LANGAN

Technical Memorandum

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444

To: New York State Department of Environmental Conservation

From: Joel Landes, Ryan Manderbach

Date: January 29, 2016

Re: Corrective Measures Implementation
River Place II
New York, New York
Langan Project No.: 170040901

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. (Langan) prepared this Corrective Measures Implementation Memorandum to summarize mitigation of water intrusion observed in isolated areas of the boiler room and the oil tank room at River Place II (the site) in Manhattan, New York. The site is owned by River Place II, LLC (the owner) and is improved with a 59-story, high-rise residential apartment building with two cellar levels. The site was remediated under the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP Site C231012) and is managed under the July 2006 Site Management Plan (SMP). This Memorandum provides a brief site background, summary of site observations, and description of the corrective measures implemented.

BACKGROUND

The site was historically utilized as a manufactured gas plant (MGP) between the 1860s and 1920s. The site was developed as a railroad yard in the 1930s and was converted into a parking lot by 1980. Consolidated Edison entered into a Brownfield Cleanup Agreement (BCA) with the NYSDEC for the site, and NYSDEC approved a remedial work plan in March 2005. Remediation was completed between August 2005 and February 2006 and included the removal and off-site disposal of approximately 79,000 tons of MGP-impacted soil, the placement of an engineered composite cover, and the installation of a vapor barrier/waterproofing membrane. The composite cover serves as a physical barrier between site occupants and residual soil and groundwater impacts remaining at the site and the vapor barrier/waterproofing membrane prevents intrusion of impacted groundwater and soil vapors from residual impacted groundwater and soil at the site. The composite cover and vapor barrier/waterproofing membrane serve as permanent engineering controls (ECs) for the site.

The July 2006 SMP prepared by Dvirka and Bartilucci Consulting Engineers established an annual monitoring plan to inspect and certify the site ECs. Langan completed a Periodic Review Report (PRR) documenting the results of the 2014 annual inspection. The 2014 PRR is pending revision per completion of the corrective measures presented herein.

OBSERVATIONS AND CORRECTIVE MEASURES WORK PLAN

Water intrusion was first observed in the boiler room and oil tank room in the sub-cellar of the site building during Langan's annual site-wide SMP inspection on August 12, 2014. Cracks, evidence of liquid seepage, and staining were observed on sub-cellar walls. The observations indicated a potential breach in the vapor/water barrier and seepage of groundwater through the subgrade building envelope.

Based on the observed seepage, the owner retained GCI Environmental Advisory, Inc. (GCI) to perform an indoor air quality evaluation to determine if soil vapors were accumulating in the site building. On August 25, 2014, three indoor air samples were collected in the sub-cellar area and three indoor air samples were collected from the cellar area. An outdoor air sample was collected from the 10th floor setback for quality assurance/quality control purposes. Samples were collected into laboratory certified, six-liter SUMMA canisters using calibrated regulators to allow for an eight-hour sampling duration.

Samples were transported to EMSL Analytical Laboratory of Cinnaminson, New Jersey; a New York State Department of Health (NYSDOH) environmental laboratory approval program (ELAP)-certified laboratory. The samples were analyzed for volatile organic compounds (VOC) via the United States Environmental Protection Agency (USEPA) Standard Method TO15.

VOCs were detected in air samples collected from the cellar and sub-cellar sampling locations. Several of the detected compounds, including freon, acetone, isopropanol and ethanol, are associated with the use of cleaning and refrigeration products. The other detected VOCs are found in the fuel oil that is used for space heating in the building. The concentrations detected are consistent with the NYSDOH Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes, 2003 (NYSDOH 2003 Fuel Oil Study) of indoor air background data for fuel oil heated homes. All detections were below the NYSDOH 2003 Fuel Oil Study Upper Fence values for indoor air. The GCI indoor air quality evaluation report is provided as Attachment A. The comparison with existing studies indicates that VOCs detected in the indoor air samples are likely due to typical building operations (e.g., use of cleaning products, fuel oil storage, boiler operation).

Langan submitted a Corrective Measures Work Plan (CMWP) to NYSDEC on December 5, 2014, presenting potential corrective measures for mitigating water intrusion at the site. The mitigation plan was implemented in two phases: Phase 1 included investigation to determine the extent of water intrusion and a determination of potential mitigation options based on investigation findings. Phase 2 included implementation of the selected method, as required based on the findings of Phase 1.

CORRECTIVE MEASURES IMPLEMENTATION

In accordance with the CMWP, CANY Technical Services, LLC (CANY) performed an assessment of the water intrusion condition and prepared survey plans dated April 30, 2015. The CANY survey plans are provided as Attachment B. As part of the annual site-wide SMP inspection, Langan performed a site walk on August 6, 2015 and documented the location and water intrusion conditions. A photograph log of water intrusion conditions is included in Attachment C. Following the site walk, CANY further investigated the water intrusion to determine an appropriate remedy. CANY observations confirmed the cracks in the wall of the boiler and oil tank rooms and water intrusion throughout the foundation walls. Corrosive staining and water intrusion were also located at abandoned gel injection ports where previous repairs took place. CANY retained CGI Northeast (CGI) to complete corrective measures during the weeks of October 19 and 26, 2015, which included the following:

- Concrete gel injection at active water intrusion locations;
- Perimeter crack remediation at floor-to-wall transition cold joints;
- Removal of abandoned injection ports; and
- Patching with hydraulic cement within the area of active water intrusion locations.

CGI commenced injection of a hydrophilic gel resin (CGI Aqua Loc Resin LV©) at the northeast section of the boiler room. Technicians continued completing gel injections clockwise around the room, targeting active water intrusion locations identified by CANY. Water intrusion locations along the east, south, and west walls of the boiler room were accessed through removal of perimeter HVAC ductwork. CANY also observed accumulated water on the floor of the oil tank room. Crack repairs were performed in a similar manner throughout the oil tank room, until active water intrusion locations were no longer identified. Waterproofing summaries prepared by CANY, including photographs of CGI performing corrective measures, are included as Attachment D.

CONFIRMATORY SITE VISIT

Langan performed a confirmatory site walk on December 2, 2015. No active water intrusion was observed. Photographs from the confirmatory site visit are included in Attachment C.

CLOSURE

Based on the CANY waterproofing summaries and the observations from the confirmatory site visit, the corrective measures prescribed by the December 2014 CMWP have been completed. Should you have any questions regarding the findings, please do not hesitate to contact us at (212) 479-5582.

Sincerely,
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.

Ryan Manderbach
Senior Project Manager

Joel Landes, P.E.
Senior Consultant

Enclosure(s): Attachment A – GCI Indoor Air Quality Report
Attachment B – CANY Survey Plans
Attachment C – Photograph Log
Attachment D – CANY Waterproofing Summaries

cc: File – N. Rice

ATTACHMENT A

GCI INDOOR AIR QUALITY REPORT

GCI ENVIRONMENTAL ADVISORY, INC.
655 Third Avenue New York, NY 10017 (212) 986-9460 Fax: (212) 986-9464

September 4, 2014

Mr. Bill Dacunto
Silverstein Properties, Inc.
7 World Trade Center
New York, NY 10007

RE: 620 West 42nd Street, NYC (a.k.a. Silver Towers)

Dear Mr. Adamski,

GCI Environmental Advisory, Inc.'s (GCI) Certified Industrial Hygienist, Mr. James Grond, MSPH, CIH, LEED AP conducted a limited visual inspection and collected Total Volatile Organic Compounds (TVOCs) air samples within and exterior to the above referenced building on August 27, 2014. Samples were placed into the following areas to measure TVOCs:

- Outside Air - 10th floor setback
- Cellar - Middle of Compactor Room
- Cellar - East side - Outside Gas Meter Room
- Cellar - Southeast section - Outside door to Sub-cellar Boiler Room
- Sub-cellar - East side hallway - North of Boiler Room entrance
- Sub-cellar - Boiler Room - Southeast section
- Sub-cellar - Boiler Room - Northwest section

The purpose of the sampling was to respond to the issues identified within the August 25, 2014 email correspondence from Mr. Daniel Carrus, PE, LEED AP regarding water intrusion noted within the Sub-cellar boiler room. Langan was concerned that Voatile Organic Compounds (VOC) were being released into the building as a result of this water seepage and the VOCs identified from their ground water sampling events. The standing water observed within the Sub-Cellar Boiler Room appeared clear with no visible organic stains or sheens noted. The areas chosen for sampling were based in or adjacent to areas of standing water in the Sub-cellar and areas located above or in proximity to the Sub-cellar samples. An outdoor air sample was collected from the 10th floor setback as a baseline sample.

Evacuated SUMMA Canisters were placed into each area approximately four (4) feet above floor level. A laboratory supplied, eight (8) hour calibrated regulator, was attached to each canister and the location, start time and initial pressure reading was recorded with a non-VOC emitting writing device. Upon completing the approximately eight (8) hour sampling event, the final pressure reading and stop times were recorded. A sample data sheet and Chain of Custody were prepared and the SUMMA Canisters, pressure regulators and paperwork were packaged and delivered via overnight carrier to EMSL Analytical Laboratory, a fully licensed and accredited laboratory.

The samples were analyzed for Total Volatile Organic Compounds (VOCs) utilizing Gas Chromatography for identification via the Environmental Protection Agency (EPA) Standard Method TO15.

Laboratory analysis detected n-Butane, Ethanol, Isopropyl Alcohol, Acetone and Chlorform at extremely low levels (parts per billion) which are well current Occupational Safety and Health Administrations (OSHA) Permissible Exposure Levels (PELs). The following tables indicate the volatile organic compounds levels detected in concentrations greater than 10 micrograms per cubic meter of collected air (10 $\mu g/m^3$) for each area and the detected levels in the outside air:

PARAMETER	OUTSIDE AIR	Cellar - Middle of Compactor Room ($\mu g/m^3$)	Cellar - East side - Outside Gas Meter Room ($\mu g/m^3$)	Cellar - Southeast section - Outside door to Sub-cellar Boiler Room ($\mu g/m^3$)
n-Butane	10 $\mu g/m^3$	32 $\mu g/m^3$	43 $\mu g/m^3$	34 $\mu g/m^3$
Ethanol	19 $\mu g/m^3$	460 $\mu g/m^3$	420 $\mu g/m^3$	450 $\mu g/m^3$
Isopropyl Alcohol	<10 $\mu g/m^3$	130 $\mu g/m^3$	87 $\mu g/m^3$	78 $\mu g/m^3$
Acetone	18 $\mu g/m^3$	35 $\mu g/m^3$	39 $\mu g/m^3$	37 $\mu g/m^3$
Chloroform	<10 $\mu g/m^3$	10 $\mu g/m^3$	<10 $\mu g/m^3$	<10 $\mu g/m^3$
Xylene	ND	<10 $\mu g/m^3$	<10 $\mu g/m^3$	<10 $\mu g/m^3$

PARAMETER	OUTSIDE AIR	Sub-cellar - East side hallway - North of Boiler Room entrance ($\mu g/m^3$)	Sub-cellar - Boiler Room - Southeast section ($\mu g/m^3$)	Sub-cellar - Boiler Room - Northwest section ($\mu g/m^3$)
n-Butane	10 $\mu g/m^3$	25 $\mu g/m^3$	12 $\mu g/m^3$	11 $\mu g/m^3$
Ethanol	19 $\mu g/m^3$	190 $\mu g/m^3$	38 $\mu g/m^3$	43 $\mu g/m^3$
Isopropyl Alcohol	<10 $\mu g/m^3$	28 $\mu g/m^3$	24 $\mu g/m^3$	19 $\mu g/m^3$
Acetone	18 $\mu g/m^3$	23 $\mu g/m^3$	24 $\mu g/m^3$	20 $\mu g/m^3$
Chloroform	<10 $\mu g/m^3$	<10 $\mu g/m^3$	<10 $\mu g/m^3$	<10 $\mu g/m^3$
Xylene	ND	10 $\mu g/m^3$	<10 $\mu g/m^3$	<10 $\mu g/m^3$

$\mu g/m^3$ - micrograms per cubic meter of collected air
ND - Non-Detected

In reviewing the analytical data, the airborne levels detected within the Cellar level were most likely due to the presence of typical consumer products and the impact of the Compactor Room on the samples. The relatively low readings within the Sub-cellar Boiler Room and adjacent hallways seem to indicate that the water intrusion is not creating a pathway for volatile organic compounds to enter the building and impact the living and habitable spaces of the building envelope.

The observed water intrusion, based upon visible observations and lack of any detectable smells or odors, would indicate a domestic water source such as a leaking water main and it is recommended that the water be tested for Fluoride and Chlorine.

I have attached a copy of the laboratory analysis for each area for your review and should you require additional information please contact me at (212) 986-9460.

Sincerely,

James Grond, MSPH, CIH, LEED AP
President
GCI Environmental Advisory, Inc

att.

JFG/gj

APPENDIX A
OUTSIDE AIR - 10th FLOOR SETBACK

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491400791**
EMSL Sample #: **491400791-1**
Customer ID: **GCIE50**
Customer PO: **Not Available**

Attn: **James Grond**
GCI Environmental Advisory, Inc.
655 Third Ave
New York, NY 10017

Phone: **212-986-9460**
Fax: **212-986-9464**
Collected: **08/27/2014**
Received: **08/28/2014**

Project: **Silver Tower**

Sample ID: **ST-1**

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/02/2014	MTH	M6064.D	E0492	250 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	0.56	0.50		2.8	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	0.69	0.50		1.4	1.0	
n-Butane	106-97-8	58.12	4.3	0.50		10	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	10	0.50		19	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	2.8	0.50		6.9	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	7.5	0.50		18	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	ND	0.50		ND	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	ND	0.50		ND	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	0.81	0.50		2.4	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	0.81	0.50		2.9	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491400791**
EMSL Sample #: **491400791-1**
Customer ID: **GCIE50**
Customer PO: **Not Available**

Attn: **James Grond**
GCI Environmental Advisory, Inc.
655 Third Ave
New York, NY 10017

Phone: **212-986-9460**
Fax: **212-986-9464**
Collected: **08/27/2014**
Received: **08/28/2014**

Project: **Silver Tower**

Sample ID: **ST-1**

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/02/2014	MTH	M6064.D	E0492	250 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	0.69	0.50		2.6	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			**28**	**ppbv**		**66**	**ug/m3**	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	6.4	10	64%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

NJDEP Certification #: 03036

APPENDIX B
CELLAR - MIDDLE OF COMPACTOR ROOM

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491400791**
EMSL Sample #: **491400791-7**
Customer ID: **GCIE50**
Customer PO: **Not Available**

Attn: **James Grond**
GCI Environmental Advisory, Inc.
655 Third Ave
New York, NY 10017

Phone: **212-986-9460**
Fax: **212-986-9464**
Collected: **08/27/2014**
Received: **08/28/2014**

Project: **Silver Tower**

Sample ID: **ST-2**

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/03/2014	MTH	M6071.D	E15629	522 cc	1

cellar - middle of compactor room

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	0.51	0.50		2.5	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	0.79	0.50		1.6	1.0	
n-Butane	106-97-8	58.12	14	0.50		32	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	240	0.50	E	460	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	51	0.50	E	130	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	15	0.50		35	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	ND	0.50		ND	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	0.92	0.50		3.2	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	1.1	0.50		3.2	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	2.8	0.50		10	1.8	
Chloroform	67-66-3	119.4	0.73	0.50		3.6	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	1.4	0.50		6.6	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	0.98	0.50		3.1	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491400791**
EMSL Sample #: **491400791-7**
Customer ID: **GCIE50**
Customer PO: **Not Available**

Attn: **James Grond**
GCI Environmental Advisory, Inc.
655 Third Ave
New York, NY 10017

Phone: **212-986-9460**
Fax: **212-986-9464**
Collected: **08/27/2014**
Received: **08/28/2014**

Project: **Silver Tower**

Sample ID: **ST-2**

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/03/2014	MTH	M6071.D	E15629	522 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	**2.5**	0.50		**9.3**	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	**0.72**	0.50		**3.1**	2.2	
Xylene (p,m)	1330-20-7	106.2	**2.0**	1.0		**8.5**	4.3	
Xylene (Ortho)	95-47-6	106.2	**0.76**	0.50		**3.3**	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	**0.63**	0.50		**3.1**	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	**0.65**	0.50		**3.2**	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			**340**	**ppbv**		**720**	**ug/m3**	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	7.2	10	72%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

NJDEP Certification #: 03036

APPENDIX C
CELLAR - EAST SIDE
OUTSIDE GAS METER ROOM

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491400791**
EMSL Sample #: **491400791-2**
Customer ID: **GCIE50**
Customer PO: **Not Available**

Attn: **James Grond**
GCI Environmental Advisory, Inc.
655 Third Ave
New York, NY 10017

Phone: **212-986-9460**
Fax: **212-986-9464**
Collected: **08/27/2014**
Received: **08/28/2014**

Project: **Silver Tower**

Sample ID: **ST-3**

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/02/2014	MTH	M6065.D	E0444	250 cc	1

cellar - east side - outside gas meter room

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	0.53	0.50		2.6	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	0.77	0.50		1.6	1.0	
n-Butane	106-97-8	58.12	18	0.50		43	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	220	0.50	E	420	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	36	0.50		87	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	16	0.50		39	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	ND	0.50		ND	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	0.73	0.50		2.6	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	1.3	0.50		3.8	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	2.4	0.50		8.7	1.8	
Chloroform	67-66-3	119.4	0.67	0.50		3.3	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	0.76	0.50		3.5	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	0.61	0.50		1.9	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491400791**
EMSL Sample #: **491400791-2**
Customer ID: **GCIE50**
Customer PO: **Not Available**

Attn: **James Grond**
GCI Environmental Advisory, Inc.
655 Third Ave
New York, NY 10017

Phone: **212-986-9460**
Fax: **212-986-9464**
Collected: **08/27/2014**
Received: **08/28/2014**

Project: **Silver Tower**

Sample ID: **ST-3**

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/02/2014	MTH	M6065.D	E0444	250 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	1.9	0.50		7.0	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	0.68	0.50		3.0	2.2	
Xylene (p,m)	1330-20-7	106.2	1.8	1.0		7.8	4.3	
Xylene (Ortho)	95-47-6	106.2	0.62	0.50		2.7	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			300	ppbv		640	ug/m3	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	7.1	10	71%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

NJDEP Certification #: 03036

APPENDIX D
CELLAR - SOUTHEAST SECTION
OUTSIDE DOOR TO BOILER ROOM

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491400791**
EMSL Sample #: **491400791-6**
Customer ID: **GCIE50**
Customer PO: **Not Available**

Attn: **James Grond**
GCI Environmental Advisory, Inc.
655 Third Ave
New York, NY 10017

Phone: **212-986-9460**
Fax: **212-986-9464**
Collected: **08/27/2014**
Received: **08/28/2014**

Project: **Silver Tower**

Sample ID: **ST-4**

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/02/2014	MTH	M6069.D	E0644	250 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	0.59	0.50		2.9	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	0.76	0.50		1.6	1.0	
n-Butane	106-97-8	58.12	14	0.50		34	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	240	0.50	E	450	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	32	0.50		78	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	16	0.50		37	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	ND	0.50		ND	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	0.64	0.50		2.2	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	1.2	0.50		3.6	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	2.4	0.50		8.8	1.8	
Chloroform	67-66-3	119.4	0.54	0.50		2.7	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	0.56	0.50		2.6	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	0.55	0.50		1.7	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491400791**
EMSL Sample #: **491400791-6**
Customer ID: **GCIE50**
Customer PO: **Not Available**

Attn: **James Grond**
GCI Environmental Advisory, Inc.
655 Third Ave
New York, NY 10017

Phone: **212-986-9460**
Fax: **212-986-9464**
Collected: **08/27/2014**
Received: **08/28/2014**

Project: **Silver Tower**
Sample ID: **ST-4**

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/02/2014	MTH	M6069.D	E0644	250 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	1.5	0.50		5.8	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			310	ppbv		630	ug/m3	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	7.1	10	71%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

NJDEP Certification #: 03036

APPENDIX E
SUB-CELLAR - EAST SIDE HALLWAY
NORTH OF BOILER ROOM ENTRANCE

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491400791**
EMSL Sample #: **491400791-4**
Customer ID: **GCIE50**
Customer PO: **Not Available**

Attn: **James Grond**
GCI Environmental Advisory, Inc.
655 Third Ave
New York, NY 10017

Phone: **212-986-9460**
Fax: **212-986-9464**
Collected: **08/27/2014**
Received: **08/28/2014**

Project: **Silver Tower**

Sample ID: **ST-5**

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/02/2014	MTH	M6067.D	E0452	250 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	0.53	0.50		2.6	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	0.76	0.50		1.6	1.0	
n-Butane	106-97-8	58.12	10	0.50		25	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	100	0.50	E	190	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	11	0.50		28	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	9.9	0.50		23	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	ND	0.50		ND	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	0.66	0.50		2.3	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	0.56	0.50		2.0	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	0.93	0.50		2.8	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	1.3	0.50		4.6	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491400791**
EMSL Sample #: **491400791-4**
Customer ID: **GCIE50**
Customer PO: **Not Available**

Attn: **James Grond**
GCI Environmental Advisory, Inc.
655 Third Ave
New York, NY 10017

Phone: **212-986-9460**
Fax: **212-986-9464**
Collected: **08/27/2014**
Received: **08/28/2014**

Project: **Silver Tower**

Sample ID: **ST-5**

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/02/2014	MTH	M6067.D	E0452	250 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	1.1	0.50		4.1	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	0.80	0.50		3.5	2.2	
Xylene (p,m)	1330-20-7	106.2	2.2	1.0		10	4.3	
Xylene (Ortho)	95-47-6	106.2	0.72	0.50		3.1	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	0.62	0.50		3.1	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	0.56	0.50		2.7	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	0.76	0.50		4.6	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			**140**	**ppbv**		**310**	**ug/m3**	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	6.9	10	69%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

NJDEP Certification #: 03036

APPENDIX F
SUB-CELLAR - BOILER ROOM
SOUTHEAST SECTION

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491400791**
EMSL Sample #: **491400791-3**
Customer ID: **GCIE50**
Customer PO: **Not Available**

Attn: **James Grond**
GCI Environmental Advisory, Inc.
655 Third Ave
New York, NY 10017

Phone: **212-986-9460**
Fax: **212-986-9464**
Collected: **08/27/2014**
Received: **08/28/2014**

Project: **Silver Tower**

Sample ID: **ST-6**

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/02/2014	MTH	M6066.D	E0261	250 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	0.58	0.50		2.9	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	0.75	0.50		1.5	1.0	
n-Butane	106-97-8	58.12	5.0	0.50		12	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	20	0.50		38	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	2.6	0.50		6.3	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	9.9	0.50		24	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	ND	0.50		ND	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	0.65	0.50		2.3	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	1.1	0.50		3.3	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	1.7	0.50		6.2	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	1.2	0.50		5.5	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	0.58	0.50		1.9	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491400791**
EMSL Sample #: **491400791-3**
Customer ID: **GCIE50**
Customer PO: **Not Available**

Attn: **James Grond**
GCI Environmental Advisory, Inc.
655 Third Ave
New York, NY 10017

Phone: **212-986-9460**
Fax: **212-986-9464**
Collected: **08/27/2014**
Received: **08/28/2014**

Project: **Silver Tower**

Sample ID: **ST-6**

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/02/2014	MTH	M6066.D	E0261	250 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	1.4	0.50		5.1	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	0.50	0.50		2.2	2.2	
Xylene (p,m)	1330-20-7	106.2	1.4	1.0		6.2	4.3	
Xylene (Ortho)	95-47-6	106.2	0.55	0.50		2.4	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			**48**	**ppbv**		**120**	**ug/m3**	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	6.7	10	67%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

NJDEP Certification #: 03036

APPENDIX G
SUB-CELLAR - BOILER ROOM
NORTHWEST SECTION

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491400791**
EMSL Sample #: **491400791-5**
Customer ID: **GCIE50**
Customer PO: **Not Available**

Attn: **James Grond**
GCI Environmental Advisory, Inc.
655 Third Ave
New York, NY 10017

Phone: **212-986-9460**
Fax: **212-986-9464**
Collected: **08/27/2014**
Received: **08/28/2014**

Project: **Silver Tower**

Sample ID: **ST-7**

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/02/2014	MTH	M6068.D	E15330	250 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	0.55	0.50		2.7	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	0.79	0.50		1.6	1.0	
n-Butane	106-97-8	58.12	4.4	0.50		11	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	23	0.50		43	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	7.6	0.50		19	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	8.6	0.50		20	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	ND	0.50		ND	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	0.90	0.50		3.1	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	0.54	0.50		1.9	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	0.84	0.50		2.5	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	1.9	0.50		7.0	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491400791**
EMSL Sample #: **491400791-5**
Customer ID: **GCIE50**
Customer PO: **Not Available**

Attn: **James Grond**
GCI Environmental Advisory, Inc.
655 Third Ave
New York, NY 10017

Phone: **212-986-9460**
Fax: **212-986-9464**
Collected: **08/27/2014**
Received: **08/28/2014**

Project: **Silver Tower**

Sample ID: **ST-7**

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/02/2014	MTH	M6068.D	E15330	250 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	0.77	0.50		2.9	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			**50**	**ppbv**		**110**	**ug/m3**	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	6.7	10	67%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

NJDEP Certification #: 03036

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

USEPA TO-15
External Chain of Custody/ Field Test Data Sheet

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Ph. (800) 220-3675
Fax (856) 786-0327

OrderID: 491400791

EMSL Order Number (Lab Use Only): 491400791

Report To Contact Name:	James Grand	Bill To Company:		Sampled By (Sign):	[signature]
Company Name:	GCF Environmental Adv	Attention To:		Sampled By (Name):	James Gro
Address 1:	655 Third Avenue	Address 1:		Total # of Samples:	7
Address 2:	NYC 10017	Address 2:		Date Shipped:	8/27/14
Phone No.:	212-986-946 Fax:	Phone No.:	Fax:	Sample Collection Zip Code:	
Email Results To:	jim.grand@verizon.net	Project Name:	~~R~~ Silver Tower	Purchase Order:	

Turnaround Time (in Business Days): ☐ 10 Day Standard ☐ 5 Day ☐ 4 Day ☒ 3 Day ☐ 2 Day ☐ 1 Day ☐ Other

Reporting Format: ☐ Results Only (Standard Lab Report) ☐ Full Deliverables (Surcharge may apply) ☐ Other

EMSL Sample Identifier

Field Use - All Information Required! | Lab Use Only

Sampling Start Information — Barometric Pres. ("Hg):
Sampling Stop Information — Barometric Pres. ("Hg):

Client Field Sample Identification	Start Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Stop Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Canister ID	Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Reg. ID	Cal Flow (ml/min)	USEPA TO-15	NJDEP LLTO-15	LIBRARY SEARCH	Other (Specify)	Indoor/ Ambient Air	Soil Gas	Landfill/ Vent
ST-1	8/27/14	812	30	85	8/27/14	1552	4	82	E0491	6	C2972	-30.0		3678	10.4	X						
~~ST-~~ ST-3	8/27/14	804	30		8/27/14	1553	2	80	E0444	↓	↓	↓		3520	10.8	X						
ST-6	8/27/14	742	30	85	8/27/14	1608	2	82	E0262	↓	↓	↓		3582	11.0	X						
ST-5	8/27/14	0747	30	80	8/27/14	1605	2	80	E0452	↓	↓	↓		3715	10.8	X						
ST-7	8/27/14	742	29	85	8/27/14	1610	0	85	E15330	↓	↓	↓		3696	11.0	X						
ST-4	8/27/14	802	30	80	8/27/14	1601	7	80	E0644	↓	↓	↓		3654	10.5	X						
ST-2	8/27/14	800	30	80	8/27/14	1536	1.8	80	E5629	↓	↓	↓		3737	10.5	X						

Comments: FX 7801 3861 1393

Lab Canister Certification Analyst Signature (TO-15):

Relinquished by:	Date/Time	Received by:	Date/Time	Affixed Seal #	Reason for Exchange (circle appropriate)
[signature]	8/25/14 1630	[signature]	8/26/14	5, 6	(Shipping) Courier Receiving Sampling Other:
[signature]	8/27/14	Brittney EPP	8/28 9:30		Shipping Courier Receiving Sampling Other:
Brittney EPP	8/28 9:30				Shipping Courier Receiving Sampling Other:
~~Brittney EPP~~	~~8/28 9:30~~	~~Brittney EPP~~	~~8/28 9:30~~	8/28/14 10	Shipping Courier Receiving Sampling Other:
					Shipping Courier Receiving Sampling Other:

491400791

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples and achieve requested TAT

Company: GCT Environmental Advisory Inc

Contact Person:

Name: Jim Grand

E-mail: jim.grand@verizon.net

Additional E-mails:

Telephone #: 212-986-9460 **Fax #:** 212-986-9464

Do you want your results emailed? [X] YES, [ ] NO

Library Search requested: [ ] YES [ ] NO

A library search will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation the library search is recommended. If you will need help interpreting your report the library search is REQUIRED.

Sample Type:

[X] Indoor Air Quality (Home/Office) [ ] Vent Gas [ ] Soil Gas
[ ] IAQ (Industrial) [ ] Other: _____

Description of sample (Important for the lab to achieve your requested turnaround time):

Are there any special detection limits, specific set of compounds, or any other specifics you need in your report?

[ ] OSHA/NIOSH RELS			[ ] Possible Sources of Contaminants
[ ] EPA PELS - Circle one:	Residential	Industrial	[ ] TVOC
[ ] NJ DEP - Circle one:	Indoor Air	Soil Gas	
[ ] NC DNER - Circle one:	Residential	Industrial	[ ] Other (Please list or attach separate sheet)
[ ] PA DEP - Circle one:	Residential	Industrial	[ ] NONE

Do you need any additional analysis on the canister sample? Indicate below (additional charges will apply)

Draeger CMS Analyzer:

[ ] CO ; [ ] CO_2 ; [ ] SO_2 ; [ ] EtO ; [ ] NH_3 ; [ ] Cl_2 ; [ ] H_2S
[ ] NO_2 ; [ ] NOx ; [ ] O_2 ; [ ] Petroleum hydrocarbons ; [ ] Phosgene ; [ ] Phosphene

US EPA TO-3 (choose one below):

[ ] C_1-C_6 hydrocarbons
[ ] Methane only

ASTM-D5504 (choose one below):

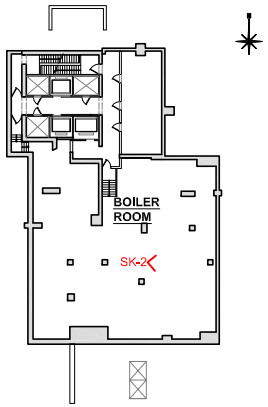
[ ] Sulfur Scan (H_2S, COS, MeSH, EtSH, DMS)
[ ] H_2S only

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure that your project scope is fully addressed. Cans may be retained for a longer period of time but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

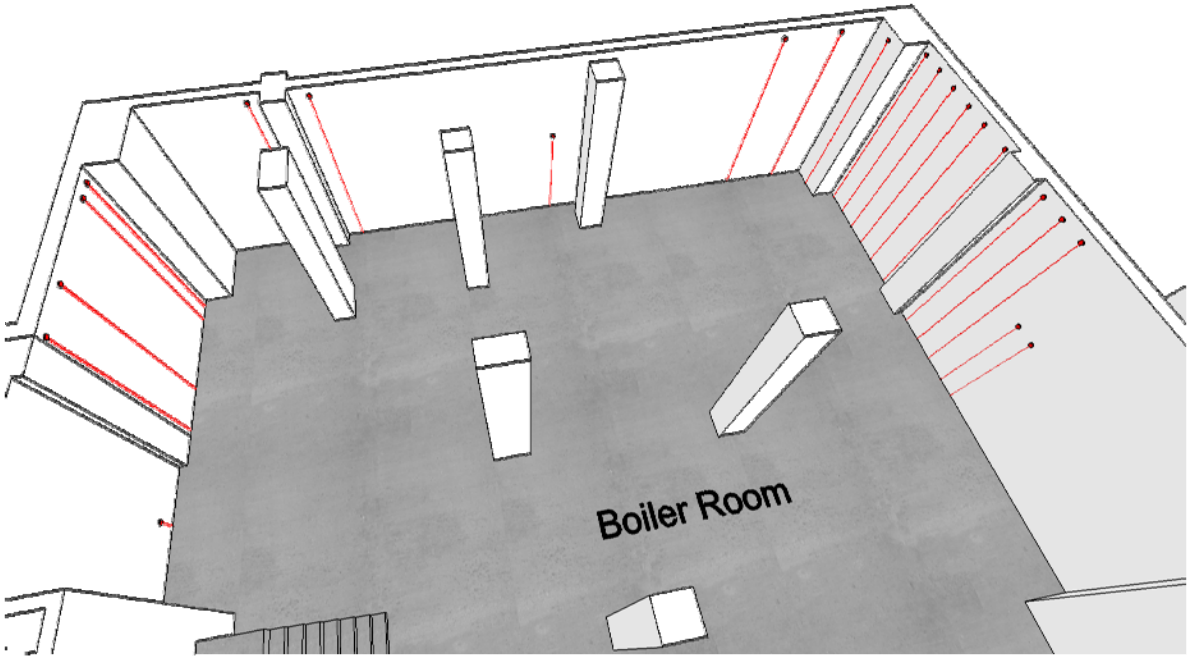
RECEIVED EMSL CINNAMINSON, NJ 2014 AUG 28 A 11:01

ATTACHMENT B

CANY SURVEY PLANS

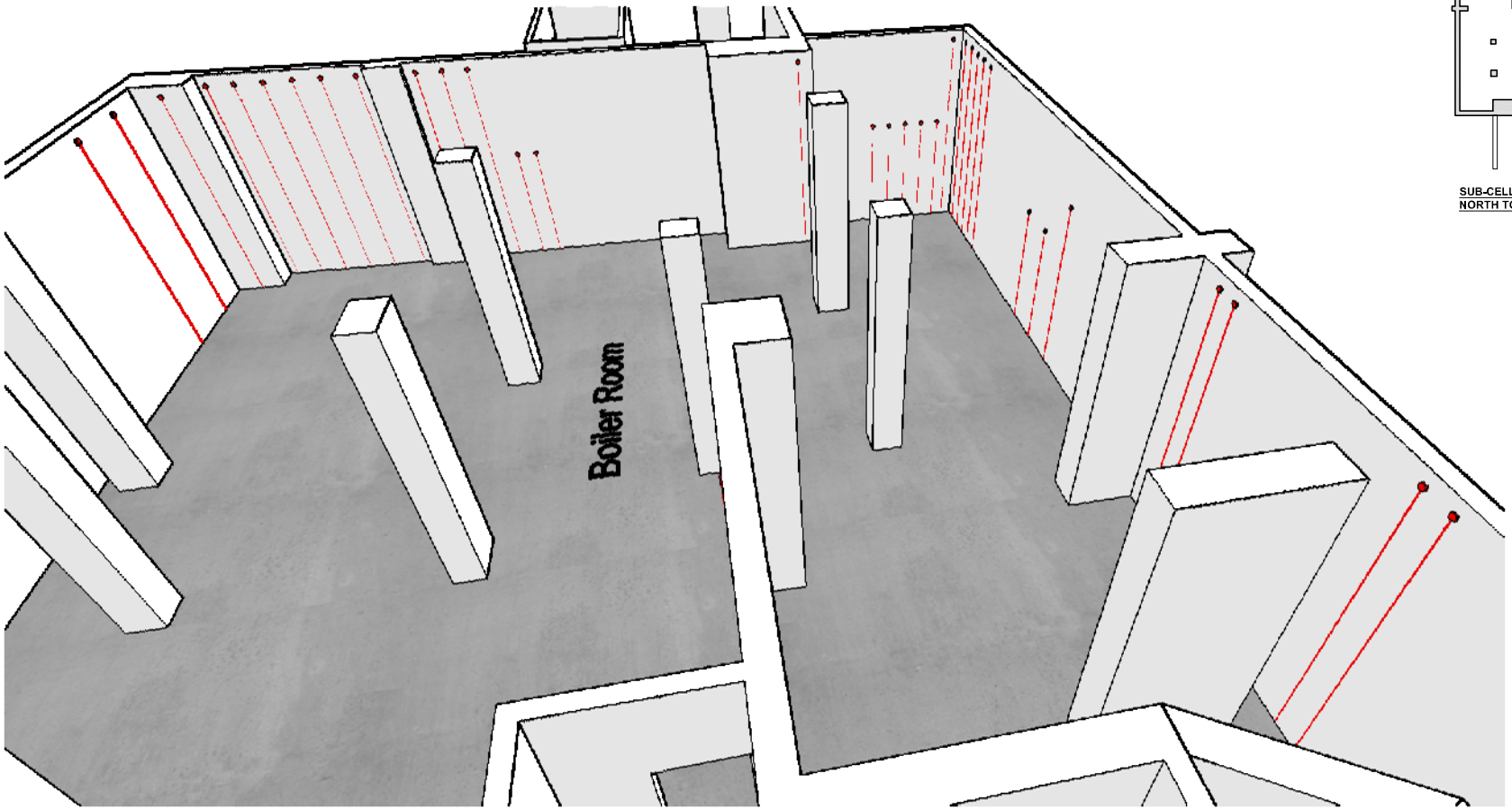


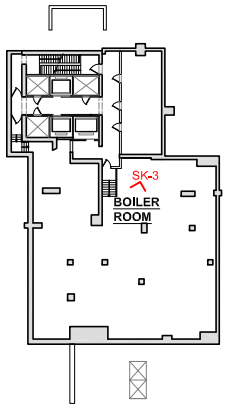
SUB-CELLAR FLOOR PLAN
NORTH TOWER KEY PLAN



CANY Technical Services, LLC
134 West 29th Street,
12th Floor,
New York, NY 10001
P. 212-414-9623
F. 212-414-2511

DRAWN BY: J.Y.	PROJECT #:1334_ SILVER TOWERS	DATE: 04-30-15
CHECKED BY: J.H.	TITLE: AREA OF SUB-CELLAR LEAKAGE	SHEET: SK-1





SUB-CELLAR FLOOR PLAN
NORTH TOWER KEY PLAN

CANY Technical Services, LLC
134 West 29th Street,
12th Floor,
New York, NY 10001
P. 212-414-9623
F. 212-414-2511

DRAWN BY: J.Y.	PROJECT #:1334_ SILVER TOWERS	DATE: 04-30-15
CHECKED BY: J.H.	TITLE: AREA OF SUB-CELLAR LEAKAGE	SHEET: SK-2

ATTACHMENT C

PHOTOGRAPH LOG

Attachment C – Photograph Log
Corrective Measures Implementation
River Place II
New York, New York
Langan Project No. 170040901

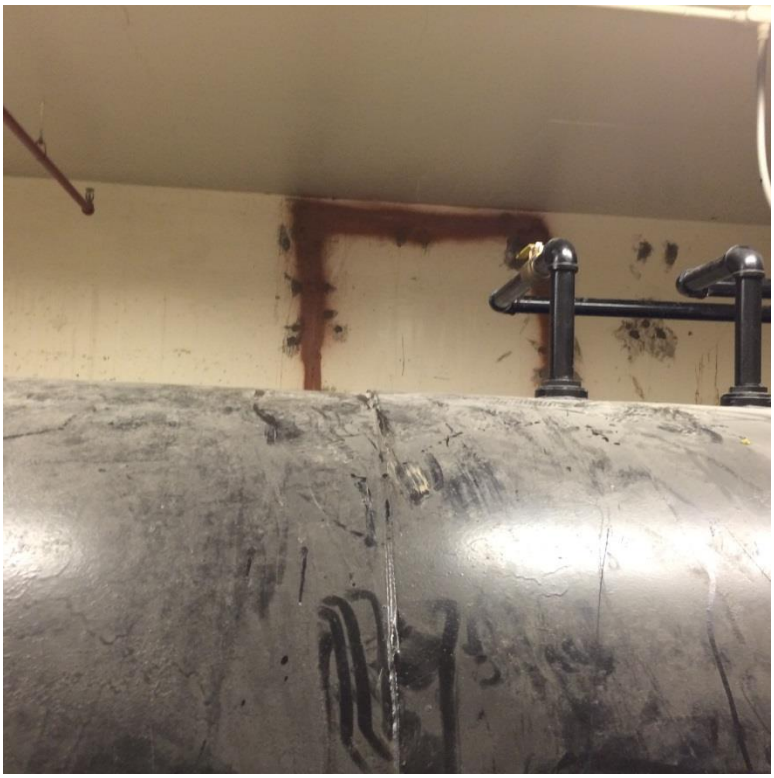
Photograph 1: View of leaks in sub cellar (8/6/15).

Photograph 2: View of leaks in sub cellar (8/6/15).

Attachment C – Photograph Log
Corrective Measures Implementation
River Place II
New York, New York
Langan Project No. 170040901

Photograph 3: View of leaks in sub cellar (8/6/15).

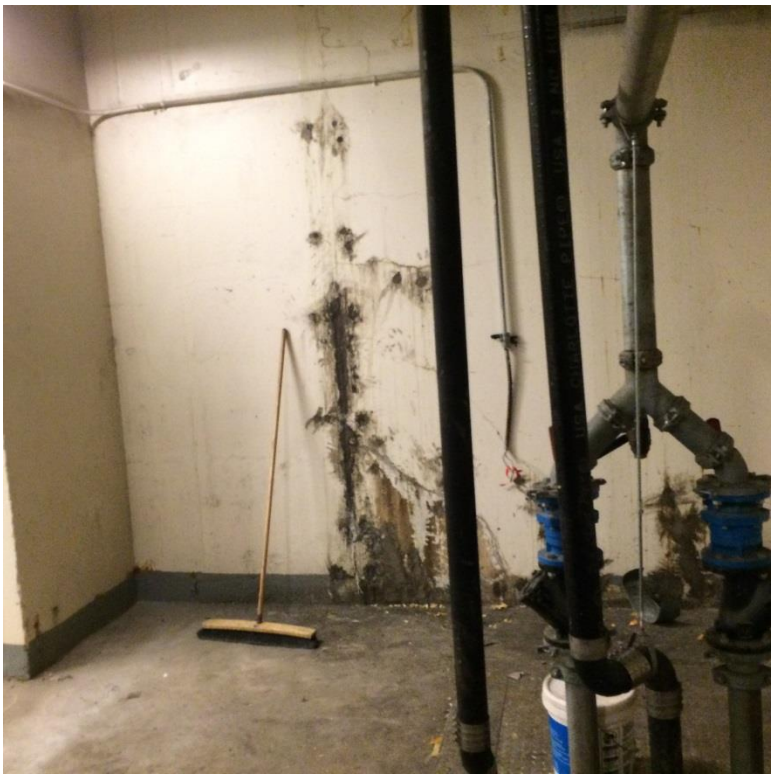
Photograph 4: View of leaks in sub cellar (8/6/15).



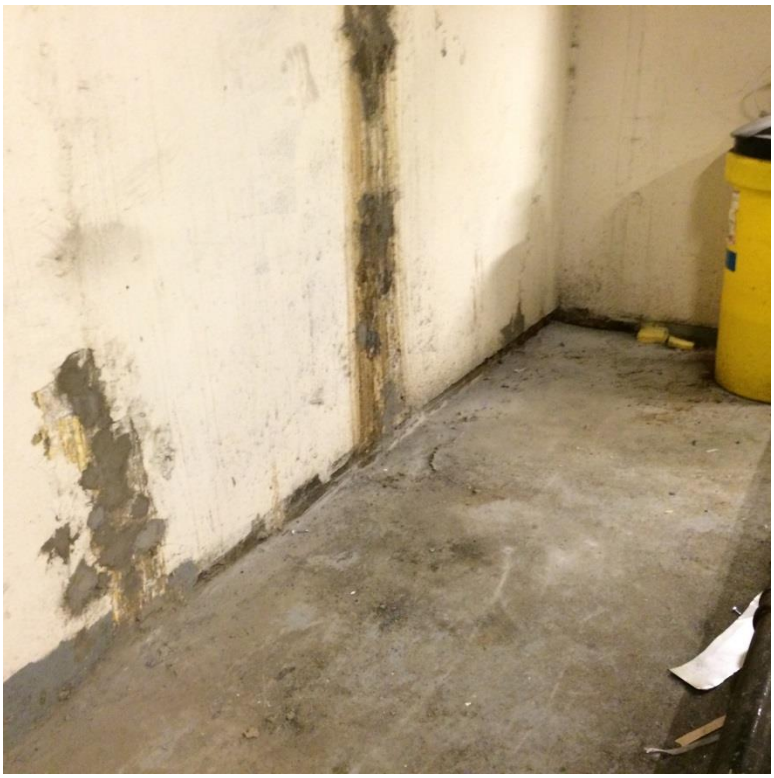
Photograph 5: View of sealed cracks in oil tank room, marked with bronze paint (12/2/15).

Photograph 6: View of sealed piping penetrations in oil tank room (12/2/2015).

Photograph 7: View of sealed crack in sub cellar (12/2/15).



Photograph 8: View of sealed crack in sub cellar (12/2/15).



Photograph 9: View of sealed crack in sub cellar (12/2/15).

Photograph 10: View of sealed crack in sub cellar.

ATTACHMENT D

CANY WATERPROOFING SUMMARIES

CANY Technical Services, LLC
Building Enclosure Experts

November 16th, 2015

MEMORANDUM

Roman Galeano
Senior Project Manager
Silverstein Properties, Inc.
7 World Trade Center
250 Greenwich Street
New York, New York 10007
T: (212) 551-7368
E: @silvprop.com

Project: Silver Towers
620 West Street
North Tower
New York, NY 10036

Re: Boiler Room CGI Waterproofing Summary

Roman:

Pursuant to your request, CANY investigated reported leaks and water infiltration into the Boiler Room in the North Tower of Silver Towers. CANY observed actively leaking cracks and water intrusion throughout the Boiler Room foundation walls likely due to deficiencies in the positive side (exterior side) of the foundation wall. CANY observed corrosive staining and water intrusion through abandoned gel injection ports from previous repair programs. Following CANY's initial field investigations and documentation of the deficiencies observed, CGI Northeast was retained to complete the repairs, involving concrete gel injection at actively leaking crack locations (approximately 200 LF) and removal of abandoned injection ports and patching with hydraulic cement within the area of those actively leaking locations. The following summarizes deficiencies observed and repairs performed by CGI Northeast within the Boiler Room.

A. The Contractor had commenced with concrete gel injection at the northeast section of the Boiler Room the week of October 26, 2015 continuing south along the east wall and completing the gel injection work in a clockwise fashion around the room, targeting active leak locations identified by CANY Technical Services.

    1) CANY observed HVAC technicians have removed duct work along the perimeter of the Boiler Room for CGI Northeast to gain better access to current active leak areas located along the east, south and west walls.

    2) Removal of the ducts revealed water infiltration through a horizontal cold joint at approximately 20' height (approx. 5 ft. long) at the southwest corner of the Boiler Room, as well as through two vertical cracks at either side of the inside corner.

3) The Contractor has completed gel injections repairs in this location as well resulting in a complete stoppage of intruding water.

If you have any questions, feel free to contact me.

Respectfully submitted,

Paul Paloglou
Assistant Project Manager
CANY

Photographs #1 and #2

Overview of the north wall at the Boiler Room where water intrusion was a persistent issue, showing standing water typical over most of the floor of this room. Water present has a sulfuric odor.

Active Water leakage through crack in the foundation wall, as well at the base of the wall at a cold joint and previous injection ports.

Photographs #3 and #4:

Sub-cellar Level
Boiler Room
East Wall

Overview of water staining and intrusion of water at the floor of the room.

Overview of water infiltration observed at a cold joint (wall-to-ceiling transition) at the south wall following heavy rain. CGI was instructed to inject at this cold joint, in addition to the original scope of work.

Photographs #5 and #6:

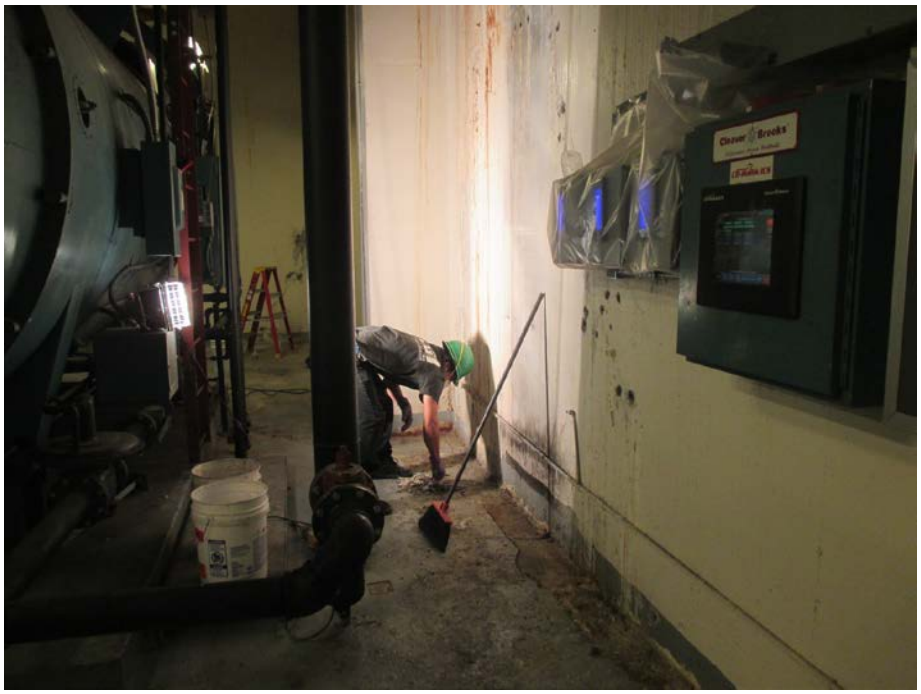
Southwest corner of Boiler Room: Overview of actively leaking cracks marked out for gel injection and patching of ports with cement.

Overview of actively leaking cracks observed following removal of ductwork at the southwest corner of the Boiler Room.

Photographs #7 & #8:

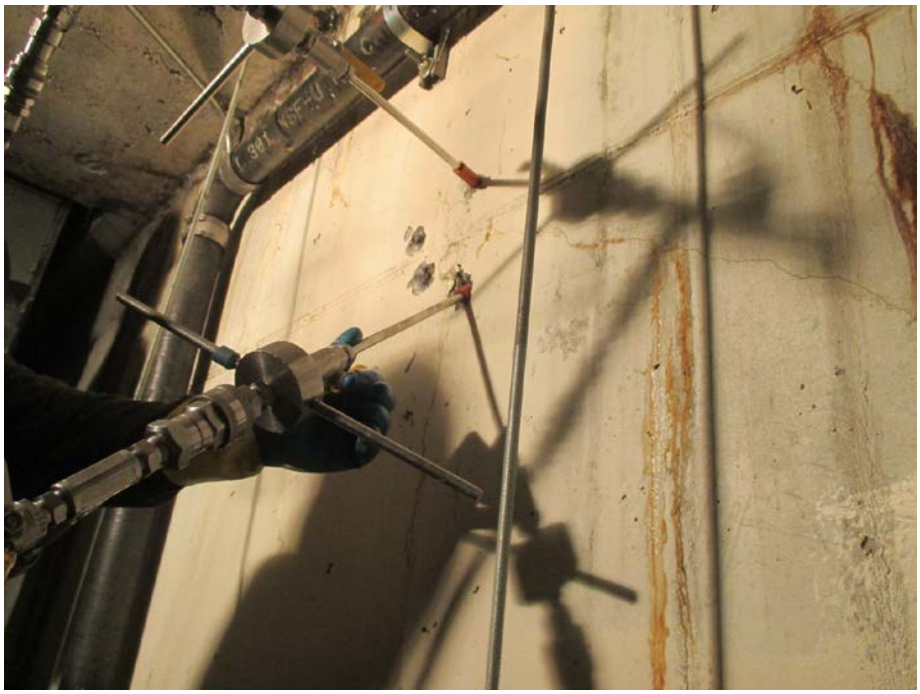
North Wall of Boiler Room:
Overview of completed gel injection and patching of ports with cement.

Overview of Contractor performing concrete gel injection at the East wall.



Photographs #9 & #10:

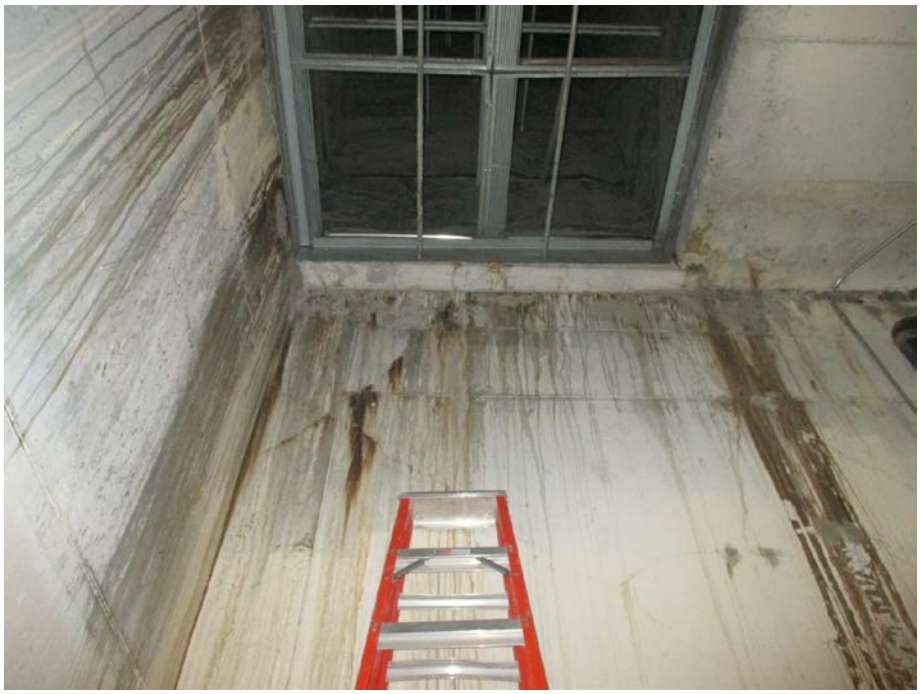
Close-up of the Contractor performing concrete gel injection at the West wall. The pressurized injection of water into the cracks resulted is the passage of water from the actively leaking cracks to adjacent deficiencies (hairline cracking, abandoned ports). CGI expanded the scope of work in this area per CANY direction.



Overview of completed concrete gel injection and patching of old ports performed at the south wall of the Boiler room.

Photographs #11 & #12:

Overview of completed concrete gel injection and patching of old ports performed at the west wall of the Boiler room (southwest corner).



Photograph showing completed CGI application and patching of ports along side of the actively leaking cracks at the west wall of the Boiler Room.

CANY Technical Services, LLC
Building Enclosure Experts

November 16th, 2015

MEMORANDUM

Roman Galeano
Senior Project Manager
Silverstein Properties, Inc.
7 World Trade Center
250 Greenwich Street
New York, New York 10007
T: (212) 551-7368
E: @silvprop.com

Project: Silver Towers
620 West Street
North Tower
New York, NY 10036

Re: Oil Tank Room CGI Waterproofing Summary

Roman:

Pursuant to your request, CANY investigated reported leaks and water infiltration into the Oil Tank Room in the North Tower of Silver Towers. CANY observed actively leaking cracks and water intrusion through abandoned gel injection ports from previous repair programs. Following CANY's initial field investigations and documentation of the deficiencies observed, CGI Northeast was retained to complete the repairs, involving concrete gel injection at actively leaking crack locations, perimeter crack remediation at floor-to-wall transition cold joints and removal of abandoned injection ports and patching with hydraulic cement within the area of those actively leaking locations. The following summarizes deficiencies observed and repairs performed by CGI Northeast within the Oil Tank Room.

A. CANY observed ponding water at the floor of the Oil Tank Room, as well as active leaks at the north wall, at the cold joint at approximately 14 ft. high, and at the center of the east wall, 3 ft. high.

    1) During the week of October 21, 2015, CGI Waterproofing commenced the concrete gel injection scope of work within the Oil Tank Room of the North Tower.

    2) Per contract scope, CGI have completed gel injection at the cold joint at the ceiling of room along the north wall (12 LF). Due to the observance of water infiltration through cracks in the North and East walls, CGI performed additional gel injection in these location, within contract allowances (45 LF).

    3) CANY observed the Contractor has removed existing crack injection ports remnant from previous repair programs at active leak and current work locations and patched the holes with hydraulic cement.

4) The Contractor has completed gel injection at the floor-to-wall transition cold joint at the North, East and West Elevations, substantially mitigating the intrusion of water at these locations.

5) CANY has discussed with CGI the removal of the floor-to-wall transition gel injection scope of work at the south wall and to focus leakage prevention at the abutting wall in the Boiler Room (North Wall).

6) Following completion of the CGI application at the North & East walls, and along the floor-to-wall transition at the west, north, & south walls of the boiler room, no water intrusion has been observed.

If you have any questions, feel free to contact me.

Respectfully submitted,

Paul Paloglou
Assistant Project Manager
CANY

Photographs #1 and #2

Overview of the SE corner of the tank room showing standing water typical over most of the floor of this room. Water present has a sulfuric odor.

Active Water leakage at the base of the wall at a cold joint and previous injection ports.

Photographs #3 and #4:

Sub-cellar Level
Tank Room
North Wall at NW Corner of Room
CMU Wall demises Adjacent Hallway

Indications of water entry through cold-joint and ports at the head of the wall and active leakage at cracks in the base of the foundation wall

Note: There is rough-finished parging material at the head of this section of wall, possibly part of an earlier waterproofing repair.

Photographs #5 and #6:

Northwest corner of Oil Tank Room: Overview of completed gel injection and patching of ports with cement.

Typical cold joint injection completed at the base of the west wall of the Oil Tank Room.

Photographs #7 & #8:

East Wall of Oil Tank Room: Overview of completed gel injection and patching of ports with cement.

Overview of the Oil Tank room floor following completion of the concrete gel injection application at the north, west and east walls.

Photographs #9 & #10:

East Wall of Oil Tank Room: Overview of completed gel injection and patching of ports with cement and marked with bronze spray paint.

Overview of completed concrete gel injection and patching of old ports performed at the north wall of the oil tank room. The Contractor used spray paint to mark locations repaired.

Photographs #11 & #12:

Overview of Contractor drilling into the east wall of the oil tank room in preparation for the gel injection application at an active leak location. The Contractor drilled into the wall approximately 9" at either side of the observed crack, removed debris with a vacuum (pictured) and water prior to injection of the hydrophilic resin (Aqua Loc Resin LV).

Photograph showing completed CGI application and patching of ports along side of the actively leaking cracks at the east wall of the oil tank room.