and petroleum products
  4. Former diesel engine/vehicle repair activities on-site and hydraulic lifts/subsurface equipment; historic observed sludge/residue in floor pits in the warehouse area during a previous environmental evaluation.
  5. Identified lead impact to on-site soil above regulatory standards from either on-site activities or east-northeast adjacent off-site facilities.

  Furthermore, though an asbestos and lead based paint survey were not conducted as part of this Phase I ESA (non-scope item), it should be noted there is a potential for asbestos and lead based paint to be present within the building. Therefore, if demolition or renovation activities are anticipated, an asbestos and lead based paint survey is recommended and required by local and state regulatory agencies before demolition and/or renovation commencement.

2.0 QUALIFICATION OF SITE AND PURCHASER

The Hazardous Site Reuse and Redevelopment Act has set forth certain criteria in order to qualify for the Brownfield Limitation of Liability (LOL). Based on our understanding of the subject property, we conclude that both the property and Lifecycle Building Center meet the Act's requirements as summarized below.

2.1 Subject Property

1. Has had a preexisting release,
2. Does not have liens filed under subsection (e) of Code Section 12-8-96 against it,
3. Is not listed on the Federal National Priority List,
4. Is not undergoing response activities by an order of the Environmental Protection Agency, and
5. Is not a hazardous waste facility as defined in Code Section 12-8-62.

2.2 Lifecycle Building Center

1. Is not a person or entity who has contributed or is contributing to a release at the property,
2. Is not related to, or is otherwise affiliated with the current owner of the subject property or any person who has contributed or is contributing to a release at the site,
3. Has not found evidence of liens filed under subsection (e) of Code Section 12-8-96 against the property, and
4. Is not in violation of any order, judgment, stature, rule or regulation subject to the enforcement authority of the direction.

3.0 SITE ASSESSMENT ACTIVITIES COMPLETED TO DATE

As indicated in Section 1.2, previous investigation activities at the Property included sampling and laboratory analyses, as well as removal of lead impacted soil by various consultants. However, no confirmation sampling was conducted post soil excavation and to address the requirements of the USEPA Brownfield Grant Cooperative Agreement # BF 00-D12413-0 for the City of Atlanta,

Cardno subsequently completed additional assessment activities at the Property in May and July 2015. These activities included the following:

- Completion of a Phase I ESA for the Property.

- Installation of ten (10) soil borings with soil sampling and laboratory analyses throughout the property.

- Construction of nine (9), 2-inch diameter, permanent, polyvinyl chloride (PVC) groundwater monitoring wells, within the soil borings, with the exception of SB-5, located inside the building. This boring encountered refusal at 5 beet bgs. The wells were installed to a.) collect groundwater samples, b.) provide reproducible groundwater sampling points for future analyses, and c.) measure groundwater levels to aid in creating a generalized groundwater flow map. Tables summarizing the analytical findings are presented in **Appendix D** and laboratory analytical results are presented in **Appendix E**. The soil boring logs are presented in **Appendix F**. Well construction detail are presented in **Appendix F**.

- The following sections summarize the results of Cardno's investigation.

3.1 Soil Sampling

Cardno's investigation included the installation of ten (10) soil borings (SB-01 thru SB-10) at the site. Specifically, soil borings were placed in a general grid pattern throughout the site to provide the most effective area of coverage in evaluating on-site and off-site environmental concerns. In general, borings, B-1, B-6, B-7 and B-8 were installed along the southeast border of the property to evaluate a release from loading and unloading along a railroad spur. Furthermore, borings, S-2, B-3, B-4, B-5, B-9 and B-10 were installed around the perimeter and center of the site to evaluate historic operation on-site and off-site.

The justification for soil sample collection depth was based on the nature of the contaminant of concern. Specifically, shallow soil samples (0-5 feet) were collected to evaluate metal contaminants, which migrate slowly in soil, associated with historic operations as a lead/iron foundry and spray paint booths. Deeper soil samples (10-17 feet) were collected to evaluate impact from petroleum/solvents, which migrate more rapid in soils, as well as potential impact to groundwater.

These borings were installed by GeoLab, a Georgia-licensed drilling firm, using a conventional drill rig and hollow stem augers (HSA). Soil samples were collected from each boring location for laboratory analyses of volatile organic compounds (VOCs) by EPA Method 8260B, semivolatile organic compounds (SVOCs) by EPA Method 8270D, polychlorinated biphenyls (PCBs) by EPA Method 8082A, Resource Conservation & Recovery Act (RCRA) 8 metals by EPA Method 6010C and mercury by EPA Method 7471B.

The HSA soil borings (SB-01 through SB-04 and BS-06 through SB-10) were advanced to depths ranging from twenty (20) feet to thirty (30) feet below ground surface (BGS) and were terminated after encountering the unconfined water table. Soil samples were collected continuously from the ground surface to approximately ten (10) feet BGS and then approximately every five (5) feet until termination. Groundwater was encountered in all borings at varying depths except for SB-05, where refusal was encountered above the water table. Soils were field screened in each boring for the presence of organic vapors using an organic vapor analyzer (OVA). A portion of soil was collected at each sample interval and placed directly into a new, zip-style plastic bag. The pre-labeled bag was then allowed to rest at ambient room temperature (out of direct sunlight) for a minimum of fifteen (15) minutes. The OVA probe was then inserted into each bag and the maximum organic vapor measurement was recorded. The soil interval exhibiting the highest OVA reading was selected for laboratory analyses. To assess the surface impact of historically identified metals at the property, a surface soil sample ranging in depth from two (2) to five (5) feet BGS was collected for metals analysis at each location. A complete list of soil sample locations, boring logs, depth interval(s) sampled, and laboratory results are provided in the **Appendix E** and boring logs in **Appendix F**.

The laboratory results indicated detectable concentrations of metals and VOCs in the soil samples collected from several of the boring locations. No PCBs or SVOCs were noted above laboratory method detection limits (MDLs). However, only soil boring location SB-03 exhibited concentrations of two metals above the Georgia Environmental Protection Division (GA EPD), Hazardous Sites Response Act (HSRA), Soil notification trigger values outlined in Chapter 391-3-19. Arsenic was detected at 52.4 milligrams per kilogram (mg/Kg) in SB-03 at a depth of zero (0) to two (2) feet BGS. The HSRA Soil trigger notification value for arsenic is 41 mg/Kg. Lead was detected at 800 mg/Kg in SB-03 also at a depth of zero (0) to two (2) feet BGS. The HSRA Soil trigger notification value for lead is 400 mg/Kg. These detections are considered reportable by the landowner to GA EPD. However, GA EPD review and approval of the PPCAP would likely address this item with no additional reporting required. The following is a summary of metal concentrations detected in shallow soil at the site:

RCRA Metals (6010C & 7471B)											
Sample I.D.	SB-01 (0-2)	SB-02 (0-2)	SB-03 (0-2)	SB-04 (0-2)	SB-05 (2-5)	SB-06 (0-2)	SB-07 (0-2)	SB-08 (2-5)	SB-09 (2-5)	SB-10 (0-2)	HSRA Notification Concentrations[1]
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil	soil	soil	Soil
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Sample Date	7/22/15	7/22/15	7/21/15	7/21/15	7/22/15	7/22/15	7/21/15	7/20/15	7/20/15	7/20/15	
Arsenic	<5.83	**9.28**	**52.4**	<5.28	<4.68	**14.7**	**24.8**	<5.97	<5.14	<7.94	41
Barium	**84.8**	**276**	**243**	**81.7**	**226**	**260**	**147**	**108**	**21.4**	**28.7**	500
Cadmium	**1.79**	**2.83**	**3.77**	**2.41**	**1.22**	**1.88**	**1.73**	**3.68**	<0.514	**3.1**	39
Chromium	**29.3**	**52.3**	**35.1**	**33.7**	**39.2**	**35.4**	**37.4**	**32.5**	<5.14	**60.1**	1200
Lead	**190**	**332**	**800**	**79**	**12.6**	**199**	**243**	**90.2**	**21.5**	**18.7**	400
Mercury	<0.0638	**0.0803**	**0.174**	**0.0944**	<0.0464	NS	<0.0625	<0.0527	<0.0565	<0.0794	17
Selenium	<5.83	<5.17	<5.39	<5.28	<4.68	<5.83	<6.49	<5.97	<5.14	<7.94	36
Silver	<5.83	<5.17	<5.39	<5.28	<4.68	<5.83	<6.49	<5.97	<5.14	<7.94	10

NOTES:
Analyses performed by Xenco Laboratories
[1] Chapter 391-3-19 GEPD Rules for Hazardous Site Response
NA - Not Applicable. No standard exists for this compound
ND - Not Detected
--- Data Not Available

25 Indicates detection of compound greater than laboratory detection limits
62 Indicates detection of compound equal to or greater than regulatory standards

The detected soil concentrations exceeding HSRA Soil trigger notification values are presented on **Figure 3** of **Appendix A**. **Appendix D** presents the results for VOCs in **Table 1,** the results for the 8 RCRA metals in **Table 2,** and the results for SVOCs are in **Table 3**. The results for PCBs are presented in **Table 4** in **Appendix D**.

3.2 Groundwater Sampling

Cardno's investigation also included the construction of nine (9), 2-inch diameter (PVC) monitoring wells within each of the ten (10) soil borings, except for SB-05 due to refusal at five (5) feet BGS. Upon completion of soil sampling in each boring, new, decontaminated 2-inch diameter, flush-threaded, PVC well casing and screen (0.010" machine slotted) sections were installed through the interior of the augers and new, silica sandpack material was applied to the annulus as the augers were withdrawn. Sandpack material was applied to a minimum of two (2) feet above each well screen and bentonite seals (minimum two (2) feet thick) were placed above the sandpack with Portland cement grout placed up to the surface. Each groundwater monitoring well was finished at the surface using a traffic-rated, flush-mount protector in a 2' x 2' concrete pad with a lockable, expanding cap and padlock.

Following completion, the wells were undisturbed for forty-eight (48) hours before well development proceeded. Well development consisted of aggressive groundwater removal in each well using a peristaltic pump and dedicated polyethylene tubing for well development. The intent of the well development was to remove suspended fines and materials resulting from the soil boring activities and to encourage formation groundwater to enter the well screens. Following well development, groundwater samples were collected from the wells using a peristaltic pump and new, decontaminated tubing under "low-flow" protocol. Groundwater samples were submitted for analyses of VOCs by EPA Method 8260B, SVOCs by EPA Method 8270D, PCBs by EPA Method 8082A, RCRA 8 metals by EPA Method 6010C and mercury by EPA Method 7470A.

No PCBs or PAHs were noted above laboratory method detection limits (MDLs) in the groundwater samples analyzed. The analytical results identified detectable concentrations of barium in groundwater from seven (7) of the nine (9) constructed wells. None of these exceeded the HSRA Target Concentration for Groundwater Media. However, a concentration of arsenic (0.0137 milligrams per liter (mg/L)) was detected in monitoring well MW-1 and a concentration of cadmium (0.00896 mg/L) was detected in monitoring well MW-2 above their Target Concentration for Groundwater of 0.010 mg/L and 0.005 mg/L, respectively. Detectable concentrations of VOCs included chloroform in monitoring wells MW-04 (0.0107 mg/L) and MW-09 (0.00468 mg/L), neither of which exceeded the HSRA Target Concentration for Groundwater Media of 0.008 mg/L for the compound. VOCs detected above HSRA Target Concentrations for Groundwater are presented on **Figure 4** of **Appendix A** and the analytical results for VOCs are summarized in **Table 5** of **Appendix D**. **Table 6** presents the results for 8 RCRA metals. **Tables 7** and **8** present the results of SVOCs and PCBs, respectively.

Table 9 includes the groundwater elevations. Well construction details are presented in **Appendix F**. Groundwater sampling logs are presented in **Appendix H**.

Since the Brownfield Program affords prospective purchaser liability protection for groundwater impact, these groundwater impacts are to be addressed but are not the direct responsibility of the prospective purchaser under the program.

Following completion of sampling activities, the top of casing of all nine (9) permanent monitoring wells were surveyed against an arbitrary datum of 100 feet for calculation of top of well casing

elevations. These elevations were then used to prepare a potentiometric surface map for the Property. A copy of the map is presented as **Figure 5** in **Appendix A**. Elevation data for the Property indicates that groundwater flow is toward the south-southeast at the property.

4.0 ADDITIONAL ASSESSMENT

Cardno recommends the property enter into the Georgia Brownfield Program to obtain limitation of liability for the detections of arsenic and cadmium identified above HSRA guidance values in the groundwater at the site. Cardno also recommends that the detection of lead in soil at MW-3 be addressed by the excavation, removal and proper disposal of surface soil to a depth of approximately two (2) feet (see Figure 6). Linear extent of the excavation would be determined by the building exterior on the west. This area is estimated to measure approximately 30' wide x 30' long x 2' feet and total approximately 1,800 cubic feet of soil.

Following excavation, Cardno recommends the collection of confirmation soil samples, at the excavation limits, to determine if additional excavation would be necessary. At verification of lead and arsenic in soil below respective NCs of 41 mg/kg and 400 mg/kg, replacement of the soil with clean fill material from a known source, re-compaction of the area, and re-dressing the surface with native grass seed to prevent erosion is recommended.

5.0 CORRECTIVE ACTION PLAN (CAP) – CARDNO

Laboratory analytical results from Cardno's July 2015 Phase II investigation identified the presence of lead and arsenic impact to soil, and arsenic and cadmium impact to groundwater confined along the western property boundary. Since planned redevelopment activities at the property would be limited in nature and consist primarily of renovation of the existing building, the less invasive soil removal strategy outlined in Section 4.0 is recommended. Also, since the location of the metals detections is beyond the existing footprint of the building, with no VOC detections noted, and since no plans for extending that footprint exist, no recommendation for the application of an engineered vapor barrier and possible venting system is offered.

The excavation, handling, transport, and disposal of the impacted material/soil will be performed by methods that: (i) prevent contamination of the surrounding environment (soil, water, air), (ii) are in accordance with federal, state, and local laws, and (iii) protect personnel in the excavation area and

adjacent areas. Analytical results from Cardno's July subsurface investigation will be utilized for soil characterization and verified to be in accordance with the selected permitted disposal facility's requirements. Excavated materials with be hauled off site at the time of excavation. The excavated impacted soil will be transported in compliance with all applicable regulations for transporting such waste and disposal at a pre-approved disposal facility permitted to accept designated waste. Pre-treatment of the impacted soil may be required prior to transport.

The work will be performed in compliance with applicable Occupational Safety and Health Administration (OSHA) regulations, and in accordance with a project specific Health, Safety, and Emergency Response Plan.

6.0 SCHEDULE

Cardno anticipates that the PP CAP activities including the additional delineation activities, excavation and removal of the subsurface soils and vapor barrier construction will be completed within approximately 180 days from the date Lifecycle Building Center acquires legal ownership of the property. The estimated soil excavation/ removal schedule is as follows:

- Soil removal start date – September 1, 2016
- Completion of excavation for soil removal – October 1, 2016
- Sampling and laboratory analysis – October 15, 2016
- Install clean soil, compaction and re-dress surface – January 31, 2017

The estimated completion date for submittal of a Completion Report/CSR for the property is March 31, 2017.

7.0 PREPARATION OF CSR/Completion Report

A CSR/Completion Report for the Lifecycle Building Center should be prepared upon the completion of the corrective action activities as outlined in Section 4 and 5. The written report should consist of information in the format required for submission to the GAEPD and should include the following:

- A legal description of the qualifying property;

- A description of geologic and hydrogeologic conditions at the site;
- A description of existing or potential human or environmental receptors;
- A summary of actions taken to characterize, eliminate, control, or minimize the potential risk at the site;
- A summary of all pertinent field and laboratory data;
- Documentation of the proper characterization, transportation, and disposal of impacted soils;
- An evaluation of onsite and offsite sources contributing to the release;
- A summary of groundwater characteristics including potentiometric information;
- A summary of all corrective action, to bring the site into compliance with applicable soil risk reduction standards; and
- Certification of compliance with the applicable RRS.

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8.0 CERTIFICATION STATEMENT

I certify I have reviewed the technical information presented in this document, in accordance with State Rules and Regulations. As a Registered Professional Geologist, I certify that I am a qualified groundwater professional. The information and laboratory data in this plan/report and attachments are true, accurate, complete and in accordance with applicable State Rules and Regulations.

Gregg Stephens, PG
Senior Project Manager
Georgia No. 1421

Date 6/22/16

APPENDIX A

FIGURES

Cardno
Shaping the Future

City of Atlanta – Lifecycle Building
1116 Murphy Avenue SW
Atlanta, Georgia
Parcel ID No. 14 011900070135
EPA Cooperative Agreement #00-D12413-0

Figure 1
USGS/Site Vicinity Map

FILENAME: COA LIFECYCLE BLDG - SITE PLAN

Cardno
Shaping the Future

CITY OF ATLANTA - LIFECYCLE BUILDING
1116 MURPHY AVENUE SW
ATLANTA, GEORGIA
PARCEL ID No. 14 011900070135

SITE PLAN

FIGURE: 2

DRWN BY:	ED
CHK'D BY:	JK
DATE:	SEPT 2015
REFERENCE:	

FILENAME: COA LIFECYCLE BLDG - SITE PLAN

Cardno
Shaping the Future

CITY OF ATLANTA - LIFECYCLE BUILDING
1116 MURPHY AVENUE SW
ATLANTA, GEORGIA
PARCEL ID No. 14 011900070135

SOIL ANALYTICAL RESULTS

FIGURE: 3

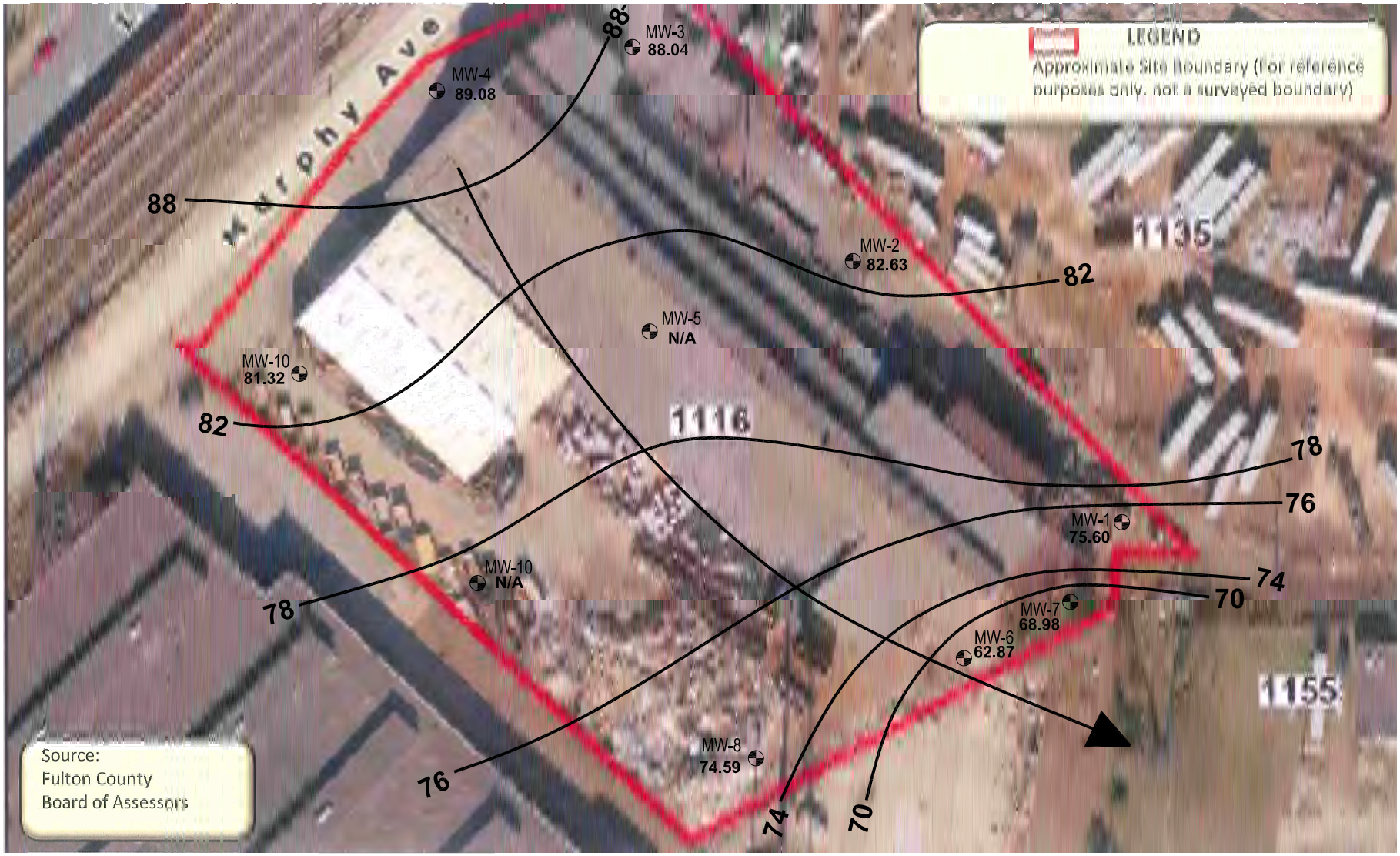
DRWN BY:	ED
CHK'D BY:	JK
DATE:	SEPT 2015
REFERENCE:	

FILENAME: COA LIFECYCLE BLDG - SITE PLAN

Cardno Shaping the Future	CITY OF ATLANTA - LIFECYCLE BUILDING 1116 MURPHY AVENUE SW ATLANTA, GEORGIA PARCEL ID No. 14 011900070135	GROUNDWATER ANALYTICAL RESULTS

FIGURE: 4	
DRWN BY:	ED
CHK'D BY:	JK
DATE:	SEPT 2015
REFERENCE:	

FILENAME: COA LIFECYCLE BLDG - SITE PLAN



Cardno
Shaping the Future

CITY OF ATLANTA - LIFECYCLE BUILDING
1116 MURPHY AVENUE SW
ATLANTA, GEORGIA
PARCEL ID No. 14 011900070135

POTENTIOMETRIC SURFACE MAP

FIGURE: 5

DRWN BY:	ED
CHK'D BY:	JK
DATE:	SEPT 2015
REFERENCE:	

Cardno
Shaping the Future

"This is not a map of survey."

1"=50 Ft

City of Atlanta – Lifecycle Building
1116 Murphy Avenue SW
Atlanta, Georgia
Parcel ID No. 14 011900070135
EPA Cooperative Agreement #00-D12413-0

Figure 6
Approximate Soil Excavation Extent

APPENDIX B

LEGAL DESCRIPTION AND DOCUMENTATION

Recent Sales in Neighborhood | Recent Sales in Area | Previous Parcel | Next Parcel | Field Definitions | Return to Main Search | Fulton Home

Owner and Parcel Information				
Owner Name	ELEVEN SIXTEEN MURPHY LLC	**Today's Date**	May 18, 2015	
Mailing Address	4351 QUAIL RIDGE WAY	**Parcel Number**	14 011900070135	
	NORCROSS, GA 30092	**Tax District**	05T	
Location Address	1116 MURPHY AVE			
Zoning	I2	I2	**Acres**	3.35
Property Class	I4-Industrial Small Tracts	**Parcel Map**	Show Parcel Map	
Neighborhood	C604	**Homestead**	N	
Legal Description				

Assessment Information Show Historical Assessments Show Assessment Notice

Year	LUC	CLASS	Land Value	Building Value	Total Value	Assessed Value
2014	401	I4	$ 418,800	$ 132,480	$ 551,280	$ 220,510

Land Information

Land Type	Land Code	Description	Square Feet	Acreage	Price
A	21		145,926	3.35	$ 418,750

Commercial Improvement Information

Card	Building Type	Structure Code/Desc	Units	Year Built	Total Square Footage
1	01	401-401 MFG/PROCESSING		1942	70,457
2	02	398-398 WAREHOUSE		1966	12,470

Accessory Information

Description	Year Built	Area	Grade	Value
PAVING-ASPHALT PARK	1966	25000		$ 3,117
	1966	6 X 700 4200		$ 334

Sale Information

Sale Date	Sale Price	Instrument	Deed Book	Deed Page	Sale Qualification	Validity	Grantee	Grantor
2006-12-29			44312	672	Unqualified	T-Sale < = 1000	EVELEN SIXTEEN MURPHY LLC	REXNORD INDUSTRIES LLC
2006-03-10	$ 325,000	LW	42280	428	Unqualified	8-Not Typical of Market Conditions	ELEVEN SIXTEEN MURPHY LLC	GPI INTERIM INC
2002-08-20		QUIT CLAIM DEED	33193	619	Unqualified	T-Sale < = 1000	U S S CORP	REXNORD CORPORATION
1981-10-21	$ 500,000		07983	81	Unqualified	9-Unvalidated/Deed Stamps		

Recent Sales in Neighborhood | Recent Sales in Area | Previous Parcel | Next Parcel | Field Definitions | Return to Main Search Page | Fulton Home

Fulton County makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. Assessment information for all tax parcels included in this data is for the 2012 tax year and does not reflect any changes due to documents recorded after January 1, 2012. These changes may include but is not limited to ownership or property characteristics.
Website Updated: May 18, 2015

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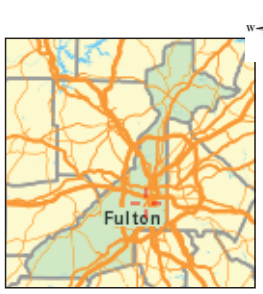
Fulton County Assessor			
Parcel: 14 011900070135 Acres: 3.35			
Name:	ELEVEN SIXTEEN MURPHY LLC	Land Value:	418800
Site:	1116 MURPHY AVE	Building Value:	132480
Sale:	$0 on 2006-12-29 Reason=T Qual=U	Misc Value:	
Mail:	4351 QUAIL RIDGE WAY NORCROSS, GA 30092	Total Value:	551280



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Date printed: 05/18/15 : 13:33:38

APPENDIX C

PREVIOUS REPORTS

MACTEC

engineering and constructing a better tomorrow

February 28, 2006

Mr. Harry Jenkins
1116 Murphy, LLC
c/o Stowers & Company
5000 Burnt Hickory Road
Kennesaw, Georgia 30152

Subject: **Report of Environmental Consulting Services**
Former Rexnord Facility
Fulton County, Georgia
MACTEC Project: 6305-06-0436

Dear Mr. Jenkins:

MACTEC Engineering and Consulting Inc., (MACTEC) is pleased to submit this Report of Environmental Consulting Services which includes a Phase I and Phase II Environmental Site Assessment of the Former Rexnord Facility in Fulton County, Georgia. The purpose of our services was to identify environmental concerns, recognized environmental conditions and business environmental risks.

This report is intended for the use of 1116 Murphy, LLC, subject to the contractual terms agreed to for this project. Reliance on this document by any other party is prohibited without the express written consent of MACTEC and that party's acceptance of the attached Secondary Client Agreement or other mutually agreeable terms and conditions. Use of this report for purposes beyond those reasonably intended by 1116 Murphy, LLC and MACTEC will be at the sole risk of the user.

This report presents project information, which includes survey procedures and limitations, along with our findings, conclusions and recommendations. We appreciate your selection of MACTEC for this project and look forward to assisting you further on this and other projects. If you have any questions, please do not hesitate to contact us.

Sincerely,

MACTEC ENGINEERING AND CONSULTING, INC.

Whitney R. Gaines
Staff Engineer

William H. Murdy, P.G.
Principal Geologist

1.0 EXECUTIVE SUMMARY

PROPERTY NAME: Former Rexnord Facility
LOCATION: Atlanta, Fulton County, Georgia

This executive summary is provided for convenience and should not substitute for review of the complete report, including all attachments.

Based on the data collected during the assessment, our findings and conclusions are summarized as follows:

1.1 ON-SITE

The subject property consists of a 3.3-acre property with approximately 97,700 square feet of building space. The building contains a large warehouse that was originally built in 1914, an office space that was added in 1935, and then a Butler type structure that was added in 1972. There is a former railroad spur that runs along the southeastern portion of the subject site and then extends toward Sylvan Road located east of the subject property. There was also a former railroad spur located along the eastern side of the site that has since been removed. The site is currently owned by Invensys, although it has been leased by Mr. Larry Owens, Jr., since 1991. Mr. Owens formerly operated DMC Atlanta, a truck repair business, in the Butler-type structure on the subject property. DMC no longer operates on-site, although Mr. Owens sub-leases the Butler-type structure to another truck repair business, D&D Diesel Service, Inc. Mr. Owens also subleases the warehouse space to a private tenant who uses it for the storage of a very large quantity of miscellaneous items. These items include but are not limited to: automobiles, automobile parts, computers, electronic equipment, fork lifts, fork lift battery chargers, voting booths, pallets of soda ash, drums of resin, air compressors, pallets of books, old car batteries, and furniture. These items are scattered throughout the main floor of the warehouse building, and also on the mezzanine structure that extends above both sides of the warehouse. During the site reconnaissance, there were three steel plates observed on the concrete floor of the central portion of the warehouse. The plates appeared to be covering voids in the concrete floor where the machines from the former manufacturing operation on-site may have been located. When the plates were removed, two of the voids, or pits, were filled with oil and the third was filled with soil that also had some oil staining. These three pits were identified as a potential environmental concern in relation to the subject site. A former paint booth was also observed during the site reconnaissance inside the southeastern portion of the building on-site. A large vertical sliding

door, located next to the paint booth, led to a dock outside the building where a substantial quantity of paint staining was observed. There was also evidence of substantial paint staining down the sides of the dock extending to the ground below.

A portion of the office space at the northwestern portion of the site is currently sub-leased by D&D Diesel Service, Inc. and the remainder of the office space contains miscellaneous trash and old electronic equipment. As previously mentioned, the Butler type structure is also currently sub-leased by D&D Diesel Service, Inc. and is being used as an auto repair garage. The repair activities at D&D include retrofits of truck chassis/engines, vehicle preventive maintenance, engine overhauls, and general auto repair. A large amount of surficial staining was observed outside of the southwestern portion of the building surrounding the D&D garage area. A storm drain with significant visual staining was located outside the southeastern portion of the garage area. This drain captures water from periodic pressure washings of the floor of the D&D repair shop. An aboveground storage tank (AST) used by D&D for the collection of waste oil was located on the southeastern portion of the garage area. Surficial staining was observed on the soil and concrete surrounding the AST. Numerous vehicles were scattered on the southern portion of the site outside the D&D garage area, and several of the vehicles had surficial staining on the ground beneath them. This auto repair area represents an environmental concern to the subject site.

Based on historical sources reviewed, the original occupant of the warehouse on-site was Dowman-Dozier Manufacturing Company in 1915 according to Atlanta City Directories. Dowman-Dozier was a machinery manufacturer that primarily produced sprockets. In 1920, the subject property was purchased by Bailey-Burrus Manufacturing Company and in 1973 the subject site was purchased by Link-Belt Company. According to the historic Sanborn maps from 1932, 1950, and 1978, the southeastern portion of the warehouse building on-site operated as a foundary for the sprocket manufacturing operation. There was also a paint booth located in the southeastern corner of the warehouse where the manufactured sprockets were painted. In 1975, the subject site was purchased by FMC Corporation (Link-Belt Division) Machinery Manufacturers, according to Atlanta City Directories. In 1986 the company name was shown as Power Transmission (PT) Components (Chain Division) Sprocket Manufacturers in Atlanta City Directories, although the property was still owned by FMC Corporation. PT Components ceased operations on-site in July 1986 and manufacturing operations have not been conducted at the

subject property since the facility shut down. According to Mr. Ken Witter, Director of Real Estate at Rexnord Corporation, Rexnord purchased PT Components in August 1988 and took ownership of the subject site. Rexnord sold the subject property to BTR in 1994 and then in 2000, BTR sold the subject site to Invensys, the current property owner.

Based on information provided by Invensys, a previous Phase I Assessment was conducted for the subject site by SECOR in 1998. At the time of the Phase I, Industrial Metals was sub-leasing a portion of the warehouse building on-site on a month to month basis to store steel. It is unknown exactly how long Industrial Metals utilized the subject property, however, SECOR confirmed that "the environmental impact from this (Industrial Metals) storage area appeared to be negligible." The previous Phase I also mentioned that lead-contaminated soil resulting from a previous painting operation on-site had been removed in June 1993. Rust Remedial Services, Inc. (RRS) was responsible for the removal, transport, and disposal of the contaminated soil. The soil that was removed was located on the north-northeastern portion of the subject site along the former location of a buried railroad spur. According to a report issued by RRS, "the soils on-site were determined to exhibit hazardous waste characteristics as defined by the United States Environmental Protection Agency (USEPA) under the Toxicity Characteristic Leaching Procedure (TCLP). The TCLP analysis of soil indicated lead contamination in ranges from 7.6 mg/L to approximately 25 mg/L." The dimensions of the excavated area were defined as being "an area visually stained by oily residue measuring approximately 120 feet long, 15 feet wide and approximately 6 inches deep." A total of 246.29 tons of material was excavated for disposal from the subject site.

Based on additional information provided by Invensys, a site investigation was conducted by Professional Technical Support Services, Inc. (Pro-Tech) in November 1992. The investigation consisted of hand auger borings and soil sampling on the northeastern portion of the site where a former railroad spur was located. A total of eight borings were advanced along the ground beside the concrete loading dock that extended down the length of the northeastern side of the warehouse building. Pro-Tech reported that oil odors were encountered during the advancement of five of the eight boreholes at depths ranging from 0 to 18 inches. Two soil samples were collected based on the results of the hand auger boring activities at depths of 20 and 24 inches respectively. The samples were analyzed for PCB's, Total Petroleum Hydrocarbons (TPH), Benzene, Ethyl Benzene, Toluene, and Xylenes (BTEX). All measurements were below

detection limits except for one sample that contained 261 mg/kg of TPH at a depth of 24 inches. This sample was taken outside the northern-central portion of the warehouse building.

An asbestos abatement was completed on the subject site in March 1995 by Winter Environmental Services, Inc. Asbestos-containing insulation surrounding a small heating boiler and associated piping located in the northwestern portion of the warehouse building was removed as a result of the abatement.

The previous Phase I conducted by SECOR mentioned above also noted that in October 1986, various building materials from the site were sampled and evaluated for the presence of asbestos by polarized light microscopy. Chrysotile asbestos (transite) was positively identified in exterior siding, roof exterior, and the electrical crib on the mezzanine in the warehouse building. Interior walls and ceilings and thermal system insulation were also categorized as suspected asbestos-containing materials.

The subject property is listed as a Resource Conservation and Recovery Act (RCRA), Small Quantity Generator (SQG), and is also on the Facility Index System (FINDS) list.

1.2 OFF-SITE

The subject site is bounded to the north-northwest by Murphy Avenue and farther northwest by a MARTA rapid rail line, CSX railroad, and then Lee Street. East of the subject site is a cleared, vacant lot where a former warehouse once stood. The warehouse burned approximately two years ago and the debris has since been cleared. Farther northeast of the subject site is the Cut Rate Box Company and farther east of the subject site is Sylvan Road. South-southeast of the subject property is the Georgia Department of Administrative Services.

There are eighteen regulatory listed facilities identified within the general site vicinity. Due to their distances and/or hydrologic positions in relation to the subject site, none of these listed facilities represent an environmental concern to the subject site, in our opinion.

1.3 PHASE II ASSESSMENT

Several environmental concerns were noted as a result of the Phase I Assessment conducted at the subject site. The former sprocket manufacturing that occurred on the subject property from approximately 1914 until 1986 was the initial environmental concern. The sprockets were

SECTION 1.0
EXECUTIVE SUMMARY

As discussed in the following report, Atlanta Environmental Management, Inc. (AEM) conducted a Phase I Environmental Site Assessment (ESA) of property ("the subject property") located at 1116 Murphy Avenue in Atlanta, Fulton County, Georgia (see Attachment A—Site Location). The subject property is located in the Oakland City neighborhood of the City of Atlanta (Neighborhood Planning Unit S) on the southeast side of Murphy Avenue, approximately 1,000 feet southwest of the intersection of Murphy Avenue and Sylvan Road and approximately 1,000 feet northeast of the intersection of Murphy Avenue and Avon Avenue (see Attachment B —Site Sketch). The subject property is owned by Eleven Sixteen Murphy, LLC.

Vehicles can access the subject property via an entry drive from Murphy Avenue (see Attachment B). The subject property's surroundings are primarily commercial and light industrial.

The assessment was conducted for the Lifecycle Building Center (LBC) in conformity with the standards and practices established for All Appropriate Inquiry (AAI) investigations as adopted by the U.S. Environmental Protection Agency (EPA) and codified in 40 CFR 312, the standards established by the American Society for Testing and Materials in ASTM E 1527-05, and the terms of the contract between LBC and AEM dated October 3, 2011.

Records reviewed (see Attachment C—Supporting Documentation) indicate that the Fulton County Parcel Identification Number for the property is 14-0119-0007-013-5. Assessor's records indicate that the site comprises 3.35 acres and is currently occupied by a manufacturing building and an attached multi-use storage building (Butler building).

Based on a review of aerial photographs, Sanborn maps, topographic maps, previous environmental reports, Fulton County Tax Assessor's records, and interviews with Mr. Harry Jenkins (see Attachment D—Record of Communication), the main manufacturing building was constructed on the subject property in 1914. The original building was expanded over the years, and an attached Butler building was constructed adjacent (southwest) to the main manufacturing building in 1966. Manufacturing ceased at the subject property in September 1986, but the property or portions of the property have been leased to various tenants, including a diesel repair company and a waste management company. The subject property is currently vacant and idle, with no businesses operating on site.

The primary feature of the subject property is the main manufacturing building totaling approximately 50,318 square feet (see Attachment B and also Attachment E—Site Photographs). The attached Butler building is approximately 12,150 square feet. The subject property is currently unoccupied and vacant.

Most of the northeastern half of the subject property is under the roof of the main manufacturing building, whereas most of the southwestern half of the subject property is open space (see Attachments B and E). A narrow strip along the southeastern property boundary is

lightly vegetated (see Attachment E). Other than a streetfront parking area northwest of the main manufacturing building, the subject property is fenced.

Based on the investigation detailed in the following report, AEM has identified the following recognized environmental conditions (RECs):

- Several pits were identified in the floor of the main manufacturing building (see Photos 11 through 13 in Attachment E) of varying shapes and sizes. All were filled with sand. The pits are assumed to be the former locations of manufacturing machines in the warehouse. As discussed in Section 5.4.1, the pits were reported to have contained an oil and oily soil sludge, which was sampled as part of a prior Phase II ESA. The concentration of lead (1,200 milligrams per kilogram [mg/kg]) in one of the three sludge samples exceeded the Georgia Hazardous Site Response Act (HSRA) Notification Concentration (NC), and various organic hazardous substances were also detected in the sludge sample, although at concentrations below the HSRA NCs (see Attachment C). According to the owner of the subject property, the sludge was removed from the pits following the 2006 sampling. Reports or other documentation of the sludge removal were requested but have not been provided to date; the only evidence of sludge removal, other than the owner's account, is the documented generation of unspecified hazardous waste in 2006 by Eleven Sixteen Murphy, LLC (the waste may have included the sludge from the pits). However, without documentation of the sludge removal, including analytical results of post-removal sampling, it cannot be concluded that hazardous substances or petroleum products no longer occur in the pits. Therefore, the pits are considered to be an REC with regard to the subject property.
- MBA Waste, the last tenant on the subject property, had placed soil and demolition debris from an unknown source on the open yard southwest of the main manufacturing building (see Attachment B). The material had been placed in piles on the ground and concrete surface, and it has covered and blocked storm water drains on the property. The material was reportedly a coarse soil with fragments and blocks of concrete and brick. According to the owner of the subject property, the tenant has removed the piles (see Attachment D), but the concrete and asphalt surface were observed during AEM's reconnaissance to still be covered with soil (see Photo 20 in Attachment E), the storm drains were still covered and could not be located, and one pile of demolition debris was still observed on site (see Photos 19 and 21 in Attachment E). Therefore, AEM cannot confirm the completeness of the soil removal. To AEM's knowledge, no analytical data are available to characterize the material. Given the unknown provenance of the material, the debris observed in the one remaining pile, and the nature of the former tenant's business (waste management), there is a possibility that the material may contain hazardous substances or petroleum products, and it is therefore considered to be an REC with regard to the subject property.
- A "large amount" of surficial soil staining was previously observed by others outside the southeastern portion of the Butler building. A storm drain with "significant" soil staining was located in this area; however, the storm drain was covered with soil, apparently from a subsequent tenant, at the time of AEM's site reconnaissance and any residual soil staining could not be observed. The storm drain reportedly captured water from periodic pressure washing of the floor inside the Butler building. Surficial soil staining was also reported surrounding a waste-oil tank

southeast of the Butler building and beneath several vehicles scattered on the southern portion of the subject property. Four soil samples were advanced in the affected areas; however, the samples closest to the Butler building where the surficial staining was reported were obtained at a depth of 8 feet below ground surface (see Attachment C). Although subsequent samples were obtained from these locations at a depth of 2 feet, the subsequent samples were analyzed for lead only and not for the petroleum products or volatile organic compounds (VOCs) most likely associated with the staining and past operations. Therefore, the previously reported staining has never been properly characterized, and it is considered an REC with regard to the subject property.

- Oil-stained soil with elevated concentrations of lead was excavated from the north-northeastern portion of the subject property in 1993 and again in 2006 (see Attachment B). The oil-stained soil reportedly resulted from a prior on-site painting operation, and the area is adjacent to the automotive salvage yard northeast of the subject property (former Superior Sealants/Huguley Oil facility). Oil-stained soil was removed from a 120-foot by 15-foot area to a depth of 0.5 foot, and, based on post-excavation sampling, additional excavation was performed within selected areas of the original excavation to depths of 1.5 to 3 feet. Soil sampling in 1993 following the second round of excavation indicated that soil met the remedial goal of 10 to 70 mg/kg (see Attachment C).

  Two soil samples were obtained from this area in 2006 as part of a prior Phase II ESA performed by MACTEC Engineering and Consulting, Inc. (MACTEC). The concentration of lead (417 mg/kg) in sample SB-5 exceeded the HSRA NC (400 mg/kg). As a result, two additional soil samples were obtained at the same depth (4 feet) within 10 feet of soil sample SB-5; lead was detected in the two additional samples at concentrations (14.1 and 17.1 mg/kg) well below the NC. No deeper samples were obtained to evaluate the vertical extent of lead at concentrations exceeding the NC.

  Soil at SB-5 was excavated and disposed off site by MACTEC in March 2006. According to MACTEC's May 2006 soil removal report, soil was excavated over an approximately 10-foot by 10-foot area surrounding sample location SB-5 to a depth of 5 feet, and the soil from a depth of approximately 3.5 to 5 feet below grade was sent off site to a permitted facility (Eagle Point Landfill in Ballground, Georgia) for disposal. Analytical results of post-excavation soil samples were not reported, and it does not appear that any post-excavation soil samples were obtained.

  There is no indication that the original 1993 sampling and excavation addressed soil at depths greater than 3 feet, and the 2006 sampling and excavation did not address lead in soil at depths greater than 5 feet. Therefore, it is not known whether lead contamination exists in soil at depths below 5 feet. Because a release to the environment has been documented in this area, because this area may continue to be impacted by off-site releases from the adjacent automotive salvage yard, because sampling has documented the presence of lead in this area, and because the vertical extent of lead in this area has not been vertically delineated, it is considered an REC with regard to the subject property.

- Soil samples were also obtained southwest of the main manufacturing building in 2006, as part of MACTEC's prior Phase II ESA, because of staining observed in surficial soil. The concentration of lead (711 mg/kg) in soil sample SB-9 exceeded

the HSRA NC (400 mg/kg). As a result, two additional soil samples were obtained at the same depth (2 feet) to the west and to the northwest of soil sample SB-9; lead was detected in the two additional samples at concentrations (8.98 and 16.5 mg/kg) well below the NC. A deeper (4 feet) soil sample was also obtained at SB-9 to evaluate the vertical extent of lead exceeding the NC; the concentration of lead (22.2 mg/kg) was below the NC in the deeper soil sample. An additional deep (5 feet) soil sample was obtained to the northeast of sample SB-9; the concentration of lead (14.1 mg/kg) in the sample was also below the NC. The extent of the lead detected at SB-9 was not laterally delineated toward the north or the east (see Attachment C).

Soil at SB-9 was also excavated and disposed off site by MACTEC in March 2006. According to MACTEC's May 2006 soil removal report (see Attachment C), soil was excavated over an approximately 17-foot by 19-foot area to a depth of 4 feet and was sent off site to a permitted facility (Eagle Point Landfill in Ballground, Georgia) for disposal. The excavation did not extend to the surrounding soil samples, and analytical results of post-excavation soil samples were not reported and it does not appear that any post-excavation soil samples were obtained. Therefore, it is not known whether lead contamination still exists beyond the excavation boundaries.

Given the documented releases in the area, the presence of lead in soil samples, and the unknown extent of the lead contamination in soil, the area is considered to be an REC with regard to the subject property.

- Since at least 1932, the adjacent property to the northeast of the subject property has been used by various oil and paint companies. Pennsylvania Oil & Grease Company, Valvoline Oil Company, Glena Oil Company, and Power Oil Company successively operated at 1134 Sylvan Road until at least 1961, Southern Paint Products Co., Southern Protective Products, and Superior Sealants successively operated at 1135 Sylvan Road until at least 1991, and Huguley Oil Company operated at 1139 Sylvan Road until at least 1976. Despite the different street addresses, all of these operations appear to have been in one building, based on historical Sanborn maps. As discussed in Section 5.3.2, a Preliminary Assessment was completed at the site in September 1985, and an Emergency Removal was performed by the Responsible Party in November 2001. No further remedial action is planned. The site was not listed on the National Priority List (NPL); however, this does not mean that contamination does not exist at the site, only that the levels of contamination and threat of human exposure do not constitute a national priority. Following closure of the paint and sealant operations, the building was demolished between 2003 and 2005 and the site was subsequently used as a scrap and automotive salvage yard.

  Given the nearly 60-year history of paint mixing and oil and paint storage and handling, as well as the subsequent use of the site as an automotive salvage yard, it appears likely that petroleum products and hazardous chemicals have been released to the environment. Although a warehouse building formerly stood between the subject property and these operations, there is currently no barrier to prevent storm water run-off from the salvage yard (and possibly past operations) from impacting the subject property. The area of oil-stained soil with elevated concentrations of lead in the north-northeastern portion of the subject property is immediately adjacent to the salvage yard. Given the proximity of these operations to the subject property, historical impacts from these operations to the subject

property cannot be discounted. Therefore, the adjacent property (1135 Sylvan Avenue) is considered an REC with regard to the subject property. However, it should be noted that the owners of off-site properties bear the responsibility for cleanup of potentially impacted soils or groundwater as a result of their activities.

APPENDIX D

DATA TABLES

TABLE 1
Soil Analytical Data - VOCs
Lifecycle Building
1116 Murphy Avenue
Atlanta, Fulton County, Georgia

Volatile Organic Compounds (EPA 8260B)																				
Sample I.D.	**SB-01 (0-2)**	**SB-01 (10-12)**	**SB-02 (0-2)**	**SB-02 (10-12)**	**SB-03 (0-2)**	**SB-03 (5-7)**	**SB-04 (0-2)**	**SB-04 (7-10)**	**SB-05 (2-5)**	**SB-06 (0-2)**	**SB-06 (10-12)**	**SB-07 (0-2)**	**SB-07 (10-12)**	**SB-08 (2-5)**	**SB-08 (15-17)**	**SB-09 (2-5)**	**SB-09 (10-12)**	**SB-10 (0-2)**	**SB-10 (10-12)**	**HSRA Notification Concentrations[1]**
Sample Matrix	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**Soil**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Sample Date	7/22/15	7/22/15	7/22/15	7/22/15	7/21/15	7/21/15	7/21/15	7/21/15	7/22/15	7/22/15	7/23/15	7/21/15	7/21/15	7/20/15	7/20/15	7/20/15	7/20/15	7/20/15	7/20/15	
1,1,1-Trichloroethane	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	5.44
1,1,2,2-Tetrachloroethene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	0.13
1,1,2-Trichloroethane	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	0.5
1,1-Dichloroethane	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	0.03
1,1-Dichloroethene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	0.36
1,2,4-Trichlorobenzene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	10.83
1,2-Dibromo-3-Chloropropane	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	0.003
1,2-Dibromoethane	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	0.01
1,2-Dichlorobenzene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	25
1,2-Dichloroethane	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	0.02
1,2-Dichloropropane	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	0.02
1,3-Dichlorobenzene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	2.22
1,4-Dichlorobenzene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	6.84
2-Butanone (MEK)	NS	<0.0604	NS	<0.0766	NS	<0.0536	NS	<0.0454	<0.0503	NS	<0.0680	NS	<0.0596	NS	<0.0519	NS	<0.0460	NS	<0.0474	0.79
2-Hexanone	NS	<0.0604	NS	<0.0766	NS	<0.0536	NS	<0.0454	<0.0503	NS	<0.0680	NS	<0.0596	NS	<0.0519	NS	<0.0460	NS	<0.0474	NA
4-Methyl-2-pentanone (MIBK)	NS	<0.0604	NS	<0.0766	NS	<0.0536	NS	<0.0454	<0.0503	NS	<0.0680	NS	<0.0596	NS	<0.0519	NS	<0.0460	NS	<0.0474	3.3
Acetone	NS	<0.0604	NS	<0.0766	NS	<0.0536	NS	<0.0454	<0.0503	NS	<0.0680	NS	<0.0596	NS	<0.0519	NS	<0.0460	NS	<0.0474	2.74
Benzene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.0680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	0.02
Bromodichloromethane	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	1.18
Bromoform	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	1
Bromomethane	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	0.8
Carbon disulfide	NS	<0.0483	NS	<0.0613	NS	<0.0429	NS	<0.0363	<0.0402	NS	<0.0544	NS	<0.0476	NS	<0.0415	NS	<0.0368	NS	<0.0379	DL
Carbon tetrachloride	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	0.17
Chlorobenzene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	4.18
Chloroethane	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	0.17
Chloroform	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	0.68
Chloromethane	NS	<0.0121	NS	<0.0153	NS	<0.00908	NS	<0.00908	<0.0101	NS	<0.0136	NS	<0.0119	NS	<0.0104	NS	<0.00919	NS	<0.00949	0.04
cis-1,2-Dichloroethene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	0.53
cis-1,3-Dichloropropene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	1000
Cyclohexane	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	20
Dibromochloromethane	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	1.63
Dichlorodifluoromethane	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	1.49
Ethylbenzene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	20
Isopropylbenzene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	21.88
m,p-xylene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	20
Methyl acetate	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	**0.00856**	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	NA
Methyl tert-butyl ether (MTBE)	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	NA
Methylcyclohexane	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	NA
Methylene Chloride	NS	<0.0242	NS	<0.0306	NS	<0.0214	NS	<0.0182	<0.0201	NS	<0.0272	NS	<0.0238	NS	<0.0208	NS	<0.0184	NS	<0.0190	0.08
o-xylene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	20
Styrene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	14
Tetrachloroethene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	0.18
Toluene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	14.4
trans-1,2-Dichloroethene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	0.53
trans-1,3-Dichloropropene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	1000
Trichloroethene	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	0.13
Trichlorofluoromethane	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	0.7
Total Xylenes	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	20
Vinyl chloride	NS	<0.00604	NS	<0.00766	NS	<0.00536	NS	<0.00454	<0.00503	NS	<0.00680	NS	<0.00596	NS	<0.00519	NS	<0.00460	NS	<0.00474	0.04

NOTES:
Analyses performed by Xenco Laboratories
[1] Chapter 391-3-19 GEPD Rules for Hazardous Site Response
NA - Not Applicable. No standard exists for this compound
ND - Not Detected
--- Data Not Available

25 Indicates detection of compound greater than laboratory detection limits
62 Indicates detection of compound equal to or greater than regulatory standards

TABLE 2
Soil Analytical Data - RCRA Metals
Lifecycle Building
1116 Murphy Avenue
Atlanta, Fulton County, Georgia

	RCRA Metals (6010C & 7471B)																			
Sample I.D.	**SB-01 (0-2)**	**SB-01 (10-12)**	**SB-02 (0-2)**	**SB-02 (10-12)**	**SB-03 (0-2)**	**SB-03 (5-7)**	**SB-04 (0-2)**	**SB-04 (7-10)**	**SB-05 (2-5)**	**SB-06 (0-2)**	**SB-06 (10-12)**	**SB-07 (0-2)**	**SB-07 (10-12)**	**SB-08 (2-5)**	**SB-08 (15-17)**	**SB-09 (2-5)**	**SB-09 (10-12)**	**SB-10 (0-2)**	**SB-10 (10-12)**	**HSRA Notification Concentrations[1]**
Sample Matrix	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**Soil**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Sample Date	7/22/15	7/22/15	7/22/15	7/22/15	7/21/15	7/21/15	7/21/15	7/21/15	7/22/15	7/22/15	7/23/15	7/21/15	7/21/15	7/20/15	7/20/15	7/20/15	7/20/15	7/20/15	7/20/15	
Arsenic	<5.83	<6.00	**9.28**	<6.06	**52.4**	<5.88	<5.28	<5.86	<4.68	**14.7**	<8.08	**24.8**	**9.52**	<5.97	<5.82	<5.14	<5.19	<7.94	<6.10	41
Barium	**84.8**	**105**	**276**	**19.7**	**243**	**18.5**	**81.7**	**121**	**226**	**260**	**95.4**	**147**	**289**	**108**	**173**	**21.4**	**188**	**28.7**	**134**	500
Cadmium	**1.79**	**0.96**	**2.83**	<0.606	**3.77**	**1.62**	**2.41**	**1.74**	**1.22**	**1.88**	**1.5**	**1.73**	**2.03**	**3.68**	**1.3**	<0.514	**1.9**	**3.1**	**1.9**	39
Chromium	**29.3**	**10.9**	**52.3**	<6.06	**35.1**	**26**	**33.7**	**50.8**	**39.2**	**35.4**	**24.9**	**37.4**	**21.7**	**32.5**	**35.5**	<5.14	**79**	**60.1**	**52**	1200
Lead	**190**	**13.1**	**332**	**18.1**	**800**	**18.5**	**79**	**18.5**	**12.6**	**199**	**28.3**	**243**	<5.72	**90.2**	<5.82	**21.5**	**35.7**	**18.7**	**6.65**	400
Mercury	<0.0638	<0.0525	**0.0803**	<0.0682	**0.174**	<0.0569	**0.0944**	<0.0512	<0.0464	NS	<0.0824	<0.0625	<0.0628	<0.0527	<0.0645	<0.0565	<0.0515	<0.0794	<0.0491	17
Selenium	<5.83	<6.00	<5.17	<6.06	<5.39	<5.88	<5.28	<5.86	<4.68	<5.83	<8.08	<6.49	<5.72	<5.97	<5.82	<5.14	<5.19	<7.94	<6.10	36
Silver	<5.83	<6.00	<5.17	<6.06	<5.39	<5.88	<5.28	<5.86	<4.68	<5.83	<8.08	<6.49	<5.72	<5.97	<5.82	<5.14	<5.19	<7.94	<6.10	10

NOTES:
Analyses performed by Xenco Laboratories
[1] Chapter 391-3-19 GEPD Rules for Hazardous Site Response
NA - Not Applicable. No standard exists for this compound
ND - Not Detected
--- Data Not Available

25 Indicates detection of compound greater than laboratory detection limits
62 Indicates detection of compound equal to or greater than regulatory standards

TABLE 3
Soil Analytical Data - SVOCs (EPA 8270D)
Lifecycle Building
1116 Murphy Avenue
Atlanta, Fulton County, Georgi

SVOCs (EPA 8270D)											
Sample I.D.	**SB-01 (10-12)**	**SB-02 (10-12)**	**SB-03 (5-7)**	**SB-04 (7-10)**	**SB-05 (2-5)**	**SB-06 (10-12)**	**SB-07 (10-12)**	**SB-08 (15-17)**	**SB-09 (10-12)**	**SB-10 (10-12)**	**HSRA Notification Concentrations[1]**
Sample Matrix	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/Kg**
Sample Date	7/22/15	7/22/15	7/21/15	7/21/15	7/22/15	7/23/15	7/21/15	7/20/15	7/20/15	7/20/15	
1,1-Biphenyl (Diphenyl)	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	100
1,2,4,5-Tetrachlorobenzene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	130
2,3,4,6-Tetrachorophenol	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	NS
2,4,5-Trichlorophenol	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	NS
2,4,6-Trichlorophenol	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	300
2,4-Dichlorophenol	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	500
2,4-Dimethylphenol	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	500
2,4-Dinitrophenol	<0.948	<0.944	<0.938	<0.805	<0.717	<1.10	<0.854	<0.438	<0.810	<0.418	110
2,4-Dinitrotoluene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	5
2,6-Dinotrotoluene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	5
2-Chloronaphthalene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	5
2-Chlorophenol	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	5
2-Methylnaphthalene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	NS
2-methylphenol	<0.948	<0.472	<0.938	<0.805	<0.717	<1.10	<0.854	<0.438	<0.405	<0.836	5
2-Nitroaniline	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	500
2-Nitrophenol	<0.948	<0.472	<0.938	<0.805	<0.717	<1.10	<0.854	<0.438	<0.810	<0.8.36	5
3&4-Methylphenol	<2.37	<2.36	<2.35	<2.01	<1.79	<2.75	<2.13	<2.19	<2.02	<2.09	
3,3-Dicholorbenzidine	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
3-Nitroaniline	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
4,6-dinitro-2-methyl phenol	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
4-Bromophenyl-phenylether	<0.237	<0.236	<0.235	<0.201	<0.179	<0.275	<0.213	<0.219	<0.202	<0.209	
4-chloro-3-methylphenol	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
4-Chloroaniline	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
4-Chlorophenyl-phenyl ether	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
4-Nitroaniline	<0.948	<0.944	<0.938	<0.805	<0.717	<1.10	<0.854	<0.876	<0.810	<0.836	
4-Nitrophenol	<0.948	<0.944	<0.938	<0.805	<0.717	<1.10	<0.854	<0.876	<0.810	<0.836	
Acenaphthene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	300
Acenaphthylene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	130
Acetophenone	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
Acetophenone	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
Anthracene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
Antrazine	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
Benzaldeyde	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
Benzo (a) anthracene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	5
Benzo (a) pyrene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	1.64
Benzo (b) fluoranthene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	5
Benzo (g,h,i) perylene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	500
Benzo (k) fluoranthene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	5
Benzyl Butyl Phthalate	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
bis(2-chloroethoxy) Methane	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
bis(2-chloroethyl) ethyl	<0.237	<0.236	<0.235	<0.201	<0.179	<0.275	<0.213	<0.219	<0.202	<0.209	
bis(2-chlorosopropyl) Ether	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
bis(2-ethylhexyl) phthalate	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
Caprolactam	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
Carbazole	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
Chrysene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	5
Dibenz (a,h) anthracene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	5
Dibenzofuran	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
Diethyl Phthalate	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
Dimethyl Phthalate	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
di-n-Butyl Phthalate	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
di-n-Octyl Phthalate	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
Fluoranthene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	500
Fluorene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
Hexachlorobenzene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
Hexachlorobutadiene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
Hexachlorocyclopentadiene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
Hexachloroethane	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
Indeno (1,2,3-cd) pyrene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	5
Isophorone	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
Naphthalene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	100
Nitrobenzene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
N-Nitrosodi-n-Propylamine	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
N-Nitrosodiphenylamine	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
Pentachlorophenol	<0.948	<0.944	<0.938	<0.805	<0.717	<1.10	<0.854	<0.876	<0.810	<0.836	
Phenanthrene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	110
Phenol	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	
Pyrene	<0.474	<0.472	<0.469	<0.403	<0.359	<0.550	<0.427	<0.438	<0.405	<0.418	500

NOTES:
Analyses performed by Xenco Laboratories
[1] Chapter 391-3-19 GEPD Rules for Hazardous Site Response
NA - Not Applicable. No standard exists for this compound
ND - Not Detected
--- Data Not Available

25 Indicates detection of compound greater than laboratory detection limits

62 Indicates detection of compound equal to or greater than regulatory standards

TABLE 4
Soil Analytical Data - PCBs
Lifecycle Building
1116 Murphy Avenue
Atlanta, Fulton County, Georgia

PCBs (8082A)											
Sample I.D.	**SB-01 (10-12)**	**SB-02 (10-12)**	**SB-03 (5-7)**	**SB-04 (7-10)**	**SB-05 (2-5)**	**SB-06 (10-12)**	**SB-07 (10-12)**	**SB-08 (15-17)**	**SB-09 (10-12)**	**SB-10 (10-12)**	**HSRA Notification Concentrations[1]**
Sample Matrix	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**	**soil**
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/Kg**
Sample Date	7/22/15	7/22/15	7/21/15	7/21/15	7/22/15	7/23/15	7/21/15	7/20/15	7/20/15	7/20/15	
PCB-1016	<0.0476	<0.0472	<0.0469	<0.0401	<0.0358	<0.0548	<0.0426	<0.0438	<0.0405	<0.0419	1.55
PCB-1221	<0.0476	<0.0472	<0.0469	<0.0401	<0.0358	<0.0548	<0.0426	<0.0438	<0.0405	<0.0419	1.55
PCB-1232	<0.0476	<0.0472	<0.0469	<0.0401	<0.0358	<0.0548	<0.0426	<0.0438	<0.0405	<0.0419	1.55
PCB-1242	<0.0476	<0.0472	<0.0469	<0.0401	<0.0358	<0.0548	<0.0426	<0.0438	<0.0405	<0.0419	1.55
PCB-1248	<0.0476	<0.0472	<0.0469	<0.0401	<0.0358	<0.0548	<0.0426	<0.0438	<0.0405	<0.0419	1.55
PCB-1254	<0.0476	<0.0472	<0.0469	<0.0401	<0.0358	<0.0548	<0.0426	<0.0438	<0.0405	<0.0419	1.55
PCB-1260	<0.0476	<0.0472	<0.0469	<0.0401	<0.0358	<0.0548	<0.0426	<0.0438	<0.0405	<0.0419	1.55

NOTES:
Analyses performed by Xenco Laboratories
[1] Chapter 391-3-19 GEPD Rules for Hazardous Site Response
NA - Not Applicable. No standard exists for this compound
ND - Not Detected
--- Data Not Available

25 Indicates detection of compound greater than laboratory detection limits

62 Indicates detection of compound equal to or greater than regulatory standards

TABLE 5
Analytical Data for VOCs in Groundwater
Lifecycle Building
1116 Murphy Avenue
Atlanta, Fulton County, Georgia

Volatile Organic Compounds (EPA 8260B)											
Sample I.D.	**MW-01**	**MW-02**	**MW-03**	**MW-04**	**MW-05**	**MW-06**	**MW-07**	**MW-08**	**MW-09**	**MW-10**	**HSRA Media Target Concentrations[2]**
Sample Matrix	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Water**
Units	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Sample Date	7/28/15	7/28/15	7/27/15	7/27/15	NS	7/28/15	7/28/15	7/27/15	7/27/15	7/27/15	
1,1,1-Trichloroethane	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.2
1,1,2,2-Tetrachloroethane	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.0002
1,1,2-Trichloroethane	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.005
1,1-Dichloroethane	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	4
1,1-Dichloroethene	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.007
1,2,4-Trichlorobenzene	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.07
1,2-Dibromo-3-Chloropropane	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	NS
1,2-Dibromoethane	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	NS
1,2-Dichlorobenzene	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	NS
1,2-Dichloroethane	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.005
1,2-Dichloropropane	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.005
1,3-Dichlorobenzene	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	NS
1,4-Dichlorobenzene	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	NS
2-Butanone (MEK)	<0.05	<0.05	<0.05	<0.05	NS	<0.05	<0.05	<0.05	<0.05	<0.05	2
2-Hexanone	<0.05	<0.05	<0.05	<0.05	NS	<0.05	<0.05	<0.05	<0.05	<0.05	NS
4-Methyl-2-pentanone (MIBK)	<0.05	<0.05	<0.05	<0.05	NS	<0.05	<0.05	<0.05	<0.05	<0.05	NS
Acetone	<0.05	<0.05	<0.05	<0.05	NS	<0.05	<0.05	<0.05	<0.05	<0.05	4
Benzene	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.005
Bromodichloromethane	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	NS
Bromoform	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.08
Bromomethane	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	NS
Carbon disulfide	<0.05	<0.05	<0.05	<0.05	NS	<0.05	<0.05	<0.05	<0.05	<0.05	4
Carbon tetrachloride	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.005
Chlorobenzene	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.1
Chloroethane	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	NS
Chloroform	<0.001	<0.001	<0.001	0.0107	NS	<0.001	<0.001	<0.001	**0.00488**	<0.001	0.08
Chloromethane	<0.003	<0.003	<0.003	<0.003	NS	<0.003	<0.003	<0.003	<0.003	<0.003	NS
cis-1,2-Dichloroethene	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.070
cis-1,3-Dichloropropene	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.002
Cyclohexane	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	NS
Dibromochloromethane	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.08
Dichlorodifluoromethane	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	1
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.7
Isopropylbenzene	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	NS
m,p-xylene	<0.005	<0.005	<0.005	<0.005	NS	<0.005	<0.005	<0.005	<0.005	<0.005	10
Methyl acetate	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	NS
Methyl tert-butyl ether (MTBE)	<0.005	<0.005	<0.005	<0.005	NS	<0.005	<0.005	<0.005	<0.005	<0.005	NS
Methylcyclohexane	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	NS
Methylene Chloride	<0.005	<0.005	<0.005	<0.005	NS	<0.005	<0.005	<0.005	<0.005	<0.005	0.005
o-xylene	<0.005	<0.005	<0.005	<0.005	NS	<0.005	<0.005	<0.005	<0.005	<0.005	10
Styrene	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.1
Tetrachloroethene	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.005
Toluene	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	1
trans-1,2-Dichloroethene	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.1
trans-1,3-Dichloropropene	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.002
Total Xylenes	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	10
Trichloroethene	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	0.005
Trichlorofluoromethane	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	2
Vinyl chloride	<0.002	<0.002	<0.002	<0.002	NS	<0.002	<0.002	<0.002	<0.002	<0.002	0.002
Arsenic	**0.0137**	<0.01	<0.01	<0.01	NS	<0.01	<0.01	<0.01	<0.01	<0.01	0.010
Barium	**0.2540**	**0.19**	**0.0822**	<0.0500	NS	**0.117**	**0.159**	**0.101**	**0.0544**	<0.0500	2
Cadmium	<0.00500	**0.00896**	<0.00500	<0.00500	NS	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.005
Chromium	<0.0500	<0.0500	<0.0500	<0.0500	NS	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	0.1
Lead	<0.0100	<0.0100	<0.0100	<0.0100	NS	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.015
Mercury	<0.00200	<0.00200	<0.00200	<0.00200	NS	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.002
Selenium	<0.0500	<0.0500	<0.0500	<0.0500	NS	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	0.05
Silver	<0.0500	<0.0500	<0.0500	<0.0500	NS	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	0.1

NOTES:
Analyses performed by Xenco Laboratories
[1] Chapter 391-3-19 GEPD Rules for Hazardous Site Response
NA - Not Applicable. No standard exists for this compound
ND - Not Detected
--- Data Not Available

25 Indicates detection of compound greater than laboratory detection limits
62 Indicates detection of compound equal to or greater than regulatory standards

TABLE 6
Analytical Data for Metals in Groundwater
Lifecycle Building
1116 Murphy Avenue
Atlanta, Fulton County, Georgia

RCRA Metals (6010C & 7471B)											
Sample I.D.	**MW-01**	**MW-02**	**MW-03**	**MW-04**	**MW-05**	**MW-06**	**MW-07**	**MW-08**	**MW-09**	**MW-10**	**HSRA Media Target Concentrations[2]**
Sample Matrix	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Water**
Units	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Sample Date	7/28/15	7/28/15	7/27/15	7/27/15	NS	7/28/15	7/28/15	7/27/15	7/27/15	7/27/15	
Arsenic	**0.0137**	<0.01	<0.01	<0.01	NS	<0.01	<0.01	<0.01	<0.01	<0.01	0.050
Barium	**0.2540**	**0.19**	**0.0822**	<0.0500	NS	**0.117**	**0.159**	**0.101**	**0.0544**	<0.0500	2
Cadmium	<0.00500	**0.00896**	<0.00500	<0.00500	NS	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.005
Chromium	<0.0500	<0.0500	<0.0500	<0.0500	NS	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	0.1
Lead	<0.0100	<0.0100	<0.0100	<0.0100	NS	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.015
Mercury	<0.00200	<0.00200	<0.00200	<0.00200	NS	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.002
Selenium	<0.0500	<0.0500	<0.0500	<0.0500	NS	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	0.05
Silver	<0.0500	<0.0500	<0.0500	<0.0500	NS	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	0.1

NOTES:
Analyses performed by Xenco Laboratories
[1] Chapter 391-3-19 GEPD Rules for Hazardous Site Response
NA - Not Applicable. No standard exists for this compound
ND - Not Detected
--- Data Not Available

25 Indicates detection of compound greater than laboratory detection limits
62 Indicates detection of compound equal to or greater than regulatory standards

TABLE 7
Analytical Data for SVOCs in Groundwater
Lifecycle Building
1116 Murphy Avenue
Atlanta, Fulton County, Georgia

SVOCs (EPA 8270D)											
Sample I.D.	**MW-01**	**MW-02**	**MW-03**	**MW-04**	**MW-05**	**MW-06**	**MW-07**	**MW-08**	**MW-09**	**MW-10**	**HSRA Media Target Concentrations[2]**
Sample Matrix	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Water**
Units	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Sample Date	7/28/15	7/28/15	7/27/15	7/27/15	NS	7/28/15	7/28/15	7/27/15	7/27/15	7/27/15	
1,1-Biphenyl (Diphenyl)	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
1,2,4,5-Tetrachlorobenzene	<.051	<.051	<.051	<.053	NS	<.051	<.051	<.051	<.051	<.051	
2,3,4,6-Tetrachorophenol	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
2,4,5-Trichlorophenol	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
2,4,6-Trichlorophenol	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
2,4-Dichlorophenol	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
2,4-Dimethylphenol	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
2,4-Dinitrophenol	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
2,4-Dinitrotoluene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
2,6-Dinotrotoluene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
2-Chloronaphthalene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
2-Chlorophenol	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
2-Methylnaphthalene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	NS
2-methylphenol	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
2-Nitroaniline	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
2-Nitrophenol	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
3&4-Methylphenol	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
3,3-Dicholorbenzidine	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
3-Nitroaniline	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
4,6-dinitro-2-methyl phenol	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
4-Bromophenyl-phenylether	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
4-chloro-3-methylphenol	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
4-Chloroaniline	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
4-Chlorophenyl-phenyl ether	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
4-Nitroaniline	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
4-Nitrophenol	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Acenaphthene	<0.010	**0.0364**	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	2000
Acenaphthylene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	NS
Acetophenone	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Acetophenone	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Anthracene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Antrazine	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Benzaldeyde	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Benzo (a) anthracene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	0.0001
Benzo (a) pyrene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Benzo (b) fluoranthene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	0.0002
Benzo (g,h,i) perylene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	NS
Benzo (k) fluoranthene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	NS
Benzyl Butyl Phthalate	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
bis(2-chloroethoxy) Methane	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
bis(2-chloroethyl) ethyl	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
bis(2-chlorosopropyl) Ether	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
bis(2-ethylhexyl) phthalate	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Caprolactam	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Carbazole	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Chrysene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	0.0002
Dibenz (a,h) anthracene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	0.0003
Dibenzofuran	<0.010	**0.0166**	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Diethyl Phthalate	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Dimethyl Phthalate	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
di-n-Butyl Phthalate	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
di-n-Octyl Phthalate	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Fluoranthene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	1
Fluorene	<0.010	**0.0178**	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Hexachlorobenzene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Hexachlorobutadiene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Hexachlorocyclopentadiene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Hexachloroethane	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Indeno (1,2,3-cd) pyrene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	0.0004
Isophorone	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Naphthalene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	0.02
Nitrobenzene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
N-Nitrosodi-n-Propylamine	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
N-Nitrosodiphenylamine	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Pentachlorophenol	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Phenanthrene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	NS
Phenol	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	
Pyrene	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010	<0.010	<0.010	1

NOTES:
Analyses performed by Xenco Laboratories
[1] Chapter 391-3-19 GEPD Rules for Hazardous Site Response
NS - No standard exists for this compound

25	Indicates detection of compound greater than laboratory detection limits
62	Indicates detection of compound equal to or greater than regulatory standards

TABLE 8
Analytical Data for PCBs in Groundwater
Lifecycle Building
1116 Murphy Avenue
Atlanta, Fulton County, Georgia

PCBs (8082A)											
Sample I.D.	**MW-01**	**MW-02**	**MW-03**	**MW-04**	**MW-05**	**MW-06**	**MW-07**	**MW-08**	**MW-09**	**MW-10**	**HSRA Media Target Concentrations[2]**
Sample Matrix	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Groundwater**	**Water**
Units	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Sample Date	7/28/15	7/28/15	7/27/15	7/27/15	NS	7/28/15	7/28/15	7/27/15	7/27/15	7/27/15	
PCB-1016	<0.0005	<0.0005	<0.0005	<0.0005	NS	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PCB-1221	<0.0005	<0.0005	<0.0005	<0.0005	NS	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PCB-1232	<0.0005	<0.0005	<0.0005	<0.0005	NS	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PCB-1242	<0.0005	<0.0005	<0.0005	<0.0005	NS	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PCB-1248	<0.0005	<0.0005	<0.0005	<0.0005	NS	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PCB-1254	<0.0005	<0.0005	<0.0005	<0.0005	NS	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PCB-1260	<0.0005	<0.0005	<0.0005	<0.0005	NS	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

NOTES:
Analyses performed by Xenco Laboratories
[1] Chapter 391-3-19 GEPD Rules for Hazardous Site Response
NS - No standard exists for this compound

25 Indicates detection of compound greater than laboratory detection limits
62 Indicates detection of compound equal to or greater than regulatory standards

TABLE 9
Groundwater Elevation Data
Lifecycle Building
1116 Murphy Avenue
Atlanta, Fulton County, Georgia

Well Number	Date of Measurement	Top of Casing (ft)	Screened Interval (ft)	Depth to Water (ft)	Groundwater Elev. (ft)
MW-01	7/23/2015	88.60	5-20	13.00	75.60
MW-02	7/23/2015	94.10	5-20	11.47	82.63
MW-03	7/23/2015	96.00	5-20	7.96	88.04
MW-04	7/23/2015	98.20	5-20	9.12	89.08
MW-06	7/23/2015	76.89	5-20	14.02	62.87
MW-07	7/23/2015	82.70	5-20	13.72	68.98
MW-08	7/23/2015	94.25	10-25	19.66	74.59
MW-09	7/23/2015	93.90	15-30	16.57	77.33
MW-10	7/23/2015	93.90	10-25	12.58	81.32

NOTES: Wells surveyed to an arbitary datum 100.00 ft amsl

May 6, 2016

Cardno

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Marietta, GA 30062

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Ms. Jessica Lavandier
Assistant Director, Strategic Planning
Brownfields Program Manager
City of Atlanta – Office of Planning
55 Trinity Avenue, SW
Suite 3350
Atlanta, GA 30303-0331

Re: **Summary of Sump Areas**
Limited Phase II Environmental Site Assessment
1116 Murphy Ave SW
Atlanta, Fulton County, Georgia

Dear Ms. Lavendier:

Cardno Inc., (Cardno) is pleased to present the results of the Limited Phase II Environmental Site Assessment (ESA) for the sump areas as performed at the aove referenced site. The work was funded under the US EPA Brownfield Grant Cooperative Agreement # BF 00-D12413-0 for the City of Atlanta.

Five sump areas were identified during previous assessments by others as historically containing freestanding liquids, but are currently filled with debris (soil, saw dust and potentially other fill types). Soil sampling results in these five sump areas detected Barium, Chromium, and Lead. The concentration amounts of Barium, Chromium, and Lead detected in each soil sample were below the Georgia Hazardous Response Act (HSRA) Appendix I Notification Concentration (NC) requirement for soils. Therefore, based on the findings of this investigation, no additional assessment is warranted at this time.

Should you have any questions regarding this proposal, please feel free to contact us at 678.433.1190.

Sincerely,

Roger B. Register
Branch Manager/
Brownfields Practice Leader
On behalf of Cardno
Direct Line +1 678.433.1199
Email: roger.register@cardno.com

Gregg Stephens, P.G
Senior Geologist
Project Manager
On behalf of Cardno
Direct Line +1 678.433.1198
Email: gregg.stephens@cardno.com

cc: Mr. David Egetter, Brownfields Project Manager, US EPA Region 4
Ms. Shannon Goodman, Executive Director, Lifecycle Building Center,
Email: Shannon@lifecyclebuildingcenter.com.

Attachments: Limited Phase II ESA, dated May 5, 2016.

Limited Phase II ESA, Dated May 5, 2016

Limited Phase II Environmental Site Assessment

Lifecycle Building Center
1116 Murphy Ave SW
Atlanta, Georgia 30310

Conducted Under EPA Brownfields
Cooperative Agreement No. BF-00D12413-0

Prepared for:

City of Atlanta
Office of Planning

Prepared by:

C·E·R·M

1990 Lakeside Pkwy, Suite 300
Tucker, Georgia 30084

Under Contract to:

Cardno
Shaping the Future

2000 1st Drive, Suite 220
Marietta, Georgia 30062

May 5, 2016

Mr. Roger Register
Branch Manager Environmental/Brownfields Practice Leader
Engineering & Environmental Services Division
Cardno
2000 1st Drives, Suite 220
Marietta, Georgia 30062

Subject: **Limited Phase II Environmental Site Assessment Report**
Lifecycle Building Center
1116 Murphy Ave SW
Atlanta, Georgia 30310
CERM Project No. 2016-0901-064

Dear Mr. Register:

CERM has completed the requested Limited Phase II Environmental Site Assessment on the Lifecycle Building Center in Atlanta, Georgia. This Limited Phase II was performed in general conformance with the scope and limitations of ASTM Practice E-1903-11. This assessment includes findings, our opinions, and conclusions based upon the laboratory results of this subsurface investigation. This report and our observations are intended for the benefit of Cardno (the Client), and may not be used or relied upon by any other party without CERM's prior written consent.

If you have any questions about this report, or if we can be of further assistance, please call us at (678) 999-0173.

Best regards,
Corporate Environmental Risk Management

Darryl Edler, Jr.
Environmental Technician

E. Allison Keefer
Environmental Department Manager

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Figure 3- Soil Boring Location Plan
Figure 4- Soil Sample Results

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APPENDIX C- Soil Boring Logs

APPENDIX D- Laboratory Analytical Results

Statement of Geologic Review

I certify that this report and all attachments were prepared under my direction in accordance with a system designed to assure that qualified personnel properly evaluated the information submitted. Based on my inquiry of the person or persons who prepared the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I certify I have directed and supervised the fieldwork and preparation of this plan, in accordance with State Rules and Regulations. As a Registered Professional Geologist, I certify that I am a qualified soil and groundwater professional. All of the information and laboratory data in this plan/report and all of the attachments are true, accurate, complete and in accordance with applicable State Rules and Regulations.

May 5, 2016

1.0 INTRODUCTION

CERM was engaged on behalf of Cardno to conduct a Limited Phase II Environmental Site Assessment for soil sampling at the Lifecycle Building Center (LBC). The City of Atlanta has established a voluntary assistance program to provide no-cost Phase I and Phase II Environmental Site Assessments (ESAs) for select brownfield properties throughout the city. This program was established by a grant from the U.S. Environmental Protection Agency's Brownfields Program, and will end on September 30, 2016.

The CERM field investigation was conducted by Mr. Darryl Edler, CERM Environmental Technician. The field investigation was conducted on March 29 and April 5, 2016.

2.0 BACKGROUND

The Lifecycle Building Center is located at 1116 Murphy Ave SW, Atlanta, GA 30310. The above referenced subsurface sampling investigation was conducted as a follow-up investigation to the Phase I Environmental Site Assessment (ESA) previously conducted by Cardno dated May 2015. The Phase I ESA identified recognized environmental conditions (RECs): on-site historic lead and/or iron foundry, on-site historic paint booth, on-site historic use and storage of large quantities of solvents and petroleum products, former diesel repair activities on-site and hydraulic lifts/subsurface equipment; historic observed sludge/residue in floor pits in the warehouse area during a previous environmental evaluation, identified lead impact to on-site soil above regulatory standards from either on-site activities or east-northeast adjacent off-site facilities. Petroleum-containing products are known to be hazardous environmental contaminants when not properly treated, stored and/or disposed, they pose potential environmental concerns.

3.0 PURPOSE AND SCOPE OF WORK

The purpose of the proposed Limited Phase II ESA scope of work was to determine if the soil beneath the five sump areas has been impacted as a result of the facilities operational history. CERM employed direct push drilling equipment to advance vertical soil borings at five sump area locations within the Lifecycle Building Center. Drilling was conducted at each boring location in an attempt to collect soil samples. Prior to drilling as required by law, the public utility locate service, Georgia 811 (Utilities Protection Center) was contacted to check the proposed boring locations for conflict with public utilities, such as gas, electric, telephone, and water. The private utility locate service, UtiliSurvey was also contacted to locate and mark underground utilities inside of the Lifecycle Building Center. Soil samples were field screened with a calibrated photoionization detector (PID) and the readings were recorded on soil boring logs. Soil sampling equipment was decontaminated between each sample location. One soil sample from each sump area was collected for laboratory analysis depending on the highest PID reading or the deepest sample above the soil/groundwater interface. Soil samples were submitted from each boring to a certified laboratory under chain-of-custody protocol for analysis using EPA approved methods of volatile organic

compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyl (PCBs) and Resource Conservation and Recovery Act (RCRA) metals.

4.0 PROJECT ACTIVITIES

In performance of this project, the following activities were conducted:

Prior to the field investigation CERM:

- Contacted the Georgia utility locate service and UtiliSurvey for marking buried public utilities;
- Where applicable, notified the owners of the property locations where the planned project activities would be performed;
- Engaged Atlas Geo-Sampling Company to conduct drilling activities at the LBC using a Direct-push Technology (DPT) rig;
- Contacted Howell Engineering to conduct concrete coring activities;
- Obtained the appropriate supplies and equipment for field-screening and sample collection;
- Obtained the project laboratory sample containers from Analytical Environmental Services (AES) Laboratories, Inc.; and
- Developed a Site Specific Quality Assurance Project Plan (SSQAPP); and
- Developed a project specific Health and Safety Plan (HASP).

Field Investigation:

- CERM mobilized personnel, equipment and supplies to the Site and conducted a Limited Phase II ESA on March 29, 2016 and April 5, 2016.
- CERM advanced five soil borings (SB-01 through SB-05) at strategically selected sump areas (SA-01 through SA-05) located within the LBC. (See Appendix A: Soil Boring Location Plan). As borings were vertically advanced, soil cores were collected in macro-core sleeves, at four-foot intervals. Samples were collected from each soil core and separated into two plastic bags. One of the bags was placed on ice. The remaining sample portion was kept in ambient conditions in order to enhance volatilization of any organic compounds that may be present. This sample portion was field-screened using a calibrated handheld PID in order to provide a relative indication of the presence and magnitude of volatile organic vapors. PID readings and soil description information for each soil sample were recorded onto soil boring logs. Soil samples were collected for laboratory analysis depending on the highest PID reading or the deepest sample above the

soil/groundwater interface. The soil samples were submitted for analysis of VOCs per EPA Method 8260B; SVOCs per EPA Method 8270D; PCBs per EPA method 8082A and RCRA Metals per EPA Method 6010D/7471B.

- At SB-01, the driller attempted soil boring but encountered refusal at surface due to a suspected layer of concrete filled on top of the sump area. (Please note that the driller was instructed to attempt to advance an offset boring 2 feet northwest of the initial borehole). The driller used a core barrel attachment to attempt to advance through the concrete; however, the driller was unable to breach the surface and encountered an equipment malfunction (attachment became trapped 2 feet bgs). After an 1.5-hour elapsed period, the driller was able to retrieve the broken attachment. Subsequently, Howell Engineering arrived on site April 5, 2016 to perform concrete core drilling. Howell extracted 38 inches of concrete from the sump area in order to penetrate the concrete cap. A soil sample was collected at 14-16 feet.

    - The dimension of SA-01 is 10' x 12'. SA-01 is located approximately 242' from the northwest (front) wall of the building and 47' from the northeast (side) wall.

- At SB-02, refusal was encountered at 5 feet bgs. (Please note that the driller was instructed to attempt to advance an offset boring 2 feet northwest of the initial borehole, and refusal was also encountered at 5 feet bgs). A soil sample was collected at 0-3 feet.

    - The dimension of SA-02 is 6' x 3'. SA-02 is located approximately 134' from the northwest (front) wall of the building and 70' from the southwest (side) wall of the LBC entrance.

- At SB-03, refusal was encountered at 20 feet bgs. (Please note that the driller was instructed to attempt to advance an offset boring 2 feet northwest of the initial borehole, and was able to continue soil boring. A soil sample was collected at 18-20 feet. Also, a duplicate soil sample, SB-03 (DUP), at same depth.

    - The dimension of SA-03 is 8' x 4'. SA-03 is located approximately 124' from the northwest (front) wall of the building and 65' from the southwest (side) wall of the LBC entrance.

- At SB-04, refusal was encountered at 4 feet bgs. (Please note that the driller was instructed to attempt to advance an offset boring 2 feet northwest of the initial borehole, and refusal was also encountered at 4 feet bgs). A soil sample was collected at 0-2 feet.

    - The dimension of SA-04 is 3' x 7'. SA-04 is located approximately 78' the northwest (front) wall of the building and 50' from the northeast (side) wall.

- At SB-05, refusal was encountered at 2 feet bgs. (Please note that the driller was instructed to attempt to advance an offset boring 2 feet northwest of the initial borehole, and refusal was also encountered at 2 feet bgs). A soil sample was collected at 0-2 feet.

    - The dimension of SA-05 is 4' x 2'. SA-05 is approximately located 75' from the northwest (front) wall of the building and 60' from the northeast (side) wall.

- QA/QC samples were collected for soil during sampling activities as follows. A temperature blank and trip blanks were included with each cooler.

- CERM collected six soil samples, in laboratory-provided containers; and submitted them under chain-of-custody protocol to AES Laboratories, Inc.

- All soil samples were collected using EPA Standard protocol SESDPROC-300-R3 and containers were handled in accordance with EPA Standard SESDPROC-209-R3.

5.0 ANALYTICAL RESULTS AND FINDINGS

Analytical results for the soil samples collected and analyzed during this investigation are summarized below in Table 1: Soil Sample Results. A copy of the laboratory analytical report is included in Appendix C**.**

Table 1: Soil Sample Results

Boring Location	**SB-01**	**SB-02**	**SB-03**	**SB-03 (DUP)**	**SB-04**	**SB-05**	**GA HSRA Appendix I Notification Concentrations (mg/Kg)**
Sample Depth (feet)	14-16	0-3	18-20	18-20	0-2	0-2	
PID Reading (ppm)	0.0	0.0	0.0	0.0	0.0	0.0	
Constituent	**Result** (mg/Kg)	**Result** (mg/Kg)	**Result** (mg/Kg)	**Result** (mg/Kg)	**Result** (mg/Kg)	**Result** (mg/Kg)	
VOCs	BRL[1]	BRL	BRL	BRL	BRL	BRL	
SVOCs	BRL	BRL	BRL	BRL	BRL	BRL	
PCBs	BRL	BRL	BRL	BRL	BRL	BRL	
RCRA Metals							
Barium	26.6	177	66.1	86.1	173	199	500/BG[2]
Chromium	BRL	26.9	9.56	10.6	29.1	30.4	1,200
Lead	8.45	4.70	10.3	6.74	BRL	36.8	400

[1]BRL – Below Reporting Limit

[2]The numerical value preceding the slash shall be a notification concentration (NC), unless the background (BG) concentration is greater, in which case the BG value shall supplant the numerical value as a NC.

Laboratory analysis detected Barium, Chromium, and Lead in soil sample borings:

- SB-02 (Barium: 177 mg/kg, Chromium: 26.9 mg/kg, Lead 4.70 mg/kg) at 0 to 3 feet;
- SB-03 (Barium: 66.1 mg/kg, Chromium: 9.56, Lead 10.3 mg/kg) at 18 to 20 feet;
- SB-03 (DUP) (Barium: 86.1 mg/kg, Chromium: 10.6, Lead 6.74 mg/kg) at 18 to 20 feet;
- SB-05 (Barium: 199 mg/kg, Chromium: 30.4, Lead 36.8 mg/kg) at 0 to 2 feet;

Barium and Chromium were detected in soil sample boring:

- SB-04 (Barium: 173 mg/kg, Chromium: 29.1 mg/kg) at 0 to 2 feet;

Barium and Lead were detected in soil sample boring:

- SB-01 (Barium 26.6 mg/kg, Lead 8.45) at 14 to 16 feet

6.0 CONCLUSIONS

Laboratory analysis detected Barium, Chromium, and Lead in soil sample borings SB-02, SB-03, SB-03 (DUP), and SB-05. Barium and Chromium were detected in SB-04. Barium and Lead were detected in SB-01. The concentration amounts of Barium, Chromium, and Lead detected in each soil sample were below the Georgia Hazardous Response Act (HSRA) Appendix I Notification Concentration (NC) requirement for soils. Therefore, based on the findings of this investigation, no additional assessment is warranted at this time.

APPENDIX A

Figure 1- Site Vicinity Map
Figure 2- Site Boundary Map
Figure 3- Soil Boring Location Plan
Figure 4- Soil Sample Results

C·E·R·M

Lifecycle Building Center
1116 Murphy Avenue SW
Atlanta, Georgia 30310

Figure 1
USGS/Site Vicinity Map

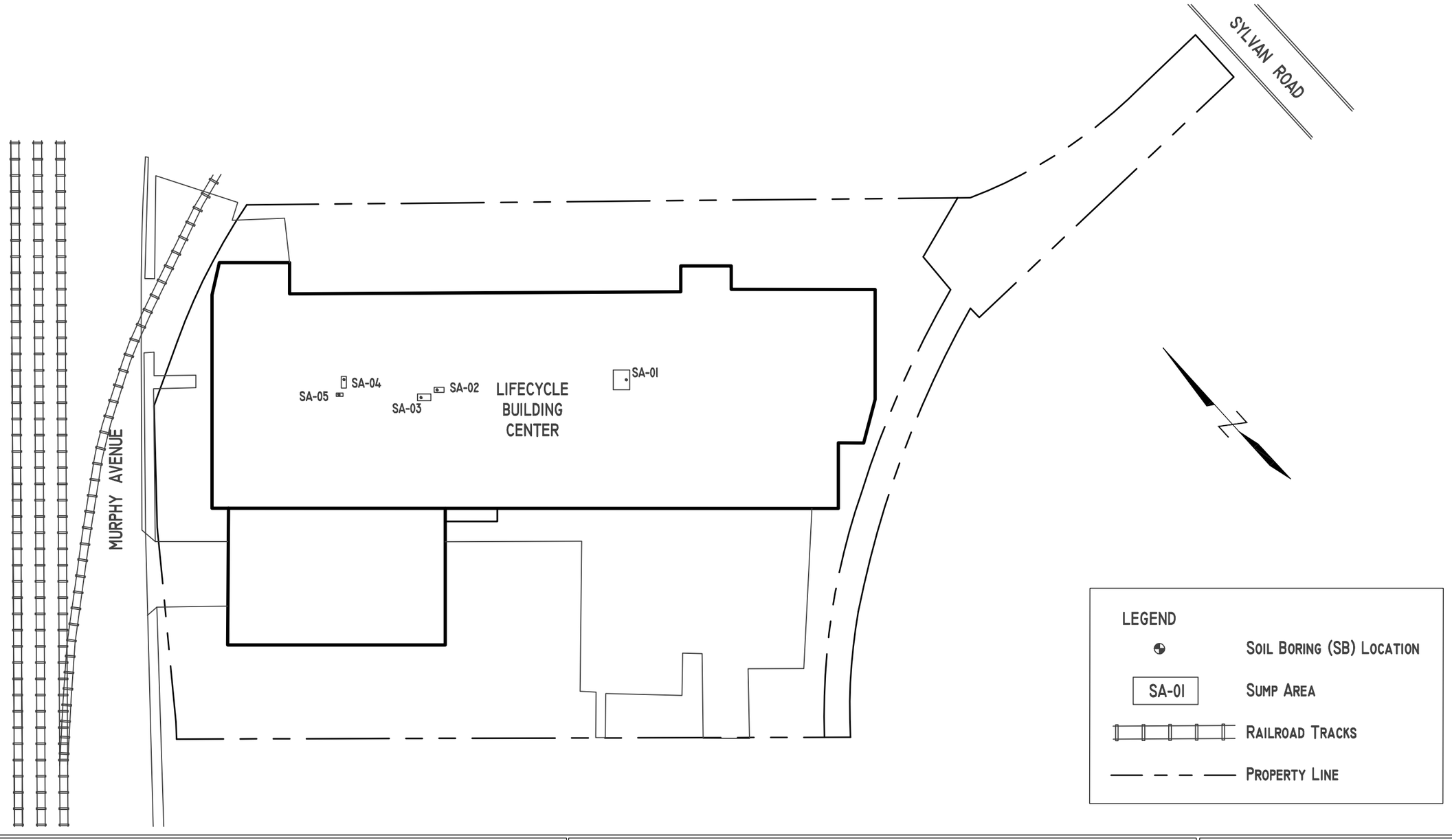
C·E·R·M

60 0 60

Lifecycle Building Center
1116 Murphy Avenue SW
Atlanta, Georgia 30310

Figure 2
Site Boundary Map

"This is not a map of survey."



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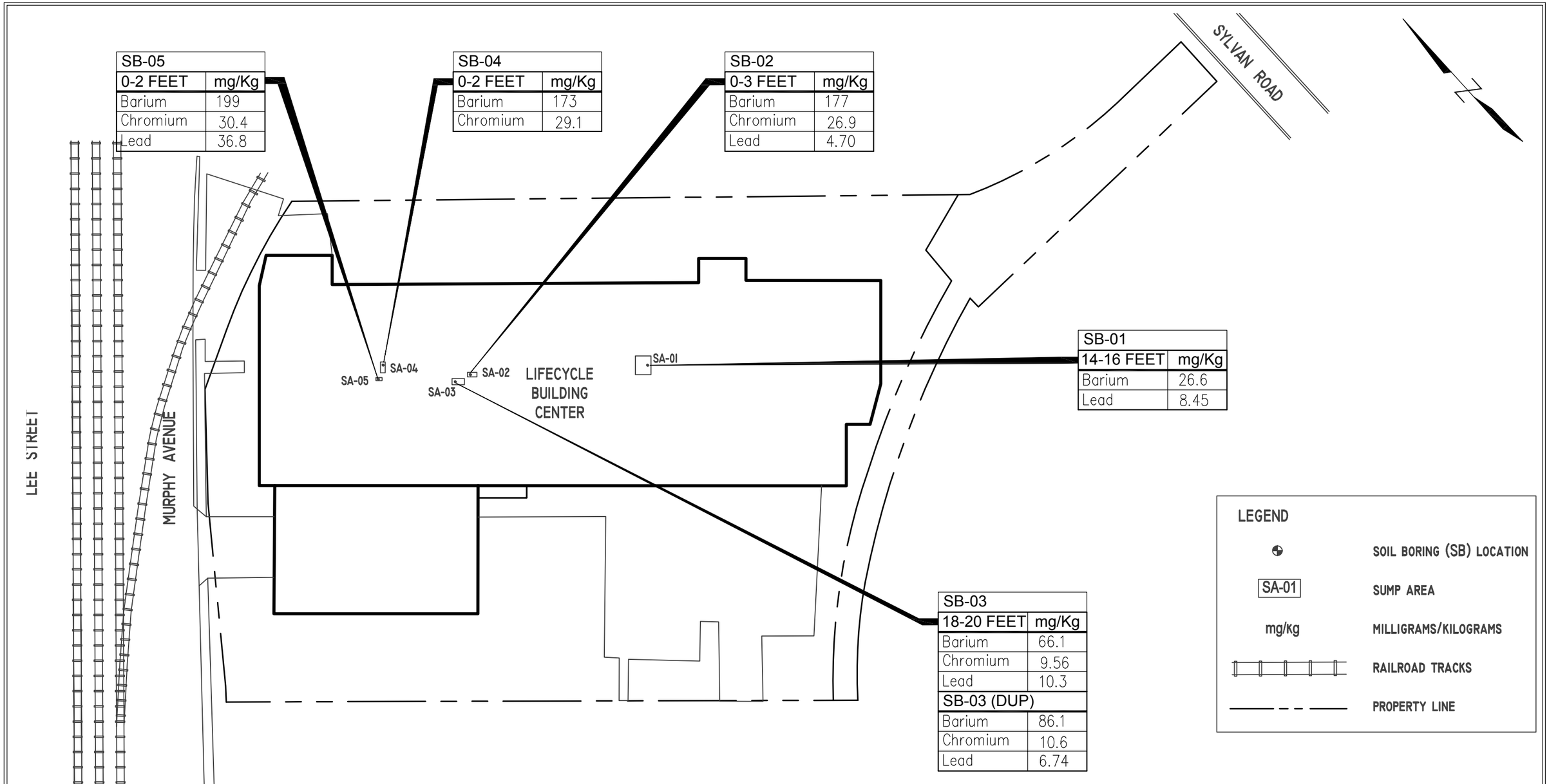
SOIL BORING LOCATION PLAN

LIFECYCLE BUILDING CENTER
1116 MURPHY AVENUE
ATLANTA, GEORGIA 30310

PROJ. NO.: 2016-0901-064
DATE: 4/28/16
SCALE: 1"=60' (+/-)

FIGURE NO.
3



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SOIL SAMPLE RESULTS

LIFECYCLE BUILDING CENTER
1116 MURPHY AVENUE
ATLANTA, GEORGIA 30310

PROJ. NO.: 2016-0901-064
DATE: 5/2/16
SCALE: 1"=60' (+/-)

FIGURE NO.
4

APPENDIX C

Soil Boring Logs

C·E·R·M

Field Log of Boring SB-01

Project	Lifecycle Building Center	Date of Boring	4/5/2016
Location	1116 Murphy Ave., Atlanta, GA 30310	Drilling Method	DPT
CERM Proj. No.	2016-0901-064	Sampling Method	Grab
		Drillller	Atlas Geo
		Sampler	D. Edler

Depth in Feet	PID Reading (PPM)	Water Level	Sample	Soil Description
0				
1				
2	0.0			37.5" Concrete core extracted
3				
4				
5				4-8' Redish brown micaceous silty clay
6	0.0			
7				
8				
9				8-12' Whitish tan micaceous silty sand
10	0.0			
11				
12				
13				12-14' Whitish tan clayey silt
14	0.0	▽		
15				14-16' Wet tan sandy silt
16				
17				
18	0.0			16-20' Brownish tan micaceous sandy silt
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				

Field note: Howell Engineering extracted 37.5" concrete core. Collected soil sample at 14-16' due to wet soil above soil/groundwater interface.

C-E-R-M

Field Log of Boring SB-02

Project	Lifecycle Building Center	Date of Boring	3/29/2016
Location	1116 Murphy Ave., Atlanta, GA 30310	Drilling Method	DPT
CERM Proj. No.	2016-0901-064	Sampling Method	Grab
		Drillller	Atlas Geo
		Sampler	D. Edler

Depth in Feet	PID Reading (PPM)	Water Level	Sample	Soil Description
0				
1				
2	0.0			0-3' Grey gravelly backfill
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				Field note: First attempt 2-3' of recovery, refusal @ 5'. Second attempt offset boring
39				approximately 2' but similar result of refusal @ 5'. Collected soil sample at 0-3 feet.
40				

C·E·R·M

Field Log of Boring SB-03

Project	Lifecycle Building Center	Date of Boring	3/29/2016
Location	1116 Murphy Ave., Atlanta, GA 30310	Drilling Method	DPT
CERM Proj. No.	2016-0901-064	Sampling Method	Grab
		Drillller	Atlas Geo
		Sampler	D. Edler

Depth in Feet	PID Reading (PPM)	Water Level	Sample	Soil Description
0				
1				
2	0.0			0-2' No recovery
3				2-4' Grey gravelly backfill
4				
5	0.0			4-6' Orange brown micaceous silt
6				
7				6-10' White red micaceous silt
8	0.0			
9				
10				
11				10-14' Orange micaceous silt
12	0.0			
13				
14				
15				14-18' Purple micaceous sandy silt
16				
17	0.0			
18				
19				
20	0.0	▽		18-20' Wet sandy silt
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				

Field note: First attempt- recovery of 2' and refusal @ 4'. Second attempt- offset boring approximately 2' and able to continue soil boring. Collected soil sample at 18-10'. A duplicate soil sample was taken at same depth.

C-E-R-M

Field Log of Boring SB-04

Project	Lifecycle Building Center	Date of Boring	3/29/2016
Location	1116 Murphy Ave., Atlanta, GA 30310	Drilling Method	DPT
CERM Proj. No.	2016-0901-064	Sampling Method	Grab
		Drillller	Atlas Geo
		Sampler	D. Edler

Depth in Feet	PID Reading (PPM)	Water Level	Sample	Soil Description
0				
1	0.0			0-2' Grey gravelly backfill
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				Field note: First attempt- recovery of 2' and refusal @ 4'. Second attempt- offset boring but
39				similar result of refusal @ 4'. Collected soil sample at 0-2'.
40				

C·E·R·M

Field Log of Boring SB-05

Project	Lifecycle Building Center	Date of Boring	3/29/2016
Location	1116 Murphy Ave., Atlanta, GA 30310	Drilling Method	DPT
CERM Proj. No.	2016-0901-064	Sampling Method	Grab
		Drillller	Atlas Geo
		Sampler	D. Edler

Depth in Feet	PID Reading (PPM)	Water Level	Sample	Soil Description
0				
1	0.0			0-2' Grey gravelly backfill
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				Field note: First attempt- recovery of 1' and refusal @ 2'. Second attempt- offset boring but
39				similar result of refusal @ 2'. Collected soil sample at 0-2'.
40				

APPENDIX B

HASP Signoff Form

ATTACHMENT 1

CERM

EMPLOYEE SIGNOFF FORM

Health and Safety Plan

The CERM project employees and subcontractors listed below have been provided with a copy of this HSP, have read and understood it, and agree to abide by its provisions.

Project Name: Lifecycle Building Center **Project Number:** 2016-0901-064

EMPLOYEE NAME (Please print)	EMPLOYEE SIGNATURE	COMPANY	DATE
E. Allison Keefer		CERM	3/29/16
Darryl Edler		CERM	3/29
MIKE SCAHI		ATLAS	3/29
Gregg Stephens		Cardno	3/29
David Hoilett		Atlas	3/29/16
David Bedingfield		LBC	3/29/16
STEVEN DONALDSON		CERM	3/29/16
Tim Simmons		Howell Eng	4/5/16
David Hoilett		Atlas	4/5/16
Penni Whitaker		Atlas	4/5/16
Gregg Stephens		Cardno	4/5/16
DJ Edler		CERM	4/5/16

APPENDIX D

Laboratory Analytical Results

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

April 06, 2016

DJ Edler
Corporate Environmental Risk Management, LLC.
1990 Lakeside Pkwy
Tucker GA 30084

TEL: (678) 999-0173
FAX: (678) 999-0186

RE: Lifecycle Building Center

Dear DJ Edler: Order No: 1603R66

Analytical Environmental Services, Inc. received 11 samples on 3/29/2016 3:30:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES's accreditations are as follows:
-NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/15-06/30/16.
-NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/15-06/30/16.
-NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Mirzeta Kararic

Mirzeta Kararic
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1603246

Date: 3-29-16 Page 1 of 1

COMPANY: CERM

ADDRESS: 1990 Lakeside Pkwy Suite 300 Tucker, GA 30084

PHONE: 678-999-0173

FAX: 678-999-0186

SAMPLED BY: Daryl Edler (DJ)

SIGNATURE:

ANALYSIS REQUESTED

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOCs	SVOCs	PCBs	RCRA Metals	PRESERVATION (See codes)				REMARKS	No # of Containers
1	SB-05 (0-2)	3/29/16	0950	X		SO	X									4
2	SB-05 (0-2)	3/29/16	0950		X	SO		X	X	X		I	I	I		2
3	SB-04 (0-2)	3/29/16	1000	X		SO	X									4
4	SB-04 ~~-02~~ (0-2)	3/29/16	1000		X	SO		X	X	X		I	I	I		2
5	SB-03 (18-20)	3/29/16	1030	X		SO	X									4
6	SB-03 (18-20)	3/29/16	1030		X	SO		X	X	X		I	I	I		2
7	SB-03 Dup	3/29/16	1100	X		SO	X									4
8	SB-03 Dup	3/29/16	1100		X	SO		X	X	X		I	I	I		2
9	SB-02 (0-3)	3/29/16	1130	X		SO	X									4
10	SB-02 (0-3)	3/29/16	1130		X	SO		X	X	X		I	I	I		2
11	Temperature Blank	N/A												I		1
12	Trip Blanks	N/A												I		2
13																
14																

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	3/29/16 1530	1:	3-29-16 15:30
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: Lifecycle Building Center

PROJECT #: 2016-0901-064

SITE ADDRESS: 1116 Murphy Ave. Atlanta, GA 30310

SEND REPORT TO: Dedler@cerm.com

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: PO#:

RECEIPT

Total # of Containers: 33

Turnaround Time Request
- [x] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same Day Rush (auth req.)
- [ ] Other

STATE PROGRAM (if any):

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

CLIENT FedEx UPS MAIL COURIER GREYHOUND OTHER

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 6-Apr-16

Client: Corporate Environmental Risk Management, LLC.
Project: Lifecycle Building Center
Lab ID: 1603R66

Case Narrative

Semi-Volatile Organics Analysis by Method 8270D:

RPD value for Acenaphthene and Pyrene on QC sample 1603S67-001BMSD were outside advisory control limits due to suspected non-homogeneous sample matrix.

Pyrene values for the QC sample 1603S67-001B are "E" qualified indicating estimated values over linear calibration range due to the level of target analyte present in the unspiked sample.

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-05 (0-2)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 9:50:00 AM
Lab ID:	1603R66-001	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
1,1,1-Trichloroethane	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
1,1,2,2-Tetrachloroethane	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
1,1,2-Trichloroethane	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
1,1-Dichloroethane	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
1,1-Dichloroethene	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
1,2,4-Trichlorobenzene	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
1,2-Dibromo-3-chloropropane	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
1,2-Dibromoethane	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
1,2-Dichlorobenzene	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
1,2-Dichloroethane	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
1,2-Dichloropropane	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
1,3-Dichlorobenzene	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
1,4-Dichlorobenzene	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
2-Butanone	BRL	65		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
2-Hexanone	BRL	13		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
4-Methyl-2-pentanone	BRL	13		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Acetone	BRL	130		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Benzene	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Bromodichloromethane	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Bromoform	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Bromomethane	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Carbon disulfide	BRL	13		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Carbon tetrachloride	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Chlorobenzene	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Chloroethane	BRL	13		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Chloroform	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Chloromethane	BRL	13		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
cis-1,2-Dichloroethene	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
cis-1,3-Dichloropropene	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Cyclohexane	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Dibromochloromethane	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Dichlorodifluoromethane	BRL	13		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Ethylbenzene	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Freon-113	BRL	13		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Isopropylbenzene	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
m,p-Xylene	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Methyl acetate	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Methyl tert-butyl ether	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Methylcyclohexane	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Methylene chloride	BRL	26		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
o-Xylene	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-05 (0-2)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 9:50:00 AM
Lab ID:	1603R66-001	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
Styrene	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Tetrachloroethene	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Toluene	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
trans-1,2-Dichloroethene	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
trans-1,3-Dichloropropene	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Trichloroethene	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Trichlorofluoromethane	BRL	6.5		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Vinyl chloride	BRL	13		ug/Kg-dry	222098	1	04/01/2016 21:10	CG
Surr: 4-Bromofluorobenzene	81.8	70-128		%REC	222098	1	04/01/2016 21:10	CG
Surr: Dibromofluoromethane	101	78.2-128		%REC	222098	1	04/01/2016 21:10	CG
Surr: Toluene-d8	98.3	76.5-116		%REC	222098	1	04/01/2016 21:10	CG
PERCENT MOISTURE D2216								
Percent Moisture	0.296	0		wt%	R313732	1	04/01/2016 09:15	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-05 (0-2)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 9:50:00 AM
Lab ID:	1603R66-002	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TOTAL MERCURY SW7471B				**(SW7471B)**				
Mercury	BRL	0.0949		mg/Kg	221958	1	03/31/2016 13:21	MC
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3550C)**				
1,1´-Biphenyl	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
2,4,5-Trichlorophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 18:21	YH
2,4,6-Trichlorophenol	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
2,4-Dichlorophenol	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
2,4-Dimethylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
2,4-Dinitrophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 18:21	YH
2,4-Dinitrotoluene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
2,6-Dinitrotoluene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
2-Chloronaphthalene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
2-Chlorophenol	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
2-Methylnaphthalene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
2-Methylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
2-Nitroaniline	BRL	1700		ug/Kg	221657	1	03/31/2016 18:21	YH
2-Nitrophenol	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
3,3´-Dichlorobenzidine	BRL	670		ug/Kg	221657	1	03/31/2016 18:21	YH
3-Nitroaniline	BRL	1700		ug/Kg	221657	1	03/31/2016 18:21	YH
4,6-Dinitro-2-methylphenol	BRL	1700		ug/Kg	221657	1	03/31/2016 18:21	YH
4-Bromophenyl phenyl ether	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
4-Chloro-3-methylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
4-Chloroaniline	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
4-Chlorophenyl phenyl ether	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
4-Methylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
4-Nitroaniline	BRL	1700		ug/Kg	221657	1	03/31/2016 18:21	YH
4-Nitrophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 18:21	YH
Acenaphthene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Acenaphthylene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Acetophenone	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Anthracene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Atrazine	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Benz(a)anthracene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Benzaldehyde	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Benzo(a)pyrene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Benzo(b)fluoranthene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Benzo(g,h,i)perylene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Benzo(k)fluoranthene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Bis(2-chloroethoxy)methane	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Bis(2-chloroethyl)ether	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Bis(2-chloroisopropyl)ether	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-05 (0-2)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 9:50:00 AM
Lab ID:	1603R66-002	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3550C)**				
Bis(2-ethylhexyl)phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Butyl benzyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Caprolactam	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Carbazole	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Chrysene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Di-n-butyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Di-n-octyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Dibenz(a,h)anthracene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Dibenzofuran	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Diethyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Dimethyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Fluoranthene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Fluorene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Hexachlorobenzene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Hexachlorobutadiene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Hexachlorocyclopentadiene	BRL	660		ug/Kg	221657	1	03/31/2016 18:21	YH
Hexachloroethane	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Indeno(1,2,3-cd)pyrene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Isophorone	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
N-Nitrosodi-n-propylamine	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
N-Nitrosodiphenylamine	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Naphthalene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Nitrobenzene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Pentachlorophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 18:21	YH
Phenanthrene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Phenol	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Pyrene	BRL	330		ug/Kg	221657	1	03/31/2016 18:21	YH
Surr: 2,4,6-Tribromophenol	75.6	42.4-130		%REC	221657	1	03/31/2016 18:21	YH
Surr: 2-Fluorobiphenyl	81.9	51.5-120		%REC	221657	1	03/31/2016 18:21	YH
Surr: 2-Fluorophenol	66.6	41.1-120		%REC	221657	1	03/31/2016 18:21	YH
Surr: 4-Terphenyl-d14	78.8	52.7-117		%REC	221657	1	03/31/2016 18:21	YH
Surr: Nitrobenzene-d5	71.6	41.4-120		%REC	221657	1	03/31/2016 18:21	YH
Surr: Phenol-d5	72.3	47.6-120		%REC	221657	1	03/31/2016 18:21	YH
POLYCHLORINATED BIPHENYLS SW8082A				**(SW3550C)**				
Aroclor 1016	BRL	33		ug/Kg	222030	1	04/02/2016 10:22	SH
Aroclor 1221	BRL	33		ug/Kg	222030	1	04/02/2016 10:22	SH
Aroclor 1232	BRL	33		ug/Kg	222030	1	04/02/2016 10:22	SH
Aroclor 1242	BRL	33		ug/Kg	222030	1	04/02/2016 10:22	SH
Aroclor 1248	BRL	33		ug/Kg	222030	1	04/02/2016 10:22	SH
Aroclor 1254	BRL	33		ug/Kg	222030	1	04/02/2016 10:22	SH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-05 (0-2)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 9:50:00 AM
Lab ID:	1603R66-002	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A				**(SW3550C)**				
Aroclor 1260	BRL	33		ug/Kg	222030	1	04/02/2016 10:22	SH
Surr: Decachlorobiphenyl	97.8	35.2-132		%REC	222030	1	04/02/2016 10:22	SH
Surr: Tetrachloro-m-xylene	99.9	35-128		%REC	222030	1	04/02/2016 10:22	SH
METALS, TOTAL SW6010D				**(SW3050B)**				
Arsenic	BRL	4.95		mg/Kg	221960	1	04/01/2016 13:54	TA
Barium	199	4.95		mg/Kg	221960	1	04/01/2016 13:54	TA
Cadmium	BRL	2.48		mg/Kg	221960	1	04/01/2016 13:54	TA
Chromium	30.4	2.48		mg/Kg	221960	1	04/01/2016 13:54	TA
Lead	36.8	4.95		mg/Kg	221960	1	04/01/2016 13:54	TA
Selenium	BRL	4.95		mg/Kg	221960	1	04/01/2016 13:54	TA
Silver	BRL	2.48		mg/Kg	221960	1	04/01/2016 13:54	TA

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-04 (0-2)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 10:00:00 AM
Lab ID:	1603R66-003	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
1,1,1-Trichloroethane	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
1,1,2,2-Tetrachloroethane	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
1,1,2-Trichloroethane	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
1,1-Dichloroethane	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
1,1-Dichloroethene	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
1,2,4-Trichlorobenzene	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
1,2-Dibromo-3-chloropropane	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
1,2-Dibromoethane	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
1,2-Dichlorobenzene	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
1,2-Dichloroethane	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
1,2-Dichloropropane	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
1,3-Dichlorobenzene	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
1,4-Dichlorobenzene	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
2-Butanone	BRL	87		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
2-Hexanone	BRL	17		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
4-Methyl-2-pentanone	BRL	17		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Acetone	BRL	170		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Benzene	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Bromodichloromethane	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Bromoform	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Bromomethane	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Carbon disulfide	BRL	17		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Carbon tetrachloride	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Chlorobenzene	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Chloroethane	BRL	17		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Chloroform	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Chloromethane	BRL	17		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
cis-1,2-Dichloroethene	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
cis-1,3-Dichloropropene	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Cyclohexane	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Dibromochloromethane	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Dichlorodifluoromethane	BRL	17		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Ethylbenzene	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Freon-113	BRL	17		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Isopropylbenzene	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
m,p-Xylene	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Methyl acetate	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Methyl tert-butyl ether	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Methylcyclohexane	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Methylene chloride	BRL	35		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
o-Xylene	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-04 (0-2)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 10:00:00 AM
Lab ID:	1603R66-003	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
Styrene	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Tetrachloroethene	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Toluene	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
trans-1,2-Dichloroethene	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
trans-1,3-Dichloropropene	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Trichloroethene	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Trichlorofluoromethane	BRL	8.7		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Vinyl chloride	BRL	17		ug/Kg-dry	222098	1	04/01/2016 20:46	CG
Surr: 4-Bromofluorobenzene	87.3	70-128		%REC	222098	1	04/01/2016 20:46	CG
Surr: Dibromofluoromethane	103	78.2-128		%REC	222098	1	04/01/2016 20:46	CG
Surr: Toluene-d8	96.7	76.5-116		%REC	222098	1	04/01/2016 20:46	CG
PERCENT MOISTURE D2216								
Percent Moisture	1.11	0		wt%	R313732	1	04/01/2016 09:15	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-04 (0-2)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 10:00:00 AM
Lab ID:	1603R66-004	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TOTAL MERCURY SW7471B				**(SW7471B)**				
Mercury	BRL	0.0923		mg/Kg	221958	1	03/31/2016 13:24	MC
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3550C)**				
1,1´-Biphenyl	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
2,4,5-Trichlorophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 18:47	YH
2,4,6-Trichlorophenol	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
2,4-Dichlorophenol	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
2,4-Dimethylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
2,4-Dinitrophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 18:47	YH
2,4-Dinitrotoluene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
2,6-Dinitrotoluene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
2-Chloronaphthalene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
2-Chlorophenol	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
2-Methylnaphthalene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
2-Methylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
2-Nitroaniline	BRL	1700		ug/Kg	221657	1	03/31/2016 18:47	YH
2-Nitrophenol	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
3,3´-Dichlorobenzidine	BRL	670		ug/Kg	221657	1	03/31/2016 18:47	YH
3-Nitroaniline	BRL	1700		ug/Kg	221657	1	03/31/2016 18:47	YH
4,6-Dinitro-2-methylphenol	BRL	1700		ug/Kg	221657	1	03/31/2016 18:47	YH
4-Bromophenyl phenyl ether	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
4-Chloro-3-methylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
4-Chloroaniline	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
4-Chlorophenyl phenyl ether	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
4-Methylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
4-Nitroaniline	BRL	1700		ug/Kg	221657	1	03/31/2016 18:47	YH
4-Nitrophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 18:47	YH
Acenaphthene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Acenaphthylene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Acetophenone	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Anthracene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Atrazine	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Benz(a)anthracene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Benzaldehyde	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Benzo(a)pyrene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Benzo(b)fluoranthene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Benzo(g,h,i)perylene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Benzo(k)fluoranthene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Bis(2-chloroethoxy)methane	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Bis(2-chloroethyl)ether	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Bis(2-chloroisopropyl)ether	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-04 (0-2)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 10:00:00 AM
Lab ID:	1603R66-004	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3550C)**				
Bis(2-ethylhexyl)phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Butyl benzyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Caprolactam	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Carbazole	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Chrysene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Di-n-butyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Di-n-octyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Dibenz(a,h)anthracene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Dibenzofuran	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Diethyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Dimethyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Fluoranthene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Fluorene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Hexachlorobenzene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Hexachlorobutadiene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Hexachlorocyclopentadiene	BRL	660		ug/Kg	221657	1	03/31/2016 18:47	YH
Hexachloroethane	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Indeno(1,2,3-cd)pyrene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Isophorone	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
N-Nitrosodi-n-propylamine	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
N-Nitrosodiphenylamine	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Naphthalene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Nitrobenzene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Pentachlorophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 18:47	YH
Phenanthrene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Phenol	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Pyrene	BRL	330		ug/Kg	221657	1	03/31/2016 18:47	YH
Surr: 2,4,6-Tribromophenol	77.1	42.4-130		%REC	221657	1	03/31/2016 18:47	YH
Surr: 2-Fluorobiphenyl	81.1	51.5-120		%REC	221657	1	03/31/2016 18:47	YH
Surr: 2-Fluorophenol	64.5	41.1-120		%REC	221657	1	03/31/2016 18:47	YH
Surr: 4-Terphenyl-d14	81.8	52.7-117		%REC	221657	1	03/31/2016 18:47	YH
Surr: Nitrobenzene-d5	74.6	41.4-120		%REC	221657	1	03/31/2016 18:47	YH
Surr: Phenol-d5	72	47.6-120		%REC	221657	1	03/31/2016 18:47	YH
POLYCHLORINATED BIPHENYLS SW8082A				**(SW3550C)**				
Aroclor 1016	BRL	33		ug/Kg	222030	1	04/02/2016 10:33	SH
Aroclor 1221	BRL	33		ug/Kg	222030	1	04/02/2016 10:33	SH
Aroclor 1232	BRL	33		ug/Kg	222030	1	04/02/2016 10:33	SH
Aroclor 1242	BRL	33		ug/Kg	222030	1	04/02/2016 10:33	SH
Aroclor 1248	BRL	33		ug/Kg	222030	1	04/02/2016 10:33	SH
Aroclor 1254	BRL	33		ug/Kg	222030	1	04/02/2016 10:33	SH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-04 (0-2)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 10:00:00 AM
Lab ID:	1603R66-004	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A				**(SW3550C)**				
Aroclor 1260	BRL	33		ug/Kg	222030	1	04/02/2016 10:33	SH
Surr: Decachlorobiphenyl	93.7	35.2-132		%REC	222030	1	04/02/2016 10:33	SH
Surr: Tetrachloro-m-xylene	104	35-128		%REC	222030	1	04/02/2016 10:33	SH
METALS, TOTAL SW6010D				**(SW3050B)**				
Arsenic	BRL	4.42		mg/Kg	221960	1	04/01/2016 14:00	TA
Barium	173	4.42		mg/Kg	221960	1	04/01/2016 14:00	TA
Cadmium	BRL	2.21		mg/Kg	221960	1	04/01/2016 14:00	TA
Chromium	29.1	2.21		mg/Kg	221960	1	04/01/2016 14:00	TA
Lead	BRL	4.42		mg/Kg	221960	1	04/01/2016 14:00	TA
Selenium	BRL	4.42		mg/Kg	221960	1	04/01/2016 14:00	TA
Silver	BRL	2.21		mg/Kg	221960	1	04/01/2016 14:00	TA

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-03 (18-20)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 10:30:00 AM
Lab ID:	1603R66-005	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
1,1,1-Trichloroethane	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
1,1,2,2-Tetrachloroethane	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
1,1,2-Trichloroethane	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
1,1-Dichloroethane	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
1,1-Dichloroethene	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
1,2,4-Trichlorobenzene	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
1,2-Dibromo-3-chloropropane	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
1,2-Dibromoethane	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
1,2-Dichlorobenzene	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
1,2-Dichloroethane	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
1,2-Dichloropropane	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
1,3-Dichlorobenzene	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
1,4-Dichlorobenzene	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
2-Butanone	BRL	64		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
2-Hexanone	BRL	13		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
4-Methyl-2-pentanone	BRL	13		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Acetone	BRL	130		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Benzene	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Bromodichloromethane	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Bromoform	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Bromomethane	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Carbon disulfide	BRL	13		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Carbon tetrachloride	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Chlorobenzene	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Chloroethane	BRL	13		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Chloroform	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Chloromethane	BRL	13		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
cis-1,2-Dichloroethene	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
cis-1,3-Dichloropropene	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Cyclohexane	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Dibromochloromethane	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Dichlorodifluoromethane	BRL	13		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Ethylbenzene	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Freon-113	BRL	13		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Isopropylbenzene	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
m,p-Xylene	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Methyl acetate	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Methyl tert-butyl ether	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Methylcyclohexane	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Methylene chloride	BRL	25		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
o-Xylene	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-03 (18-20)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 10:30:00 AM
Lab ID:	1603R66-005	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
Styrene	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Tetrachloroethene	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Toluene	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
trans-1,2-Dichloroethene	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
trans-1,3-Dichloropropene	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Trichloroethene	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Trichlorofluoromethane	BRL	6.4		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Vinyl chloride	BRL	13		ug/Kg-dry	222098	1	04/01/2016 19:36	CG
Surr: 4-Bromofluorobenzene	91.2	70-128		%REC	222098	1	04/01/2016 19:36	CG
Surr: Dibromofluoromethane	105	78.2-128		%REC	222098	1	04/01/2016 19:36	CG
Surr: Toluene-d8	98.4	76.5-116		%REC	222098	1	04/01/2016 19:36	CG
PERCENT MOISTURE D2216								
Percent Moisture	30.6	0		wt%	R313732	1	04/01/2016 09:15	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-03 (18-20)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 10:30:00 AM
Lab ID:	1603R66-006	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TOTAL MERCURY SW7471B				**(SW7471B)**				
Mercury	BRL	0.0842		mg/Kg	221958	1	03/31/2016 13:26	MC
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3550C)**				
1,1´-Biphenyl	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
2,4,5-Trichlorophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 19:13	YH
2,4,6-Trichlorophenol	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
2,4-Dichlorophenol	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
2,4-Dimethylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
2,4-Dinitrophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 19:13	YH
2,4-Dinitrotoluene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
2,6-Dinitrotoluene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
2-Chloronaphthalene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
2-Chlorophenol	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
2-Methylnaphthalene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
2-Methylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
2-Nitroaniline	BRL	1700		ug/Kg	221657	1	03/31/2016 19:13	YH
2-Nitrophenol	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
3,3´-Dichlorobenzidine	BRL	670		ug/Kg	221657	1	03/31/2016 19:13	YH
3-Nitroaniline	BRL	1700		ug/Kg	221657	1	03/31/2016 19:13	YH
4,6-Dinitro-2-methylphenol	BRL	1700		ug/Kg	221657	1	03/31/2016 19:13	YH
4-Bromophenyl phenyl ether	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
4-Chloro-3-methylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
4-Chloroaniline	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
4-Chlorophenyl phenyl ether	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
4-Methylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
4-Nitroaniline	BRL	1700		ug/Kg	221657	1	03/31/2016 19:13	YH
4-Nitrophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 19:13	YH
Acenaphthene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Acenaphthylene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Acetophenone	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Anthracene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Atrazine	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Benz(a)anthracene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Benzaldehyde	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Benzo(a)pyrene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Benzo(b)fluoranthene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Benzo(g,h,i)perylene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Benzo(k)fluoranthene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Bis(2-chloroethoxy)methane	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Bis(2-chloroethyl)ether	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Bis(2-chloroisopropyl)ether	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-03 (18-20)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 10:30:00 AM
Lab ID:	1603R66-006	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3550C)**				
Bis(2-ethylhexyl)phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Butyl benzyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Caprolactam	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Carbazole	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Chrysene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Di-n-butyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Di-n-octyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Dibenz(a,h)anthracene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Dibenzofuran	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Diethyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Dimethyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Fluoranthene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Fluorene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Hexachlorobenzene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Hexachlorobutadiene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Hexachlorocyclopentadiene	BRL	660		ug/Kg	221657	1	03/31/2016 19:13	YH
Hexachloroethane	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Indeno(1,2,3-cd)pyrene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Isophorone	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
N-Nitrosodi-n-propylamine	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
N-Nitrosodiphenylamine	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Naphthalene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Nitrobenzene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Pentachlorophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 19:13	YH
Phenanthrene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Phenol	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Pyrene	BRL	330		ug/Kg	221657	1	03/31/2016 19:13	YH
Surr: 2,4,6-Tribromophenol	78.7	42.4-130		%REC	221657	1	03/31/2016 19:13	YH
Surr: 2-Fluorobiphenyl	79.6	51.5-120		%REC	221657	1	03/31/2016 19:13	YH
Surr: 2-Fluorophenol	62.6	41.1-120		%REC	221657	1	03/31/2016 19:13	YH
Surr: 4-Terphenyl-d14	85.9	52.7-117		%REC	221657	1	03/31/2016 19:13	YH
Surr: Nitrobenzene-d5	73.5	41.4-120		%REC	221657	1	03/31/2016 19:13	YH
Surr: Phenol-d5	70.8	47.6-120		%REC	221657	1	03/31/2016 19:13	YH
POLYCHLORINATED BIPHENYLS SW8082A				**(SW3550C)**				
Aroclor 1016	BRL	33		ug/Kg	222030	1	04/02/2016 10:44	SH
Aroclor 1221	BRL	33		ug/Kg	222030	1	04/02/2016 10:44	SH
Aroclor 1232	BRL	33		ug/Kg	222030	1	04/02/2016 10:44	SH
Aroclor 1242	BRL	33		ug/Kg	222030	1	04/02/2016 10:44	SH
Aroclor 1248	BRL	33		ug/Kg	222030	1	04/02/2016 10:44	SH
Aroclor 1254	BRL	33		ug/Kg	222030	1	04/02/2016 10:44	SH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-03 (18-20)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 10:30:00 AM
Lab ID:	1603R66-006	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A				**(SW3550C)**				
Aroclor 1260	BRL	33		ug/Kg	222030	1	04/02/2016 10:44	SH
Surr: Decachlorobiphenyl	95.7	35.2-132		%REC	222030	1	04/02/2016 10:44	SH
Surr: Tetrachloro-m-xylene	95.7	35-128		%REC	222030	1	04/02/2016 10:44	SH
METALS, TOTAL SW6010D				**(SW3050B)**				
Arsenic	BRL	3.97		mg/Kg	221960	1	04/01/2016 14:08	TA
Barium	66.1	3.97		mg/Kg	221960	1	04/01/2016 14:08	TA
Cadmium	BRL	1.99		mg/Kg	221960	1	04/01/2016 14:08	TA
Chromium	9.56	1.99		mg/Kg	221960	1	04/01/2016 14:08	TA
Lead	10.3	3.97		mg/Kg	221960	1	04/01/2016 14:08	TA
Selenium	BRL	3.97		mg/Kg	221960	1	04/01/2016 14:08	TA
Silver	BRL	1.99		mg/Kg	221960	1	04/01/2016 14:08	TA

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-03 DUP
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 11:00:00 AM
Lab ID:	1603R66-007	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
1,1,1-Trichloroethane	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
1,1,2,2-Tetrachloroethane	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
1,1,2-Trichloroethane	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
1,1-Dichloroethane	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
1,1-Dichloroethene	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
1,2,4-Trichlorobenzene	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
1,2-Dibromo-3-chloropropane	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
1,2-Dibromoethane	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
1,2-Dichlorobenzene	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
1,2-Dichloroethane	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
1,2-Dichloropropane	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
1,3-Dichlorobenzene	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
1,4-Dichlorobenzene	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
2-Butanone	BRL	60		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
2-Hexanone	BRL	12		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
4-Methyl-2-pentanone	BRL	12		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Acetone	BRL	120		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Benzene	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Bromodichloromethane	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Bromoform	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Bromomethane	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Carbon disulfide	BRL	12		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Carbon tetrachloride	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Chlorobenzene	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Chloroethane	BRL	12		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Chloroform	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Chloromethane	BRL	12		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
cis-1,2-Dichloroethene	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
cis-1,3-Dichloropropene	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Cyclohexane	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Dibromochloromethane	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Dichlorodifluoromethane	BRL	12		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Ethylbenzene	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Freon-113	BRL	12		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Isopropylbenzene	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
m,p-Xylene	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Methyl acetate	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Methyl tert-butyl ether	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Methylcyclohexane	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Methylene chloride	BRL	24		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
o-Xylene	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-03 DUP
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 11:00:00 AM
Lab ID:	1603R66-007	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
Styrene	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Tetrachloroethene	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Toluene	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
trans-1,2-Dichloroethene	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
trans-1,3-Dichloropropene	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Trichloroethene	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Trichlorofluoromethane	BRL	6.0		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Vinyl chloride	BRL	12		ug/Kg-dry	222098	1	04/01/2016 19:59	CG
Surr: 4-Bromofluorobenzene	85.8	70-128		%REC	222098	1	04/01/2016 19:59	CG
Surr: Dibromofluoromethane	95.2	78.2-128		%REC	222098	1	04/01/2016 19:59	CG
Surr: Toluene-d8	99.8	76.5-116		%REC	222098	1	04/01/2016 19:59	CG
PERCENT MOISTURE D2216								
Percent Moisture	27.7	0		wt%	R313732	1	04/01/2016 09:15	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-03 DUP
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 11:00:00 AM
Lab ID:	1603R66-008	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TOTAL MERCURY SW7471B				**(SW7471B)**				
Mercury	BRL	0.0898		mg/Kg	221958	1	03/31/2016 13:33	MC
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3550C)**				
1,1´-Biphenyl	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
2,4,5-Trichlorophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 19:40	YH
2,4,6-Trichlorophenol	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
2,4-Dichlorophenol	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
2,4-Dimethylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
2,4-Dinitrophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 19:40	YH
2,4-Dinitrotoluene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
2,6-Dinitrotoluene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
2-Chloronaphthalene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
2-Chlorophenol	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
2-Methylnaphthalene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
2-Methylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
2-Nitroaniline	BRL	1700		ug/Kg	221657	1	03/31/2016 19:40	YH
2-Nitrophenol	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
3,3´-Dichlorobenzidine	BRL	670		ug/Kg	221657	1	03/31/2016 19:40	YH
3-Nitroaniline	BRL	1700		ug/Kg	221657	1	03/31/2016 19:40	YH
4,6-Dinitro-2-methylphenol	BRL	1700		ug/Kg	221657	1	03/31/2016 19:40	YH
4-Bromophenyl phenyl ether	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
4-Chloro-3-methylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
4-Chloroaniline	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
4-Chlorophenyl phenyl ether	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
4-Methylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
4-Nitroaniline	BRL	1700		ug/Kg	221657	1	03/31/2016 19:40	YH
4-Nitrophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 19:40	YH
Acenaphthene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Acenaphthylene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Acetophenone	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Anthracene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Atrazine	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Benz(a)anthracene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Benzaldehyde	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Benzo(a)pyrene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Benzo(b)fluoranthene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Benzo(g,h,i)perylene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Benzo(k)fluoranthene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Bis(2-chloroethoxy)methane	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Bis(2-chloroethyl)ether	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Bis(2-chloroisopropyl)ether	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-03 DUP
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 11:00:00 AM
Lab ID:	1603R66-008	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3550C)**				
Bis(2-ethylhexyl)phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Butyl benzyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Caprolactam	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Carbazole	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Chrysene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Di-n-butyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Di-n-octyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Dibenz(a,h)anthracene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Dibenzofuran	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Diethyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Dimethyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Fluoranthene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Fluorene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Hexachlorobenzene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Hexachlorobutadiene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Hexachlorocyclopentadiene	BRL	660		ug/Kg	221657	1	03/31/2016 19:40	YH
Hexachloroethane	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Indeno(1,2,3-cd)pyrene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Isophorone	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
N-Nitrosodi-n-propylamine	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
N-Nitrosodiphenylamine	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Naphthalene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Nitrobenzene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Pentachlorophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 19:40	YH
Phenanthrene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Phenol	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Pyrene	BRL	330		ug/Kg	221657	1	03/31/2016 19:40	YH
Surr: 2,4,6-Tribromophenol	71.2	42.4-130		%REC	221657	1	03/31/2016 19:40	YH
Surr: 2-Fluorobiphenyl	75	51.5-120		%REC	221657	1	03/31/2016 19:40	YH
Surr: 2-Fluorophenol	61.8	41.1-120		%REC	221657	1	03/31/2016 19:40	YH
Surr: 4-Terphenyl-d14	78.6	52.7-117		%REC	221657	1	03/31/2016 19:40	YH
Surr: Nitrobenzene-d5	69.8	41.4-120		%REC	221657	1	03/31/2016 19:40	YH
Surr: Phenol-d5	69	47.6-120		%REC	221657	1	03/31/2016 19:40	YH
POLYCHLORINATED BIPHENYLS SW8082A				**(SW3550C)**				
Aroclor 1016	BRL	33		ug/Kg	222030	1	04/02/2016 10:56	SH
Aroclor 1221	BRL	33		ug/Kg	222030	1	04/02/2016 10:56	SH
Aroclor 1232	BRL	33		ug/Kg	222030	1	04/02/2016 10:56	SH
Aroclor 1242	BRL	33		ug/Kg	222030	1	04/02/2016 10:56	SH
Aroclor 1248	BRL	33		ug/Kg	222030	1	04/02/2016 10:56	SH
Aroclor 1254	BRL	33		ug/Kg	222030	1	04/02/2016 10:56	SH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-03 DUP
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 11:00:00 AM
Lab ID:	1603R66-008	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A				**(SW3550C)**				
Aroclor 1260	BRL	33		ug/Kg	222030	1	04/02/2016 10:56	SH
Surr: Decachlorobiphenyl	93.7	35.2-132		%REC	222030	1	04/02/2016 10:56	SH
Surr: Tetrachloro-m-xylene	88.1	35-128		%REC	222030	1	04/02/2016 10:56	SH
METALS, TOTAL SW6010D				**(SW3050B)**				
Arsenic	BRL	4.34		mg/Kg	221960	1	04/01/2016 14:12	TA
Barium	86.1	4.34		mg/Kg	221960	1	04/01/2016 14:12	TA
Cadmium	BRL	2.17		mg/Kg	221960	1	04/01/2016 14:12	TA
Chromium	10.6	2.17		mg/Kg	221960	1	04/01/2016 14:12	TA
Lead	6.74	4.34		mg/Kg	221960	1	04/01/2016 14:12	TA
Selenium	BRL	4.34		mg/Kg	221960	1	04/01/2016 14:12	TA
Silver	BRL	2.17		mg/Kg	221960	1	04/01/2016 14:12	TA

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-02 (0-3)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 11:30:00 AM
Lab ID:	1603R66-009	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
1,1,1-Trichloroethane	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
1,1,2,2-Tetrachloroethane	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
1,1,2-Trichloroethane	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
1,1-Dichloroethane	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
1,1-Dichloroethene	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
1,2,4-Trichlorobenzene	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
1,2-Dibromo-3-chloropropane	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
1,2-Dibromoethane	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
1,2-Dichlorobenzene	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
1,2-Dichloroethane	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
1,2-Dichloropropane	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
1,3-Dichlorobenzene	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
1,4-Dichlorobenzene	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
2-Butanone	BRL	42		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
2-Hexanone	BRL	8.5		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
4-Methyl-2-pentanone	BRL	8.5		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Acetone	BRL	85		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Benzene	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Bromodichloromethane	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Bromoform	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Bromomethane	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Carbon disulfide	BRL	8.5		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Carbon tetrachloride	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Chlorobenzene	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Chloroethane	BRL	8.5		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Chloroform	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Chloromethane	BRL	8.5		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
cis-1,2-Dichloroethene	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
cis-1,3-Dichloropropene	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Cyclohexane	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Dibromochloromethane	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Dichlorodifluoromethane	BRL	8.5		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Ethylbenzene	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Freon-113	BRL	8.5		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Isopropylbenzene	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
m,p-Xylene	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Methyl acetate	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Methyl tert-butyl ether	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Methylcyclohexane	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Methylene chloride	BRL	17		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
o-Xylene	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-02 (0-3)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 11:30:00 AM
Lab ID:	1603R66-009	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
Styrene	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Tetrachloroethene	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Toluene	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
trans-1,2-Dichloroethene	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
trans-1,3-Dichloropropene	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Trichloroethene	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Trichlorofluoromethane	BRL	4.2		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Vinyl chloride	BRL	8.5		ug/Kg-dry	222098	1	04/01/2016 20:23	CG
Surr: 4-Bromofluorobenzene	87.1	70-128		%REC	222098	1	04/01/2016 20:23	CG
Surr: Dibromofluoromethane	103	78.2-128		%REC	222098	1	04/01/2016 20:23	CG
Surr: Toluene-d8	99.6	76.5-116		%REC	222098	1	04/01/2016 20:23	CG
PERCENT MOISTURE D2216								
Percent Moisture	1.45	0		wt%	R313732	1	04/01/2016 09:15	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-02 (0-3)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 11:30:00 AM
Lab ID:	1603R66-010	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TOTAL MERCURY SW7471B				**(SW7471B)**				
Mercury	BRL	0.0986		mg/Kg	221958	1	03/31/2016 13:35	MC
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3550C)**				
1,1´-Biphenyl	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
2,4,5-Trichlorophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 20:05	YH
2,4,6-Trichlorophenol	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
2,4-Dichlorophenol	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
2,4-Dimethylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
2,4-Dinitrophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 20:05	YH
2,4-Dinitrotoluene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
2,6-Dinitrotoluene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
2-Chloronaphthalene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
2-Chlorophenol	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
2-Methylnaphthalene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
2-Methylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
2-Nitroaniline	BRL	1700		ug/Kg	221657	1	03/31/2016 20:05	YH
2-Nitrophenol	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
3,3´-Dichlorobenzidine	BRL	670		ug/Kg	221657	1	03/31/2016 20:05	YH
3-Nitroaniline	BRL	1700		ug/Kg	221657	1	03/31/2016 20:05	YH
4,6-Dinitro-2-methylphenol	BRL	1700		ug/Kg	221657	1	03/31/2016 20:05	YH
4-Bromophenyl phenyl ether	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
4-Chloro-3-methylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
4-Chloroaniline	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
4-Chlorophenyl phenyl ether	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
4-Methylphenol	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
4-Nitroaniline	BRL	1700		ug/Kg	221657	1	03/31/2016 20:05	YH
4-Nitrophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 20:05	YH
Acenaphthene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Acenaphthylene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Acetophenone	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Anthracene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Atrazine	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Benz(a)anthracene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Benzaldehyde	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Benzo(a)pyrene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Benzo(b)fluoranthene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Benzo(g,h,i)perylene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Benzo(k)fluoranthene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Bis(2-chloroethoxy)methane	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Bis(2-chloroethyl)ether	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Bis(2-chloroisopropyl)ether	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
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- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-02 (0-3)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 11:30:00 AM
Lab ID:	1603R66-010	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3550C)**				
Bis(2-ethylhexyl)phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Butyl benzyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Caprolactam	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Carbazole	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Chrysene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Di-n-butyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Di-n-octyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Dibenz(a,h)anthracene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Dibenzofuran	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Diethyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Dimethyl phthalate	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Fluoranthene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Fluorene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Hexachlorobenzene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Hexachlorobutadiene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Hexachlorocyclopentadiene	BRL	660		ug/Kg	221657	1	03/31/2016 20:05	YH
Hexachloroethane	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Indeno(1,2,3-cd)pyrene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Isophorone	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
N-Nitrosodi-n-propylamine	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
N-Nitrosodiphenylamine	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Naphthalene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Nitrobenzene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Pentachlorophenol	BRL	1700		ug/Kg	221657	1	03/31/2016 20:05	YH
Phenanthrene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Phenol	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Pyrene	BRL	330		ug/Kg	221657	1	03/31/2016 20:05	YH
Surr: 2,4,6-Tribromophenol	72.9	42.4-130		%REC	221657	1	03/31/2016 20:05	YH
Surr: 2-Fluorobiphenyl	76	51.5-120		%REC	221657	1	03/31/2016 20:05	YH
Surr: 2-Fluorophenol	62.4	41.1-120		%REC	221657	1	03/31/2016 20:05	YH
Surr: 4-Terphenyl-d14	75.8	52.7-117		%REC	221657	1	03/31/2016 20:05	YH
Surr: Nitrobenzene-d5	71	41.4-120		%REC	221657	1	03/31/2016 20:05	YH
Surr: Phenol-d5	69.3	47.6-120		%REC	221657	1	03/31/2016 20:05	YH
POLYCHLORINATED BIPHENYLS SW8082A				**(SW3550C)**				
Aroclor 1016	BRL	33		ug/Kg	222030	1	04/02/2016 11:07	SH
Aroclor 1221	BRL	33		ug/Kg	222030	1	04/02/2016 11:07	SH
Aroclor 1232	BRL	33		ug/Kg	222030	1	04/02/2016 11:07	SH
Aroclor 1242	BRL	33		ug/Kg	222030	1	04/02/2016 11:07	SH
Aroclor 1248	BRL	33		ug/Kg	222030	1	04/02/2016 11:07	SH
Aroclor 1254	BRL	33		ug/Kg	222030	1	04/02/2016 11:07	SH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
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- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-02 (0-3)
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016 11:30:00 AM
Lab ID:	1603R66-010	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A				**(SW3550C)**				
Aroclor 1260	BRL	33		ug/Kg	222030	1	04/02/2016 11:07	SH
Surr: Decachlorobiphenyl	98.9	35.2-132		%REC	222030	1	04/02/2016 11:07	SH
Surr: Tetrachloro-m-xylene	89.9	35-128		%REC	222030	1	04/02/2016 11:07	SH
METALS, TOTAL SW6010D				**(SW3050B)**				
Arsenic	BRL	4.21		mg/Kg	221960	1	04/01/2016 14:24	TA
Barium	177	4.21		mg/Kg	221960	1	04/01/2016 14:24	TA
Cadmium	BRL	2.11		mg/Kg	221960	1	04/01/2016 14:24	TA
Chromium	26.9	2.11		mg/Kg	221960	1	04/01/2016 14:24	TA
Lead	4.70	4.21		mg/Kg	221960	1	04/01/2016 14:24	TA
Selenium	BRL	4.21		mg/Kg	221960	1	04/01/2016 14:24	TA
Silver	BRL	2.11		mg/Kg	221960	1	04/01/2016 14:24	TA

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	TRIP BLANK
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016
Lab ID:	1603R66-011	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
1,1-Dichloroethane	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
1,1-Dichloroethene	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
1,2-Dibromoethane	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
1,2-Dichloroethane	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
1,2-Dichloropropane	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
2-Butanone	BRL	50		ug/L	222029	1	03/31/2016 22:20	NP
2-Hexanone	BRL	10		ug/L	222029	1	03/31/2016 22:20	NP
4-Methyl-2-pentanone	BRL	10		ug/L	222029	1	03/31/2016 22:20	NP
Acetone	BRL	50		ug/L	222029	1	03/31/2016 22:20	NP
Benzene	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Bromodichloromethane	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Bromoform	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Bromomethane	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Carbon disulfide	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Carbon tetrachloride	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Chlorobenzene	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Chloroethane	BRL	10		ug/L	222029	1	03/31/2016 22:20	NP
Chloroform	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Chloromethane	BRL	10		ug/L	222029	1	03/31/2016 22:20	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Cyclohexane	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Dibromochloromethane	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Dichlorodifluoromethane	BRL	10		ug/L	222029	1	03/31/2016 22:20	NP
Ethylbenzene	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Freon-113	BRL	10		ug/L	222029	1	03/31/2016 22:20	NP
Isopropylbenzene	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
m,p-Xylene	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Methyl acetate	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Methylcyclohexane	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Methylene chloride	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
o-Xylene	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP

Qualifiers:

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- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 6-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	TRIP BLANK
Project Name:	Lifecycle Building Center	**Collection Date:**	3/29/2016
Lab ID:	1603R66-011	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
Styrene	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Tetrachloroethene	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Toluene	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Trichloroethene	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Trichlorofluoromethane	BRL	5.0		ug/L	222029	1	03/31/2016 22:20	NP
Vinyl chloride	BRL	2.0		ug/L	222029	1	03/31/2016 22:20	NP
Surr: 4-Bromofluorobenzene	82.2	70.7-125		%REC	222029	1	03/31/2016 22:20	NP
Surr: Dibromofluoromethane	114	82.2-120		%REC	222029	1	03/31/2016 22:20	NP
Surr: Toluene-d8	92.3	81.8-120		%REC	222029	1	03/31/2016 22:20	NP

Qualifiers:

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BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client CERM Work Order Number 1603R66

Checklist completed by [signature] 3/29/16
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes ✓ No __ Not Present __

Custody seals intact on sample bottles? Yes ✓ No __ Not Present __

Container/Temp Blank temperature in compliance? (0°≤6°C)* Yes ✓ No __

Cooler #1 2.3°C Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes __ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\I\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

April 13, 2016

DJ Edler
Corporate Environmental Risk Management, LLC.
1990 Lakeside Pkwy
Tucker GA 30084

TEL: (678) 999-0173
FAX: (678) 999-0186

RE: Lifecycle Building Center

Dear DJ Edler: Order No: 1604314

Analytical Environmental Services, Inc. received 3 samples on 4/5/2016 12:05:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES's accreditations are as follows:
-NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/15-06/30/16.
-NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/15-06/30/16.
-NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Mirzeta Kararic

Mirzeta Kararic
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1604314

Date: 4-5-16 Page 1 of 1

COMPANY: CERM

ADDRESS: 1990 Lakeside Pkwy Ste 300 Tucker, GA 30310

PHONE: 678-999-0173

FAX: 678-999-0186

SAMPLED BY: Darryl Edler (DJ)

SIGNATURE: [signature]

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOCs S/M+I	SVOCs I	PCBs I	RCRA Metals I	REMARKS	No # of Containers
1	SB-01 (14-16)	4-5-16	1030	X		SO	X					4
2	SB-01 (14-16)	4-5-16	1030		X	SO		X	X	X		2
3	Temperature Blank									1		1
4	Trip Blank									1		2
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												

PRESERVATION (See codes)

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	4-5-16 12:05	1: [signature]	4-5-16 12:05
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: Lifecycle Building Center
PROJECT #: 2016-0981-064
SITE ADDRESS: 1116 Murphy Ave, Atlanta, GA 30310
SEND REPORT TO: Dedler@cerm.com
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #:_____ PO#:_____

RECEIPT
Total # of Containers: 9

Turnaround Time Request
- [x] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same Day Rush (auth req.)
- [ ] Other _____

STATE PROGRAM (if any): _____
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 13-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-01 (14-16)
Project Name:	Lifecycle Building Center	**Collection Date:**	4/5/2016 10:30:00 AM
Lab ID:	1604314-001	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
1,1,1-Trichloroethane	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
1,1,2,2-Tetrachloroethane	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
1,1,2-Trichloroethane	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
1,1-Dichloroethane	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
1,1-Dichloroethene	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
1,2,4-Trichlorobenzene	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
1,2-Dibromo-3-chloropropane	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
1,2-Dibromoethane	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
1,2-Dichlorobenzene	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
1,2-Dichloroethane	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
1,2-Dichloropropane	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
1,3-Dichlorobenzene	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
1,4-Dichlorobenzene	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
2-Butanone	BRL	51		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
2-Hexanone	BRL	10		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
4-Methyl-2-pentanone	BRL	10		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Acetone	BRL	100		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Benzene	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Bromodichloromethane	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Bromoform	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Bromomethane	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Carbon disulfide	BRL	10		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Carbon tetrachloride	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Chlorobenzene	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Chloroethane	BRL	10		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Chloroform	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Chloromethane	BRL	10		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
cis-1,2-Dichloroethene	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
cis-1,3-Dichloropropene	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Cyclohexane	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Dibromochloromethane	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Dichlorodifluoromethane	BRL	10		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Ethylbenzene	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Freon-113	BRL	10		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Isopropylbenzene	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
m,p-Xylene	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Methyl acetate	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Methyl tert-butyl ether	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Methylcyclohexane	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Methylene chloride	BRL	20		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
o-Xylene	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-01 (14-16)
Project Name:	Lifecycle Building Center	**Collection Date:**	4/5/2016 10:30:00 AM
Lab ID:	1604314-001	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
Styrene	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Tetrachloroethene	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Toluene	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
trans-1,2-Dichloroethene	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
trans-1,3-Dichloropropene	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Trichloroethene	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Trichlorofluoromethane	BRL	5.1		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Vinyl chloride	BRL	10		ug/Kg-dry	222356	1	04/08/2016 10:04	CG
Surr: 4-Bromofluorobenzene	83.4	70-128		%REC	222356	1	04/08/2016 10:04	CG
Surr: Dibromofluoromethane	92.7	78.2-128		%REC	222356	1	04/08/2016 10:04	CG
Surr: Toluene-d8	97.2	76.5-116		%REC	222356	1	04/08/2016 10:04	CG
PERCENT MOISTURE D2216								
Percent Moisture	31.0	0		wt%	R314410	1	04/12/2016 10:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-01 (14-16)
Project Name:	Lifecycle Building Center	**Collection Date:**	4/5/2016 10:30:00 AM
Lab ID:	1604314-002	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TOTAL MERCURY SW7471B				**(SW7471B)**				
Mercury	BRL	0.0967		mg/Kg	222353	1	04/08/2016 14:05	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3550C)**				
1,1´-Biphenyl	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
2,4,5-Trichlorophenol	BRL	1700		ug/Kg	222216	1	04/07/2016 17:05	YH
2,4,6-Trichlorophenol	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
2,4-Dichlorophenol	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
2,4-Dimethylphenol	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
2,4-Dinitrophenol	BRL	1700		ug/Kg	222216	1	04/07/2016 17:05	YH
2,4-Dinitrotoluene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
2,6-Dinitrotoluene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
2-Chloronaphthalene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
2-Chlorophenol	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
2-Methylnaphthalene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
2-Methylphenol	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
2-Nitroaniline	BRL	1700		ug/Kg	222216	1	04/07/2016 17:05	YH
2-Nitrophenol	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
3,3´-Dichlorobenzidine	BRL	670		ug/Kg	222216	1	04/07/2016 17:05	YH
3-Nitroaniline	BRL	1700		ug/Kg	222216	1	04/07/2016 17:05	YH
4,6-Dinitro-2-methylphenol	BRL	1700		ug/Kg	222216	1	04/07/2016 17:05	YH
4-Bromophenyl phenyl ether	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
4-Chloro-3-methylphenol	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
4-Chloroaniline	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
4-Chlorophenyl phenyl ether	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
4-Methylphenol	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
4-Nitroaniline	BRL	1700		ug/Kg	222216	1	04/07/2016 17:05	YH
4-Nitrophenol	BRL	1700		ug/Kg	222216	1	04/07/2016 17:05	YH
Acenaphthene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Acenaphthylene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Acetophenone	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Anthracene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Atrazine	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Benz(a)anthracene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Benzaldehyde	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Benzo(a)pyrene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Benzo(b)fluoranthene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Benzo(g,h,i)perylene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Benzo(k)fluoranthene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Bis(2-chloroethoxy)methane	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Bis(2-chloroethyl)ether	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Bis(2-chloroisopropyl)ether	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-01 (14-16)
Project Name:	Lifecycle Building Center	**Collection Date:**	4/5/2016 10:30:00 AM
Lab ID:	1604314-002	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3550C)**				
Bis(2-ethylhexyl)phthalate	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Butyl benzyl phthalate	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Caprolactam	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Carbazole	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Chrysene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Di-n-butyl phthalate	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Di-n-octyl phthalate	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Dibenz(a,h)anthracene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Dibenzofuran	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Diethyl phthalate	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Dimethyl phthalate	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Fluoranthene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Fluorene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Hexachlorobenzene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Hexachlorobutadiene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Hexachlorocyclopentadiene	BRL	660		ug/Kg	222216	1	04/07/2016 17:05	YH
Hexachloroethane	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Indeno(1,2,3-cd)pyrene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Isophorone	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
N-Nitrosodi-n-propylamine	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
N-Nitrosodiphenylamine	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Naphthalene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Nitrobenzene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Pentachlorophenol	BRL	1700		ug/Kg	222216	1	04/07/2016 17:05	YH
Phenanthrene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Phenol	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Pyrene	BRL	330		ug/Kg	222216	1	04/07/2016 17:05	YH
Surr: 2,4,6-Tribromophenol	74.2	42.4-130		%REC	222216	1	04/07/2016 17:05	YH
Surr: 2-Fluorobiphenyl	67.4	51.5-120		%REC	222216	1	04/07/2016 17:05	YH
Surr: 2-Fluorophenol	58.9	41.1-120		%REC	222216	1	04/07/2016 17:05	YH
Surr: 4-Terphenyl-d14	69.8	52.7-117		%REC	222216	1	04/07/2016 17:05	YH
Surr: Nitrobenzene-d5	61.5	41.4-120		%REC	222216	1	04/07/2016 17:05	YH
Surr: Phenol-d5	61.2	47.6-120		%REC	222216	1	04/07/2016 17:05	YH
POLYCHLORINATED BIPHENYLS SW8082A				**(SW3550C)**				
Aroclor 1016	BRL	33		ug/Kg	222274	1	04/07/2016 20:28	SH
Aroclor 1221	BRL	33		ug/Kg	222274	1	04/07/2016 20:28	SH
Aroclor 1232	BRL	33		ug/Kg	222274	1	04/07/2016 20:28	SH
Aroclor 1242	BRL	33		ug/Kg	222274	1	04/07/2016 20:28	SH
Aroclor 1248	BRL	33		ug/Kg	222274	1	04/07/2016 20:28	SH
Aroclor 1254	BRL	33		ug/Kg	222274	1	04/07/2016 20:28	SH

Qualifiers:

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- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	SB-01 (14-16)
Project Name:	Lifecycle Building Center	**Collection Date:**	4/5/2016 10:30:00 AM
Lab ID:	1604314-002	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A				**(SW3550C)**				
Aroclor 1260	BRL	33		ug/Kg	222274	1	04/07/2016 20:28	SH
Surr: Decachlorobiphenyl	100	35.2-132		%REC	222274	1	04/07/2016 20:28	SH
Surr: Tetrachloro-m-xylene	93.4	35-128		%REC	222274	1	04/07/2016 20:28	SH
METALS, TOTAL SW6010D				**(SW3050B)**				
Arsenic	BRL	4.35		mg/Kg	222384	1	04/11/2016 19:42	IO
Barium	26.6	4.35		mg/Kg	222384	1	04/11/2016 19:42	IO
Cadmium	BRL	2.17		mg/Kg	222384	1	04/11/2016 19:42	IO
Chromium	BRL	2.17		mg/Kg	222384	1	04/11/2016 19:42	IO
Lead	8.45	4.35		mg/Kg	222384	1	04/11/2016 19:42	IO
Selenium	BRL	4.35		mg/Kg	222384	1	04/11/2016 19:42	IO
Silver	BRL	2.17		mg/Kg	222384	1	04/11/2016 19:42	IO

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	TRIP BLANK
Project Name:	Lifecycle Building Center	**Collection Date:**	4/5/2016
Lab ID:	1604314-003	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
1,1-Dichloroethane	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
1,1-Dichloroethene	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
1,2-Dibromoethane	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
1,2-Dichloroethane	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
1,2-Dichloropropane	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
2-Butanone	BRL	50		ug/L	222339	1	04/07/2016 18:40	CH
2-Hexanone	BRL	10		ug/L	222339	1	04/07/2016 18:40	CH
4-Methyl-2-pentanone	BRL	10		ug/L	222339	1	04/07/2016 18:40	CH
Acetone	BRL	50		ug/L	222339	1	04/07/2016 18:40	CH
Benzene	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Bromodichloromethane	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Bromoform	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Bromomethane	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Carbon disulfide	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Carbon tetrachloride	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Chlorobenzene	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Chloroethane	BRL	10		ug/L	222339	1	04/07/2016 18:40	CH
Chloroform	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Chloromethane	BRL	10		ug/L	222339	1	04/07/2016 18:40	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Cyclohexane	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Dibromochloromethane	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Dichlorodifluoromethane	BRL	10		ug/L	222339	1	04/07/2016 18:40	CH
Ethylbenzene	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Freon-113	BRL	10		ug/L	222339	1	04/07/2016 18:40	CH
Isopropylbenzene	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
m,p-Xylene	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Methyl acetate	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Methylcyclohexane	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Methylene chloride	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
o-Xylene	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	Corporate Environmental Risk Management, LLC.	**Client Sample ID:**	TRIP BLANK
Project Name:	Lifecycle Building Center	**Collection Date:**	4/5/2016
Lab ID:	1604314-003	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
Styrene	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Tetrachloroethene	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Toluene	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Trichloroethene	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Trichlorofluoromethane	BRL	5.0		ug/L	222339	1	04/07/2016 18:40	CH
Vinyl chloride	BRL	2.0		ug/L	222339	1	04/07/2016 18:40	CH
Surr: 4-Bromofluorobenzene	71.7	70.7-125		%REC	222339	1	04/07/2016 18:40	CH
Surr: Dibromofluoromethane	115	82.2-120		%REC	222339	1	04/07/2016 18:40	CH
Surr: Toluene-d8	95.1	81.8-120		%REC	222339	1	04/07/2016 18:40	CH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client CERM Work Order Number 1604314

Checklist completed by _____ 4/5/16
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (0°≤6°C)* Yes ✓ No __

Cooler #1 4.9 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\l\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Client: Corporate Environmental Risk Management, LLC.
Project Name: Lifecycle Building Center
Workorder: 1604314

ANALYTICAL QC SUMMARY REPORT

BatchID: 222216

Sample ID: **MB-222216** Client ID: Units: **ug/Kg** Prep Date: **04/06/2016** Run No: **314076**
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **222216** Analysis Date: **04/06/2016** Seq No: **6756700**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1´-Biphenyl	BRL	330									
2,4,5-Trichlorophenol	BRL	1700									
2,4,6-Trichlorophenol	BRL	330									
2,4-Dichlorophenol	BRL	330									
2,4-Dimethylphenol	BRL	330									
2,4-Dinitrophenol	BRL	1700									
2,4-Dinitrotoluene	BRL	330									
2,6-Dinitrotoluene	BRL	330									
2-Chloronaphthalene	BRL	330									
2-Chlorophenol	BRL	330									
2-Methylnaphthalene	BRL	330									
2-Methylphenol	BRL	330									
2-Nitroaniline	BRL	1700									
2-Nitrophenol	BRL	330									
3,3´-Dichlorobenzidine	BRL	670									
3-Nitroaniline	BRL	1700									
4,6-Dinitro-2-methylphenol	BRL	1700									
4-Bromophenyl phenyl ether	BRL	330									
4-Chloro-3-methylphenol	BRL	330									
4-Chloroaniline	BRL	330									
4-Chlorophenyl phenyl ether	BRL	330									
4-Methylphenol	BRL	330									
4-Nitroaniline	BRL	1700									
4-Nitrophenol	BRL	1700									
Acenaphthene	BRL	330									
Acenaphthylene	BRL	330									
Acetophenone	BRL	330									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Corporate Environmental Risk Management, LLC.
Project Name: Lifecycle Building Center
Workorder: 1604314

ANALYTICAL QC SUMMARY REPORT

BatchID: 222216

Sample ID: **MB-222216** Client ID: Units: **ug/Kg** Prep Date: **04/06/2016** Run No: **314076**
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **222216** Analysis Date: **04/06/2016** Seq No: **6756700**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Anthracene	BRL	330									
Atrazine	BRL	330									
Benz(a)anthracene	BRL	330									
Benzaldehyde	BRL	330									
Benzo(a)pyrene	BRL	330									
Benzo(b)fluoranthene	BRL	330									
Benzo(g,h,i)perylene	BRL	330									
Benzo(k)fluoranthene	BRL	330									
Bis(2-chloroethoxy)methane	BRL	330									
Bis(2-chloroethyl)ether	BRL	330									
Bis(2-chloroisopropyl)ether	BRL	330									
Bis(2-ethylhexyl)phthalate	BRL	330									
Butyl benzyl phthalate	BRL	330									
Caprolactam	BRL	330									
Carbazole	BRL	330									
Chrysene	BRL	330									
Di-n-butyl phthalate	BRL	330									
Di-n-octyl phthalate	BRL	330									
Dibenz(a,h)anthracene	BRL	330									
Dibenzofuran	BRL	330									
Diethyl phthalate	BRL	330									
Dimethyl phthalate	BRL	330									
Fluoranthene	BRL	330									
Fluorene	BRL	330									
Hexachlorobenzene	BRL	330									
Hexachlorobutadiene	BRL	330									
Hexachlorocyclopentadiene	BRL	660									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Corporate Environmental Risk Management, LLC.
Project Name: Lifecycle Building Center
Workorder: 1604314

ANALYTICAL QC SUMMARY REPORT

BatchID: 222216

Sample ID: **MB-222216** Client ID: Units: **ug/Kg** Prep Date: **04/06/2016** Run No: **314076**
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **222216** Analysis Date: **04/06/2016** Seq No: **6756700**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Hexachloroethane	BRL	330									
Indeno(1,2,3-cd)pyrene	BRL	330									
Isophorone	BRL	330									
N-Nitrosodi-n-propylamine	BRL	330									
N-Nitrosodiphenylamine	BRL	330									
Naphthalene	BRL	330									
Nitrobenzene	BRL	330									
Pentachlorophenol	BRL	1700									
Phenanthrene	BRL	330									
Phenol	BRL	330									
Pyrene	BRL	330									
Surr: 2,4,6-Tribromophenol	2758	0	3333		82.7	42.4	130				
Surr: 2-Fluorobiphenyl	1314	0	1667		78.8	51.5	120				
Surr: 2-Fluorophenol	2174	0	3333		65.2	41.1	120				
Surr: 4-Terphenyl-d14	1449	0	1667		86.9	52.7	117				
Surr: Nitrobenzene-d5	1190	0	1667		71.4	41.4	120				
Surr: Phenol-d5	2339	0	3333		70.2	47.6	120				

Sample ID: **LCS-222216** Client ID: Units: **ug/Kg** Prep Date: **04/06/2016** Run No: **314076**
SampleType: **LCS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **222216** Analysis Date: **04/06/2016** Seq No: **6756701**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	2698	330	3333		81.0	64.8	117				
2-Chlorophenol	2569	330	3333		77.1	61.7	120				
4-Chloro-3-methylphenol	2825	330	3333		84.8	63.7	119				
4-Nitrophenol	2702	1700	3333		81.1	40.1	122				
Acenaphthene	2691	330	3333		80.7	69.6	120				
N-Nitrosodi-n-propylamine	2897	330	3333		86.9	61.5	132				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Corporate Environmental Risk Management, LLC.
Project Name: Lifecycle Building Center
Workorder: 1604314

ANALYTICAL QC SUMMARY REPORT

BatchID: 222216

Sample ID: **LCS-222216** Client ID: Units: **ug/Kg** Prep Date: **04/06/2016** Run No: **314076**
SampleType: **LCS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **222216** Analysis Date: **04/06/2016** Seq No: **6756701**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Pentachlorophenol	2188	1700	3333		65.6	40.2	121				
Phenol	2369	330	3333		71.1	52.8	120				
Pyrene	3051	330	3333		91.5	64	124				
Surr: 2,4,6-Tribromophenol	3142	0	3333		94.2	42.4	130				
Surr: 2-Fluorobiphenyl	1505	0	1667		90.3	51.5	120				
Surr: 2-Fluorophenol	2549	0	3333		76.5	41.1	120				
Surr: 4-Terphenyl-d14	1607	0	1667		96.4	52.7	117				
Surr: Nitrobenzene-d5	1321	0	1667		79.3	41.4	120				
Surr: Phenol-d5	2706	0	3333		81.2	47.6	120				

Sample ID: **1604301-001CMS** Client ID: Units: **ug/Kg-dry** Prep Date: **04/06/2016** Run No: **314076**
SampleType: **MS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **222216** Analysis Date: **04/06/2016** Seq No: **6756703**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	3161	390	3944		80.1	49.2	120				
2-Chlorophenol	3252	390	3944		82.4	51.7	120				
4-Chloro-3-methylphenol	3555	390	3944		90.1	52.9	120				
4-Nitrophenol	3323	2000	3944		84.2	30.8	120				
Acenaphthene	3253	390	3944		82.5	52.2	120				
N-Nitrosodi-n-propylamine	3530	390	3944		89.5	51.7	125				
Pentachlorophenol	2731	2000	3944		69.2	39.4	120				
Phenol	3007	390	3944		76.2	45.4	120				
Pyrene	3430	390	3944	69.42	85.2	49.1	120				
Surr: 2,4,6-Tribromophenol	3923	0	3944		99.5	42.4	130				
Surr: 2-Fluorobiphenyl	1846	0	1972		93.6	51.5	120				
Surr: 2-Fluorophenol	3245	0	3944		82.3	41.1	120				
Surr: 4-Terphenyl-d14	1786	0	1972		90.6	52.7	117				
Surr: Nitrobenzene-d5	1698	0	1972		86.1	41.4	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Corporate Environmental Risk Management, LLC.
Project Name: Lifecycle Building Center
Workorder: 1604314

ANALYTICAL QC SUMMARY REPORT

BatchID: 222216

Sample ID: **1604301-001CMS** Client ID: Units: **ug/Kg-dry** Prep Date: **04/06/2016** Run No: **314076**
SampleType: **MS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **222216** Analysis Date: **04/06/2016** Seq No: **6756703**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Phenol-d5	3467	0	3944		87.9	47.6	120				

Sample ID: **1604301-001CMSD** Client ID: Units: **ug/Kg-dry** Prep Date: **04/06/2016** Run No: **314076**
SampleType: **MSD** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **222216** Analysis Date: **04/06/2016** Seq No: **6756708**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	2875	390	3944		72.9	49.2	120	3161	9.46	23.4	
2-Chlorophenol	2996	390	3944		76.0	51.7	120	3252	8.19	29.9	
4-Chloro-3-methylphenol	3370	390	3944		85.4	52.9	120	3555	5.35	45.7	
4-Nitrophenol	2891	2000	3944		73.3	30.8	120	3323	13.9	30.8	
Acenaphthene	3006	390	3944		76.2	52.2	120	3253	7.92	24.4	
N-Nitrosodi-n-propylamine	3321	390	3944		84.2	51.7	125	3530	6.08	19.7	
Pentachlorophenol	2541	2000	3944		64.4	39.4	120	2731	7.21	26.5	
Phenol	2773	390	3944		70.3	45.4	120	3007	8.11	20.7	
Pyrene	3178	390	3944	69.42	78.8	49.1	120	3430	7.64	33.4	
Surr: 2,4,6-Tribromophenol	3620	0	3944		91.8	42.4	130	3923	0	0	
Surr: 2-Fluorobiphenyl	1657	0	1972		84.0	51.5	120	1846	0	0	
Surr: 2-Fluorophenol	2934	0	3944		74.4	41.1	120	3245	0	0	
Surr: 4-Terphenyl-d14	1655	0	1972		83.9	52.7	117	1786	0	0	
Surr: Nitrobenzene-d5	1573	0	1972		79.7	41.4	120	1698	0	0	
Surr: Phenol-d5	3202	0	3944		81.2	47.6	120	3467	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Corporate Environmental Risk Management, LLC.
Project Name: Lifecycle Building Center
Workorder: 1604314

ANALYTICAL QC SUMMARY REPORT

BatchID: 222274

Sample ID: **MB-222274** Client ID: Units: **ug/Kg** Prep Date: **04/07/2016** Run No: **314296**
SampleType: **MBLK** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **222274** Analysis Date: **04/07/2016** Seq No: **6762652**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	BRL	33									
Aroclor 1221	BRL	33									
Aroclor 1232	BRL	33									
Aroclor 1242	BRL	33									
Aroclor 1248	BRL	33									
Aroclor 1254	BRL	33									
Aroclor 1260	BRL	33									
Surr: Decachlorobiphenyl	17.11	0	16.67		103	35.2	132				
Surr: Tetrachloro-m-xylene	14.61	0	16.67		87.6	35	128				

Sample ID: **MB-222274** Client ID: Units: **ug/Kg** Prep Date: **04/07/2016** Run No: **314472**
SampleType: **MBLK** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **222274** Analysis Date: **04/08/2016** Seq No: **6766385**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	BRL	33									
Aroclor 1221	BRL	33									
Aroclor 1232	BRL	33									
Aroclor 1242	BRL	33									
Aroclor 1248	BRL	33									
Aroclor 1254	BRL	33									
Aroclor 1260	BRL	33									
Surr: Decachlorobiphenyl	16.81	0	16.67		101	35.2	132				
Surr: Tetrachloro-m-xylene	14.68	0	16.67		88.1	35	128				

Sample ID: **LCS-222274** Client ID: Units: **ug/Kg** Prep Date: **04/07/2016** Run No: **314296**
SampleType: **LCS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **222274** Analysis Date: **04/07/2016** Seq No: **6762653**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Corporate Environmental Risk Management, LLC.
Project Name: Lifecycle Building Center
Workorder: 1604314

ANALYTICAL QC SUMMARY REPORT

BatchID: 222274

Sample ID: **LCS-222274**	Client ID:		Units: **ug/Kg**	Prep Date: **04/07/2016**	Run No: **314296**
SampleType: **LCS**	TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**		BatchID: **222274**	Analysis Date: **04/07/2016**	Seq No: **6762653**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	133.3	33	166.7		79.9	58.4	117				
Aroclor 1260	155.5	33	166.7		93.3	68.5	123				
Surr: Decachlorobiphenyl	17.05	0	16.67		102	35.2	132				
Surr: Tetrachloro-m-xylene	15.44	0	16.67		92.6	35	128				

Sample ID: **LCS-222274**	Client ID:		Units: **ug/Kg**	Prep Date: **04/07/2016**	Run No: **314472**
SampleType: **LCS**	TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**		BatchID: **222274**	Analysis Date: **04/08/2016**	Seq No: **6766386**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	137.2	33	166.7		82.3	58.4	117				
Aroclor 1260	154.7	33	166.7		92.8	68.5	123				
Surr: Decachlorobiphenyl	17.28	0	16.67		104	35.2	132				
Surr: Tetrachloro-m-xylene	15.57	0	16.67		93.4	35	128				

Sample ID: **1604314-002AMS**	Client ID: **SB-01 (14-16)**		Units: **ug/Kg**	Prep Date: **04/07/2016**	Run No: **314296**
SampleType: **MS**	TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**		BatchID: **222274**	Analysis Date: **04/07/2016**	Seq No: **6762655**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	133.2	33	166.7		79.9	43.1	130				
Aroclor 1260	156.4	33	166.7		93.8	51.7	130				
Surr: Decachlorobiphenyl	17.61	0	16.67		106	35.2	132				
Surr: Tetrachloro-m-xylene	15.58	0	16.67		93.5	35	128				

Sample ID: **1604314-002AMSD**	Client ID: **SB-01 (14-16)**		Units: **ug/Kg**	Prep Date: **04/07/2016**	Run No: **314296**
SampleType: **MSD**	TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**		BatchID: **222274**	Analysis Date: **04/07/2016**	Seq No: **6762656**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	135.7	33	166.7		81.4	43.1	130	133.2	1.87	28.3	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Corporate Environmental Risk Management, LLC.
Project Name: Lifecycle Building Center
Workorder: 1604314

ANALYTICAL QC SUMMARY REPORT

BatchID: 222274

Sample ID: **1604314-002AMSD** Client ID: **SB-01 (14-16)** Units: **ug/Kg** Prep Date: **04/07/2016** Run No: **314296**
SampleType: **MSD** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **222274** Analysis Date: **04/07/2016** Seq No: **6762656**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1260	157.9	33	166.7		94.7	51.7	130	156.4	0.975	22.2	
Surr: Decachlorobiphenyl	18.13	0	16.67		109	35.2	132	17.61	0	0	
Surr: Tetrachloro-m-xylene	16.46	0	16.67		98.7	35	128	15.58	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Corporate Environmental Risk Management, LLC.
Project Name: Lifecycle Building Center
Workorder: 1604314

ANALYTICAL QC SUMMARY REPORT

BatchID: 222339

Sample ID: **MB-222339** Client ID: Units: **ug/L** Prep Date: **04/07/2016** Run No: **314212**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **222339** Analysis Date: **04/07/2016** Seq No: **6760297**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Corporate Environmental Risk Management, LLC.
Project Name: Lifecycle Building Center
Workorder: 1604314

ANALYTICAL QC SUMMARY REPORT

BatchID: 222339

Sample ID: **MB-222339** Client ID: Units: **ug/L** Prep Date: **04/07/2016** Run No: **314212**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **222339** Analysis Date: **04/07/2016** Seq No: **6760297**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	36.39	0	50.00		72.8	70.7	125				
Surr: Dibromofluoromethane	59.03	0	50.00		118	82.2	120				
Surr: Toluene-d8	47.70	0	50.00		95.4	81.8	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Corporate Environmental Risk Management, LLC.
Project Name: Lifecycle Building Center
Workorder: 1604314

ANALYTICAL QC SUMMARY REPORT

BatchID: 222339

Sample ID: **LCS-222339** Client ID: Units: **ug/L** Prep Date: **04/07/2016** Run No: **314212**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **222339** Analysis Date: **04/07/2016** Seq No: **6760298**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	67.59	5.0	50.00		135	65.3	137				
Benzene	58.18	5.0	50.00		116	74.9	123				
Chlorobenzene	54.86	5.0	50.00		110	73.9	124				
Toluene	52.96	5.0	50.00		106	75	124				
Trichloroethene	58.84	5.0	50.00		118	73.1	128				
Surr: 4-Bromofluorobenzene	37.38	0	50.00		74.8	70.7	125				
Surr: Dibromofluoromethane	56.65	0	50.00		113	82.2	120				
Surr: Toluene-d8	48.36	0	50.00		96.7	81.8	120				

Sample ID: **1604227-002AMS** Client ID: Units: **ug/L** Prep Date: **04/07/2016** Run No: **314212**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **222339** Analysis Date: **04/07/2016** Seq No: **6760551**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	57.90	5.0	50.00		116	60	150				
Benzene	144.0	5.0	50.00	88.26	112	70.1	132				
Chlorobenzene	51.05	5.0	50.00		102	70.9	131				
Toluene	46.86	5.0	50.00		93.7	70.1	133				
Trichloroethene	50.77	5.0	50.00		102	70	136				
Surr: 4-Bromofluorobenzene	38.15	0	50.00		76.3	70.7	125				
Surr: Dibromofluoromethane	49.54	0	50.00		99.1	82.2	120				
Surr: Toluene-d8	44.72	0	50.00		89.4	81.8	120				

Sample ID: **1604227-002AMSD** Client ID: Units: **ug/L** Prep Date: **04/07/2016** Run No: **314212**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **222339** Analysis Date: **04/07/2016** Seq No: **6760552**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	59.82	5.0	50.00		120	60	150	57.90	3.26	17.7	
Benzene	144.8	5.0	50.00	88.26	113	70.1	132	144.0	0.492	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Corporate Environmental Risk Management, LLC.
Project Name: Lifecycle Building Center
Workorder: 1604314

ANALYTICAL QC SUMMARY REPORT

BatchID: 222339

Sample ID: **1604227-002AMSD** Client ID:
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/L** Prep Date: **04/07/2016** Run No: **314212**
BatchID: **222339** Analysis Date: **04/07/2016** Seq No: **6760552**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	50.24	5.0	50.00		100	70.9	131	51.05	1.60	20	
Toluene	46.28	5.0	50.00		92.6	70.1	133	46.86	1.25	20	
Trichloroethene	50.93	5.0	50.00		102	70	136	50.77	0.315	20	
Surr: 4-Bromofluorobenzene	37.63	0	50.00		75.3	70.7	125	38.15	0	0	
Surr: Dibromofluoromethane	54.20	0	50.00		108	82.2	120	49.54	0	0	
Surr: Toluene-d8	45.62	0	50.00		91.2	81.8	120	44.72	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Corporate Environmental Risk Management, LLC.
Project Name: Lifecycle Building Center
Workorder: 1604314

ANALYTICAL QC SUMMARY REPORT

BatchID: 222353

Sample ID: **MB-222353** Client ID: Units: **mg/Kg** Prep Date: **04/08/2016** Run No: **314266**
SampleType: **MBLK** TestCode: **TOTAL MERCURY SW7471B** BatchID: **222353** Analysis Date: **04/08/2016** Seq No: **6761760**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	BRL	0.100									

Sample ID: **LCS-222353** Client ID: Units: **mg/Kg** Prep Date: **04/08/2016** Run No: **314266**
SampleType: **LCS** TestCode: **TOTAL MERCURY SW7471B** BatchID: **222353** Analysis Date: **04/08/2016** Seq No: **6761761**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.4139	0.100	0.4000		103	80	120				

Sample ID: **1604561-004AMS** Client ID: Units: **mg/Kg-dry** Prep Date: **04/08/2016** Run No: **314266**
SampleType: **MS** TestCode: **TOTAL MERCURY SW7471B** BatchID: **222353** Analysis Date: **04/08/2016** Seq No: **6761763**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.5132	0.124	0.4941	0.03529	96.7	70	130				

Sample ID: **1604561-004AMSD** Client ID: Units: **mg/Kg-dry** Prep Date: **04/08/2016** Run No: **314266**
SampleType: **MSD** TestCode: **TOTAL MERCURY SW7471B** BatchID: **222353** Analysis Date: **04/08/2016** Seq No: **6761764**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.4532	0.123	0.4922	0.03529	84.9	70	130	0.5132	12.4	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Corporate Environmental Risk Management, LLC.
Project Name: Lifecycle Building Center
Workorder: 1604314

ANALYTICAL QC SUMMARY REPORT

BatchID: 222356

Sample ID: **MB-222356** Client ID: Units: **ug/Kg** Prep Date: **04/07/2016** Run No: **314236**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **222356** Analysis Date: **04/07/2016** Seq No: **6760989**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	100									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	10									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Corporate Environmental Risk Management, LLC.
Project Name: Lifecycle Building Center
Workorder: 1604314

ANALYTICAL QC SUMMARY REPORT

BatchID: 222356

Sample ID: **MB-222356** Client ID: Units: **ug/Kg** Prep Date: **04/07/2016** Run No: **314236**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **222356** Analysis Date: **04/07/2016** Seq No: **6760989**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	20									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	10									
Surr: 4-Bromofluorobenzene	41.97	0	50.00		83.9	70	128				
Surr: Dibromofluoromethane	46.81	0	50.00		93.6	78.2	128				
Surr: Toluene-d8	48.27	0	50.00		96.5	76.5	116				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Corporate Environmental Risk Management, LLC.
Project Name: Lifecycle Building Center
Workorder: 1604314

ANALYTICAL QC SUMMARY REPORT

BatchID: 222356

Sample ID: **LCS-222356** Client ID: Units: **ug/Kg** Prep Date: **04/07/2016** Run No: **314236**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **222356** Analysis Date: **04/07/2016** Seq No: **6760992**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	52.45	5.0	50.00		105	69.9	145				
Benzene	49.74	5.0	50.00		99.5	72.3	130				
Chlorobenzene	45.12	5.0	50.00		90.2	69	130				
Toluene	49.05	5.0	50.00		98.1	71.1	130				
Trichloroethene	44.39	5.0	50.00		88.8	71.7	136				
Surr: 4-Bromofluorobenzene	42.11	0	50.00		84.2	70	128				
Surr: Dibromofluoromethane	47.19	0	50.00		94.4	78.2	128				
Surr: Toluene-d8	50.50	0	50.00		101	76.5	116				

Sample ID: **1604227-001AMS** Client ID: Units: **ug/Kg-dry** Prep Date: **04/07/2016** Run No: **314236**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **222356** Analysis Date: **04/07/2016** Seq No: **6761014**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	69.17	6.6	65.70		105	56.6	151				
Benzene	62.22	6.6	65.70		94.7	70.4	130				
Chlorobenzene	59.04	6.6	65.70		89.9	67.5	132				
Toluene	59.95	6.6	65.70		91.2	70.4	130				
Trichloroethene	55.07	6.6	65.70		83.8	70.1	137				
Surr: 4-Bromofluorobenzene	55.32	0	65.70		84.2	70	128				
Surr: Dibromofluoromethane	59.59	0	65.70		90.7	78.2	128				
Surr: Toluene-d8	62.84	0	65.70		95.6	76.5	116				

Sample ID: **1604227-001AMSD** Client ID: Units: **ug/Kg-dry** Prep Date: **04/07/2016** Run No: **314236**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **222356** Analysis Date: **04/07/2016** Seq No: **6761015**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	67.52	6.6	65.70		103	56.6	151	69.17	2.42	20.4	
Benzene	60.70	6.6	65.70		92.4	70.4	130	62.22	2.48	16.9	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Corporate Environmental Risk Management, LLC.
Project Name: Lifecycle Building Center
Workorder: 1604314

ANALYTICAL QC SUMMARY REPORT

BatchID: 222356

Sample ID: **1604227-001AMSD** Client ID:
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/Kg-dry** Prep Date: **04/07/2016** Run No: **314236**
BatchID: **222356** Analysis Date: **04/07/2016** Seq No: **6761015**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	57.18	6.6	65.70		87.0	67.5	132	59.04	3.21	14.6	
Toluene	57.91	6.6	65.70		88.1	70.4	130	59.95	3.46	16.6	
Trichloroethene	51.62	6.6	65.70		78.6	70.1	137	55.07	6.48	17	
Surr: 4-Bromofluorobenzene	52.90	0	65.70		80.5	70	128	55.32	0	0	
Surr: Dibromofluoromethane	57.99	0	65.70		88.3	78.2	128	59.59	0	0	
Surr: Toluene-d8	62.65	0	65.70		95.4	76.5	116	62.84	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Corporate Environmental Risk Management, LLC.
Project Name: Lifecycle Building Center
Workorder: 1604314

ANALYTICAL QC SUMMARY REPORT

BatchID: 222384

Sample ID: **MB-222384** Client ID: Units: **mg/Kg** Prep Date: **04/11/2016** Run No: **314401**
SampleType: **MBLK** TestCode: **METALS, TOTAL SW6010D** BatchID: **222384** Analysis Date: **04/11/2016** Seq No: **6764869**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	BRL	5.00									
Barium	BRL	5.00									
Cadmium	BRL	2.50									
Chromium	BRL	2.50									
Lead	BRL	5.00									
Selenium	BRL	5.00									
Silver	BRL	2.50									

Sample ID: **LCS-222384** Client ID: Units: **mg/Kg** Prep Date: **04/11/2016** Run No: **314401**
SampleType: **LCS** TestCode: **METALS, TOTAL SW6010D** BatchID: **222384** Analysis Date: **04/11/2016** Seq No: **6764870**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	49.29	5.00	50.00		98.6	80	120				
Barium	49.24	5.00	50.00		98.5	80	120				
Cadmium	49.22	2.50	50.00		98.4	80	120				
Chromium	49.47	2.50	50.00	0.06676	98.8	80	120				
Lead	49.10	5.00	50.00		98.2	80	120				
Selenium	51.07	5.00	50.00	0.6942	101	80	120				
Silver	4.827	2.50	5.000		96.5	80	120				

Sample ID: **1604525-001AMS** Client ID: Units: **mg/Kg-dry** Prep Date: **04/11/2016** Run No: **314401**
SampleType: **MS** TestCode: **METALS, TOTAL SW6010D** BatchID: **222384** Analysis Date: **04/11/2016** Seq No: **6764872**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	54.78	5.42	54.24	1.930	97.4	75	125				
Barium	79.80	5.42	54.24	24.19	103	75	125				
Cadmium	53.75	2.71	54.24	0.07404	99.0	75	125				
Chromium	59.50	2.71	54.24	5.911	98.8	75	125				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Corporate Environmental Risk Management, LLC.
Project Name: Lifecycle Building Center
Workorder: 1604314

ANALYTICAL QC SUMMARY REPORT

BatchID: 222384

Sample ID: **1604525-001AMS** Client ID:
SampleType: **MS** TestCode: **METALS, TOTAL** **SW6010D**
Units: **mg/Kg-dry** Prep Date: **04/11/2016** Run No: **314401**
BatchID: **222384** Analysis Date: **04/11/2016** Seq No: **6764872**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Lead	68.47	5.42	54.24	17.41	94.1	75	125				
Selenium	55.21	5.42	54.24	1.389	99.2	75	125				
Silver	5.190	2.71	5.424		95.7	75	125				

Sample ID: **1604525-001AMSD** Client ID:
SampleType: **MSD** TestCode: **METALS, TOTAL** **SW6010D**
Units: **mg/Kg-dry** Prep Date: **04/11/2016** Run No: **314401**
BatchID: **222384** Analysis Date: **04/11/2016** Seq No: **6764873**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	51.02	4.91	49.08	1.930	100	75	125	54.78	7.09	20	
Barium	79.28	4.91	49.08	24.19	112	75	125	79.80	0.650	20	
Cadmium	48.78	2.45	49.08	0.07404	99.2	75	125	53.75	9.69	20	
Chromium	55.57	2.45	49.08	5.911	101	75	125	59.50	6.84	20	
Lead	65.62	4.91	49.08	17.41	98.2	75	125	68.47	4.25	20	
Selenium	50.39	4.91	49.08	1.389	99.8	75	125	55.21	9.13	20	
Silver	4.702	2.45	4.908		95.8	75	125	5.190	9.86	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		